# Agenda
# Board of Supervisors
# Isle of Wight County
# September 19, 2024

1. Call to Order (5:00 P.M.)
2. Approval of Agenda
3. Closed Meeting
4. Reconvene Open Meeting at 6:00 P.M.
5. Invocation - Chairman Joel C. Acree
6. Citizens' Comments
7. Consent Agenda
   A. Budget Amendment - Alcohol Enforcement Grant

      Resolution to Amend the FY 2024-2025 Grant Fund Budget and Appropriate Funding from the Virginia Department of Motor Vehicles Alcohol Enforcement Program ($11,580)
   B. Budget Amendment - Farmers Market - Obici Grant

      Resolution to Amend the Budget and Appropriate Obici Healthcare Foundation Grant Funds to the Farmers Market ($5,000)
   C. Budget Amendment - Insurance Proceeds

      Resolution to Budget and Appropriate Insurance Proceeds from VaCorp Insurance for Repair and Replacement of County Vehicles and Equipment ($50,003)
   D. Budget Amendment - Rushmere Volunteer Fire Station

      Resolution to Amend the Budget and Appropriate Funding for Renovations to the Rushmere Volunteer Fire Station

Addition Project ($189,916)

E. Budget Amendment - Smithfield Sidewalk Project

   Resolution to Amend the FY2024-2025 Budget and Appropriate Funding for the Smithfield Sidewalk Project ($145,416)

F. Budget Amendment - Traffic Enforcement Progran

   Resolution to Amend the FY 2024-2025 Grant Fund Budget and Appropriate Funding from the Virginia Department of Motor Vehicles Police Traffic Services Enforcement Program ($32,250)

G. Fire Prevention Week

   Resolution to Designate October 6-12, 2024 as Fire Prevention Week

H. SMART SCALE Grant Applications

   Resolutions of Support and Endorsement for VDOT SMART SCALE Round 6 Project Grant Applications

I. Vehicle Grant Agreement - Carrollton Volunteer Fire Department Tanker Truck

   Execution of a Vehicle Grant Agreement for Carrollton Volunteer Fire Department Tanker Truck

J. Virginia Circuit Court Records Preservation Program

   Resolution to Accept and Appropriate Grant Funds from the Virginia Circuit Court Records Preservation Program ($40,744)

K. Worker's Compensation Policy Amendment

   Adopt a Resolution to Amend the County Policy Manual

8. Regional and Inter-Governmental Reports

   A. Regional Reports

9. Appointments

A. Appointments List

10. County Attorney's Report

11. Public Hearings

A. AFD 1-24 Todd and Kristi Bryant Withdrawal Request

Application (AFD-1-24) of Todd and Kristi Bryant, Owners, to Withdraw 27 Acres of Land Located Near Trump Town Road on Elmwood Lane From the Courthouse Agricultural District in Order to Convert 27 Acres of Existing Agricultural Land to Forested Wetlands

B. ZA-05-24 Coastal Investors Commercial Rezoning Request

Application (ZA-05-24) of Coastal Investors, Owners, to Rezone .237 Acres Located on Benns Church Blvd. (Rt. 10) From Planned Development – Mobile Home to Conditional General Commercial to a Enlarge Commercial Parcel

C. Virginia Public School Authority Financing

Resolution to Authorize Financing for Schools Capital Projects Via Virginia Public Schools Authority ($7,560,000)

D. Real Estate Reassessment Schedule

Consideration of a Three-Year Real Estate Reassessment Schedule

12. County Administrator's Report

A. Matters for the Board's Information

13. Unfinished / Old Business

A. CUP-6-23 Old Stage Highway Utility Scale Solar Energy Facility

Application of Elk Development, LLC, Applicant, and William Pennie, Jr. and Teresa L. Crocker, Property Owners, for a Conditional Use Permit for a Major Utility Service,

Specifically a 3.0 MW Utility-Scale Solar Energy Generation Facility, on Approximately 27.32 Acres on a 94.21-Acre Tract Located on Old Stage Highway in the Rural Agricultural Conservation (RAC) Zoning District

B. CUP-8-23 Sycamore Solar A Conditional Use Permit Request

Application (CUP-8-23) of Sycamore Cross Solar, LLC, Applicant, for a Conditional Use Permit for a Major Utility Service, Specifically a 214 MW Utility-Scale Solar Energy Generation Facility and a Medium Voltage Line Known as Sycamore Cross A, on Approximately 1,795 Acres Located on Mill Swamp Road (Rte. 621) in the Rural Agricultural Conservation Zoning District as well as an Associated Application to Withdraw Approximately 860 Acres from the Moonlight Agricultural and Forestal District

C. CUP-5-24 Sycamore Solar B Conditional Use Permit Request

Application (CUP-5-24) of Sycamore Cross Solar , LLC, Applicant, for a for a Conditional Use Permit to Allow the Expansion of an Existing Major Utility Service, Specifically a Six MW Utility-Scale Solar Energy Generation Facility and Associated Six Medium Voltage Lines Known as Sycamore Cross B, on approximately 240 Acres Located on Jones Drive (Rte. 626), Burwells Bay Road (Rte. 621), Mill Swamp Road (Rte. 621) and James Wilson Way

D. Sycamore Cross Solar Energy Generation Facility Siting Agreement

Consideration of a Siting Agreement for the Sycamore Cross Solar, LLC Project

E. 2025 Legislative Priorities

Discussion of Items for 2025 Legislative Priorities

14. New Business

A. Vehicle Lease Purchase Agreement

Resolution to Execute a Master Lease Purchase Agreement for the Purchase of New Vehicles ($973,000)

B. Joint Meeting with the School Board

Consideration of Dates for a Joint Meeting with the School Board

15. Adjournment

**ISSUE:**

Resolution to Amend the FY 2024-2025 Grant Fund Budget and Appropriate Funding from the Virginia Department of Motor Vehicles Alcohol Enforcement Program ($11,580)

**BACKGROUND:**

The Sheriff's Office of the County of Isle of Wight, Virginia has been awarded grant funding for FY 2024-2025 in the amount of $11,580 for the purpose of conducting an Alcohol Enforcement Program.

**BUDGETARY IMPACT:**

No cash match is required, but the Sheriff's Office of the County of Isle of Wight, Virginia will provide an in-kind match to receive this grant.

**RECOMMENDATION:**

Adopt a resolution to amend the budget and appropriate grant funding.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Resolution | Resolution | 9/9/2024 |

**RESOLUTION TO AMEND THE FY 2024-2025 GRANT FUND BUDGET AND APPROPRIATE FUNDING FROM THE VIRGINIA DEPARTMENT OF MOTOR VEHICLES ALCOHOL ENFORCEMENT PROGRAM**

**WHEREAS,** the Sheriff's Office has received a grant from the Commonwealth of Virginia Department of Motor Vehicles for the Alcohol Enforcement Program; and,

**WHEREAS,** grant funds in the amount of $11,580 from the Commonwealth of Virginia Department of Motor Vehicles need to be budgeted to the FY 2024-2025 Grant Fund budget of Isle of Wight County and appropriated for the purpose of conducting an Alcohol Enforcement Program.

**NOW, THEREFORE BE IT AND IT IS HEREBY RESOLVED** by the Board of Supervisors of the County of Isle of Wight, Virginia, that the FY 2024-2025 budget be amended and grant funds in the amount of $11,580, or so much as shall be received from the Commonwealth of Virginia Department of Motor Vehicles, be appropriated for the Alcohol Enforcement Program.

**BE IT FURTHER RESOLVED** that the County Administrator of the County of Isle of Wight, Virginia is authorized to make the appropriate accounting adjustments in the budget and to do all things necessary to give this resolution effect.

Adopted this 19th day of September 19, 2024.

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Joel C. Acree, Chairman

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Carey Mills Storm, Clerk

Approved as to form:

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Robert W. Jones, Jr., County Attorney

**ISSUE:**

Resolution to Amend the Budget and Appropriate Obici Healthcare Foundation Grant Funds to the Farmers Market ($5,000)

**BACKGROUND:**

Isle of Wight County Farmers Market received a grant award from the Obici Healthcare Foundation to provide for the purchase of fresh produce and health products from Farmers Market vendors for the benefit of the local food banks.

The Board may wish to amend the budget and appropriate $5,000 to provide fresh produce and health products at local food banks.

**BUDGETARY IMPACT:**

Adoption of the resolution will increase the FY2024-25 Grant Fund Budget by $5,000.

**RECOMMENDATION:**

Adopt a resolution to amend the budget and appropriate grant funding.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Resolution | Resolution | 8/16/2024 |

**RESOLUTION TO AMEND THE FY 2024-2025 GRANT FUND BUDGET AND APPROPRIATE FUNDING FOR THE FARMERS MARKET**

**WHEREAS**, the Isle of Wight County Farmers Market received a grant award from the Obici Healthcare Foundation to provide for the purchase of fresh produce and health products from Farmers Market vendors for the benefit of the local food banks; and,

**WHEREAS**, the Board of Supervisors desires to amend the FY 2024-2025 Grant Fund Budget in the amount of $5,000 to provide fresh produce and health products at local food banks; and,

**WHEREAS**, the Board of Supervisors needs to appropriate $5,000 received from the Obici Healthcare Foundation to the FY2024-25 Grant Fund Budget.

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Supervisors of the County of Isle of Wight, Virginia that the FY 2024-25 Grant Fund Budget is hereby amended and funds in the amount of $5,000 received from the Obici Healthcare Foundation are appropriated to the Farmers Market.

**BE IT FURTHER RESOLVED** that the County Administrator of Isle of Wight County, Virginia is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 19th day of September, 2024.

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Joel C. Acree, Chairman

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Carey Mills Storm, Clerk

Approved as to form:

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Robert W. Jones, Jr., County Attorney

**ISSUE:**

Resolution to Budget and Appropriate Insurance Proceeds from VaCorp Insurance for Repair and Replacement of County Vehicles and Equipment ($50,003)

**BACKGROUND:**

The County has received insurance proceeds for repair of County vehicles in the amount of $9,850 and repair and modernization of a County elevator in the amount of $40,153 from VaCorp Insurance. The insurance proceeds of $9,850 need to be budgeted and appropriated to the General Fund Budget for FY 2024-25 and the insurance proceeds of $40,153 need to be budgeted and appropriated to the Capital Fund Budget for FY 2024-25.

The departments have requested that the insurance proceeds received be budgeted to the line item that will allow the repair of County vehicles and replacement of County equipment. Any additional budget amount required would be done through the Departments' existing available budgets.

| | | |
|---|---|---|
| Fleet Repairs - Sheriff's Office | $ 6,380 | VaCorp |
| Fleet Repairs - Community Dev | 3,470 | VaCorp |
| Elevator Repairs – PW Cap Maint | 40,153 | VaCorp |
| | $ 50,003 | |

**BUDGETARY IMPACT:**

Adoption of the resolution will increase the FY 2024-25 General Fund budget ($9,850) and the FY 2024-25 Capital Fund budget ($40,153).

**RECOMMENDATION:**

Adopt the resolution to budget and appropriate insurance proceeds and authorize department budget line item to be increase by the insurance proceeds amount to repair County vehicles.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Resolution | Resolution | 9/5/2024 |

**RESOLUTION TO AMEND THE FY 2024-25 OPERATING AND CAPITAL BUDGETS AND APPROPRIATE FUNDING FOR REPAIR OF COUNTY PROPERTY FROM INSURANCE PROCEEDS**

**WHEREAS,** the County of Isle of Wight, Virginia has received insurance proceeds from VaCorp Insurance for damaged County vehicles and equipment; and,

**WHEREAS,** the Board of Supervisors desires to amend the FY 2024-25 General Fund budget in the amount of $9,850 for repair of damaged County vehicles and to the FY 2024-25 Capital Fund budget in the amount of $40,153 for repair of damaged County equipment; and,

**WHEREAS,** the Board of Supervisors needs to appropriate $9,850 from insurance proceeds to the General Fund budget for repair of damaged County vehicles and $40,153 to the Capital Fund budget for the upgrade and modernization of an elevator damaged by lightning.

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Supervisors of Isle of Wight County, Virginia, that the FY 2024-25 budget is hereby amended and funds appropriated in the amount of $50,003.

**BE IT FURTHER RESOLVED** that the County Administrator of Isle of Wight County, Virginia is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 19th day of September 2024.

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Joel C. Acree, Chairman

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Carey Mills Storm, Clerk

Approved as to Form:

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Robert W. Jones Jr., County Attorney

**ISSUE:**

Resolution to Amend the Budget and Appropriate Funding for Renovations to the Rushmere Volunteer Fire Station Addition Project ($189,916)

**BACKGROUND:**

The County recently received bids for construction of an addition to the Rushmere Volunteer Fire Station that exceeded available funding. The original estimate for the Rushmere project was $900,000. The new project estimate is $1,889,916.

The County currently has 2022 Bond funds available for the addition to the Carrollton Volunteer Fire Station project in the amount of $800,000 that will be reallocated and transferred to this project. Carrollton's funding would be sought in a future year. Since this funding is already budgeted, no additional budget appropriation is needed to transfer these funds to the Rushmere project.

An additional appropriation in the amount of $128,916 would still be needed and is recommended to be appropriated from interest earned on the 2022 Bond principal. Savings realized from other bond funded projects would be used first as available.

**BUDGETARY IMPACT:**

Increase the FY24-25 Capital Fund Budget by $189,916.

**RECOMMENDATION:**

Adopt a resolution to amend the budget and appropriate funding for the Rushmere Volunteer Fire Station Addition Project.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Resolution | Resolution | 9/16/2024 |

**RESOLUTION TO AMEND THE FY 2024-25 CAPITAL FUND BUDGET AND APPROPRIATE FUNDING FOR THE RUSHMERE VOLUNTEER FIRE STATION ADDITION**

**WHEREAS,** the Board of Supervisors has budgeted and appropriated $900,00 from the 2022 bond issue for an addition to the Rushmere Volunteer Fire Station; and,

**WHEREAS,** after bidding the project, the low bid increased the proposed cost to $1,889,916 which exceeds the approved budget by $989,916; and,

**WHEREAS,** funding for the project is recommended to be reallocated from the bond funded Carrollton Volunteer Fire Station project budget in the amount of $800,000, and the remaining $189,916 to be funded by 2022 bond principal interest earnings; and,

**WHEREAS,** the Board of Supervisors desires to amend the FY 2024-25 Capital Fund Budget in the amount of $189,916 from 2022 bond principal interest earnings; and,

**WHEREAS,** the Board of Supervisors needs to appropriate $189,916 to the Capital Fund for the addition to the Rushmere Volunteer Fire Station.

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Supervisors of Isle of Wight County, Virginia, that the FY 2024-25 Capital Fund Budget is hereby amended, and funds appropriated in the amount of $189,916.

**BE IT FURTHER RESOLVED** that the County Administrator of Isle of Wight County, Virginia is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 19th day of September 19, 2024.

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Joel C. Acree, Chairman

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Carey Mills Storm, Clerk

Approved as to form:

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Robert W. Jones, Jr., County Attorney

**ISSUE:**

Resolution to Amend the FY2024-2025 Budget and Appropriate Funding for the Smithfield Sidewalk Project ($145,416)

**BACKGROUND:**

Isle of Wight County and the Town of Smithfield are working cooperatively to improve pedestrian access and mobility in the Town along Main Street from Grace Street to Westside Elementary School.

Additional grant funding in the amount of $145,416 has been approved and allocated by the Hampton Roads Transportation Planning Organization (HRTPO) for the sidewalk improvement project.

**BUDGETARY IMPACT:**

Approval will increase the Capital Project Fund budget by $145,416.

**RECOMMENDATION:**

Adopt a resolution to amend the budget and appropriate additional funds for the Smithfield Sidewalk Project.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Resolution | Resolution | 9/5/2024 |
| Correspondence from HRTPO | Cover Memo | 9/3/2024 |

**RESOLUTION TO AMEND THE FY 2024-2025 BUDGET AND APPROPRIATE FUNDS FOR THE SMITHFIELD SIDEWALK PROJECT**

**WHEREAS**, the Town of Smithfield and County of Isle of Wight are working cooperatively to improve pedestrian access and mobility along Main Street from Grace Street to Westside Elementary School in the Town; and,

**WHEREAS**, additional grant funding has been approved and allocated by the Hampton Roads Transportation Planning Organization (HRTPO) for the sidewalk improvement project in the Town; and,

**WHEREAS**, the Board of Supervisors needs to budget and appropriate a total of $145,416 to the Smithfield Sidewalk project.

**NOW, THEREFORE, BE IT AND IT IS HEREBY RESOLVED** by the Board of Supervisors of the County of Isle of Wight, Virginia that the FY 2024-2025 Capital Project Fund budget be amended and funds appropriated in the amount of $145,416 to the Smithfield Sidewalk project.

**BE IT FURTHER RESOLVED** that the County Administrator of Isle of Wight County, Virginia is authorized to execute all programmatic documents, make all such accounting adjustments, and execute all such agreements and contracts as necessary to complete construction of the Smithfield Sidewalk construction project (UPC 102951).

Adopted this 19th day of September 2024.

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Joel C. Acree, Chairman

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Carey Mills Storm, Clerk

Approved as to Form:

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Robert W. Jones Jr., County Attorney

HAMPTON ROADS TPO
William McCarty, Chair | Gordon C. Helsel, Jr., Vice-Chair
Robert A. Crum, Jr., Executive Director

August 20, 2024

Mr. Christopher G. Hall, PE
Hampton Roads District Engineer
Virginia Department of Transportation
7511 Burbage Drive
Suffolk, VA 23435

Re: Hampton Roads FY 2024-2027 TIP Administrative Modification – CMAQ Transfer from the HRTPO CMAQ Reserve Account
UPC 102951 – Main Street Pedestrian Improvements – Isle of Wight County

Dear Mr. Hall:

The purpose of this FY 2024-2027 Transportation Improvement Program (TIP) Administrative Modification, as requested by Isle of Wight County in a letter dated August 20, 2024, is to transfer a total of $145,416 in Congestion Mitigation and Air Quality (CMAQ) Improvement Program funds from the HRTPO CMAQ Reserve Account to UPC 102951 in Isle of Wight County. The cost estimate increased due to coordinating design comments related to stormwater and ADA compliance with the Virginia Department of Transportation (VDOT) and also the general market variability with current estimates. The specific details are described below:

- **UPC 102951 – Main Street Pedestrian Improvements**
  - Revise Allocations as follows:
    - Receive FY 2022 CMAQ allocation of $94,235, plus $23,559 CMAQ match, from the HRTPO CMAQ Reserve Account
    - Receive FY 2023 CMAQ allocation of $22,098, plus $5,524 CMAQ match, from the HRTPO CMAQ Reserve Account

Attached is a copy of the page that has been revised in the FY 2024-2027 TIP to reflect this Administrative Modification. The complete TIP, as revised, may be accessed at www.hrtpotip.org.

Please do not hesitate to contact me if you have any questions or need additional information.

Sincerely,

Robert A. Crum, Jr.
Executive Director

KG/se

Attachment

Copy: Randy Keaton, Isle of Wight County
Jamie Oliver, Isle of Wight County

**Main Street Pedestrian Improvements**
**UPC # 102951**

## OVERVIEW

**Description:** Construct sidewalks to connect existing sidewalks in Smithfield to the Park and Ride Lot at the intersection of Main St and Route 10.

**Street (Route):** Main St (258)

**From:** N/A

**To:** N/A

**Length (mi):** N/A

**Jurisdiction/Agency:** Isle of Wight County

**System:** Primary

**Scope:** Facilities for Pedestrians and Bicycles

**Oversight:** Non-Federal Oversight

**Administered By:** Locality

**Regionally Significant:** No

**CMAQ:** Yes

**RSTP:** No

## HRTPO Notes

Revised 8/20/2024: Administrative Modification to update the allocations as follows: receive FY 2022 CMAQ allocation of $94,235, plus $23,559 CMAQ match, from the HRTPO CMAQ Reserve Account; receive FY 2023 CMAQ allocation of $22,098, plus $5,524 CMAQ match, from the HRTPO CMAQ Reserve Account.

## SCHEDULE

| | Start | End | Status |
|---|---|---|---|
| *Preliminary Engineering* | 1/24/2019 | 2/8/2022 | Complete |
| *Right of Way* | 2/8/2022 | 7/31/2023 | Complete |
| *Construction* | 7/31/2023 | 8/23/2024 | Underway |

## COSTS AND EXPENDITURES

| | Cost Estimates | Total Expenditures | Percent Expended |
|---|---|---|---|
| *Preliminary Engineering* | $150,181 | $150,759 | 100% |
| *Right of Way* | $5,000 | $0 | 0% |
| *Construction* | $1,337,160 | $0 | 0% |
| **TOTAL** | **$1,492,341** | **$150,759** | **10%** |

***Recent Expenditures***

| | Previous 3 Quarters | | |
|---|---|---|---|
| Latest Quarter | 3 | 2 | 1 |
| $114,645 | $16,317 | $2,767 | $123 |
| $0 | - | - | - |
| $0 | - | - | - |

**Main Street Pedestrian Improvements**
**UPC # 102951**

## ALLOCATIONS

| Fund Source(s) | Previous | FY 2024 | FY 2025 | FY 2026 | FY 2027 | TOTAL |
|---|---|---|---|---|---|---|
| STF | $586,786 | $0 | $0 | $0 | $0 | $586,786 |
| MIX | $19,689 | $0 | $0 | $0 | $0 | $19,689 |
| LOC | $227,010 | $0 | $0 | $0 | $0 | $227,010 |
| CMAQ | $861,388 | $0 | $0 | $0 | $0 | $861,388 |
| CMAQ Match | $175,136 | $0 | $0 | $0 | $0 | $175,136 |
| **TOTAL** | **$1,870,009** | **$0** | **$0** | **$0** | **$0** | **$1,870,009** |

## SCHEDULED OBLIGATIONS

| Phase | Fund Source | Previous | FY 2024 | FY 2025 | FY 2026 | FY 2027 | Match |
|---|---|---|---|---|---|---|---|
| PE | CMAQ | $108,000 | $12,145 | | | | $3,036 |
| | ***Subtotal*** | ***$108,000*** | ***$12,145*** | | | | ***$3,036*** |
| RW | CMAQ | | $4,000 | | | | $1,000 |
| | ***Subtotal*** | | ***$4,000*** | | | | ***$1,000*** |
| CN | STP/STBG | | $19,689 | | | | |
| CN | CMAQ | | $620,910 | | | | $155,228 |
| CN | AC | | $541,333 | | | | |
| | ***Subtotal*** | | ***$1,181,932*** | | | | ***$155,228*** |
| | **TOTAL** | **$108,000** | **$1,198,077** | | | | **$159,264** |

Source of Project Data: Virginia Department of Transportation.

**ISSUE:**

Resolution to Amend the FY 2024-2025 Grant Fund Budget and Appropriate Funding from the Virginia Department of Motor Vehicles Police Traffic Services Enforcement Program ($32,250)

**BACKGROUND:**

The Sheriff's Office of the County of Isle of Wight, Virginia has been awarded grant funding for FY 2024-2025 in the amount of $32,250 for the purpose of conducting a Police Traffic Services Enforcement Program.

**BUDGETARY IMPACT:**

No cash match is required, but the Sheriff's Office of the County of Isle of Wight, Virginia will provide an in-kind match to receive this grant.

**RECOMMENDATION:**

Adopt a resolution to amend the budget and appropriate grant funding.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Resolution | Resolution | 9/9/2024 |

**RESOLUTION TO AMEND THE FY 2024-2025 GRANT FUND BUDGET AND APPROPRIATE FUNDING FROM THE VIRGINIA DEPARTMENT OF MOTOR VEHICLES POLICE TRAFFIC SERVICES ENFORCEMENT PROGRAM**

**WHEREAS,** the Sheriff's Office has received a grant from the Commonwealth of Virginia Department of Motor Vehicles for the Police Traffic Services Enforcement Program; and,

**WHEREAS,** grant funds in the amount of $32,250 from the Commonwealth of Virginia Department of Motor Vehicles need to be budgeted to the FY 2024-2025 Grant Fund budget of Isle of Wight County and appropriated for the purpose of conducting a Police Traffic Services Enforcement Program.

**NOW, THEREFORE BE IT AND IT IS HEREBY RESOLVED** by the Board of Supervisors of the County of Isle of Wight, Virginia, that the FY 2024-2025 budget be amended and grant funds in the amount of $32,250, or so much as shall be received from the Commonwealth of Virginia Department of Motor Vehicles, be appropriated for the Police Traffic Services Enforcement Program.

**BE IT FURTHER RESOLVED** that the County Administrator of the County of Isle of Wight, Virginia is authorized to make the appropriate accounting adjustments in the budget and to do all things necessary to give this resolution effect.

Adopted this 19th day of September 19, 2024.

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Joel C. Acree, Chairman

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Carey Mills Storm, Clerk

Approved as to form:

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Robert W. Jones, Jr., County Attorney

**ISSUE:**

Resolution to Designate October 6-12, 2024 as Fire Prevention Week

**BACKGROUND:**

October 6-12, 2024, is designated nationally as “Fire Prevention Week” for the purpose of educating and training citizens to take the necessary steps to improve fire safety. The Board may wish to recognize Fire Prevention Week.

**BUDGETARY IMPACT:**

None.

**RECOMMENDATION:**

Adopt a resolution to designate October 6-12, 2024 as Fire Prevention Week.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Resolution | Resolution | 9/11/2024 |

# RESOLUTION TO DESIGNATE OCTOBER 6-12, 2024 AS FIRE PREVENTION WEEK

**WHEREAS**, Isle of Wight County is committed to ensuring the safety and security of all those who live, work, visit, and play in the County; and,

**WHEREAS**, the members of County's seven volunteer fire and emergency medical services agencies and the career fire and rescue staff of Isle of Wight County are dedicated to reducing the occurrence of death, injuries, and property damage through the identification of risks, education of citizens, and response to emergency incidents; and,

**WHEREAS**, fire is a serious public safety concern both locally and nationally, and homes are the locations where people are at greatest risk from fire; and,

**WHEREAS**, County residents who are responsive to public education measures are better able to take personal steps to increase their safety from fire, especially in their homes; and,

**WHEREAS**, each year during the second full week in October, fire departments and other emergency services professionals across the country work to educate everyone about simple but important actions they can take to keep themselves and those around them safe from home fires.

**NOW THEREFORE BE IT RESOLVED** by the Board of Supervisors of Isle of Wight County, Virginia that October 6-12, 2024, is designated as "Fire Prevention Week" in Isle of Wight County.

**BE IT FURTHER RESOLVED** that the Board of Supervisors of Isle of Wight County extends its appreciation to the men and women of the County's Fire and Rescue agencies for the tireless work they do to keep residents safe throughout the year.

Adopted this 19th day of September, 2024.

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Joel C. Acree, Chairman

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Carey Mills Storm, Clerk

Approved as to form:

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Robert W. Jones, Jr., County Attorney

**ISSUE:**

Resolutions of Support and Endorsement for VDOT SMART SCALE Round 6 Project Grant Applications

**BACKGROUND:**

Isle of Wight County is submitting four (4) applications for VDOT SMART SCALE Round 6 grant funding.

The County believes that these projects meet the planning goals and vision of the County's Comprehensive Plan and Transportation Plan, as well as the Regional Long-Range Transportation Plan approved by the Hampton Road Transportation Planning Organization (HRTPO).

The projects are:

**1. US Rt 17 (Carrollton Blvd) Widening Phase I Lane Extension at State Rt 669 (Smiths Neck Rd)**
This project includes providing a continuous right turn lane at Smiths Neck Road intersection, along with pavement widening for an additional travel lane, installation of curb and gutter and sidewalk improvements. The project will serve as Phase 1 of implementing the STARS recommendations, with Phase 2 including widening Rt 17 from Smiths Neck to Brewer's Neck Blvd (Rt 258). Currently, partial funding thru RSTP for this project is approved under UPC 123641 in FY29/30.
Total Estimate = $13,860,431
*Grant Request = $11,857,431*

**2. US Route 17 (Carrollton Blvd) and State Rt 661 (Sugar Hill Rd) Intersection Improvements**

The proposed improvements will convert the existing intersection to an unsignalized Continuous Green-T (Turbo-T) intersection and extend the left turn lane from Cedar Grove Road back to Sugar Hill Road for the Rt 17 southbound movement, as identified in the 2022 VDOT Route 17 Arterial Preservation study public input survey. The existing depressed median will be converted to a raised grass median with curbing and roadway cross slopes will be modified to sheet flow runoff to the existing outside shoulder ditches.
*Grant Request = $5,591,210*

**3. US Rt 17 (Carrollton Blvd) Widening – Phase 2**
The proposed project will widen Route 17 from Smith's Neck Rd (Rt 669) to Rt 258 to add a 3rd thru-lane southbound from the JRB. This project will include the intersection upgrades, multi-use trail accommodations, transit stop locations, and drainage improvements necessary to convert the existing segment from 2 thru lanes to 3.
*Grant Request = $18,241,337*

**4. Nike Park Trail Gap Connector (Nike Park Road, Rt 664)**
The proposed project will consist of 6000 LF of a 10-foot-wide multi-use trail connecting the multimodal gap between completed UPC 101794 and UPC 109314 (currently under construction). This gap completion will connect over 6 miles of multi-use trail from the Town of Smithfield to Route 17. It will include ADA-accessible connectivity for residential, commercial, and recreational users in the S. Church Street, Battery Park Road, and Nike Park Road communities.
*Grant Request = $5,001,402*

**BUDGETARY IMPACT:**

None. The SMART SCALE applications are proposed as 100% funding for the projects submitted.

**RECOMMENDATION:**

Adopt resolution of support and endorsement for SMART SCALE applications.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Resolution | Resolution | 9/13/2024 |

**RESOLUTION OF SUPPORT FOR PROJECTS TO BE SUBMITTED FOR SMARTSCALE EVALUATION AND FUNDING THROUGH THE VIRGINIA DEPARTMENT OF TRANSPORTATION**

**WHEREAS,** the SMART SCALE program directs the Commonwealth Transportation Board (CTB) to develop and implement a statewide process to identify, score and select projects for funding; and,

**WHEREAS,** the SMART SCALE prioritization process requires that all project submissions by local governments must be consistent with the regionally adopted fiscally constrained Long-Range Transportation Plan (LRTP); and,

**WHEREAS,** the SMART SCALE prioritization process requires that all project submissions must be consistent with the needs identified in the Statewide transportation plan, VTRANS 2040, and VTRANS 2021 Midterm Needs; and,

**WHEREAS,** the SMART SCALE prioritization process requires that all project submissions must be consistent with the goals and priorities of the local community as identified in local long-range community plans, local ordinances and/or by local public input processes.

**NOW THEREFORE BE IT RESOLVED** that the Board of Supervisors of the County of Isle of Wight, Virginia hereby supports the application, evaluation, and funding of the following projects under the SMART SCALE Prioritization Process:

- US Rt 17 (Carrollton Blvd) Widening Phase 1 Lane Extension @ State Rt 669 (Smiths Neck Road)
- US Rt 17 (Carrollton Blvd) Widening –Phase 2
- Route 17 (Carrollton Blvd) and State Rt 661 (Sugar Hill Rd) Intersection Improvements
- Nike Park Trail Gap Connector (Nike Park Road, Rt 664)

**BE IT FURTHER RESOLVED** that the County Administrator of Isle of Wight County, and/or his designee, is authorized to execute all required

project applications, agreements, and/or addendums, and make all accounting adjustments, revisions, and amendments necessary to give this resolution effect.

Adopted this 19th day of September 2024.

_____
Joel C. Acree, Chairman

_____
Carey Mills Storm, Clerk

Approved as to Form:

_____
Robert W. Jones, Jr., County Attorney

**ISSUE:**

Execution of a Vehicle Grant Agreement for Carrollton Volunteer Fire Department Tanker Truck

**BACKGROUND:**

From time to time, the County purchases vehicles (apparatus) for use by the volunteer fire/EMS agencies in the County. The volunteer agencies also sometimes contribute funds for the purchase of the vehicle. At its August 16, 2018 meeting the BOS established a Vehicle Grant Agreement whereby the County can grant the vehicle to the fire/EMS organization taking possession of the vehicle while maintaining a lien on the vehicle. Prior to this action, the County was maintaining title to the vehicles.

The County has just taken possession of a tanker truck purchased to replace a tanker truck currently in service at Carrollton Volunteer Fire Department.

The Vehicle Grant Agreement allowing the County to transfer title of the tanker truck to Carrollton Volunteer Fire Department needs to be executed.

**BUDGETARY IMPACT:**

None.

**RECOMMENDATION:**

Authorize the Chairman to execute the vehicle grant agreement.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Vehicle Grant Agreement | Agreement | 9/16/2024 |

# VEHICLE GRANT AGREEMENT

THIS VEHICLE GRANT AGREEMENT (hereinafter the "Agreement"), is made and entered into this _____ day of September, 2024, by and between ISLE OF WIGHT COUNTY, VIRGINIA, a political subdivision of the Commonwealth of Virginia, herein referred to as "Grantor," whose address is 17090 Monument Circle, Isle of Wight, Virginia 23397, and CARROLLTON VOLUNTEER FIRE DEPARTMENT, a volunteer [fire/rescue] organization located in Isle of Wight County, Virginia, herein referred to as "Grantee", whose address is 15020 Carrollton Blvd. Carrollton, VA 23314

WHEREAS, Grantee is a volunteer firefighting organization organized pursuant to Section 27-8 of the Code of Virginia (1950, as amended); and

WHEREAS, Section 27-15.2 of the Code of Virginia (1950, as amended) provides that the governing body of every city, town or county shall have the power to provide for the purchase, operation, manning and maintenance of suitable equipment for fighting fires and to prescribe the terms and conditions upon which the same will be used for fighting fires; and

WHEREAS, Section 27-23.6 of the Code of Virginia (1950, as amended) provides that any county, city or town may contract with or provide for any volunteer firefighting companies or associations in the county, city or town for the fighting of fires and if such provisions are made by the county, city or town the firefighting company shall be deemed to be an instrumentality of the county, city or town and as such exempt from suit for damages done incident to fighting fires therein and said statute further provides that any county, city or town may provide firefighting to its citizens by using both government employed and volunteer company or association firefighters and if such system is utilized the volunteer companies and/or associations shall be deemed an instrumentality of the county, city or town and as such exempt from suit for damages done incident to providing such service for the county, city or town.

NOW, THEREFORE, IN CONSIDERATION of the mutual promises and covenants contained herein, and pursuant to the Code of Virginia, Title 27, Chapter 2, Article 1, the parties hereto enter into the following agreement:

1. EQUIPMENT DESCRIPTION.

The property subject of this Agreement is that motor vehicle identified as follows: **2024 Kenworth Truck VIN 1nkzlpex8rj366954.** The above property includes all component parts, attachments, spare parts, interchangeable parts, service tools, and manuals, which shall hereinafter be referred to collectively as the "Equipment."

The Equipment is granted to Grantee "as is," the Grantee having had opportunity to inspect the Equipment and to determine that it suited Grantee's intended use and purpose.

2. TERM.

Grantor agrees to grant to Grantee the Equipment for the purpose of allowing the Grantee to provide fire/rescue services to the area designated by Isle of Wight County, Virginia in accordance with the laws, regulations, and rules governing such service providers in the Commonwealth of Virginia, and as further set forth in the applicable response plan(s) as adopted by the Isle of Wight County Board of Supervisors, as they may be amended from time to time, and as the needs for such services require, as shall be deemed necessary by agreement of the parties.

3. EQUIPMENT TO BE TITLED TO GRANTEE SUBJECT TO LIEN.

As the Equipment has been purchased by the Grantor using public funds, title in the Equipment will pass to Grantee subject to a placement of a lien on the Equipment by the Grantor. Grantee may affix to or place on the Equipment such signage or markings as may be otherwise required to comply with applicable laws and regulations. Upon the expiration of the useful life of the Equipment as agreed to by the parties, Grantee will immediately return, at Grantee's expense, the Equipment to Grantor in as good a condition as received less normal wear, tear and depreciation and the Grantor shall release the lien. During the term of this Agreement, Grantee shall be responsible for ensuring for the proper maintenance of the Equipment in coordination with the Grantor and all applicable policies, procedures, laws and regulations related thereto.

4. SALE BY GRANTEE.

Grantee shall not have a right to sell the Equipment without the Grantor's prior written consent which consent shall be at Grantor's sole and absolute discretion.

Once a County-purchased apparatus has been approved to be sold at the end of its useful life, the proceeds from the sale will be designated for the benefit of the individual volunteer department. If the volunteer department originally contributed to the purchase of the apparatus being sold, the volunteer department will receive the percentage of the proceeds based on their percentage of the purchase, to use at their discretion. The remainder of the proceeds will be used for the purchase of the replacement apparatus. Example- Apparatus cost at time of purchase is $200,000. The volunteer department added $20,000 (10% of the total price). The apparatus is sold at the end of its useful life for $5,000. The volunteer department will receive their share of the proceeds (10% or $500) to use at their discretion. The reminder ($4,500) will be used to offset the cost of the replacement apparatus.

5. INSURANCE.

Grantee, in cooperation with Grantor, shall maintain any and all necessary, appropriate and lawfully required insurance coverages on the Equipment.

6. NOTICE.

Any notice required to be given by this Agreement shall be made in writing by certified mail with return receipt requested, to the following addresses, or to such other addresses as the parties may substitute by notice in writing to the other party:

Grantor : P.O. Box 80, Isle of Wight, Virginia 23397, Attn : County Administrator

Grantee: P.O. Box 77, Carrollton, Virginia 23314

7. GOVERNING LAWS.

Regardless of the location of any of the Equipment, this Agreement shall be governed by the laws of the Commonwealth of Virginia.

8. ENTIRE UNDERSTANDING.

This written agreement contains the entire understanding of the parties, there being no promises or undertakings, written or oral, other than those expressly set forth herein and this agreement shall be deemed to supersede any and all other agreements between the parties related to the subject matter hereof.

Both parties participated in the drafting of this Agreement, and there shall be no presumption against or for either party in the event of a dispute over the construction of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement on the _____ day of September, 2024.

**ISLE OF WIGHT COUNTY, VIRGINIA**

_____ (SEAL) Approved as to Form: _____
Chairman County Attorney

**CARROLLTON VOLUNTEER FIRE DEPARTMENT**

_____ (SEAL)
_____
Tim Nunez
Title: Chief

**Funded: County 100%**

**ISSUE:**

Resolution to Accept and Appropriate Grant Funds from the Virginia Circuit Court Records Preservation Program ($40,744)

**BACKGROUND:**

The Circuit Court Records Preservation Program (CCRP) is a part of the Library of Virginia's Local Records Services Branch. Funded through a $1.50 of the clerk's recordation fee, the CCRP provides resources to help preserve and make permanent Circuit Court records accessible. The program awards grants to the Commonwealth's Circuit Court Clerks to help them address the needs of the records housed in their localities.

The CCRP also provides resources needed to process and house the circuit court records that are transferred to the State Archives for safekeeping and increased access; as well as track, duplicate and maintain circuit court microfilm stored in the Library's media vault.

**BUDGETARY IMPACT:**

Adoption of the attached resolution will increase the FY 2024-25 Grant Fund Budget by $40,744.

**RECOMMENDATION:**

Adopt a resolution to accept and appropriate funding for the Virginia Circuit Court Records Preservation Program and increase the FY 2024-25 Grant Fund revenue and expenditure budget by the same amount.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Resolution | Resolution | 9/13/2024 |

**RESOLUTION TO AMEND THE FY 2024-25 GRANT FUND BUDGET AND APPROPRIATE FUNDING FROM THE LIBRARY OF VIRGINIA CIRCUIT COURT RECORDS PRESEVATION PROGRAM**

**WHEREAS,** the Board of Supervisors desires to budget and appropriate funding from the Library of Virginia Circuit Court Records Preservation Program to provide resources to help preserve and make permanent circuit court records accessible in Isle of Wight County; and,

**WHEREAS,** the Board of Supervisors needs to amend the FY 2024-2025 Grant Fund Budget in the amount of $40,774 to preserve and make permanent circuit court records accessible; and,

**WHEREAS,** the Board of Supervisors needs to appropriate grant funding in the amount of $40,774 to preserve and make permanent circuit court records accessible.

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Supervisors of the County of Isle of Wight, Virginia that the FY 2024-2025 Grant Fund budget is hereby amended, and funds appropriated in the amount of $40,774.

**BE IT FURTHER RESOLVED** that the County Administrator of Isle of Wight County, Virginia is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 19th day of September 2024.

_____
Joel C. Acree, Chairman

_____
Carey Mills Storm, Clerk

Approved as to form:

_____
Robert W. Jones, Jr., County Attorney

**ISSUE:**

Adopt a Resolution to Amend the County Policy Manual

**BACKGROUND:**

Periodically, the County Policy Manual requires revision. In this regard, the County's worker's compensation policy needs to be updated to reflect current practices.

**BUDGETARY IMPACT:**

None.

**RECOMMENDATION:**

Adopt a resolution to amend the County Policy Manual.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Resolution | Resolution | 9/12/2024 |

**RESOLUTION TO AMEND CHAPTER 1: PERSONNEL, ARTICLE VI – BENEFITS, SECTION 6.6 – WORKER'S COMPENSATION OF THE COUNTY POLICY MANUAL**

**WHEREAS**, the amendments of the County Policy Manual are necessary in order to ensure appropriate administration of the County's policies; and,

**WHEREAS**, the Board of Supervisors desires to amend the County Policy Manual, Chapter 1: Personnel, Article VI – Benefits, Section 6.6 – Worker's Compensation.

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Supervisors of the County of Isle of Wight, Virginia that the County Policy Manual is hereby amended as follows effective September 19, 2024 and shall remain in effect until amended by the Board:

Section 6.6 - Worker's Compensation

(Revised January 17, 2002, October 16, 2006, November 20, 2014, September 16, 2024)

In compliance with the Virginia Worker's Compensation Act, the County is committed to ensuring that all full-time and part-time employees incurring a work-related injury or disease would receive worker's compensation benefits.

At no cost to employees, the County provides Worker's Compensation insurance that covers injury or illness incurred during the course of employment. The County provides all of the benefits identified by the Virginia Worker's Compensation Act., including payment of covered medical expenses and lost wages.

<u>Work-Related Injury, Illness, and Substance Exposure Reporting</u>

It is important that all workplace injuries and illnesses are reported to management as soon as reasonably possible after they occur. Prompt reporting allows for prompt identification and correction of hazards, prompt medical attention for injuries, and timely processing of a worker's compensation claim.

Failure to do so impedes processing of the claim and can lead to denial of the claim.

Therefore, following every work-related injury, illness, or substance exposure the affected employee is required to notify his/her supervisor as soon as reasonably possible, but no later than the end of their shift or 8 hours after becoming aware of the injury or illness, whichever is earlier. Upon receiving notification of an injury, illness, or substance exposure incident the supervisor is required to notify Risk Management as soon as possible after the occurrence, but no later than 24 hours after receiving notification of the injury. In cases where an injury results in any of the following, an employee being admitted to the hospital, an amputation, or a fatality, the notification must be made immediately so that Risk Management can make the mandated notification to the Occupational Safety and Health Administration (OSHA) within the required timeframe.

If applicable, upon completion of the initial visit to the doctor, the employee is required to report back to his/her supervisor and Risk Management provides the doctor's work-status note with return-to-work instructions. The employee is further required to provide an updated doctor's work status note with return-to-work instructions after each subsequent visit to the doctor. When an employee seeks medical treatment, he/she will not be allowed to return to work without a release from either the emergency department or the worker's compensation treating physician, whichever applies, stating that the employee can return to work, with or without restrictions.

First Reporting Procedure

After notification of a work-related injury, illness, or substance exposure, the supervisor will instruct the injured employee to initiate the workers' compensation reporting process by following the procedure outlined in the First Report of Injury, Illness or Substance Exposure - Standard Operating Procedure located on Central at HR/Workers Compensation/Forms/First Report of Injury. Reporting must take place before medical treatment is sought unless there is a medical emergency. In this case, the supervisor shall make the First Report of Injury.

Panel Doctors and Medical Treatment

In accordance with the Virginia Workers' Compensation Act, the County has established a panel of physicians to furnish medical care for all workers' compensation claims. The employee must select a primary care physician from the panel for his/her medical bills to be covered under workers' compensation. The employee will be presented with the panel doctors during the First Report of Injury process. If an employee elects to use a physician who is not on the authorized list, the treatment will be incurred at the employee's expense. To ensure receipt of maximum benefits pertaining to payment of medical expenses and workers' compensation indemnity payments, an employee must accept medical treatment and keep appointments with the authorized physician.

Emergency Situations

In an emergency situation, the primary objective is to obtain immediate medical care for the injured employee. In this situation, the following guidelines should be followed.

1. Obtain Emergency Care – Obtain emergency care as dictated by the situation.

2. First Reporting – The supervisor will initiate the injury reporting process by following the procedure outlined in the First Report of Injury, Illness or Substance Exposure - Standard Operating Procedure located on Central at HR/Workers Compensation/Forms/ First Report of Injury and will report the injury to ~~the~~ Risk Management ~~Coordinator~~.

3. Panel Doctor – The employee is required to select a panel doctor as soon as they can after receiving emergency medical treatment. The panel doctor will perform follow-up care and will serve as the coordinator for specialist care.

Determination of Compensability

The County's insurance carrier will determine if the injury meets the requirements of compensable injury or occupational diseases defined by the Virginia Workers' Compensation Act based on information provided on the Supervisor Accident/Incident Investigation Report, interviews with the injured employee, supervisor, and co-workers, and medical documentation. If an

injury/disease has not yet been accepted as compensable pending investigation and the employee has been placed out of work by the treating panel doctor, the employee may be required to use his/her own leave until a determination is made on compensability. If a claim is denied, the employee may seek an appeal through the Workers' Compensation Commission.

Benefits Under the Workers Compensation Program:

Medical Bills

The Virginia Workers' Compensation Act provides for the payment of reasonable and customary medical services associated with treatment for a compensable injury or occupational disease. This includes physician and hospital services as well as prescription drugs. Medical bills should be sent from the provider to the County's insurance carrier. If the injured employee receives medical bills for treatment related to a compensable injury or occupational disease, the bills should be forwarded to the County's insurance carrier. Contact Risk Management for insurance carrier contact information and assistance.

Lost Wage Payments

The Workers' Compensation Act provides lost wage payments when an employee is unable to work due to a compensable injury or occupational disease, in the amount of 66.66 percent of the injured employee's average weekly wage (AWW). The AWW is determined by calculating the weekly average of the employee's gross wage for 52 weeks before the date of injury.

Compensation for an approved compensable injury begins when the injured employee is out of work for more than seven (7) calendar days, commonly referred to as the "waiting period", as provided by the Virginia Workers Compensation Act. An injured employee can elect to use accumulated sick and/or annual leave, or sick bank leave if eligible, for County business days occurring during the waiting period. If no leave is available, the employee will be placed in a Leave without Pay Status. After the required "waiting period", in claims where the County has received an award agreement notice from the worker's compensation insurance carrier indicating that lost wages have been awarded, the injured employee shall not receive compensation from the

County; however, the employee shall receive compensation directly from the County's worker compensation insurance carrier in accordance with the Worker's Compensation Act.

In cases where the injured employee's compensable injury extends their absence beyond twenty-one (21) calendar days, the employee will receive compensation for the aforementioned "waiting period" from the County's worker's compensation insurance carrier in accordance with the Worker's Compensation Act.

If an injured employee is out of work and a lost wage claim is still pending approval by the applicable payroll wire deadline, the employee may be required to use either accumulated sick and/or annual leave, or sick bank leave if eligible, for time missed. If no leave is available, the employee will be placed in a Leave without Pay Status.

Employees receiving worker's compensation benefits shall not accrue sick or vacation leave during their absence if workers compensation benefits are provided to an employee for more than half of the month. The County will continue to provide Group Life Insurance Benefits as well as the County's portion of the health insurance premium during the time of approved workers compensation leave from work. The employee shall be responsible for the employee portion of the health insurance premium and any other employee paid benefit. If an employee is unable to pay for any employee portion of an elected benefit, the benefit shall be terminated and reinstated upon the injured employee's return to work or eligibility period of the program, whichever is applicable to the benefit.

Should an injured employee not return to full time or modified duty within a six-month period from the date of injury, the County reserves the right to review and determine the employee's eligibility for County paid benefits. If the injured employee was injured while under the influence of alcohol or another controlled substance, coverage by worker's compensation insurance may be denied.

Alternate Duty

The County supports alternate duty assignments for employees who are recovering from injuries. Alternate duty offers employees a chance to return to

work at a capacity and duration approved by the panel doctor. The employee will be considered for productive assignments within his/her current department or another department if an assignment is not available in his/her department. Employees are encouraged to return to work in an alternate duty capacity whenever possible.

Employees will receive their normal pay while in an alternate duty assignment provided they work full time. Employees who are restricted to limited hours may be entitled to receive workers' compensation lost wage payments for the hours they miss due to injury. Failure to report to an available alternate duty assignment will result in discontinuation of lost wage benefits and the employee will be considered to be on unapproved leave.

Alternate duty assignments will not exceed six months. After six months from the date of injury, the panel physician should be able to indicate whether the employee is able to return to the full duties of his/her position or if work limitations will be permanent.

In the event the employee is still being treated for the injury, and a final prognosis cannot be made, the alternative duty assignment may be extended if approved by the Department Director and the County Administrator and if it does not impede operations. In the event of a permanent limitation, job accommodations and position transfer will be explored as options for the employee.

Leave Records

Employees are required to complete their leave record reflecting time missing from work due to injury. The following codes are used to reflect these hours:

Workers' Compensation - Hours missed from work due to a work-related injury for which the employee is being compensated under a lost wage award from the County's Worker's compensation insurance carrier. If the employee has not received an approved lost wage award agreement, time missed must be coded to the sick and/or annual leave.

Sick Leave – Hours missed in accordance with the County sick leave policy. Additionally, hours missed for a work-related injury during the "waiting period" can be designated as sick leave.

Adopted this 19th day of September, 2024.

_____
Joel C. Acree, Chairman

_____
Carey Mills Storm, Clerk

Approved as to Form:

_____
Robert W. Jones Jr., County Attorney

**BACKGROUND:**

The Board of Supervisors has previously directed that an opportunity be provided for monthly status briefings from Board members who serve as representatives on various regional committees and authorities on behalf of the County.

**BUDGETARY IMPACT:**

None

**RECOMMENDATION:**

Receive the report.

**ATTACHMENTS:**

| Description | Type | Upload Date |
| --- | --- | --- |
| BOS Regional Committees by Org & Member | Cover Memo | 2/1/2024 |

# *2024*
# *BOARD OF SUPERVISORS'*
# *REGIONAL ORGANIZATIONS (BY MEMBER)*

## ***ACREE***

- *Hampton Roads Planning District Commission*
- *Western Tidewater Water Authority*
- *Western Tidewater Community Transportation Collaborative*

## ***ROUNTREE***

- *Eastern Virginia Regional Industrial Facility Authority*
- *Hampton Roads Workforce Council*
- *Western Tidewater Water Authority*

## ***JEFFERSON***

- *Western Tidewater Regional Jail*

## ***McCARTY***

- *Hampton Roads Transportation Advisory Committee*
- *Hampton Roads Transportation Planning Organization*
- *Western Tidewater Regional Jail*

## ***ROSIE***

- *Hampton Roads Military Federal Facilities Alliance*

## ***KEATON***

- *Hampton Roads Planning District Commission*
- *Hampton Roads Transportation Planning Organization*
- *Southeastern Public Service Authority*
- *Western Tidewater Regional Jail*
- *Western Tidewater Water Authority*

# *2024*
# *BOARD OF SUPERVISORS'*
# *REGIONAL ORGANIZATIONS (BY ORGANIZATION)*

| | |
|---|---|
| *Eastern Virginia Regional Industrial Facility Authority* | *Rountree* |
| *Hampton Roads Military & Federal Facilities Alliance:* | *Rosie* |
| *Hampton Roads Planning District Commission:* | *Acree*<br>*Keaton* |
| *Hampton Roads Transportation Accountability Committee:* | *McCarty* |
| *Hampton Roads Transportation Planning Organization:* | *McCarty*<br>*Keaton* |
| *Hampton Roads Workforce Council* | *Rountree* |
| *Southeastern Public Service Authority* | *Keaton*<br>*Etheridge - (Alternate)* |
| *Western Tidewater Community Transportation Collaborative* | *Acree* |
| *Western Tidewater Regional Jail:* | *Jefferson*<br>*McCarty*<br>*Keaton* |
| *Western Tidewater Water Authority:* | *Rountree*<br>*Acree*<br>*Keaton* |

**BACKGROUND:**

Board members will consider and make appointments of individuals to various local and region organizations as noted on the Appointments Page.

**BUDGETARY IMPACT:**

None

**RECOMMENDATION:**

Appoint individuals to various local and region organizations as noted on the Appointments Page.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Appointments Page | Cover Memo | 8/8/2024 |
| Blackwater Library Board | Cover Memo | 8/8/2024 |
| Commission on Adults with Disabilities | Cover Memo | 8/8/2024 |
| Energy Task Force | Cover Memo | 8/8/2024 |

# BOARDS/COMMISSIONS/COMMITTEES

| DISTRICT | BOARD/COMMISSION/COMMITTEE | APPOINTEE | CONTACT | EXPIRATION | |
|---|---|---|---|---|---|
| District 1 | Audit Committee | Vacant | | | |
| | | | | | |
| District 2 | Blackwater Regional Library Board | Replace Michelle Manfred with Joanna Wiggins | (757)742-2008 | June | 2024 |
| District 2 | Commission on Adults with Disabilities | Vacant | | | |
| District 2 | Audit Committee | Vacant | | | |
| | | | | | |
| District 3 | Audit Committee | Vacant | | | |
| District 3 | Historical Archictural Review Committee | Replace Lee Duncan | | January | 2023 |
| District 3 | Energy Task Force | Vacant | | | |
| | | | | | |
| District 4 | Economic Development Authority | Reappoint Sharon Cory Stallings | (757) 242-6486 | April | 2024 |
| District 4 | Blackwater Regional Library Board | Replace Conway Henderson | | June | 2025 |
| District 4 | Social Services Board | Reappoint Regina Joyner | (757) 478-6381 | June | 2023 |
| District 4 | Audit Committee | Vacant | | | |
| District 4 | Historical Architectural Review Committee | Reappoint Durwood Scott | (757) 242-6528 | Sept. | 2024 |
| | | | | | |
| District 5 | Social Services Board | Reappoint Linda Boone Randolph | (757) 390-6066 | June | 2024 |
| District 5 | Commission on Adults with Disabilities | Vacant | | | |
| District 5 | Audit Committee | Vacant | | | |
| District 5 | Agricultural/Forestal District Advisory Council | Replace Emory Auston/Deceased | | | |
| District 5 | Energy Task Force | Vacant | | | |
| | | | | | |

| NOT BY DISTRICT | | | | | |
|---|---|---|---|---|---|
| | BOARD/COMMISSION/COMMITTEE | APPOINTEE | CONTACT | EXPIRATION | |
| Town of Windsor | Economic Development Authority | Replace Reverend Samual Askew | | | |
| At-Large | Blackwater Regional Library Board | Replace Rita Gibson w/Charlene Herrala | (757) 377-8654 | June | 2027 |
| | Camp Community College Board | Reappoint Roderick Hallum | (757) 328-6354 | June | 2024 |
| | Fire Rescue Advisory Board | Replace Scott Brower w/Chuck Mullins | | January | 2025 |
| | Hampton Roads Workforce Council | Replace L'Tanya Johnson - County Business Leader | | June | 2024 |
| | Virginia Alcohol Safety Program | Replace Kimberly Davenport w/Corporal Chad Beale | | August | 2024 |
| | Children's Services Act-Policy & Mgmt. Team | Replace Nancy Mayo with Dahlis Atkins | | August | 2024 |

# Carey Mills Storm

**From:** Ben Neal <bneal@blackwaterlib.org>
**Sent:** Thursday, July 18, 2024 11:23 AM
**To:** Carey Mills Storm
**Subject:** FW: Library Board Member suggestion

**Caution:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi, Carey,

Received your message. I wanted to make sure you got this that I sent last week, which was a recommendation that Ms. Henderson forwarded along for District 2.

I don't have anyone in mind for Manfred's spot, but I will ask around and get back to you if I find someone interested...ideally by your August meeting.

Ben Neal
Library Director
Blackwater Regional Library
22511 Main Street
Courtland, VA 23837
757-653-0298 Ext. 303
www.blackwaterlib.org

**From:** Ben Neal
**Sent:** Tuesday, July 9, 2024 10:26 AM
**To:** Carey Mills Storm <cstorm@isleofwightus.net>
**Subject:** FW: Library Board Member suggestion

Carey,

A former board member forwarded me this Library Board recommendation over the holiday. According to the county's GIS for election districts, their address is in District 2, where there is a vacancy. Just forwarding along in case they need some names to start from.

Ben

Ben Neal
Library Director
Blackwater Regional Library
22511 Main Street
Courtland, VA 23837
757-653-0298 Ext. 303
www.blackwaterlib.org

**From:** Connie and Jim Henderson <jim.or.connie.henderson@att.net>
**Sent:** Thursday, July 4, 2024 3:31 PM

blackwater regional library

www.blackwaterlib.org

Mr. Randy Keaton
Isle of Wight County Administrator
P.O. Box 80
Isle of Wight, VA 23397

April 22, 2024

Re: Board Appointment

Dear Mr. Keaton,

Isle of Wight County members of the Blackwater Regional Library Board of Trustees, Ms. Michelle Manfred and Ms. Denise Tynes, will reach the end of their term on June 30, 2024. They have both served one full term on the Board and we appreciate their efforts on behalf of the Library.

We respectfully request you appoint a 2 new trustees to serve on our board. These will be new appointees for a term of four years, expiring on June 30, 2028.

Please make sure the "new members" are aware that the Board of Trustees meets nine times a year on the third Wednesday of each month at 3:00 p.m. The meeting usually lasts for approximately two hours. The Board usually meets the Franklin branch. Trustees are also asked to be a member of a committee and these committees usually meet outside of the normal board meeting to discuss business matters in order to expedite regular board meeting time. This could mean a commitment of an additional one to two hours per month.

Enclosed is a general description of duties that can be expected of appointed members for reference.

We appreciate your attention to this matter. Thank you for your continued support of the library and its programs.

Very Best Regards,

Ben Neal
Library Director
757-653-0298 ext. 303
bneal@blackwaterlib.org

# Board of Trustees

**Board Mission and Vision**

A public library board has the primary responsibility for the success of the library, both now and in the future. Trustees have a legal responsibility to successfully maintain a public, nonsectarian library for all residents in the library's service area.

**Expectations of a Board of Trustees:**

- Attend meetings regularly
- Participate in a Board orientation
- Share skills on committees
- Understand the community and its needs
- Exercise discretion and respect confidentiality outside board meetings
- Avoid conflicts of interest and put personal agendas aside when making decisions
- Actively support the implementation of board decisions
- Have an open mind and respect differing viewpoints
- Respect diversity
- Focus on a secure future for the library

**As a governing body, the Board of Trustees:**

Advocates for the library within the community by:

- Seeking funding opportunities
- Supporting planned programs of public relations
- Meeting with local officials to communicate library issues
- Representing the library patrons' concerns and their perspectives

Develops a strategic plan that:

- Guides and articulates the goals and objectives to be achieved
- Determines sound decision-making and priorities
- Measures the quality and effectiveness of services and programs
- Reflects contemporary library practices and future trends

Nurtures fiscal responsibility through:

- The preparing of a budget
- Scheduled monitoring of that budget and other financial progress reports
- Pursued opportunities, such as grants, campaign development, and other funds
- Communication of fiscal needs with supporting agencies
- Careful investments

Crafts policies that:

- Comply with all laws
- Form a framework of acceptable expected practices, behaviors, and procedures
- Support the mission, goals, and objectives of the library
- Outline personnel issues
- Describe facilities use and access
- Are adopted, enforced, and updated

# Board of Trustees

Ensures qualified leadership by:

- Hiring a library director who manages the day-to-day operations
- Evaluating the director annually

## Carey Mills Storm

Blackwater Library Bd.

**From:** Ben Neal <bneal@blackwaterlib.org>
**Sent:** Tuesday, April 16, 2024 12:47 PM
**To:** Carey Mills Storm
**Subject:** FW: Board appointments

**Caution:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Carey,

One follow-up, a couple of my board members asked me to forward along the name of Ms. Charlene Herrala as a potentjal board member. "Her cell is 757-377-8654. Home is 757-242-4546 email charlene.herrala@gmail.com ". I believe she's a retired educator and lives on Walters Hwy. I think, if the board is interested, that she might be idea for the seat Ms. Gibson vacated as that is an "at-large" position.

Just passing along as a potential interested person, I did advise they fill out the interest form for County Boards' that's online, but wanted to pass along the name to you as well.

Thanks,

Ben Neal
Library Director
Blackwater Regional Library
22511 Main Street
Courtland, VA 23837
757-653-0298 Ext. 303
www.blackwaterlib.org

**From:** Ben Neal
**Sent:** Wednesday, April 10, 2024 11:46 AM
**To:** Carey Mills Storm <cstorm@isleofwightus.net>
**Subject:** Board appointments

Hi, Carey,

I hope this message finds you doing well. I received an email from one of my IOW Board Members, Rita Gibson, that she needed to resign as she is moving out of the area for family purposes. I'm including the email below, but we will need a replacement...it would be for a term that ends on June 30, 2027.

" Ben,

I am going to have to resign from the Blackwater Regional Library board. My husband and I have decided to move to Ohio and I will need to get things prepared to sell , etc.

Rita Gibson"

I was also copied on an email that Ms. Henderson sent Mr. McCarty last week resigning. This would be until the term expires on June 30, 2025. "Although we talked on the phone I realized you probably need something in writing to make my resignation official.
Please let me know if I can be of help in any way in the future.
Thanks for your interest in the library.

Conway Henderson
757-238-9890
"

I also have a formal letter to send you requesting a replacement for Michelle Manfred, whose term expires on June 30th. It would be for a four year term from July 1, 2024 to June 30, 2028. Similarly, Ms. Denise Tynes terms ends on June 30th and is eligible for re-appointment.

Let me know if you need anything, or if it'd be helpful to send some potential names.

Warmly,

Ben

Ben Neal
Library Director
Blackwater Regional Library
22511 Main Street
Courtland, VA 23837
757-653-0298 Ext. 303
www.blackwaterlib.org

# Carey Mills Storm

**From:** Conway Henderson <jim.or.connie.henderson@att net>
**Sent:** Tuesday, April 16, 2024 1:46 PM
**To:** Carey Mills Storm
**Subject:** Message response

**Caution:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I left a phone message also to respond to your call. I have resigned from the Board of the Blackwater Regional Library. Health problems have meant that I have had to miss several meetings and I do not believe one should serve on the Board if unable to be an active participant.
If there is any way I can still be of help to the library I will be glad to do so.

Conway Henderson

**To:** Ben Neal <bneal@blackwaterlib.org>
**Subject:** Library Board Member suggestion

Johanna Wiggins
100 Regata Lane
Smithfield, VA 23430
Cell: 757-742-2008

Johanna is young, uses the library, has two children, has financial expertise. She knows when the board meets and has authority from her job to attend meetings during the day.

Connie Henderson

# COMMISSION ON ADULTS WITH DISABILITIES

| | |
|---|---|
| **DISTRICT 1** | **APPOINTED** |
| James Piatak | 12/14/2023 |
| 3 Poplar Court | |
| Smithfield, VA 23430 | |
| (757) 871-1797 | |
| **DISTRICT 1** | |
| Howard Meissel | 12/14/2023 |
| 10280 Park Street | |
| Battery Park, VA 23304 | |
| (757) 630-2872 | |
| **DISTRICT 2** | |
| Fred Mitchell | 6/13/2024 |
| 24266 Sugar Hill Road | |
| Carrollton, VA 23314 | |
| (757) 870-1199 | |
| **DISTRICT 2** | Vacant |
| **DISTRICT 3** | |
| Julian K. Wilson | |
| 112 Cattail Lane, Apartment 6 | |
| Smithfield, Virginia 23430 | |
| (757) 870-2502 | |
| **DISTRICT 3** | |
| Michael Uzzel | 6/13/2024 |
| 9471 Central Hill Road | |
| Windsor, VA 23487 | |
| (757) 357-4380 | |
| **DISTRICT 4** | |
| Renea Acree | 3/21/2024 |
| 100 Whitehead Farm Lane | |
| Smithfield, VA 23430 | |
| (757) 449-1258 | |

| | APPOINTED |
|---|---|
| **DISTRICT 4** | |
| Melinda Shortridge<br>106 Robin Lane, Smithfield, VA 23430<br>(757) 328-1012 | 3/21/2024 |
| **DISTRICT 5** | |
| Carey Mills Storm<br>17361 Trump Town Road<br>Windsor, VA 23487<br>(757)377-8649 | 5/16/2024 |
| **DISTRICT 5** | Vacant |

# ENERGY TASK FORCE

Created: February 23, 2023

| APPOINTEES | DISTRICT | DATE APPOINTED |
|---|---|---|
| Thomas Distefano<br>15151 Batiste Court<br>Carrollton, VA 23314<br>(757) 708-0880 | 2 | 2/23/23 |
| Lewis Edmonds<br>23427 John Henry Street<br>Windsor, VA 23487<br>(757) 871-6550 | 4 | 3/16/23 |
| Lynn Barlow Briggs<br>211 North Mason Street<br>Smithfield, Virginia 23430<br>(757) 365-1611 | 1 | 3/16/23 |
| VACANT | 3 | |
| VACANT | 5 | |
| AT-LARGE APPOINTEE (Town of Smithfield)<br>Michael G. Smith<br>104 Commerce Street<br>Smithfield, VA 23430<br>(757) 576-4203 | | 4/27/23 |
| At-LARGE APPOINTEE (Town of Windsor)<br>Edward (Gibby) Dowdy<br>9 Bank Street<br>Windsor, VA 23487 | | 6/1/23 |

**ISSUE:**

Application (AFD-1-24) of Todd and Kristi Bryant, Owners, to Withdraw 27 Acres of Land Located Near Trump Town Road on Elmwood Lane From the Courthouse Agricultural District in Order to Convert 27 Acres of Existing Agricultural Land to Forested Wetlands

**BACKGROUND:**

An application (AFD-1-24) from Todd and Kristi Bryant, Owners, has been submitted to withdraw 27 acres of land located near Trump Town Road (Rt. 651) on Elmwood Lane on tax map parcel 29-01-029 from the Courthouse Agricultural District. The purpose of the application is to convert 27 acres of existing agricultural land to forested wetlands.

The property is located on the west side of Trump Town Road (Rt. 651). The 27 acres being requested to be removed from the Agricultural District is accessed by an existing driveway/ingress/egress easement. The property currently consists of one home site, approximately 10 acres of woods, 43 acres of agricultural land, and approximately one half acre of swamp. The property lies on the east and west side of Trumptown Road. The affected part of the property is on the west side of the road. The request is to enable the owner to create a wetland restoration project as described in the Statement of Reason and Proposed Use Narrative. The proposed use is permitted in the Rural Agricultural Conservation (RAC) zoning district, however the use does require removal from the district, because the wetlands restoration area will require a dedicated easement which will prohibit the future use of agricultural and silvicultural uses. An analysis of the consistency of the application with County plans and ordinances is attached in the Planning Commission staff report.

The Agricultural and Forestal District (AFD) Advisory Committee met on July 3, 2024, and recommended approval of the removal of the acreage from the Courthouse AFD.

**BUDGETARY IMPACT:**

None

**RECOMMENDATION:**

The Planning Commission voted to recommend approval of the application

unanimously (9-0) at its August 27, 2024, regular meeting. Based on the strengths of the application, staff also recommends approval.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| PC Staff Report | Cover Memo | 9/6/2024 |
| Application | Backup Material | 8/9/2024 |
| A&F District Map | Backup Material | 8/9/2024 |
| Location Map | Backup Material | 8/9/2024 |
| Land Use Map | Backup Material | 8/9/2024 |
| Exhibit | Backup Material | 8/9/2024 |
| Pic 1 | Backup Material | 8/19/2024 |
| Pic 2 | Backup Material | 8/19/2024 |
| Pic 3 | Backup Material | 8/19/2024 |
| COR Memo | Backup Material | 8/9/2024 |
| Ordinance | Ordinance | 9/11/2024 |

# PLANNING REPORT

## APPLICATION:

Application (AFD-1-24) of Todd and Kristi Bryant, owners, to withdraw 27 acres of land located near Trump Town Road (Rt. 651) on Elmwood Lane on tax map parcel 29-01-029 from the Courthouse Agricultural District. The purpose of the application is to convert 27 acres of existing agricultural land to forested wetlands.

## ELECTION DISTRICT:

D3

## LOCATION:

The property is located on the west side of Trump Town Road (Rt. 651). The 27 acres being requested to be removed from the Agricultural District is accessed by by an existing driveway/ingress/egress easement.

## BACKGROUND:

The Agricultural and Forestal District (AFD) Advisory Committee met on July 3, 2024, and recommended approval of the removal of the acreage from the Courthouse AFD.

## DESCRIPTION:

The property currently consists of one home site, approximately 10 acres of woods, 43 acres of agricultural land, and approximately one half acre of swamp. The property lies on the east and west side of Trumptown Road. The affected part of the property is on the west side of the road.

The request is to enable the owner to create a wetland restoration project as described in the Statement of Reason and Proposed Use Narrative. The proposed use is permitted in the Rural Agricultural Conservation (RAC) zoning district, however the use does require removal from the district, because the wetlands restoration area will require a dedicated easement which will prohibit the future use of agricultural and silvicultural uses.

## COMPREHENSIVE LAND USE PLAN:

The property is designated Rural Agricultural Conservation on the Future Recommended Land Use Map in the Comprehensive Plan. This designation is intended to maintain and conserve rural character and farmlands and to provide for a full range of agricultural and farming activities and related uses along with scattered, low density residential development. The proposal is consistent with the future recommended land use.

## ORDINANCE REVIEW:

The property is zoned RAC and is a permitted use. A site plan has been submitted as required that requires administrative approval by the County.

The property is in the Chesapeake Bay Preservation Area Overlay District and does not contain a Resource Protection Area or a 100 foot buffer.

The property does not have a special flood hazard zone.

**AGENCY REVIEW:**

The following departments have stated no concerns with the application as presented:

- Commissioner of the Revenue
- Emergency Services
- Transportation Manager
- General Services
- Environmental Planner
- Virginia Department of Transportation
- Health Department
- County Attorney

The Commissioner of Revenue comments are attached for your information.

**STAFF CONCLUSIONS:**

Strengths:

The application is compatible with the existing land uses in the vicinity and within the guidelines of the future Recommended Land Use Plan Designation.

Weaknesses:

None determined at this time.

**STAFF RECOMMENDATION:**

Staff recommends approval of the request to remove the parcel from the Courthouse AFD District.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Application | Backup Material | 8/9/2024 |
| A&F District Map | Backup Material | 8/9/2024 |
| Location Map | Backup Material | 8/9/2024 |
| Land Use Map | Backup Material | 8/9/2024 |
| Exhibit | Backup Material | 8/9/2024 |
| Pic 1 | Backup Material | 8/19/2024 |
| Pic 2 | Backup Material | 8/19/2024 |
| Pic 3 | Backup Material | 8/19/2024 |
| COR Memo | Backup Material | 8/9/2024 |

Local Roots, Global Reach

# ISLE OF WIGHT COUNTY, VIRGINIA

DEPARTMENT OF COMMUNITY DEVELOPMENT

RECEIVED
JUN 05 2024
By: CBD

#30137
AFD-1-24

## REMOVAL OF LAND FROM AGRICULTURAL AND FORESTAL DISTRICT APPLICATION

**Proposed Project Name** Bryant Farm Wetland Restoration Project

**Tax Map Number(s)** 29-01-029

**Address/ Location** 11494 Elmwood Lane, Windsor, VA 23487

**A. DESIGNATED DISTRICT:**

[X] Courthouse
[ ] Knoxville
[ ] Longview
[ ] Moonlight

**B. APPLICATION INFORMATION:**

Agent(s) /Applicant(s) Name(s): HGS, LLC

Address: 1408 Roseneath Road, Suite B

City, State, Zip Code: Richmond, VA 23230

Phone No.: 804-352-6017 Email: kbennett@res.us, alambert@res.us Fax No.:

Property Owner(s) Name(s): Todd Bryant

Address: 11494 Elmwood Lane

City, State, Zip Code: Windsor, VA 23487

Phone No. Email Fax No.

Acreage to be removed 26.8510

Property Owner(s) Signature(s): Todd M. Bryant Date 6/4/24

Property Owner(s) Printed Name(s): Todd M Bryant

# Application Checklist

- [x] Completed and signed application
- [x] Statement of reason and proposed use See letter attached on page 3 of this document
- [x] Map of property (GIS or Tax Map acceptable) See plat attached on page 5 of this document
- [x] Additional information as deemed necessary by Planning and Zoning staff for a complete review. N/A

**Please Note:**

A/F Review Committee meetings are held on an as needed basis and scheduled for the 1st Wednesday of each month at 4:00 PM in the Robert C. Claude, Sr. Board Room at the County Courthouse Complex. Applications are due four (4) weeks before the meeting.

May 31, 2024

**VIA EMAIL**

Isle of Wight County Agricultural/Forestal Advisory Committee
P. O. Box 80
Isle of Wight, VA 23397
Email: Srobinso@isleofwightus.net

**RE: Statement of Reason and Proposed Use**
**Bryant Property Wetland Restoration Project**

To whom it may concern,

RES, LLC (RES), has engaged and is in a contractual relationship with the property owner of Parcel ID 29-01-029 (the "Property") on Elmwood Lane in Isle of Wight County, Virginia. RES is submitting this application for withdrawal of a portion of the property from the Agriculture/Forestal District (AFD) at the request of the County and as the representative of Todd and Kristi Bryant, the property owners. RES intends to use approximately 26 acres of the Property to restore a forested wetland and protect the restored wetland in perpetuity under a permanent Conservation Easement (the "Project"). In total, the Project proposes to restore approximately 19 acres of historic wetlands and 7.5 acres of forested buffer. All areas within the Property, outside of the Project, will remain in their existing agricultural land use. By restoring historic wetlands back into a forested wetland, we will be creating mitigation credits to offset impacts related to upgrades to an existing linear utility project that falls partially within Isle of Wight County and has gone through a separate public approval and permitting process.

The proposed Project area has been historically utilized for row crop agriculture, although it has lain fallow this year. Agricultural operations on this parcel have only been possible due to extensive ditching which lowers the natural groundwater table and partially drains the fields. After years of farming, the landowner has decided to take this portion of his property out of active agriculture and is supportive of restoration work on the site. While a portion of the Property is being taken out of agricultural use, approximately half of the parcel will remain in active agriculture. The land being removed will be restored to its pre-development, forested wetland state, and will be completely replanted with trees. The success of the plantings will be monitored and maintained following restoration efforts.

Through these restoration efforts, the Project will contribute to the ecological goals of the AFD and should not be considered a detriment to any other parcels in the district. The Project will provide high quality habitat for common and at-risk species in the watershed, including both game and non-game species. It will increase wildlife utilization and enhance hunting opportunities in the surrounding areas while also protecting non-game species. The perpetual easement placed upon the Project area will ensure that the parcel remains in a mature, forested state, and will provide a seed source for surrounding harvested forest land. Upon completion, the Project will contribute to the protection of water quality through the retention, nutrient removal, and water quality

enhancements associated with wetland systems. These beneficial effects include the reduction of pollutants of concern for the Chesapeake Bay watershed including suspended sediment, phosphorus, and nitrogen. Lastly, the Project will maintain and enhance the desired aesthetics perpetuated by the AFD program. The parcel will be planted with native species of wetland trees, similar to those found in the many hundreds of acres of wooded wetlands prevalent in Isle of Wight County.

We ask the County to consider our proposal to withdraw a portion of the Bryant property from the AFD district. Given the nature of our Project, to restore a wetland and protect the Property from development in perpetuity, there is no anticipated negative impact to the remaining Courthouse AFD within Isle of Wight County resulting from the Project. Please do not hesitate to reach out with any further questions regarding this application.

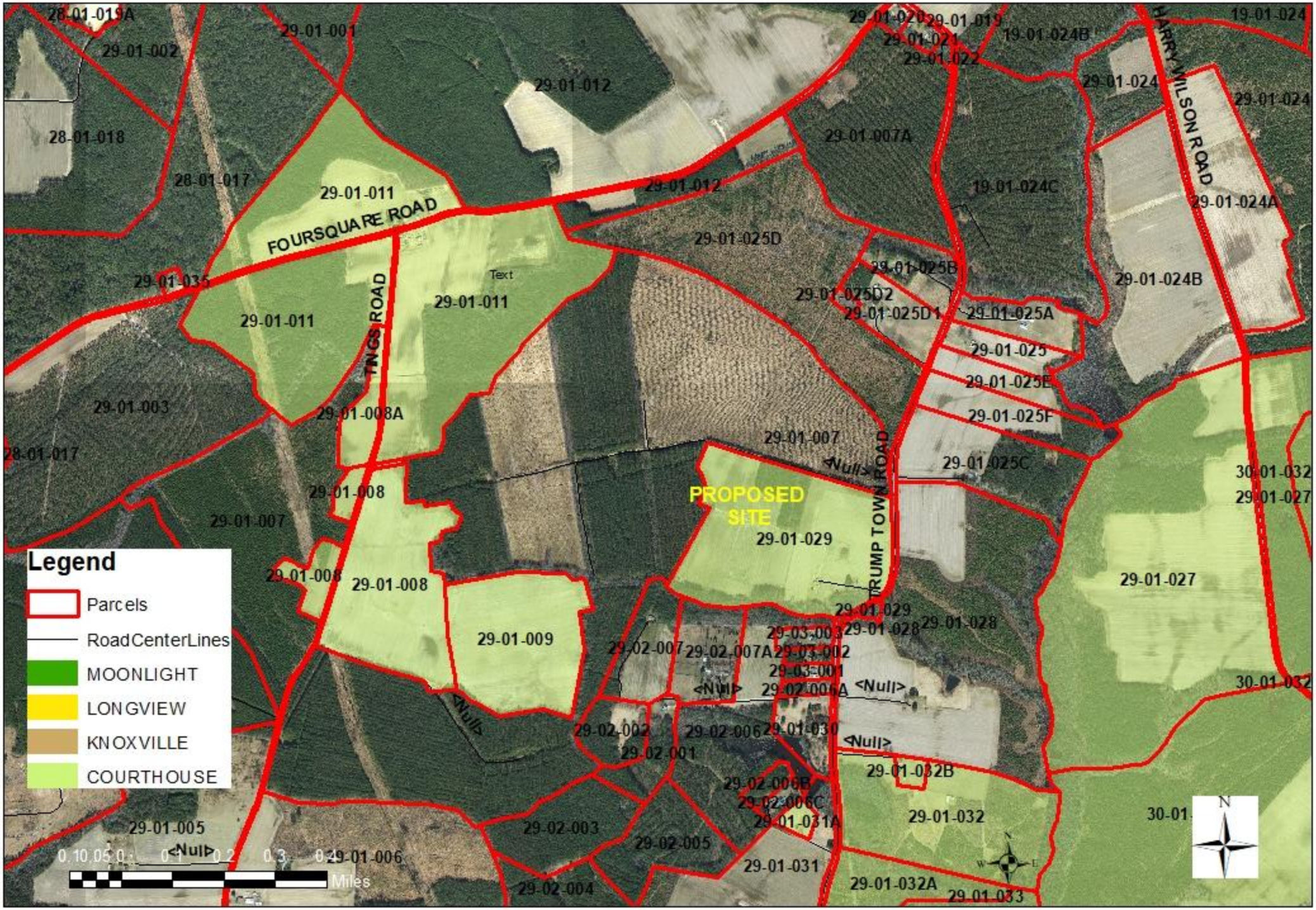
Thank you for your consideration.

Sincerely,

Anna Stuart Lambert

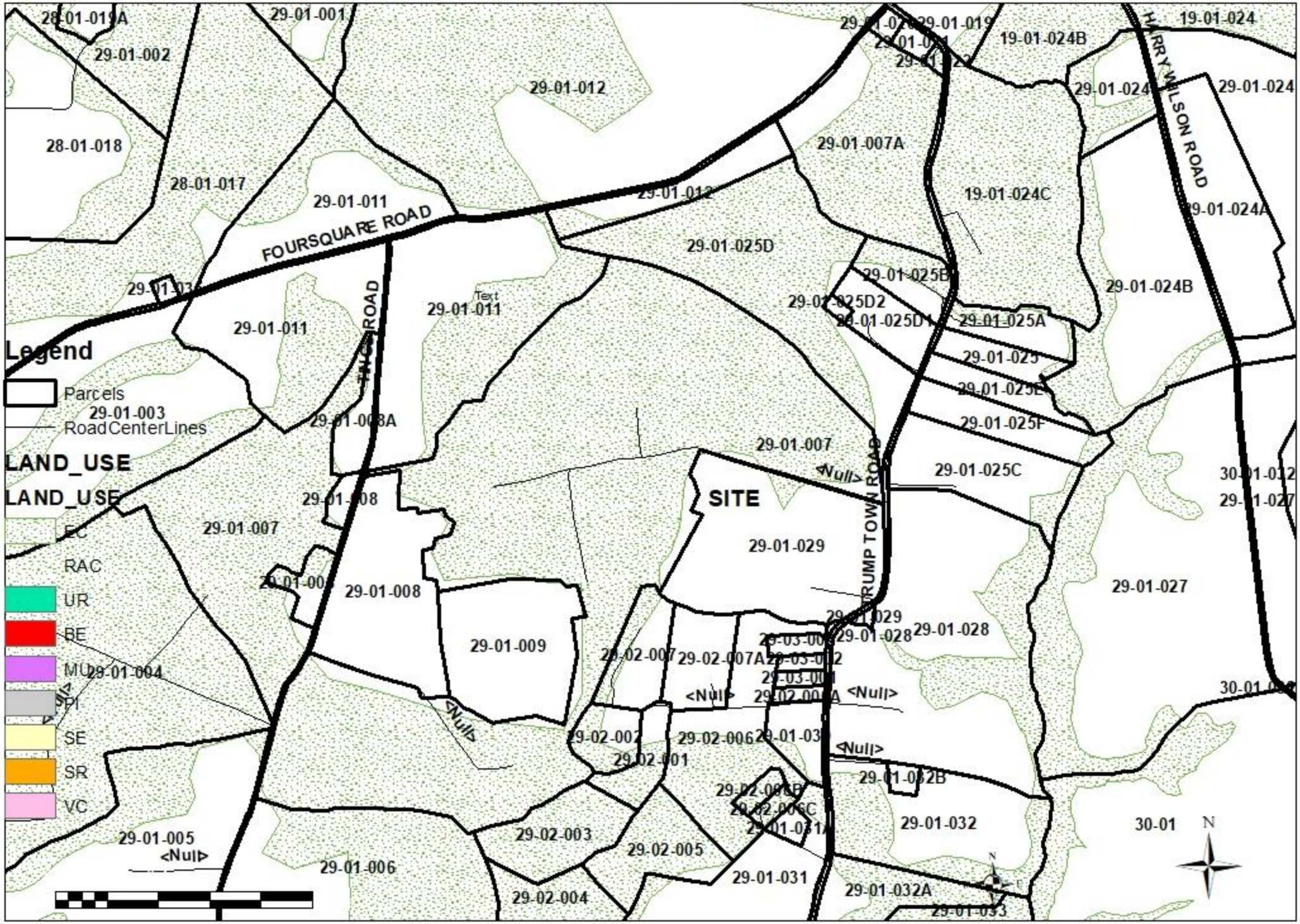
Project Manager
alambert@res.us
804-729-8984

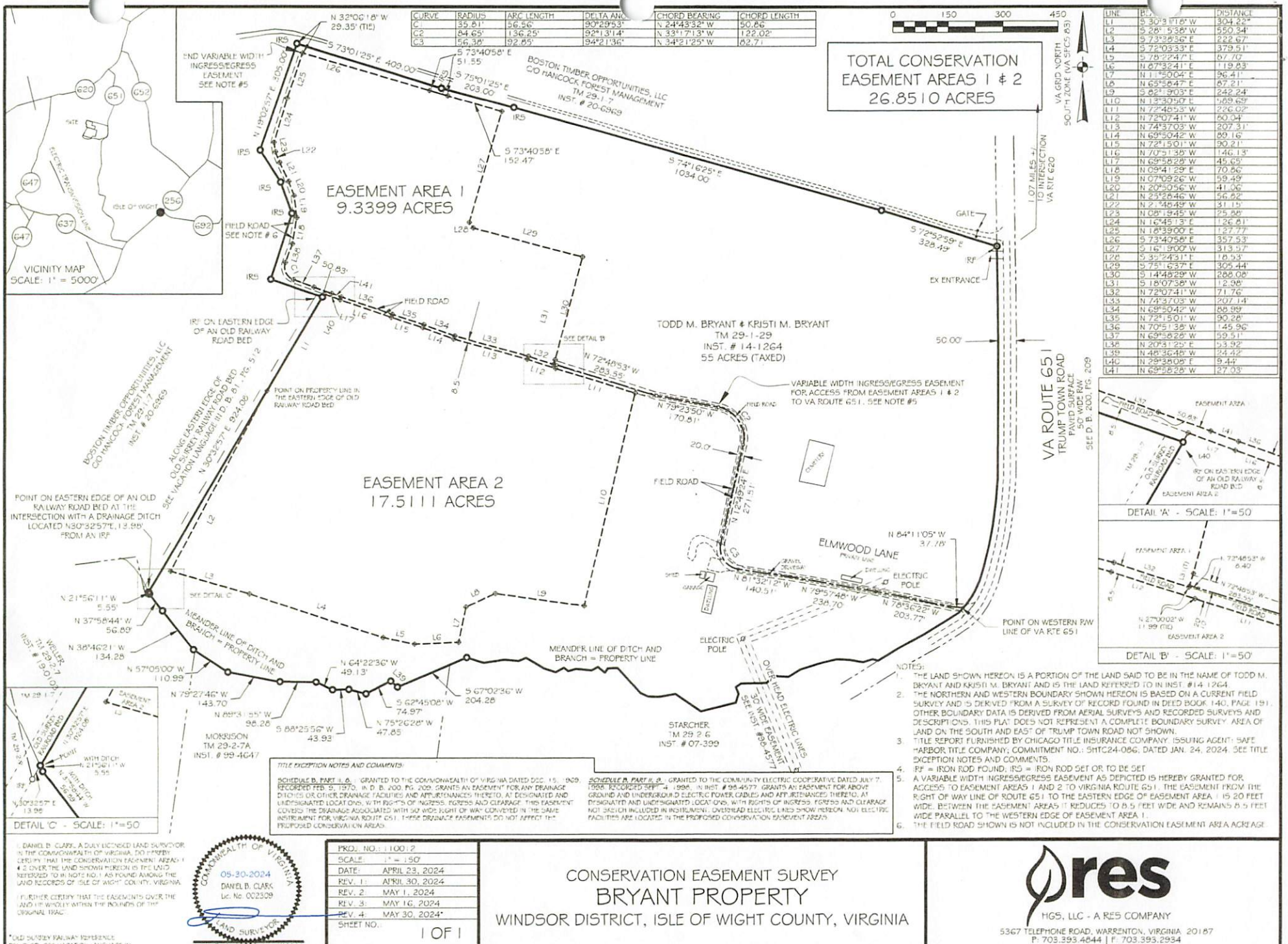
# MISC-1-24 BRYANT- A & F DISTRICT MAP



# AF-01-24 AGRICULTURAL FORESTAL DISTRICT APPLICATION
# LOCATION MAP

# MISC-1-24 BRYANT- LAND USE MAP






| CURVE | RADIUS | ARC LENGTH | DELTA ANG | CHORD BEARING | CHORD LENGTH |
|---|---|---|---|---|---|
| C1 | 35.81' | 56.56' | 90°29'53" | N 24°43'32" W | 50.86 |
| C2 | 64.65' | 136.25' | 92°13'14" | N 33°17'13" W | 122.02' |
| C3 | 56.36' | 92.85' | 94°21'36" | N 34°21'25" W | 82.71 |

| LINE | BEARING | DISTANCE |
|---|---|---|
| L1 | S 30°31'18" W | 304.22' |
| L2 | S 28° 53'38" W | 550.34' |
| L3 | S 73°38'36" E | 222.67' |
| L4 | S 72°03'33" E | 379.51' |
| L5 | S 78°22'47" E | 67.70' |
| L6 | N 87°32'41" E | 119.83' |
| L7 | N 11°50'04" E | 96.41' |
| L8 | N 65°58'47" E | 87.21' |
| L9 | S 82°19'03" E | 242.24' |
| L10 | N 13°30'50" E | 589.69' |
| L11 | N 72°46'53" W | 226.02' |
| L12 | N 72°07'41" W | 60.04' |
| L13 | N 74°37'03" W | 207.31' |
| L14 | N 69°50'42" W | 89.16' |
| L15 | N 72°15'01" W | 90.21' |
| L16 | N 70°51'38" W | 146.13' |
| L17 | N 69°58'28" W | 45.65' |
| L18 | N 09°41'29" E | 70.86' |
| L19 | N 07°09'26" W | 59.49' |
| L20 | N 20°50'56" W | 41.06' |
| L21 | N 25°28'46" W | 56.82' |
| L22 | N 2°46'49" W | 31.13' |
| L23 | N 09°19'45" W | 25.99' |
| L24 | N 16°45'13" E | 126.81' |
| L25 | N 18°39'00" E | 127.77' |
| L26 | S 73°40'58" E | 357.53' |
| L27 | S 16°19'00" W | 313.57' |
| L28 | S 35°24'31" E | 18.53' |
| L29 | S 75°16'37" E | 305.44' |
| L30 | S 14°48'29" W | 288.08' |
| L31 | S 18°07'38" W | 12.98' |
| L32 | N 72°07'41" W | 71.76' |
| L33 | N 74°37'03" W | 207.14' |
| L34 | N 69°50'42" W | 88.99' |
| L35 | N 72°15'01" W | 90.28' |
| L36 | N 70°51'38" W | 145.96' |
| L37 | N 69°58'28" W | 59.51' |
| L38 | N 20°31'25" E | 53.92' |
| L39 | N 48°36'48" W | 24.42' |
| L40 | N 29°38'08" E | 9.44' |
| L41 | N 69°58'28" W | 27.03' |

NOTES:
1. THE LAND SHOWN HEREON IS A PORTION OF THE LAND SAID TO BE IN THE NAME OF TODD M. BRYANT AND KRISTI M. BRYANT AND IS THE LAND REFERRED TO IN INST. # 14-1264.
2. THE NORTHERN AND WESTERN BOUNDARY SHOWN HEREON IS BASED ON A CURRENT FIELD SURVEY AND IS DERIVED FROM A SURVEY OF RECORD FOUND IN DEED BOOK 140, PAGE 191. OTHER BOUNDARY DATA IS DERIVED FROM AERIAL SURVEYS AND RECORDED SURVEYS AND DESCRIPTIONS. THIS PLAT DOES NOT REPRESENT A COMPLETE BOUNDARY SURVEY. AREA OF LAND ON THE SOUTH AND EAST OF TRUMP TOWN ROAD NOT SHOWN.
3. TITLE REPORT FURNISHED BY CHICAGO TITLE INSURANCE COMPANY, ISSUING AGENT: SAFE HARBOR TITLE COMPANY; COMMITMENT NO.: SHTC24-086; DATED JAN. 24, 2024. SEE TITLE EXCEPTION NOTES AND COMMENTS.
4. IRF = IRON ROD FOUND; IRS = IRON ROD SET OR TO BE SET
5. A VARIABLE WIDTH INGRESS/EGRESS EASEMENT AS DEPICTED IS HEREBY GRANTED FOR ACCESS TO EASEMENT AREAS 1 AND 2 TO VIRGINIA ROUTE 651. THE EASEMENT FROM THE RIGHT OF WAY LINE OF ROUTE 651 TO THE EASTERN EDGE OF EASEMENT AREA 1 IS 20 FEET WIDE. BETWEEN THE EASEMENT AREAS IT REDUCES TO 8.5 FEET WIDE AND REMAINS 8.5 FEET WIDE PARALLEL TO THE WESTERN EDGE OF EASEMENT AREA 1.
6. THE FIELD ROAD SHOWN IS NOT INCLUDED IN THE CONSERVATION EASEMENT AREA ACREAGE

TITLE EXCEPTION NOTES AND COMMENTS:

SCHEDULE B, PART II, 6. : GRANTED TO THE COMMONWEALTH OF VIRGINIA DATED DEC. 15, 1969, RECORDED FEB. 9, 1970, IN D. B. 200, PG. 209. GRANTS AN EASEMENT FOR ANY DRAINAGE DITCHES OR OTHER DRAINAGE FACILITIES AND APPURTENANCES THERETO, AS DESIGNATED AND UNDESIGNATED LOCATIONS, WITH RIGHTS OF INGRESS, EGRESS AND CLEARANCE. THIS EASEMENT COVERS THE DRAINAGE ASSOCIATED WITH 50' WIDE RIGHT OF WAY CONVEYED IN THE SAME INSTRUMENT FOR VIRGINIA ROUTE 651. THESE DRAINAGE EASEMENTS DO NOT AFFECT THE PROPOSED CONSERVATION AREAS.

SCHEDULE B, PART II, 8. : GRANTED TO THE COMMUNITY ELECTRIC COOPERATIVE DATED JULY 7, 1998, RECORDED SEPT. 4, 1998, IN INST. # 98-4577. GRANTS AN EASEMENT FOR ABOVE GROUND AND UNDERGROUND ELECTRIC POWER CABLES AND APPURTENANCES THERETO, AT DESIGNATED AND UNDESIGNATED LOCATIONS, WITH RIGHTS OF INGRESS, EGRESS AND CLEARAGE NOT SHOWN INCLUDED IN INSTRUMENT. OVERHEAD ELECTRIC LINES SHOW HEREON. NOT ELECTRIC FACILITIES ARE LOCATED IN THE PROPOSED CONSERVATION EASEMENT AREAS.

I, DANIEL B. CLARK, A DULY LICENSED LAND SURVEYOR IN THE COMMONWEALTH OF VIRGINIA, DO HEREBY CERTIFY THAT THE CONSERVATION EASEMENT AREAS 1 & 2 OVER THE LAND SHOWN HEREON IS THE LAND REFERRED TO IN NOTE NO.1 AS FOUND AMONG THE LAND RECORDS OF ISLE OF WIGHT COUNTY, VIRGINIA.

I FURTHER CERTIFY THAT THE EASEMENTS OVER THE LAND LIE WHOLLY WITHIN THE BOUNDS OF THE ORIGINAL TRACT.

COMMONWEALTH OF VIRGINIA
05-30-2024
DANIEL B. CLARK
Lic. No. 002309
LAND SURVEYOR

DANIEL B. CLARK, L.S. #2309

*OLD SURVEY RAILWAY REFERENCE REMOVED. SEE VACATION LANGUAGE IN DEED BOOK 81, PAGE 522.

| | |
|---|---|
| PROJ. NO.: | 1100.2 |
| SCALE: | 1" = 150' |
| DATE: | APRIL 23, 2024 |
| REV. 1: | APRIL 30, 2024 |
| REV. 2: | MAY 1, 2024 |
| REV. 3: | MAY 16, 2024 |
| REV. 4: | MAY 30, 2024* |
| SHEET NO.: | 1 OF 1 |

# CONSERVATION EASEMENT SURVEY
# BRYANT PROPERTY
## WINDSOR DISTRICT, ISLE OF WIGHT COUNTY, VIRGINIA


res
HGS, LLC - A RES COMPANY
5367 TELEPHONE ROAD, WARRENTON, VIRGINIA 20187
P: 703.393.4844 | F: 703.393.2934
WWW.RES.US

# COUNTY OF ISLE OF WIGHT

## OFFICE OF THE COMMISSIONER OF THE REVENUE

*Post Office Box 107*
*Isle of Wight, Virginia 23397*
*(757) 365-6301*

**Gerald H. Gwaltney**
**Commissioner of the Revenue**


May 6, 2024

**VIA EMAIL**
Anna S Lambert, Project Manager
RES, LLC

Dear Ms. Lambert:

I want to thank you for walking me through the wetland restoration project in Isle of Wight County last week. The process is interesting, and I have a much better understanding of the project. There were two questions you had that I have researched, and I can give you a decision on how our office will assess the land and taxes.

First, the question about rollback taxes has been opined on two occasions by the Attorney General. In both opinions, when land enrolled in the land use program is deeded to a land conservation entity, no rollback assessment is issued. The most recent opinion was from 2013, and I have attached it for your reference.

Secondly, the 27 conservation acres would be assessed at the wooded land use rate rather than separating the estimated 15%, which could be considered swamp. This decision is based on our conversation about the type of trees that will be grown on the 27 acres. The wettest area will have planted trees that will grow in that type of environment. The intent, I believe, is for the conservation area to grow trees suitable to the soil condition, whether it be wet or dry. The definition of "Non-Productive" in the Land Use Manual does not apply to the proposed area. The non-productive category is land "which is not capable of growing a crop" of trees.

Once the 27 acres are placed in the conservation easement, the land will be assessed at the forest land use value, which is $711 per acre. The value per acre is adjusted every four years when the general reassessment of real estate occurs. The current real estate tax rate is $0.71. The tax rate set by the Board of Supervisors is subject to change annually.

Again, I enjoyed our conversation, and I appreciate you enlightening me about the conservation easements. Please let me know if you have any questions.

Sincerely,

Gerald H. Gwaltney
Commissioner of the Revenue

Attachment

**ORDINANCE NUMBER:**

**AN ORDINANCE TO WITHDRAW 27 ACRES OF PARCEL 29-01-029 FROM THE COURTHOUSE AGRICULTURAL DISTRICT FOR THE CREATION OF A RECONSTRUCTED WETLAND**

WHEREAS, Todd M. and Kristi Bryant, Owner, have submitted a request to withdraw 27 acres located on 11491 Elmwood Lane with tax parcel identification number 29-01-029 from the Courthouse Agricultural District for the purpose of creating a reconstructed wetland which land is depicted on Exhibit "B"; and,

WHEREAS, the withdraw request (AFD-01-24) has been advertised and reviewed by the Agricultural and Forestal District Committee in compliance with the requirements of state law; and,

WHEREAS, the Agricultural and Forestal District Advisory Committee and Planning Commission have made recommendations as stated in Exhibit "A;" and,

WHEREAS, a public hearing before the Isle of Wight County Board of Supervisors was duly advertised as required by law and held on September 19, 2024, at which public hearing the public was presented with the opportunity to comment on the proposed withdraw.

NOW, THEREFORE, BE IT ORDAINED by the Isle of Wight County Board of Supervisors of Isle of Wight County, Virginia, that:

Section 1. Exhibits.
Exhibit "A," "Planning Commission Recommendation" and "Agricultural and Forestal District Advisory Committee Recommendation," and Exhibit "B," "Property Map" are attached hereto and are hereby incorporated as part of this ordinance.

Section 2. Findings.
The Board of Supervisors finds that the proposed withdrawal application, AFD-01-24, as submitted for the express purpose to establish a 27 acre reconstructed wetland is in harmony with the standards of the Isle of Wight County Agricultural Districts Ordinance and does not conflict with the conservation and protection of the County's agricultural and forestal lands for the production of food and agricultural and forestal products that is vital to the public interest.

Section 3. Agricultural District Withdrawal
The withdrawal of the property shown on the attached "Exhibit B" is an amendment to the "Official Agricultural and Forestal District Map of Isle of Wight County, Virginia", and the map is hereby amended to remove the property for the purposes listed.

Section 4. Severability.
It is the intention of the Board of Supervisors that the provisions, sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable; and if any phrase, clause, sentence, paragraph, section, and provision of this ordinance hereby adopted shall be

declared unconstitutional or otherwise invalid by the valid judgement or decree of a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining phrase, clauses, sentences, paragraphs, sections, and provisions of this ordinance, to the extent that they can be enforced notwithstanding such determination.

Section 5. Effective Date.
The ordinance shall be effective upon passage and shall not be published or codified.

DATE: _____

READ AND PASSED: _____
Chairman, Board of Supervisors

TESTE: _____
Clerk, Board of Supervisors

Approved as to Form:

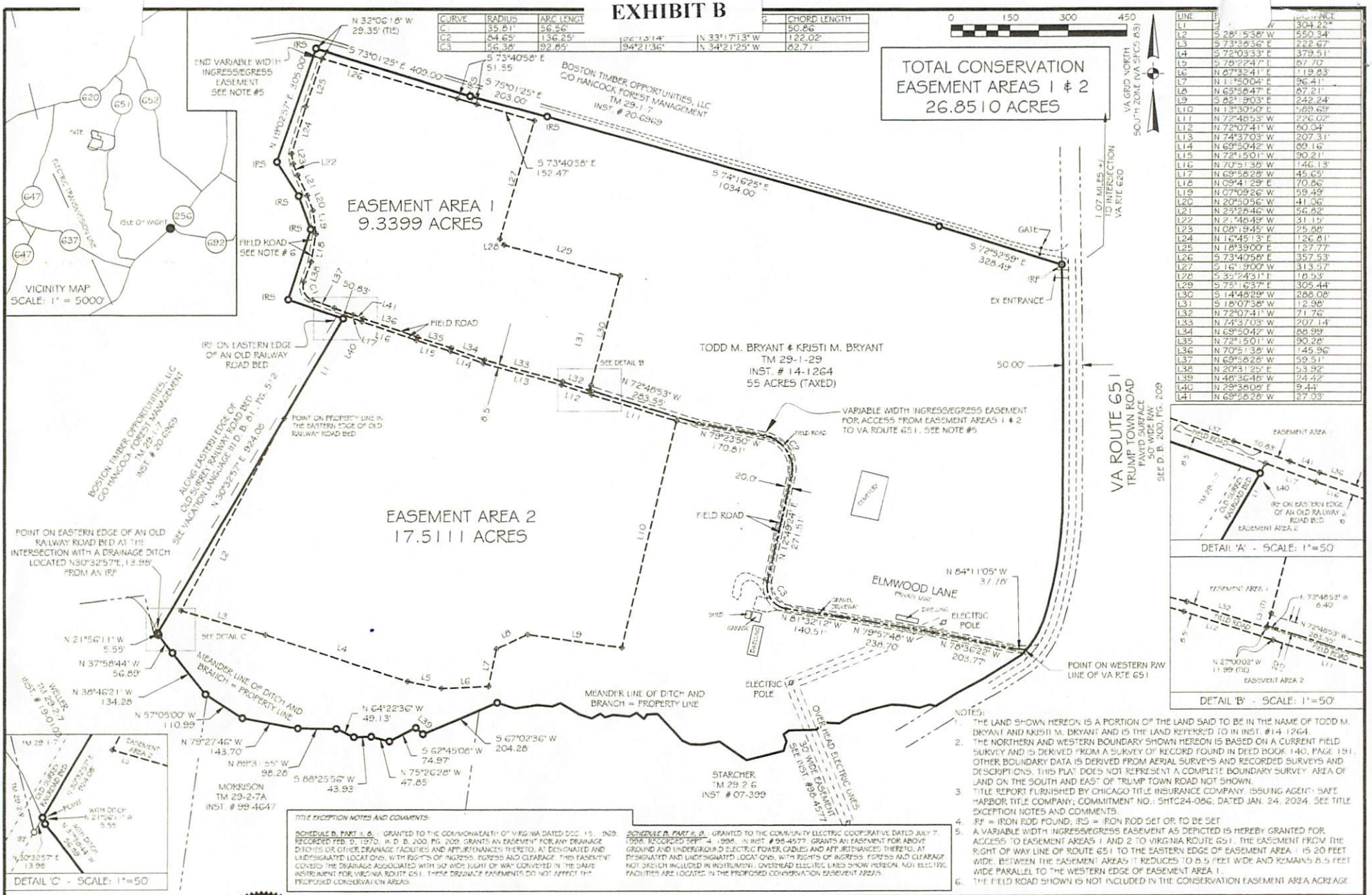
_____
Robert W. Jones Jr., County Attorney

# EXHIBIT A

1. The Agricultural and Forestal District Advisory Committee voted to recommend approval of the application at its July 3, 2024, meeting.

2. The Planning Commission voted to recommend approval of the application at its August 27, 2024, regular meeting.

# EXHIBIT B




| CURVE | RADIUS | ARC LENGTH | CHORD BEARING | CHORD LENGTH |
|---|---|---|---|---|
| C1 | 35.81' | 56.56' | | 50.86' |
| C2 | 64.65' | 136.25' | S26°15'14" E | 122.02' |
| C3 | 66.38' | 92.85' | N 33°17'13" W<br>94°21'36" | 85.71' |
| | | | N 34°21'25" W | 82.71' |

| LINE | BEARING | DISTANCE |
|---|---|---|
| L1 | N 32°06'18" W | 304.22' |
| L2 | S 28°15'38" W | 550.34' |
| L3 | S 73°38'36" E | 222.67' |
| L4 | S 72°03'33" E | 379.51' |
| L5 | S 78°27'47" E | 87.70' |
| L6 | N 67°32'41" E | 119.83' |
| L7 | N 11°50'04" E | 96.41' |
| L8 | N 65°58'47" E | 87.21' |
| L9 | S 82°19'03" E | 242.24' |
| L10 | N 13°30'50" E | 569.69' |
| L11 | N 72°48'53" W | 226.02' |
| L12 | N 72°07'41" W | 50.04' |
| L13 | N 74°37'03" W | 207.31' |
| L14 | N 69°50'42" W | 89.16' |
| L15 | N 72°15'01" W | 90.21' |
| L16 | N 70°51'38" W | 146.13' |
| L17 | N 69°56'28" W | 45.65' |
| L18 | N 09°41'29" E | 70.86' |
| L19 | N 07°09'26" W | 59.49' |
| L20 | N 20°50'56" W | 41.06' |
| L21 | N 25°26'46" W | 56.82' |
| L22 | N 2°46'49" W | 31.15' |
| L23 | N 08°19'45" W | 25.88' |
| L24 | N 16°45'13" E | 126.81' |
| L25 | N 18°39'00" E | 127.77' |
| L26 | S 73°40'58" E | 357.53' |
| L27 | S 16°19'00" W | 313.57' |
| L28 | S 35°24'31" E | 18.53' |
| L29 | S 75°16'37" E | 305.44' |
| L30 | S 14°48'29" W | 288.08' |
| L31 | S 18°07'38" W | 12.98' |
| L32 | N 72°07'41" W | 71.76' |
| L33 | N 74°37'03" W | 207.14' |
| L34 | N 69°50'42" W | 88.99' |
| L35 | N 72°15'01" W | 90.28' |
| L36 | N 70°51'38" W | 145.96' |
| L37 | N 69°56'28" W | 59.51' |
| L38 | N 20°31'25" E | 53.92' |
| L39 | N 48°36'48" W | 24.42' |
| L40 | N 29°38'08" E | 9.44' |
| L41 | N 69°56'28" W | 27.03' |

NOTES:
1. THE LAND SHOWN HEREON IS A PORTION OF THE LAND SAID TO BE IN THE NAME OF TODD M. BRYANT AND KRISTI M. BRYANT AND IS THE LAND REFERRED TO IN INST. #14-1264.
2. THE NORTHERN AND WESTERN BOUNDARY SHOWN HEREON IS BASED ON A CURRENT FIELD SURVEY AND IS DERIVED FROM A SURVEY OF RECORD FOUND IN DEED BOOK 140, PAGE 191. OTHER BOUNDARY DATA IS DERIVED FROM AERIAL SURVEYS AND RECORDED SURVEYS AND DESCRIPTIONS. THIS PLAT DOES NOT REPRESENT A COMPLETE BOUNDARY SURVEY. AREA OF LAND ON THE SOUTH AND EAST OF TRUMP TOWN ROAD NOT SHOWN.
3. TITLE REPORT FURNISHED BY CHICAGO TITLE INSURANCE COMPANY, ISSUING AGENT: SAFE HARBOR TITLE COMPANY; COMMITMENT NO.: SHTC24-086; DATED JAN. 24, 2024. SEE TITLE EXCEPTION NOTES AND COMMENTS.
4. IRF = IRON ROD FOUND; IRS = IRON ROD SET OR TO BE SET
5. A VARIABLE WIDTH INGRESS/EGRESS EASEMENT AS DEPICTED IS HEREBY GRANTED FOR ACCESS TO EASEMENT AREAS 1 AND 2 TO VIRGINIA ROUTE 651. THE EASEMENT FROM THE RIGHT OF WAY LINE OF ROUTE 651 TO THE EASTERN EDGE OF EASEMENT AREA 1 IS 20 FEET WIDE. BETWEEN THE EASEMENT AREAS IT REDUCES TO 8.5 FEET WIDE AND REMAINS 8.5 FEET WIDE PARALLEL TO THE WESTERN EDGE OF EASEMENT AREA 1.
6. THE FIELD ROAD SHOWN IS NOT INCLUDED IN THE CONSERVATION EASEMENT AREA ACREAGE

TITLE EXCEPTION NOTES AND COMMENTS:

SCHEDULE B, PART II, 6. : GRANTED TO THE COMMONWEALTH OF VIRGINIA DATED DEC. 15, 1969, RECORDED FEB. 9, 1970, IN D. B. 200, PG. 209, GRANTS AN EASEMENT FOR ANY DRAINAGE DITCHES OR OTHER DRAINAGE FACILITIES AND APPURTENANCES THERETO, AT DESIGNATED AND UNDESIGNATED LOCATIONS, WITH RIGHTS OF INGRESS, EGRESS AND CLEARAGE. THIS EASEMENT COVERS THE DRAINAGE ASSOCIATED WITH 50' WIDE RIGHT OF WAY CONVEYED IN THE SAME INSTRUMENT FOR VIRGINIA ROUTE 651. THESE DRAINAGE EASEMENTS DO NOT AFFECT THE PROPOSED CONSERVATION AREAS.

SCHEDULE B, PART II, 9. : GRANTED TO THE COMMUNITY ELECTRIC COOPERATIVE DATED JULY 7, 1998, RECORDED SEPT. 4, 1998, IN INST. # 98-4577. GRANTS AN EASEMENT FOR ABOVE GROUND AND UNDERGROUND ELECTRIC POWER CABLES AND APPURTENANCES THERETO, AT DESIGNATED AND UNDESIGNATED LOCATIONS, WITH RIGHTS OF INGRESS, EGRESS AND CLEARAGE. NOT SHOWN OR INCLUDED IN INSTRUMENT; OVERHEAD ELECTRIC LINES SHOW HEREON. NOT ELECTRIC FACILITIES ARE LOCATED IN THE PROPOSED CONSERVATION EASEMENT AREAS.

I, DANIEL B. CLARK, A DULY LICENSED LAND SURVEYOR IN THE COMMONWEALTH OF VIRGINIA, DO HEREBY CERTIFY THAT THE CONSERVATION EASEMENT AREAS 1 & 2 OVER THE LAND SHOWN HEREON IS THE LAND REFERRED TO IN NOTE NO.1 AS FOUND AMONG THE LAND RECORDS OF ISLE OF WIGHT COUNTY, VIRGINIA.

I FURTHER CERTIFY THAT THE EASEMENTS OVER THE LAND LIE WHOLLY WITHIN THE BOUNDS OF THE ORIGINAL TRACT.

COMMONWEALTH OF VIRGINIA
05-30-2024
DANIEL B. CLARK
Lic. No. 002309
LAND SURVEYOR

DANIEL B. CLARK, L.S. #2309

*OLD SURREY RAILWAY REFERENCE REMOVED. SEE VACATION LANGUAGE IN DEED BOOK 81, PAGE 522.

| | |
|---|---|
| PROJ. NO.: | 1100.2 |
| SCALE: | 1" = 150' |
| DATE: | APRIL 23, 2024 |
| REV. 1: | APRIL 30, 2024 |
| REV. 2: | MAY 1, 2024 |
| REV. 3: | MAY 16, 2024 |
| REV. 4: | MAY 30, 2024* |
| SHEET NO.: | 1 OF 1 |

CONSERVATION EASEMENT SURVEY
# BRYANT PROPERTY
WINDSOR DISTRICT, ISLE OF WIGHT COUNTY, VIRGINIA


res
HGS, LLC - A RES COMPANY
5367 TELEPHONE ROAD, WARRENTON, VIRGINIA 20187
P: 703.393.4644 | F: 703.393.2934
WWW.RES.US

**ISSUE:**

Application (ZA-05-24) of Coastal Investors, Owners, to Rezone .237 Acres Located on Benns Church Blvd. (Rt. 10) From Planned Development – Mobile Home to Conditional General Commercial to a Enlarge Commercial Parcel

**BACKGROUND:**

An application (ZA-05-24) from Coastal Investors, owners, has been submitted to rezone .237 acres located on Benns Church Blvd. (Rt. 10) tax map parcel 32-01-061 from Planned Development – Mobile Home to Conditional General Commercial to enlarge commercial parcel 32-01-061C.

The subject property is located off the west side of Benns Church Blvd. (Rt.10) and on the north side of Red Oaks Drive. The property is adjacent to commercial and residential properties and has a mixture of residential and commercial properties in the vicinity.

A mobile home park has existed on a portion of the property since the the 1970s which was enlarged through a previous rezoning. Parcels 32-01-061B and 32-01-61C along Benns Church Blvd were originally a part of the parent tract 32-01-061 but have been subdivided recently, even though they were rezoned in 1971 to General Commercial.

The purpose of this request is to rezone the .237 acre to specifically be added to 32-01-061C to allow for adequate area for commercial development. The owner has voluntarily proffered that within twelve (12) months from the date of the approval of this application the .237 acre shall be conveyed as an addition to parcel 32-01-061C.

A full analysis of the consistency of the application with County Plans and Ordinances is attached to this staff report.

**BUDGETARY IMPACT:**

None

**RECOMMENDATION:**

The Planning Commission voted to recommend approval of the application as proffered by a vote of nine in favor and zero against (9-0) at its August 27, 2024,

regular meeting. Based on the strengths of the application identified in the staff report, staff also recommends approval.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| PC Staff Report | Cover Memo | 9/6/2024 |
| Proffer Statement | Backup Material | 8/21/2024 |
| Concept Plan | Backup Material | 8/21/2024 |
| Ordinance | Ordinance | 9/11/2024 |

# PLANNING REPORT

## APPLICATION:

Application (ZA-05-24) of Coastal Investors, owners, to rezone .237 acres located on Benns Church Blvd. (Rt. 10) tax map parcel 32-01-061 from Planned Development – Mobile Home to Conditional General Commercial to enlarge commercial parcel 32-01-061C

## ELECTION DISTRICT:

D3

## LOCATION:

The subject property is located off the west side of Benns Church Blvd. (Rt.10) and on the north side of Red Oaks Drive. The property is adjacent to commercial property to the south and north and residential property to the west. The property is bounded by Benns Church Boulevard on the east. The area has a mixture of residential and commercial properties.

## BACKGROUND:

A mobile home park has been existing since the the 1970s which was enlarged through a previous rezoning. Parcels 32-01-061B and 32-01-61C along Benns Church Blvd were originally a part of the parent tract 32-01-061 but have been subdivided recently, even though they were rezoned in 1971 to General Commercial.

The purpose of this request is to rezone this area of .237 acres to specifically be added to 32-01-061C to allow for adequate area for commercial development.

## DESCRIPTION:

The owner has conditioned the rezoning of the .237 acres to be specifically added to the adjoining parcel 32-01-061C within 12 months of approval of the rezoning.

## COMPREHENSIVE LAND USE PLAN:

The parcels are designated Urban Residential (UR) on the future recommended land use map in the County Comprehensive Plan in which recommended uses consist of single family homes, townhouses, preservation of environmental features, and community amenities on smaller lots and more density. While GC zoning of the property is not generally consistent with the UR future land use designation, parcels 61B and 61C were rezoned prior to the most recent comprehensive land use plan and the proposed use would be consistent with general commercial zoning and development of the site.

The subject property proposed to be rezoned and added to the adjacent commercial site is 0.23 acres, which is too small to be a stand alone parcel and would make development of the adjacent lot more feasible.

## ORDINANCE REVIEW:

The applicant has proffered a condition that this lot can not be free standing but as an addition to the adjacent lot zoned general commercial. This property is in the Chesapeake Bay Preservation Overlay District, but there are no wetlands or Resource Protection Area on the parcel that would be affected by the proposed use of the lot. The property also lies in the NDSO and development of the parcel C will have to be reviewed for compliance with the requirements of that district.

**AGENCY REVIEW:**

This application was forwarded to the following departments for their review and no concerns or issues were identified:

1. Virginia Department of Transportation
2. Utility and General Services
3. Fire and Rescue
4. County Attorney
5. Transportation

**STAFF CONCLUSIONS:**

Strengths:

1. The proposal will help bring additional business to the County.
2. The proposal will not negatively impact adjacent properties.

Weaknesses:

1. Not consistent with the UR designation on the future land use map.

**STAFF RECOMMENDATION:**

Based on the strengths of the application, staff recommends approval of the application with the proffered conditions as submitted by the applicant.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Concept Plan | Backup Material | 8/21/2024 |
| Proffer Statement | Backup Material | 8/21/2024 |

**COUNTY OF ISLE OF WIGHT**
**PROFFER STATEMENT**

**Owner's name(s): COASTAL INVESTORS, LLC**

**Applicants' name(s): TIMMONS GROUP/ Robert Mann**

**Project name: RED OAKS**

**Date: August 7, 2024**

**Parcel-Tax Map Numbers: 32-01-061 & 32-01-061C**

**Deed book reference: DB 324-725**

These proffers are made as of the 6th day of August, 2024 by Coastal Investors, LLC, Owner and Timmons Group, Applicant, (collectively "Applicants"), for Tax Map Parcel Number 32-01-061, containing approximately 0.237 acre of land which is referred to herein as the "Property". Applicants have filed an application for a Change in Zoning Classification with the Isle of Wight County Planning and Zoning Department. The Property is currently zoned PLANNED DEVELOPMENT MOBILE HOME (PD-MH)) to be rezoned to CONDITIONAL GENERAL COMMERCIAL (C-GC).

Applicants voluntarily proffer that within twelve (12) months from the date of the approval of this application the parcel subject to this application shall be conveyed as an addition to Parcel C-1 as shown on that certain plat entitled "EXHIBIT SHOWING PROPOSED BOUNDARY LINE ADJUSTMENT PARCEL B1A AND PARCEL C1 PROPERTY OF COASTAL INVESTORS LLC" attached hereto. Applicants do hereby waive any right to challenge, in any judicial or administrative proceedings, the legality of such conditions or to assert a claim for compensation resulting from such conditions (except where compensation is expressly provided for in the conditions) under federal or Virginia law.

These proffered conditions ("Proffers") are the only conditions offered on this rezoning, and any prior proffered conditions on the Property are hereby superseded by these proffers and any and all previous proffers on the Property are hereby void and of no further force and effect.

## General

1. Successors and Assigns - This Proffer Agreement shall be binding upon and shall inure to the benefit of the parties hereto, and their respective heirs, successors and/or assigns. Any obligation(s) of Applicants hereunder shall be binding upon and enforceable against any subsequent Applicants or Applicants of the Property or any portion thereof.

2. Severability - In the event that any clause, sentence, paragraph, subparagraph, section or subsection of these Proffers shall be judged by any court of competent

jurisdiction to be invalid or unenforceable for any reason, including a declaration that it is contrary to the Constitution of the Commonwealth of Virginia or of the United States, or if the application thereof to any Applicants of any portion of the Property or to any government agency is held invalid, such judgment or holding shall he confined in its operation to the clause, sentence, paragraph, subparagraph, section or subsection hereof, or the specific application thereof directly involved in the controversy in which the judgment or holding shall have been rendered or made, and shall not in any way affect the validity of any other clause, sentence, paragraph, subparagraph, section or provision hereof.

3. Void if Application is not approved - In the event that the Application is not approved by the County, these Proffers shall be null and void.

SEE SIGNATURE PAGES ATTACHED:

**SIGNATURE PAGE**

Owner: COASTAL INVESTORS, LLC

By: _____
Signature

Name: _____

Title: _____

Commonwealth of Virginia

City/ County of VIRGINIA BEACH

Subscribed and sworn to before me PATRICIA KING,

A Notary Public in and for the City/County of VIRGINIA BEACH

Commonwealth of Virginia, this 8 day of AUGUST, 2024.

_____
Notary Public

My Commission Expires 03/31/2028

PATRICIA A. KING NOTARY PUBLIC MY COMMISSION NUMBER 281658 COMMONWEALTH OF VIRGINIA

**SIGNATURE PAGE**

Applicant: TIMMONS GROUP

By _____
Signature

Name: ROBERT D. MANN

Title: GROUP LEADER

Commonwealth of Virginia

City/ County of Newport News

Subscribed and sworn to before me Andi Viola,

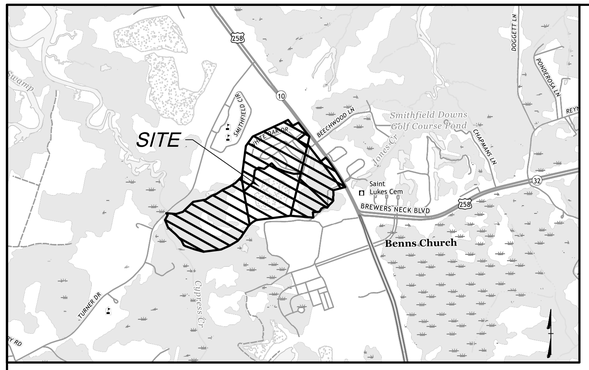
A Notary Public in and for the City/County of Newport News,

Commonwealth of Virginia, this 7th day of August, 2024.

_____
Notary Public

My Commission Expires January 31, 2027

ANDI ELIZABETH VIOLA
NOTARY PUBLIC
MY COMMISSION NUMBER 7521822
COMMONWEALTH OF VIRGINIA




VICINITY MAP
SCALE: 1" = 2000'

| EXISTING AREA | | |
|---|---|---|
| PARCEL NO. | AREA (S.F.) | AREA (ACRES) |
| B1A | 1,543,228 | 35.428 |
| C1 | 29,429 | 0.676 |
| TOTAL | 1,572,657 | 36.104 |

| PROPOSED AREA | | |
|---|---|---|
| PARCEL NO. | AREA (S.F.) | AREA (ACRES) |
| B1A | 1,532,911 | 35.191 |
| C1 | 39,746 | 0.913 |
| TOTAL | 1,572,657 | 36.104 |

NOTES

1. PROPERTY ADDRESS: 14000 ENGLISH OAK DRIVE
   TAX PARCEL ID NO.: 32-01-061 & 32-01-061C
   OWNER OF RECORD: COASTAL INVESTORS LLC
2. THIS PROPERTY LIES IN FLOOD HAZARD ZONE 'X'; AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN; AS SHOWN ON MAP NO. 51093C0153E & 51093C0154E OF THE FEMA FLOOD INSURANCE RATE MAPS FOR ISLE OF WIGHT COUNTY, VIRGINIA; EFFECTIVE DATE: DECEMBER 2, 2015.
3. ANY NEW STRUCTURE MUST BE BUILT TO MEET THE MINIMUM REQUIRED YARD SETBACKS IN ACCORDANCE WITH THE IWCZO AND THE HCOD/NDSO. ANY VARIATION THERETO MUST BE IN COMPLIANCE WITH SAID ORDINANCE.
4. ANY LOT SHOWN ON THIS PLAT MUST BE SERVED BY PUBLIC WATER BEFORE ANY USE CAN BE MADE ON SUCH LOT. HOWEVER, NO SERVICE HAS BEEN EXTENDED TO SUCH LOTS AT THE TIME OF APPROVAL OF THE PLAT. NO ZONING PERMIT OR BUILDING PERMIT SHALL BE ISSUED FOR ANY LOT UNTIL PUBLIC WATER HAS BEEN EXTENDED TO SUCH LOT IN ACCORDANCE WITH THE MASTER WATER AND SEWER ORDINANCE. THE OWNER OF EACH LOT SHOWN ON THIS PLAT SHALL GRANT, WITHOUT COMPENSATION, SUCH REASONABLE EASEMENTS AS ARE NECESSARY TO PERMIT SUCH EXTENSION OF PUBLIC WATER TO ALL LOTS.
5. ALL SUBDIVISION LOCATED WITHIN A DEVELOPMENT SERVICE DISTRICT AND ALL SUBDIVISION THAT HAVE PUBLIC SEWAGE SERVICE PASSING ADJACENT TO THE SUBJECT PROPERTY MUST CONFORM TO THE ISLE OF WIGHT PUBLIC SEWAGE SYSTEM AND THE SERVICE SHALL BE EXTENDED TO ALL LOTS WITHIN THE SUBDIVISION. ALL SEWAGE FACILITIES THAT ARE CONNECTED TO THE COUNTY'S PUBLIC SEWAGE SERVICE SHALL BE DEDICATED TO THE COUNTY UPON COMPLETION AND AFTER PUBLIC UTILITIES/ENGINEERING HAVE APPROVED THE COMPLETED FACILITIES CONSTRUCTION AND VERIFIED PROPER OPERATION.
6. ALL PROPOSED UTILITIES WITHIN THE BOUNDARIES OF THIS SUBDIVISION SHALL BE BURIED BENEATH THE SURFACE OF THE GROUND.
7. ALL LOTS SHOWN HEREON ARE REQUIRED TO USE DOOR-TO-DOOR SOLID WASTE REFUSE COLLECTION BY THE DULY AUTHORIZED AND FRANCHISED COLLECTORS/HAULERS AS DETERMINED BY THE BOARD OF SUPERVISORS OF ISLE OF WIGHT COUNTY, VIRGINIA.
8. THIS PROPERTY IS LOCATED IN THE CHESAPEAKE BAY PRESERVATION AREA HOWEVER, THERE IS NO RESOURCE PROTECTION AREA (RPA) ON THE LOTS.
9. THIS EXHIBIT DRAWING IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED BY TIMMONS GROUP. FIELDWORK WAS COMPLETED ON 8/18/2022.
10. DATUM

    ISLE OF WIGHT COUNTY GEODETIC CONTROL NETWORK
    VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE
    HORIZONTAL DATUM - NAD 1983
    VERTICAL DATUM: NAVD88
    UNITS: U.S. SURVEY FEET.

NOTE:

1. 12' MULTI-PURPOSE PATH EASEMENT HEREBY DEDICATED TO ISLE OF WIGHT COUNTY
2. VARIABLE WIDTH FORCE MAIN EASEMENT D.B. 447 PG. 353.
3. 21' V.E.P.C.O. EASEMENT PER V.D.H.T. PROJECT # 0010-046-104
4. 1' NO INGRESS/EGRESS EASEMENT HEREBY DEDICATED TO VDOT ALONG BENNS CHURCH BOULEVARD ADJACENT TO PARCELS C1 AND C2. PARCESL C1 AND C2 SHALL ACCESS BENNS CHURCH BOULEVARD THROUGH THE 60' PRIVATE INGRESS AND EGRESS EASMENT LOCATED AT THE EXISTING ENTRANCE TO RED OAKS MOBILE HOME PARK.

THIS DRAWING PREPARED AT THE
HAMPTON ROADS PENINSULA OFFICE
800 Tech Center Parkway, Suite 103 | Newport News, VA 23606
TEL 757.782.3041 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

COMMONWEALTH OF VIRGINIA
ROBERT D. MANN
Lic. No. 002509
5/15/2024
LAND SURVEYOR

# EXHIBIT SHOWING
# PROPOSED BOUNDARY LINE ADJUSTMENT
# PARCEL B1A AND PARCEL C1
# PROPERTY OF
# COASTAL INVESTORS LLC

| | |
|---|---|
| Windsor District | County of Isle of Wight |
| Date: May 15, 2024 | Scale: 1"= 100' |
| Sheet 1 of 1 | J.N.: 43078.001 |
| Drawn by: M. Little | Checked by: R. Mann |
| Revised: | |

TIMMONS GROUP

Y:\80943078.001-900 RedOaks\DWG\43078-001-REZONING-EX01.dwg | Plotted on 8/6/2024 2:22 PM | by Robert Mann

**ORDINANCE NUMBER ___ _____**

**AN ORDINANCE TO REZONE AND AMEND THE OFFICAL ZONING MAP OF ISLE OF WIGHT COUNTY TO CHANGE THE ZONING DISTRICT FROM PLANNED DEVELOPMENT MOBILE HOME TO CONDITIONAL GENERAL COMMERCIAL OF .237 ACRES LOCATED ON RED OAK DRIVE WITH TAX MAP PARCEL IDENTIFICATION NUMBER 32-01-061 FOR THE ENLARGEMENT OF PARCEL 32-01-061C ZONED GENERAL COMMERICAL**

WHEREAS, Coastal Investors, LLC, property owner, has requested a change in zoning from Planned Development Mobile Home (PD-MH ) to Conditional General Commercial (C-GC ) for .237 acres located on Red Oak Drive with tax parcel identification number 32-01-061 for the purpose of enlarging parcel 32-01-061C which is depicted on Exhibit "B"; and,

WHEREAS, the proposed rezoning and amendment to the official zoning map have been advertised and reviewed by the Planning Commission in compliance with the requirements of state law; and,

WHEREAS, the procedural requirements of Appendix B, Zoning Ordinance, of the Code of Isle of Wight County, Virginia, 2005 (as amended), have been followed; and,

WHEREAS, in acting upon this request, the Planning Commission and Board of Supervisors have considered the matters enunciated in Section 15.2-2284 of the Code of Virginia (1950), as amended, and Section 1-1015 of the Isle of Wight County Zoning Ordinance with respect to the purposes stated in Code of Virginia (1950), as amended, Section 15.2-2200 and 15.2 2283; and,

WHEREAS, the Planning Commission has made a recommendation as stated in Exhibit "A;"

NOW, THEREFORE, BE IT ORDAINED by the Isle of Wight County Board of Supervisors of Isle of Wight County, Virginia, that:

Section 1. Exhibits.

Exhibit "A," "Planning Commission Recommendation," Exhibit "B," "Property Map," and Exhibit "C," "Conditions" which are attached hereto are hereby incorporated as part of this ordinance.

Section 2. Findings.

The Board of Supervisors finds that the proposed rezoning application, ZA-05-24, as submitted for the express purpose to rezone .237 acres, is in harmony with the standards of the Isle of Wight County Zoning Ordinance, and that it will have no more adverse effects on the health, safety or comfort of persons living or working in or driving through the neighborhood, and will be no more injurious to property or improvements in the neighborhood than would any other use generally permitted in the same district, taking into consideration the location, type and height of buildings or structures, the type and extent of landscaping and screening on site and whether the use is consistent with any theme, action, policy or map of the Comprehensive Plan with the conditions set forth below.

These findings are based upon the consideration for the existing use and character of the property, the Comprehensive Plan, the suitability of the property for various uses, the trends of growth or change, the current and future requirements of the community as to land for various purposes as determined by population and economic studies and other studies, the transportation requirements of the community, the requirements of airports, housing, schools, parks, playgrounds, recreation areas and other public services, the conservation of natural resources, the preservation floodplains, the preservation of agricultural and forestal land, the conservation of properties and their values, and the encouragement of the most appropriate use of land throughout the County.

Section 3. Conditional Zoning Amendment.

A. The conditional zoning of the property shown on the attached "Exhibit B" is an amendment to the official zoning map, and the map is hereby amended to limit the uses to only include uses as listed in the proffered conditions shown on Exhibit "C."
B. The foregoing conditional zoning shall remain in effect until a subsequent amendment changes the zoning of the property.

Section 4. Severability.

It is the intention of the Board of Supervisors that the provisions, sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable; and if any phrase, clause, sentence, paragraph, section, and provision of this ordinance hereby adopted shall be declared unconstitutional or otherwise invalid by the valid judgement or decree of a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining phrase, clauses, sentences, paragraphs, sections, and provisions of this ordinance, to the extent that they can be enforced notwithstanding such determination.

Section 5. Effective Date

This ordinance shall be effective upon passage and shall not be published or codified.

DATE: _____

READ AND PASSED: _____
Chairman, Board of Supervisors

TESTE: _____
Clerk, Board of Supervisors

Approved as to Form:

_____
Robert W. Jones Jr, County Attorney

# EXHIBIT A

The Planning Commission voted to recommend approval of the application as proffered by a vote of nine in favor and zero against (9-0) at its August 27, 2024, regular meeting.

# EXHIBIT B

# ZA-05-24 COASTAL INVESTORS - LOCATION MAP

# EXHIBIT C

## COUNTY OF ISLE OF WIGHT
## PROFFER STATEMENT

**Owner's name(s): COASTAL INVESTORS, LLC**

**Applicants' name(s): TIMMONS GROUP/ Robert Mann**

**Project name: RED OAKS**

**Date: August 7, 2024**

**Parcel-Tax Map Numbers: 32-01-061 & 32-01-061C**

**Deed book reference: DB 324-725**

These proffers are made as of the 6th day of August, 2024 by Coastal Investors, LLC, Owner and Timmons Group, Applicant, (collectively "Applicants"), for Tax Map Parcel Number 32-01-061, containing approximately 0.237 acre of land which is referred to herein as the "Property". Applicants have filed an application for a Change in Zoning Classification with the Isle of Wight County Planning and Zoning Department. The Property is currently zoned PLANNED DEVELOPMENT MOBILE HOME (PD-MH)) to be rezoned to CONDITIONAL GENERAL COMMERCIAL (C-GC).

Applicants voluntarily proffer that within twelve (12) months from the date of the approval of this application the parcel subject to this application shall be conveyed as an addition to Parcel C-1 as shown on that certain plat entitled "EXHIBIT SHOWING PROPOSED BOUNDARY LINE ADJUSTMENT PARCEL B1A AND PARCEL C1 PROPERTY OF COASTAL INVESTORS LLC" attached hereto. Applicants do hereby waive any right to challenge, in any judicial or administrative proceedings, the legality of such conditions or to assert a claim for compensation resulting from such conditions (except where compensation is expressly provided for in the conditions) under federal or Virginia law.

These proffered conditions ("Proffers") are the only conditions offered on this rezoning, and any prior proffered conditions on the Property are hereby superseded by these proffers and any and all previous proffers on the Property are hereby void and of no further force and effect.

**General**

1. Successors and Assigns - This Proffer Agreement shall be binding upon and shall inure to the benefit of the parties hereto, and their respective heirs, successors and/or assigns. Any obligation(s) of Applicants hereunder shall be binding upon and enforceable against any subsequent Applicants or Applicants of the Property or any portion thereof.

2. Severability - In the event that any clause, sentence, paragraph, subparagraph, section or subsection of these Proffers shall be judged by any court of competent

jurisdiction to be invalid or unenforceable for any reason, including a declaration that it is contrary to the Constitution of the Commonwealth of Virginia or of the United States, or if the application thereof to any Applicants of any portion of the Property or to any government agency is held invalid, such judgment or holding shall he confined in its operation to the clause, sentence, paragraph, subparagraph, section or subsection hereof, or the specific application thereof directly involved in the controversy in which the judgment or holding shall have been rendered or made, and shall not in any way affect the validity of any other clause, sentence, paragraph, subparagraph, section or provision hereof.

3. Void if Application is not approved - In the event that the Application is not approved by the County, these Proffers shall be null and void.

SEE SIGNATURE PAGES ATTACHED:

**SIGNATURE PAGE**

Owner: COASTAL INVESTORS, LLC

By: _____
Signature

Name: _____

Title: _____

Commonwealth of Virginia

City/ County of VIRGINIA BEACH

Subscribed and sworn to before me PATRICIA KING,

A Notary Public in and for the City/County of VIRGINIA BEACH

Commonwealth of Virginia, this 8 day of AUGUST, 2024.

_____
Notary Public

My Commission Expires 03/31/2028

PATRICIA A. KING NOTARY PUBLIC MY COMMISSION NUMBER 281658 COMMONWEALTH OF VIRGINIA

**SIGNATURE PAGE**

Applicant: TIMMONS GROUP

By _____
Signature

Name: ROBERT D. MANN

Title: GROUP LEADER

Commonwealth of Virginia

City/ County of Newport News

Subscribed and sworn to before me Andi Viola,

A Notary Public in and for the City/County of Newport News,

Commonwealth of Virginia, this 7th day of August, 2024.

ANDI ELIZABETH VIOLA NOTARY PUBLIC MY COMMISSION NUMBER 7521822 COMMONWEALTH OF VIRGINIA

_____
Notary Public

My Commission Expires January 31, 2027

**ISSUE:**

Resolution to Authorize Financing for Schools Capital Projects Via Virginia Public Schools Authority ($7,560,000)

**BACKGROUND:**

Davenport & Associates has previously provided information relative to the Board's options to fund capital projects for the County's public schools. Should the Board desire to secure funding via Virginia Public Schools Authority, an authorization resolution will be needed.

**BUDGETARY IMPACT:**

Adoption of the resolutions will provide bond funding in the amount of $7,560,000 for approved projects included in the County's capital budget.

**RECOMMENDATION:**

Adopt a resolution to authorize financing for Schools capital projects via Virginia Public Schools Authority. Adopt a resolution to issue General Obligation bonds in an amount not to exceed $7,560,000.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| VPSA Authorizing Resolution | Resolution | 9/4/2024 |
| VPSA Bond Resolution | Resolution | 9/4/2024 |
| Schools Adopted VPSA Resolution | Resolution | 8/26/2024 |
| VPSA Appllication | Backup Material | 8/26/2024 |

# COVERING CERTIFICATE FOR RESOLUTION

The undersigned Clerk of the Board of Supervisors (the "Board") of Isle of Wight County, Virginia (the "County"), certifies as follows:

1. At a meeting on September 19, 2024, the Board held a public hearing, duly noticed, in accordance with Section 15.2-2606 of the Code of Virginia of 1950, as amended. Following such public hearing, the Board adopted a resolution entitled "RESOLUTION AUTHORIZING THE ISSUANCE OF GENERAL OBLIGATION SCHOOL BONDS OF ISLE OF WIGHT COUNTY, VIRGINIA, IN AN AGGREGATE PRINCIPAL AMOUNT NOT TO EXCEED $7,560,000" (the "Resolution") by the recorded affirmative roll-call vote of a majority of all members elected to the Board as follows:

| **Member** | **Attendance** (Present/Absent) | **Vote** (Aye/Nay/Abstain) |
|---|---|---|
| Joel C. Acree | | |
| Rudolph Jefferson | | |
| William M. McCarty | | |
| Don G. Rosie, II | | |
| Renee K. Rountree | | |

2. A true, correct and complete copy of the Resolution is attached hereto.

3. The Board meeting at which the Resolution was adopted was held at the time and place noticed by the Board for such regular meeting in accordance with Section 15.2-1416 of the Code of Virginia of 1950, as amended.

4. The Resolution has not been repealed, revoked, rescinded or amended and is in full force and effect on the date hereof.

WITNESS my signature and the seal of the Board of Supervisors of Isle of Wight County, Virginia, this ____ day of September, 2024.

(SEAL)

_____

Carey Mills-Storm, Clerk, Board of Supervisors,
Isle of Wight County, Virginia

**RESOLUTION AUTHORIZING THE ISSUANCE OF GENERAL OBLIGATION SCHOOL BONDS OF ISLE OF WIGHT COUNTY, VIRGINIA, IN AN AGGREGATE PRINCIPAL AMOUNT NOT TO EXCEED $7,560,000**

**WHEREAS**, pursuant to Section 10(b) of Article VII of the Constitution of Virginia and Section 15.2-2639 (formerly Section 15.1-227.40) of the Code of Virginia of 1950, as amended (the "Code"), Isle of Wight County, Virginia (the "County"), has elected by affirmative vote of the qualified voters of the County, to be treated as a city for the purpose of issuing its bonds;

**BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF ISLE OF WIGHT COUNTY, VIRGINIA:**

1. It is determined to be necessary and expedient for the County to finance the acquisition, construction, renovation, rehabilitation and equipping of capital improvements for the benefit of the County school system (collectively, the "Project"), to borrow money for such purposes and to issue the County's general obligation school bonds therefor.

2. Pursuant to the Constitution and statutes of the Commonwealth of Virginia, including the Public Finance Act of 1991, there are authorized to be issued general obligation school bonds of the County in an aggregate principal amount not to exceed $7,560,000 to provide funds to finance the cost of the Project and pay related costs of issuance.

3. The bonds shall bear such date or dates, mature at such time or times not exceeding 40 years from their dates, bear interest at such rate or rates, be in such denominations and form, be executed in such manner and be sold at such time or times and in such manner as the Board may hereafter provide by appropriate resolution or resolutions.

4. The bonds shall be general obligations of the County, and its full faith and credit shall be irrevocably pledged to the payment of principal of and premium, if any, and interest on such bonds.

5. The County intends that the adoption of this Resolution be considered as "official intent" within the meaning of Treasury Regulations, Section 1.150-2, promulgated under the Internal Revenue Code of 1986, as amended.

6. The Clerk of the Board, in collaboration with the County Attorney, is authorized and directed to see to the immediate filing of a certified copy of this Resolution in the Circuit Court of Isle of Wight County, Virginia.

7. This Resolution shall take effect immediately.

# COVERING CERTIFICATE FOR RESOLUTION

The undersigned Clerk of the Board of Supervisors (the "County Board") of Isle of Wight County, Virginia (the "County"), certifies as follows:

1. Attached hereto is a true, correct and complete copy of a resolution entitled "RESOLUTION PROVIDING FOR THE ISSUANCE OF GENERAL OBLIGATION SCHOOL BONDS OF ISLE OF WIGHT COUNTY, VIRGINIA, IN A PRINCIPAL AMOUNT NOT TO EXCEED $7,560,000, TO BE SOLD TO THE VIRGINIA PUBLIC SCHOOL AUTHORITY AND PROVIDING FOR THE FORM, DETAILS AND PAYMENT THEREOF" (the "Resolution"). The Resolution was adopted at a regular meeting of the County Board held on September 19, 2024, by a majority of all members of the County Board by a roll-call vote.

2. The County Board meeting at which the Resolution was adopted was held at the time and place noticed by the County Board for such meeting in accordance with Section 15.2-1416 of the Code of Virginia of 1950, as amended. The minutes of such meeting reflect the attendance of the members and their votes on the Resolution as follows:

| **Member** | **Attendance** (Present/Absent) | **Vote** (Aye/Nay/Abstain) |
|---|---|---|
| Joel C. Acree | | |
| Rudolph Jefferson | | |
| William M. McCarty | | |
| Don G. Rosie, II | | |
| Renee K. Rountree | | |

3. The Resolution has not been repealed, revoked, rescinded or amended and is in full force and effect on the date hereof.

WITNESS my signature and the seal of the Board of Supervisors of Isle of Wight County, Virginia, this ___ day of September, 2024.

(SEAL)

_____

Carey Mills-Storm, Clerk, Board of Supervisors,
Isle of Wight County, Virginia

**RESOLUTION PROVIDING FOR THE ISSUANCE OF GENERAL OBLIGATION SCHOOL BONDS OF ISLE OF WIGHT COUNTY, VIRGINIA, IN A PRINCIPAL AMOUNT NOT TO EXCEED $7,560,000, TO BE SOLD TO THE VIRGINIA PUBLIC SCHOOL AUTHORITY AND PROVIDING FOR THE FORM, DETAILS AND PAYMENT THEREOF**

**WHEREAS**, by resolution adopted on August 8, 2024, the Isle of Wight County School Board (the "School Board") has requested the Board of Supervisors (the "County Board") of Isle of Wight County, Virginia (the "County"), to authorize the issuance of general obligation school bonds to finance capital improvements benefitting the school system and has consented to the issuance of such bonds;

**WHEREAS**, in accordance with the requirements of Section 15.2-2606, Code of Virginia of 1950, as amended (the "Virginia Code"), the County held a public hearing, duly noticed, on September 19, 2024, on the proposed issuance of general obligation school bonds in an aggregate principal amount not to exceed $7,560,000;

**WHEREAS,** after such public hearing on September 19, 2024, the County Board adopted a resolution (the "Authorizing Resolution") authorizing the issuance of general obligation school bonds in an aggregate principal amount not to exceed $7,560,000 to finance the acquisition, construction, renovation, rehabilitation and equipping of capital improvements for the benefit of the County school system, including (without limitation) the replacement of HVAC systems at Carrollton Elementary School (collectively, the "Project");

**WHEREAS,** the County Board has determined that it is necessary and expedient to issue a general obligation school bond in a principal amount not to exceed $7,560,000 (as further described herein, the "Bond") and use the proceeds thereof to finance the Project and to pay related costs of issuance;

**WHEREAS,** the Virginia Public School Authority ("VPSA") has offered to purchase the County Bond along with local school bonds of certain other localities with a portion of the proceeds of certain bonds to be issued by VPSA in the fall of 2024 (the "VPSA Bonds");

**WHEREAS,** the County Board intends for the Bond Sale Agreement (as hereinafter defined) relating to the County Bond to indicate that $7,560,000 is the amount of proceeds requested (the "Proceeds Requested") from VPSA in connection with the sale of the County Bond;

**WHEREAS,** VPSA's objective is to pay the County a purchase price for the County Bond that, in VPSA's judgment, reflects the market value thereof (the "VPSA Purchase Price Objective"), taking into consideration such factors as the amortization schedule the County has requested for the County Bond relative to the amortization schedules requested by other localities, the purchase price to be received by VPSA from the sale of the VPSA Bonds and other market conditions relating to the sale of the VPSA Bonds; and

**WHEREAS,** such factors may result in the County Bond having a purchase price other than par and consequently (i) the County may have to issue the County Bond in a principal amount that is greater than or less than the Proceeds Requested in order to receive an amount of proceeds

that is substantially equal to the Proceeds Requested, or (ii) if the maximum authorized principal amount of the County Bond set forth in Section 1 below does not exceed the Proceeds Requested by at least the amount of any discount, the purchase price to be paid to the County, given the VPSA Purchase Price Objective and market conditions, will be less than the Proceeds Requested.

**BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF ISLE OF WIGHT COUNTY, VIRGINIA:**

1. **Issuance and Sale of the County Bond and Use of Proceeds.** The County Board hereby determines to issue and sell a general obligation school bond in a principal amount not to exceed $7,560,000 (the "Bond") and use the proceeds thereof to finance the Project, pay if desired interest on the County Bond for up to one year following completion of the Project and pay the costs of issuing the County Bond. The County Bond shall be issued and sold in the form and upon the terms established pursuant to this Resolution.

2. **Sale of the County Bond.** The County Bond shall be sold to VPSA at a final price, determined by VPSA to be fair and accepted by the County Administrator (such term as used herein is hereby defined to include any Deputy County Administrator), that is substantially equal to the Proceeds Requested but in no case less than 95% of the principal amount authorized by Section 1 of this Resolution. Notwithstanding the preceding sentence, the County Board acknowledges that, given the VPSA Purchase Price Objective and market conditions, the limitation on the maximum principal amount of the County Bond set forth in Section 1 of this Resolution may impose a restriction on VPSA's ability to generate the Proceeds Requested. The County Administrator and such other officer or officers of the County as he may designate, any of whom may act, are hereby authorized and directed to enter into a Bond Sale Agreement (the "Bond Sale Agreement") with VPSA, providing for the sale of the County Bond to VPSA. The Bond Sale Agreement shall be in substantially the form made available to the County Board at this meeting, which form is hereby approved, with such completions, insertions, omissions and changes not inconsistent with this Resolution as may be approved by the officer executing the Bond Sale Agreement, his execution to constitute conclusive evidence of his approval of any such completions, insertions, omissions and changes.

3. **Details of the County Bond.** The County Bond shall (i) be dated 16 days prior to the date of its issuance and delivery or such other date designated by VPSA, (ii) be designated "General Obligation School Bond, Series 2024," or such other designation as the County Administrator shall determine, (iii) bear interest from its dated date, payable semi-annually on each January 15 and July 15 (each an "Interest Payment Date"), beginning July 15, 2025, at the rates established in accordance with Section 4 of this Resolution, and (iv) shall mature or be payable in installments on July 15 in the years (each a "Principal Payment Date") and in the amounts (the "Principal Installments") as are acceptable to the County Administrator, subject to the provisions of Section 4 of this Resolution.

4. **Interest Rates and Principal Installments.** The County Administrator is hereby authorized and directed to accept the interest rates on the County Bond established by VPSA, provided that each interest rate shall be five one-hundredths of one percent (0.05%) over the interest rate to be paid by VPSA for the corresponding principal payment date of the VPSA Bonds, a portion of the proceeds of which will be used to purchase the County Bond, and provided further that the true interest cost of the County Bond does not exceed five and fifty one-hundredths percent

(5.50%) per annum. The Interest Payment Dates, Principal Payment Dates and the Principal Installments are subject to change at the request of VPSA based on the final term to maturity of the VPSA Bonds, requirements imposed on VPSA by the nationally recognized rating agencies and the final principal amount of the County Bond. The County Administrator is hereby authorized and directed to accept changes in the Interest Payment Dates, the Principal Payment Dates and the Principal Installments at the request of VPSA, provided that the principal amount of the County Bond shall not exceed the maximum principal amount authorized by this Resolution and provided further that the final maturity of the County Bond occurs no later than December 31, 2044. The execution and delivery of the County Bond as described in Section 8 hereof shall conclusively evidence such interest rates established by VPSA and the Interest Payment Dates, Principal Payment Dates and Principal Installments requested by VPSA as having been so accepted by the County Administrator as authorized by this Resolution.

5. **Form of the County Bond.** The County Bond shall be initially in the form of a single, temporary typewritten bond substantially in the form attached hereto as Exhibit A.

6. **Payment; Paying Agent and Bond Registrar.** The following provisions shall apply to the County Bond:

(a) For as long as VPSA is the registered owner of the County Bond, all payments of principal, premium, if any, and interest on the County Bond shall be made in immediately available funds to VPSA at, or before 11:00 a.m. on the applicable Interest Payment Date, Principal Payment Date, or date fixed for prepayment or redemption, or if such date is not a business day for banks in the Commonwealth of Virginia or for the Commonwealth of Virginia, then at or before 11:00 a.m. on the business day next succeeding such Interest Payment Date, Principal Payment Date or date fixed for prepayment or redemption.

(b) All overdue payments of principal and, to the extent permitted by law, interest shall bear interest at the applicable interest rate or rates on the County Bond.

(c) U.S. Bank Trust Company, National Association, is designated as bond registrar and paying agent for the County Bond (the "Bond Registrar"). The County may, in its sole discretion, replace at any time the Bond Registrar with another qualified bank or trust company as successor Bond Registrar. The County shall give prompt written notice to VPSA of the appointment of any successor Bond Registrar.

7. **Prepayment or Redemption.** Unless otherwise directed by VPSA, the Principal Installments of the County Bond held by VPSA coming due on or before July 15, 2034, and the definitive bond for which the County Bond held by VPSA may be exchanged that mature on or before July 15, 2034, are not subject to prepayment or redemption prior to their stated maturities. The Principal Installments of the County Bond held by VPSA coming due on or after July 15, 2035, and the definitive bond(s) for which the County Bond held by VPSA may be exchanged that mature on or after July 15, 2035, are subject to prepayment or redemption at the option of the County prior to their stated maturities in whole or in part, on any date on or after July 15, 2034, upon payment of the prepayment or redemption prices (expressed as percentages of Principal Installments to be prepaid or the principal amount of the County Bond to be redeemed) set forth below plus accrued interest to the date set for prepayment or redemption:

| Dates | Prices |
|---|---|
| July 15, 2034, through July 14, 2035 | 101% |
| July 15, 2035, through July 14, 2036 | 100½ |
| July 15, 2036, and thereafter | 100 |

Provided, however, that the Principal Installments of the County Bond shall not be subject to prepayment or redemption prior to their stated maturities as described above without first obtaining the written consent of VPSA or other registered owner of the County Bond. Notice of any such prepayment or redemption shall be given by the Bond Registrar to VPSA or other registered owner by registered mail not more than ninety (90) days and not less than sixty (60) days before the date fixed for prepayment or redemption.

If VPSA refunds the VPSA Bonds in the future and such refunding causes the County Bond to be deemed refunded, the prepayment or redemption of the County Bond will be subject to VPSA approval and subject to similar prepayment or redemption provisions as set forth above that correspond to the call period of the VPSA Bonds issued in part to refund the County Bond.

8. **Execution of the County Bond.** The Chairman and Vice Chairman of the County Board, either of whom may act, and the Clerk and any Deputy Clerk of the County Board, either of whom may act, are authorized and directed to execute and deliver the County Bond and to affix the seal of the County thereto.

9. **Pledge of Full Faith and Credit.** For the prompt payment of the principal of and premium, if any, and interest on the County Bond as the same shall become due, the full faith and credit of the County are hereby irrevocably pledged, and in each year while any portion of the County Bond shall be outstanding there shall be levied and collected in accordance with law, at the same time and in the same manner as other taxes of the County are assessed, levied and collected, an annual ad valorem tax upon all taxable property within the County, over and above all other taxes, authorized or limited by law and without limitation as to rate or amount, sufficient to pay when due the principal of and premium, if any, and interest on the County Bond as such principal, premium, if any, and interest shall become due to the extent other funds of the County are not lawfully available and appropriated for such purpose.

10. **Use of Proceeds Certificate and Tax Compliance Agreement.** The Chairman of the County Board, the County Administrator and such other officer or officers of the County as either may designate, any of whom may act, are hereby authorized and directed to execute and deliver to VPSA a Use of Proceeds Certificate and Tax Compliance Agreement (the "Tax Compliance Agreement") setting forth the expected use and investment of the proceeds of the County Bond and containing such covenants as may be necessary in order to show compliance with the provisions of the Internal Revenue Code of 1986, as amended (the "Tax Code"), and applicable regulations relating to the exclusion from gross income of interest on the VPSA Bonds. The County Board covenants on behalf of the County that (a) the proceeds from the issuance and sale of the County Bond will be invested and expended as set forth in the Tax Compliance Agreement and that the County shall comply with the other covenants and representations contained therein and (b) the County shall comply with the provisions of the Tax Code so that interest on the VPSA Bonds will remain excludable from gross income for federal income tax purposes.

11. **State Non-Arbitrage Program; Proceeds Agreement.** The County Board hereby determines that it is in the best interests of the County to authorize and direct the County's Chief Financial Officer to participate in the State Non-Arbitrage Program in connection with the County Bond. The Chairman of the County Board, the County Administrator and such officer or officers of the County as either may designate, any of whom may act, are hereby authorized and directed to execute and deliver a Proceeds Agreement with respect to the deposit and investment of proceeds of the County Bond by and among the County, the other participants in the sale of the VPSA Bonds, VPSA and the investment manager, in such form as may be approved by the County officer executing such Proceeds Agreement, such officer's execution to constitute conclusive evidence of his or her approval of any such completions, omissions, insertions and changes.

12. **Continuing Disclosure Agreement.** The Chairman of the County Board, the County Administrator and such other officer or officers of the County as either may designate, any of whom may act, are hereby authorized and directed to execute a Continuing Disclosure Agreement, substantially in the form attached as **Appendix D** to the Bond Sale Agreement, setting forth the reports and notices to be filed by the County and containing such covenants as may be necessary in order to show compliance with the provisions of Rule 15c2-12 promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended, and directed to make all filings required by Section 4 of the Bond Sale Agreement should the County be determined by VPSA to be a MOP (as defined in the Continuing Disclosure Agreement).

13. **Refunding.** The County Board hereby acknowledges that VPSA may issue refunding bonds to refund any bonds previously issued by VPSA, including the VPSA Bonds issued to purchase the County Bond, and that the purpose of such refunding bonds would be to enable VPSA to pass on annual debt service savings to the local issuers, including the County. The Chairman of the County Board and the Vice Chairman of the County Board, either of whom may act, are authorized to execute and deliver to VPSA such allonge to the County Bond, revised debt service schedule, IRS Form 8038-G or such other documents reasonably deemed by VPSA and VPSA's bond counsel to be necessary to reflect and facilitate the refunding of the County Bond and the allocation of annual debt service savings to the County by VPSA. The Clerk and any Deputy Clerk of the County Board, either of whom may act, are authorized to execute and deliver such documents and to affix the seal of the County thereto.

14. **Further Actions.** The members of the County Board and all officers, employees and agents of the County are hereby authorized to take such action as they or any one of them may consider necessary or desirable in connection with the issuance and sale of the County Bond and otherwise in furtherance of this Resolution and any such action previously taken is hereby ratified and confirmed.

15. **Filing**. The Clerk of the Board, in collaboration with the County Attorney, is authorized and directed to see to the immediate filing of a certified copy of this Resolution in the Circuit Court of Isle of Wight County, Virginia.

16. **Effective Date.** This Resolution shall take effect upon the effective date of the Authorizing Resolution.

**Exhibit A**

**(FORM OF TEMPORARY BOND)**

**NO. TR-1** **[$_____]**

**UNITED STATES OF AMERICA**

**COMMONWEALTH OF VIRGINIA**

**ISLE OF WIGHT COUNTY**

**General Obligation School Bond**

**Series 2024**

**Dated Date: ___ [16 days prior to issuance], 2024**

**Issue Date: _____, 2024**

The **ISLE OF WIGHT COUNTY, VIRGINIA** (the "County"), for value received, hereby acknowledges itself indebted and promises to pay to the **VIRGINIA PUBLIC SCHOOL AUTHORITY** ("VPSA") the principal amount of [_____ ($_____)], in annual installments in the amounts set forth on Schedule I attached hereto payable on July 15, 20[__], and annually on each July 15 thereafter to and including July 15, 20[__] (each a "Principal Payment Date"), together with interest from the date of this Bond on the unpaid installments, payable semi-annually on each January 15 and July 15, commencing on January 15, 2024 (each an "Interest Payment Date" and, together with any Principal Payment Date, a "Payment Date"), at the rates per annum set forth on Schedule I attached hereto, subject to prepayment or redemption as hereinafter provided. Principal of and premium, if any, and interest on this Bond are payable in lawful money of the United States of America.

For as long as VPSA is the registered owner of this Bond, U.S. Bank Trust Company, National Association, or any successor appointed by the County, as bond registrar and paying agent (the "Bond Registrar"), shall make all payments of principal of and premium, if any, and interest on this Bond, without the presentation or surrender hereof, to VPSA, in immediately available funds at or before 11:00 a.m. on the applicable Payment Date or date fixed for prepayment or redemption. If a Payment Date or date fixed for prepayment or redemption is not a business day for banks in the Commonwealth of Virginia or for the Commonwealth of Virginia, then the payment of principal of or, premium, if any, or interest on this Bond shall be made in immediately available funds at or before 11:00 a.m. on the business day next succeeding the scheduled Payment Date or date fixed for prepayment or redemption. Upon receipt by the registered owner of this Bond of said payments of principal, premium, if any, and interest, written acknowledgment of the receipt thereof shall be given promptly to the Bond Registrar, and the County shall be fully discharged of its obligation on this Bond to the extent of the payment so made. Upon final payment, this Bond shall be surrendered to the Bond Registrar for cancellation.

The full faith and credit of the County are irrevocably pledged for the payment of the principal of and premium, if any, and interest on this Bond. The resolution adopted by the Board of Supervisors of the County (the "County Board") authorizing the issuance of this Bond provides, and Section 15.2-2624, Code of Virginia of 1950, as amended (the "Virginia Code"), requires, that there shall be levied and collected, at the same time and in the same manner as other taxes of the County are assessed, levied and collected, an annual ad valorem tax upon all taxable property within the County, over and above all other taxes, authorized or limited by law and without limitation as to rate or amount, sufficient to pay when due the principal of and premium, if any, and interest on this Bond as such principal, premium, if any, and interest shall become due to the extent other funds of the County are not lawfully available and appropriated for such purpose.

This Bond is duly authorized and issued in compliance with and pursuant to the Constitution and laws of the Commonwealth of Virginia, including the Public Finance Act of 1991, Chapter 26, Title 15.2 of the Virginia Code, and an Authorizing Resolution and a Bond Resolution, both duly adopted by the County Board on September 19, 2024, authorizing and providing for the issuance of the Bond to finance various capital improvements for the County's public school system.

This Bond may be exchanged without cost, on twenty (20) days written notice from VPSA, at the office of the Bond Registrar on one or more occasions for one or more temporary bonds or definitive bonds in marketable form and, in any case, in fully registered form, in denominations of $5,000 and whole multiples thereof, and having an equal aggregate principal amount, having principal installments or maturities and bearing interest at rates corresponding to the maturities of and the interest rates on the installments of principal of this Bond then unpaid. This Bond is registered in the name of VPSA on the books of the County kept by the Bond Registrar, and the transfer of this Bond may be effected by the registered owner of this Bond only upon due execution of an assignment by such registered owner. Upon receipt of such assignment and the surrender of this Bond, the Bond Registrar shall exchange this Bond for definitive bonds as hereinabove provided, such definitive bonds to be registered on such registration books in the name of the assignee or assignees named in such assignment.

The principal installments of this Bond coming due on or before July 15, 2034, and the definitive bond(s) for which this Bond may be exchanged that mature on or before July 15, 2034, are not subject to prepayment or redemption prior to their stated maturities. The principal installments of this Bond coming due on or after July 15, 2035, and the definitive bond(s) for which this Bond may be exchanged that mature on or after July 15, 2035, are subject to prepayment or redemption at the option of the County prior to their stated maturities in whole or in part, on any date on or after July 15, 2034, upon payment of the prepayment or redemption prices (expressed as percentages of principal installments to be prepaid or the principal amount of this Bond to be redeemed) set forth below plus accrued interest to the date set for prepayment or redemption:

| Dates | Prices |
|---|---|
| July 15, 2034, through July 14, 2035 | 101% |
| July 15, 2035, through July 14, 2036 | 100½ |
| July 15, 2036, and thereafter | 100 |

Provided, however, that the principal installments of this Bond shall not be subject to prepayment or redemption prior to their stated maturities as described above without the prior written consent of the registered owner of this Bond. Notice of any such prepayment or redemption shall be given by the Bond Registrar to the registered owner by registered mail not more than ninety (90) days and not less than sixty (60) days before the date fixed for prepayment or redemption.

If VPSA refunds its bonds issued in part to purchase this Bond in the future and such refunding causes this Bond to be deemed refunded, the prepayment or redemption of this Bond will be subject to VPSA approval and subject to similar prepayment or redemption provisions as set forth above that correspond to the call period of the VPSA bonds issued in part to refund this Bond.

All acts, conditions and things required by the Constitution and laws of the Commonwealth of Virginia to happen, exist or be performed precedent to and in connection with the issuance of this Bond have happened, exist and have been performed in due time, form and manner as so required, and this Bond, together with all other indebtedness of the County, is within every debt and other limit prescribed by the Constitution and laws of the Commonwealth of Virginia.

**IN WITNESS WHEREOF**, the County Board of the Isle of Wight County, Virginia, has caused this Bond to be issued in the name of the Isle of Wight County, Virginia, to be signed by its Chairman or Vice Chairman, its seal to be affixed hereto and attested by the signature of the Clerk or Deputy Clerk of the County Board, and this Bond to be dated the date first written above.

**ISLE OF WIGHT COUNTY, VIRGINIA**

(SEAL)

ATTEST:

| | |
|---|---|
| Clerk Board of Supervisors,<br>Isle of Wight County, Virginia | Chairman, Board of Supervisors<br>Isle of Wight County, Virginia |

**ASSIGNMENT**

FOR VALUE RECEIVED, the undersigned sells, assigns and transfers unto

_____

_____

_____

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING ZIP CODE, OF ASSIGNEE)

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE: _____

the within Bond and irrevocably constitutes and appoints

_____ attorney to exchange said Bond for definitive bonds in lieu of which this Bond is issued and to register the transfer of such definitive bonds on the books kept for registration thereof, with full power of substitution in the premises.

Date: _____

Signature Guaranteed:

_____

(NOTICE: Signature(s) must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Bond Registrar which requirements will include Membership or participation in STAMP or such other "signature guarantee program" as may be determined by the Bond Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

_____

(Signature of Registered Owner)

NOTICE: The signature above must correspond with the name of the Registered Owner as it appears on the front of this Bond in every particular, without alteration or change.)

**APPENDIX C**
**to the Bond Sale Agreement**

**RESOLUTION REQUESTING THE BOARD OF SUPERVISORS TO ISSUE GENERAL OBLIGATION SCHOOL BONDS FOR SCHOOL PURPOSES AND CONSENTING TO THE ISSUANCE THEREOF**

**BE IT RESOLVED:**

1. The School Board of the County of Isle of Wight (the "School Board") hereby (i) requests, pursuant to Section 15.2-2640 of the Code of Virginia, 1950, as amended (the "Code"), that the Board of Supervisors of the County of Isle of Wight (the "County") cause the County to issue its general obligation school bonds (the "Bonds") in an aggregate principal amount not in excess of $7,560,000, but with the objective of providing up to $7,560,000 in net proceeds, to finance Carrollton Elementary School HVAC Replacement, which constitutes a capital project for public school purposes, and related costs of issuance and (ii) consents, pursuant to Section 15.2-2638.B(iii) of the Code and Article VII, Section 10(b) of the Constitution of Virginia, to the issuance of the Bonds.

2. Further, the School Board consents to and authorizes an application to the Virginia Public School Authority (the "VPSA") for the purchase of the Bonds by the VPSA as part of its 2024 Fall Pooled Bond Sale. The Chairman of the School Board, the Superintendent of the schools of Isle of Wight County School Division (the "Schools"), and such other officer or officers of the School Board or the Schools as either may designate (the "Authorized Officers") are hereby authorized to decrease the amount of proceeds requested to the extent the County and such Authorized Officers deem it necessary to issue the Bonds in an amount less than provided in paragraph 1 above.

3. The Authorized Officers are hereby authorized and directed to execute and deliver on behalf of the School Board a Use of Proceeds Certificate and Tax Compliance Agreement (the "Tax Compliance Agreement") setting forth the expected use and investment of the proceeds of the Bonds and containing such covenants as may be necessary for the bonds issued by VPSA in the Fall of 2024 (the "VPSA Bonds") to show compliance with the provisions of the Internal Revenue Code of 1986, as amended (the "Tax Code"), and the applicable regulations. The School Board covenants on behalf of itself and the Schools under its governance that the School Board and the Schools shall comply with the provisions of the Tax Compliance Agreement and the Tax Code so that the interest on the VPSA Bonds is excludable from gross income under the Tax Code.

4. This resolution shall take effect immediately.

* * *

Members present at the meeting were: Jason P. Maresh, John Mark Wooster, Michael A. Cunningham, John Collick, Brandi Perkins. Members absent from the meeting were: none. Members voting in favor of the foregoing resolution were: Jason P. Maresh, John Mark Wooster, Michael A. Cunningham, John Collick, Brandi Perkins. Members voting against the foregoing resolution were: none. Members abstaining from voting on the foregoing resolution were: none.

Date: August 8, 2024

Jessica Whitlow, Board Clerk
[Clerk/Secretary], School Board of the County of Isle of Wight, Virginia

[SEAL]

**ATTACHMENT B**

**FINANCING APPLICATION**

**VIRGINIA PUBLIC SCHOOL AUTHORITY**
**SCHOOL FINANCING BONDS (1997 RESOLUTION)**
**2024 FALL POOL**

## PART I: GENERAL INFORMATION

1. Name of County/City/Town: ISLE OF WIGHT COUNTY (the "Locality")

2. Name, address, telephone number and e-mail address of County Administrator/City Manager/Town Manager:

| | |
|---|---|
| **Name:** | **RANDY R. KEATON, County Administrator** |
| **Address:** | **P.O. Box 80, Isle of Wight, VA 23397** |
| **Telephone:** | **(757) 365-6204** |
| **E-mail:** | **admn@isleofwightus.net** |

3. Name, address, telephone number and e-mail address of School Superintendent:

| | |
|---|---|
| **Name:** | **THEO CRAMER** |
| **Address:** | **820 West Main Street, Smithfield, VA 23430** |
| **Telephone:** | **(757) 357-4393** |
| **E-mail:** | **tcramer@iwcs.k12.va.us** |

4. Contact(s):

A. County/City/Town Contact(s):

| | **Primary Contact** | **Secondary Contact** | **County/City/Town Attorney** |
|---|---|---|---|
| **Name:** | **Stephanie Wells**<br>Chief Financial Officer | | **Robert W. Jones, Jr.** |
| **Address:** | **P.O. Box 80,**<br>**Isle of Wight, VA 23397** | | **P.O. Box 80,**<br>**Isle of Wight, VA 23397** |
| **Telephone:** | **757.357.5949** | | **757.365.1641** |
| **E-mail:** | **swells@isleofwight.net** | | **bjones@isleofwight.net** |

B. School Contact(s):

| | Primary Contact | Secondary Contact |
|---|---|---|
| **Name:** | **Liesl DeVary<br>Chief Financial Officer** | **Christopher Coleman<br>Deputy Superintendent** |
| **Address:** | **820 West Main Street,<br>Smithfield, VA 23430** | **820 West Main Street,<br>Smithfield, VA 23430** |
| **Telephone:** | **(757) 357-4393** | **(757) 357-4393** |
| **E-mail:** | **ldevary@iwcs.k12.va.us** | **ccoleman@iwcs.k12.va.us** |

5. Bond Counsel: Localities are required to take all action necessary to procure the services of qualified Bond Counsel prior to the submission of this application.

| | Primary Contact | Secondary Contact |
|---|---|---|
| **Firm:** | Hunton AK | |
| **Attorney Name:** | Chris Kulp | |
| **Address:** | 951 E Byrd St<br>Richmond Va 23219 | |
| **Telephone:** | 804-788-8742 | |
| **E-mail:** | ckulp@huntonak.com | |

6. Financial Advisor: If your Locality has a financial advisor that will be assisting the Locality in this financing please provide the appropriate contact information.

| | Primary Contact | Secondary Contact |
|---|---|---|
| **Firm:** | Davenport & Company LLC | |
| **Contact Name:** | Jimmy Sanderson | |
| **Address:** | 901 E. Cary St<br>Richmond va 23219 | |
| **Telephone:** | 804-697-2912 | |
| **E-mail:** | jsanderson@investdavenport.com | |

7. Current Long-Term Bond Ratings: If your Locality is currently rated by Moody's, S&P or Fitch Ratings please provide the rating below and attach the most recent rating agency report from each applicable rating agency.

**Moody's Investors Service:**

**Rating: Aa2** **Not Rated:** ☐

**S&P Global Ratings:**

**Rating: AA+** **Not Rated:** ☐

**Fitch Ratings:**

**Rating: AA** **Not Rated:** ☐

## PART II: PROJECT INFORMATION

**SECTION I.** **Project Description:** *Use separate pages and attachments where necessary.*

1. Bond proceeds will be used for: (*check only one*)

   ☒ New Money Projects Only

   ☐ Refunding Prior Obligations Only*

   ☐ Both New Money Projects and Refunding of Prior Obligations*

   Note: Prior Obligations include any Bond Anticipation Note, Certificate of Participation or other form of interim/temporary/long-term financing.

   *Please complete Section VI below and attach the necessary documentation.

2. Brief description of the project (the "Project") to be financed or refinanced with the proceeds of the Locality's local school bond (the "Local School Bond"):

| | |
|---|---|
| Replace HVAC systems at Carrollton Elementary | $7,560,000 |
| **Total plan for FY 2025** | **$7,560,000** |

* *If the proceeds will be used to finance new money projects and to refinance existing projects, clearly indicate which projects are new money projects and which projects were originally financed with the Prior Obligation.*

3. Total Expected Costs: **$7,560,000**

4. Cost by Project(s) and Phase: **$7,560,000**

| Project Phase | Project Phase | Estimated Cost | Estimated Useful Life | Estimated Start Date | Estimated Completion Date |
|---|---|---|---|---|---|
| **HVAC Replace** | | **7,400,000** | **20 years** | **06/01/2024** | **09/01/2025** |

**Note: If financing equipment, provide acquisition schedule.**

5. Amount of VPSA financing applied for (known as "proceeds requested" in the local bond resolution):

**$7,560,000**

**Note: Should you require a minimum or specific amount of proceeds (for example, an amount needed to refund an interim obligation), indicate such amount as a separate line item here.**

**Note: VPSA can only purchase local school bonds in whole multiples of $5,000. If the Locality's actual cost is not a whole multiple of $5,000, please revise that amount up or down (e.g., actual amount $5,032,600 should be revised to either $5,035,000 or $5,030,000). Do not request a greater dollar amount than the Locality will reasonably expect to be able to spend.**

6. Maximum principal amount of VPSA financing:
Maximum authorized par amount: $7**,560,000**

**Note: To meet specific proceeds requests, the maximum authorized par amount should be up to 5% greater than the "proceeds requested" amount listed in Section I, Question 5 to account for market conditions (e.g., original issue discount) and to cover VPSA issuance costs (e.g., underwriter's discount and other costs of issuance). The school board resolution, notice of public hearing and local bond resolution should be prepared accordingly.**

7. Has the County/City/Town applied for a Literary Fund Loan to fund all or a portion of the Project(s)? (Indicate whether loan was for the entire cost)

☐ yes ☒ no

**If yes, please list amount applied for and date of application.**

Amount: $ Date:

Date of Approval from Board of Education if Literary Funds are expected:

Date:

**Note: If funds are borrowed from VPSA in lieu of receiving a Literary Fund loan, the Locality will be removed from the Literary Fund waiting list for this Project. This does not apply if the Locality permanently funds a portion of the Project with Local School Bond proceeds and funds the remainder with a Literary Fund loan. In any event, future Literary Fund loans may not be used to redeem bonds sold to VPSA.**

**SECTION II. Project Status:**

1. What is the status of planning, design and construction or acquisition for the Project(s) or Equipment? Answer the following questions for the Project(s) or Equipment: (a separate page may be used).

   Several projects are authorized and planning is underway. In the coming weeks, an engineering firm will be hired to design the replacement of HVAC systems at Carrollton Elementary School (approximately 575 students) with installation expected to start in June 2025.

2. Have the final plans and specifications, architect's or engineer's statement and the division superintendent's approval been submitted to the Superintendent of Public Instruction (as required by §22.1-140 of the Code of Virginia)?

   ☐ yes ☐ no ☒ n/a

**Note: If the answer is Yes, please attach evidence of such submission.**

3. Please complete the following:

| Project Phase | Check if Complete | Estimated Start Date | Estimated Completion Date |
|---|---|---|---|
| Land Acquisition | ☐ | | |
| Design | ☐ | | |
| Bid | ☐ | | |
| Construction | ☐ | | |
| Other: **HVAC** | ☐ | **09/01/2024** | **09/01/2025** |

**SECTION III. Tax Matters:**

1. Sources and Uses:

(a) Please provide your anticipated sources and uses for the Project:

| | |
|---|---|
| **SOURCES**: | |
| Local School Bond Proceeds (should match amount listed in Section I, Question 5. "proceeds requested") | $7,560,000 |
| Other Available Sources (please specify): Cash | |
| **TOTAL** | $7,560,000 |
| **USES**: | |
| (i) Acquisition of interest in land | $ |
| (ii) Acquisition of interest in real property[1] | |
| (iii) Acquisition and/or installation of tangible personal property[2] | |
| (iv) Site preparation | |
| (v) Construction of real property[3] | |
| (vi) Reconstruction of real property[4] | 7,400,000 |
| (vii) Rehabilitation of real property[5] | |
| (viii) Construction of tangible personal property[6] | |
| (ix) Specially developed computer software[7] | |
| (x) Interest on the Local School Bond during construction period | |
| (xi) Refunding of Prior Obligations | |
| (xii) Local costs of issuance (please specify): Bond Counsel, Financial Advisor | 160,000 |
| (xiii) Other (please specify): _____ | |
| **TOTAL** | $ 7,560,000 |

***Note: The total sources should equal the total uses. See the Endnotes (1) - (7).***

(b) Do the amounts shown in (iv) through (ix) above equal more than 75% of the Total Uses?

☐ yes ☒ no

2. Prior Expenditures; Reimbursement:

(a) Has any money been expended on the Project(s)? ☒ yes ☐ no

If yes, indicate **(i)** the source of such money, **(ii)** the date(s) of the expenditure of such money, and **(iii)** the type of expenditure.

**(i)** Source of money: County operating funds

**(ii)** Date(s) spent: July 25, 2024

**(iii)** Type of expenditure: Payment for engineering/design services on HVAC system ($178,880).

(b) Will proceeds from the sale of the Locality's Local School Bond be used to reimburse the Locality for expenditures made or to be made prior to the delivery date of such bond (assumed to be October 30, 2024)?

☒ yes ☐ no

**Note: If the answer is Yes, please attach a copy of the Locality's reimbursement resolution.**

**Also, please indicate in the information provided pursuant to Question 2(a) above which expenditures the Locality plans to reimburse itself for with proceeds from this sale.**

3. Expenditure Period:

(a) Assuming VPSA issues its bonds on October 30, 2024 and funds are made available to the Locality on that date, please complete the following schedule indicating the amount of local school bond proceeds that the Locality expects to expend and disburse **during** the following time periods:

| Time Period | Amount to be Expended/Disbursed |
|---|---|
| From October 30, 2024 to April 30, 2025 | $ 493,000[8] |
| From May 1, 2025 to October 30, 2025 | 7,067,000 |
| From October 31, 2025 to April 30, 2026 | |
| From May 1, 2026 to October 30, 2026 | |
| If after October 30, 2026, specify the remainder of the expenditure period in 6 month intervals: | |
| TOTAL | $ 7,560,000[9] |

***Note: See the Endnotes (8) and (9).***

(b) To the extent you indicated that a portion of the local school bond proceeds are expected to be expended for the acquisition of land, do you expect to expend and disburse the amount shown in Section III, Question 1 for such purpose by April 30, 2025?

☐ yes ☐ no

(c) If you indicated that a portion of the local school bond proceeds are expected to be expended for the acquisition of interests in real property, do you expect to expend and disburse the amount shown in Section III, Question 1 for such purpose by April 30, 2025?

☐ yes ☐ no

(d) If you indicated that a portion of the local school bond proceeds are expected to be expended for the acquisition and/or installation of tangible personal property, do you expect to expend and disburse the amount shown in Section III, Question 1 for such purpose by April 30, 2025?

☐ yes ☒ no

4. Use by Nongovernmental Persons:

(a) Will any Nongovernmental Person own or lease all or any portion of the Project?[10]

☐ yes ☒ no

(b) Will the Project or any part or function thereof be subject to any management or service contracts or agreements with a Nongovernmental Person? The answer is Yes if, for example, the cafeteria will be managed by a private third party vendor.

☐ yes ☒ no

**If Yes, please describe.**

(c) Does any Nongovernmental Person have a contract, arrangement or special legal entitlement for the use of all or any portion of the Project that is not described in (a) or (b) above? Examples include:

- Vending machine leases, licenses or operating agreements.
- Short-term licenses, leases, licenses or occupancy or operating agreements for school stores, kiosks, auditoriums, gymnasiums or athletic fields.
- Naming rights.
- Advertising displays.
- Broadcasting rights.

☐ yes ☒ no

**If Yes, please describe.**

5. Taxpayer Identification Numbers. Please provide the federal Taxpayer Identification Numbers for the Locality and the School Board:

Locality 54-6001361
School Board: 54-6001363

**SECTION IV: Financing Requested**

1. Preferred Amortization Schedule: Principal is expected to be paid in annual installments starting on **July 15, 2025**. Please indicate your preferred final maturity and principal structure below:

| Preferred Final Maturity: 2044 | Preferred Principal Structure: | |
|---|---|---|
| 20 years | Level Principal | |
| | Level Debt Service | X |
| | Other (Explain) | |

**SECTION V. Project Authorization:**

1. Has your school board approved the Project(s) and authorized this application to VPSA for the needed financing?

☒ yes ☐ no

**Note: Please enclose certified copy of resolution.**

2. Were these bonds or any of the Projects the subject of a referendum within the previous five years?

☐ yes ☒ no

**If yes, provide the date of referendum:**

Did the referendum pass? ☐ yes ☐ no

**Note: Please enclose a copy of the ballot question and the official results.**

3. Person(s) responsible for disbursing and investing bond proceeds.

Name: Virginia SNAP, PFM Asset Management LLC
Address: One Keystone Plaza, Suite 300
North Front & Market Streets
Harrisburg, PA 17101-2044
Telephone: (800) 570-7627
Fax: (888) 535-0120

**SECTION VI. <u>Refunding/Refinancing of Existing Indebtedness</u>: If you indicated that Prior Obligations will be refunded with Bond proceeds in Section I, Question 1, please complete the following questions.**

1. Please provide the following details with respect to the Prior Obligation:

**(i)** Name of Bond or Note:

**(ii)** Original Par Amount:

**(iii)** Outstanding Par Amount:

**(iv)** Amount to be Refunded:

Par Amount:

Interest:

Redemption Premium:

**(v)** Issue Date:

**(vi)** Maturity Date:

**(vii)** Redemption Date:

**(viii)** Redemption Notice Requirement(s):

**(ix)** Bond Counsel for financing,

if different than current bond counsel:

**(x)** Unexpended Proceeds as of the date of Application:

**(xi)** Unexpended Proceeds as of the issuance of the VPSA financing:

**(xii)** Where are unexpended proceeds invested?

**(xii)** Other funds to be used to refund indebtedness: (e.g. cash, unexpended proceeds, etc.)

**(xiii)** Did the Prior Obligation finance more than school projects?

**(xiv)** Did the Prior Obligation refinance existing debt?

**(xv)** Other:

2. Please provide a schedule briefly detailing the expenditures for which the proceeds of the Prior Obligation were used.

3. Were the proceeds of the Prior Obligation used to reimburse the Locality for expenses paid before the Prior Obligation was issued?

☐ yes ☐ no

**Note: If the answer is Yes, please attach a copy of the Locality's reimbursement resolution. Also, please include a list briefly describing the expenditures for which the proceeds of the Prior Obligation were used to reimburse the Locality, including the date such expenditures were paid.**

**SECTION VII. Continuing Disclosure:**

1. Has the Locality executed any undertaking in regards to continuing disclosure not associated with the VPSA?

☒yes ☐no

2. If yes, is the Locality in material compliance with its continuing disclosure obligations for the previous five years?

☒yes ☐no

If no, please provide a brief explanation.

**BY SIGNING THIS APPLICATION, THE LOCAL OFFICIALS ACKNOWLEDGE THAT IF FUNDS ARE BORROWED FROM VPSA TO FUND A PROJECT IN LIEU OF RECEIVING A LITERARY FUND LOAN, THE LOCALITY WILL BE REMOVED FROM THE LITERARY FUND WAITING LIST FOR THIS PROJECT. THE LOCAL OFFICIALS ALSO ACKNOWLEDGE THAT FUTURE LITERARY FUND MONIES MAY NOT BE USED TO REDEEM BONDS SOLD TO VPSA.**

Signature required _____
(School Superintendent)

ACKNOWLEDGEMENT:

IN ADDITION TO THE ACKNOWLEDGMENT ABOVE, THE UNDERSIGNED [COUNTY ADMINISTRATOR][CITY MANAGER][TOWN MANAGER] ACKNOWLEDGES THAT THE SCHOOL BOARD HAS CAUSED THIS APPLICATION FOR FINANCING TO BE SUBMITTED TO THE VIRGINIA PUBLIC SCHOOL AUTHORITY; HOWEVER, THE FINANCING REMAINS SUBJECT TO THE APPROVAL OF THE [BOARD OF SUPERVISORS][CITY COUNCIL][TOWN COUNCIL] AND THE SUBMISSION OF THIS APPLICATION DOES NOT AUTHORIZE OR REQUIRE THE ACTUAL ISSUANCE OF BONDS BY THE LOCALITY.

Signature required _____
County Administrator

**THIS APPLICATION MUST BE COMPLETED AND RETURNED VIA E-MAIL ONLY BY 5:00 PM ON AUGUST 26, 2024 TO VPSA@TRS.VIRGINIA.GOV.**

**LOCALITIES NOT RETURNING THIS FORM WILL NOT BE INCLUDED IN THE SALE.**

**SECTION VII. Continuing Disclosure:**

1. Has the Locality executed any undertaking in regards to continuing disclosure not associated with the VPSA?

☒ yes ☐ no

2. If yes, is the Locality in material compliance with its continuing disclosure obligations for the previous five years?

☒ yes ☐ no

If no, please provide a brief explanation.

**BY SIGNING THIS APPLICATION, THE LOCAL OFFICIALS ACKNOWLEDGE THAT IF FUNDS ARE BORROWED FROM VPSA TO FUND A PROJECT IN LIEU OF RECEIVING A LITERARY FUND LOAN, THE LOCALITY WILL BE REMOVED FROM THE LITERARY FUND WAITING LIST FOR THIS PROJECT. THE LOCAL OFFICIALS ALSO ACKNOWLEDGE THAT FUTURE LITERARY FUND MONIES MAY NOT BE USED TO REDEEM BONDS SOLD TO VPSA.**

Signature required _____
(School Superintendent)

ACKNOWLEDGEMENT:

IN ADDITION TO THE ACKNOWLEDGMENT ABOVE, THE UNDERSIGNED [COUNTY ADMINISTRATOR][CITY MANAGER][TOWN MANAGER] ACKNOWLEDGES THAT THE SCHOOL BOARD HAS CAUSED THIS APPLICATION FOR FINANCING TO BE SUBMITTED TO THE VIRGINIA PUBLIC SCHOOL AUTHORITY; HOWEVER, THE FINANCING REMAINS SUBJECT TO THE APPROVAL OF THE [BOARD OF SUPERVISORS][CITY COUNCIL][TOWN COUNCIL] AND THE SUBMISSION OF THIS APPLICATION DOES NOT AUTHORIZE OR REQUIRE THE ACTUAL ISSUANCE OF BONDS BY THE LOCALITY.

Signature required _____
County Administrator

**THIS APPLICATION MUST BE COMPLETED AND RETURNED VIA E-MAIL ONLY BY 5:00 PM ON AUGUST 26, 2024 TO VPSA@TRS.VIRGINIA.GOV.**

**LOCALITIES NOT RETURNING THIS FORM WILL NOT BE INCLUDED IN THE SALE.**

## ENDNOTES

1. For purposes of this questionnaire, "real property" means improvements to land, such as buildings or other inherently permanent structures, including items that are structural components of such buildings or structures. For example, real property includes wiring in a building, plumbing systems, central heating or central air conditioning systems, pipes or ducts, elevators or escalators installed in a building, paved parking areas, roads, wharves and docks, bridges and sewage lines.

2. For purposes of this questionnaire, tangible personal property means any tangible property except real property. For example, tangible personal property includes machinery that is not a structural component of a building, school buses, automobiles, office equipment, testing equipment and furnishings.

3. See description of real property in endnote 1. This includes all capital expenditures that are properly chargeable to or may be capitalized as part of the basis of the real property prior to the date the property is placed in service. For purposes of this questionnaire, expenditures are considered paid in connection with the construction, reconstruction or rehabilitation of real property if the contract between the Locality and the seller requires the seller to build or install the property (such as under a "turnkey contract") but only to the extent the property has not been built or installed at the time the parties enter into the contract. If the property has been partially built or installed at the time the parties enter into the contract, the expenditures that are allocable to the portion of the property built or installed before that time are expenditures for the acquisition of real property.

4. See endnote 1.

5. See endnote 1.

6. For purposes of this application, expenditures are in connection with the construction of tangible personal property, as defined in endnote 2, if:

   (a) A substantial portion of the property or properties is completed more than 6 months after the earlier of the date construction or rehabilitation commenced and the date the Locality entered into an acquisition contract;

   (b) Based on the reasonable expectations of the Locality, if any, or representations of the person constructing the property, with the exercise of due diligence, completion of construction or rehabilitation (and delivery to the Locality) could not have occurred within that 6-month period; and

(c) If the Locality itself builds or rehabilitates the property, not more than 75% of the capitalizable cost is attributable to property acquired by the Locality (e.g., components, raw materials and other supplies).

7. Specially developed computer software means any programs or routines used to cause a computer to perform a desired task or set of tasks, and the documentation required to describe and maintain those programs, provided that the software is specially developed and is functionally related and subordinate to real property or other constructed personal property.

8. Include amounts expended prior to October 30, 2024 **and approved by your bond counsel** for reimbursement from your Local School Bond proceeds. This does not include any amount used to refinance or repay any loan.

9. Total should equal the total of the Local School Bond Proceeds in Question 1 of Section III.

10. A Nongovernmental Person is any Person that is not a state or local governmental unit (or any instrumentality thereof). The term Person encompasses any natural person, firm, joint venture, association, partnership, business trust, corporation, limited liability company, corporation or partnership, or any other entity (including a federal, state or local governmental entity). Note that the government of the United States and any of its agencies or instrumentalities are Nongovernmental Persons for purposes of Section III, Question 4.

**ISSUE:**

Consideration of a Three-Year Real Estate Reassessment Schedule

**BACKGROUND:**

Gerald Gwaltney, Commissioner of Revenue, has previously provided information regarding the potential advantages/disadvantages of implementing various schedules for real estate reassessments. The Board may wish to hold a public hearing regarding this matter.

**BUDGETARY IMPACT:**

None.

**RECOMMENDATION:**

Hold a public hearing. Per the Board's discussion and direction.

**BACKGROUND:**

The matters attached to this Board report are included as a means of providing information to the Board relative to matters of interest. These items do not require any action by the Board.

**BUDGETARY IMPACT:**

None

**RECOMMENDATION:**

For the Board's information.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Museum Report - August 2024 | Backup Material | 9/4/2024 |
| Blackwater Regional Library Press Release | Backup Material | 9/4/2024 |
| Dominion Power Fact Sheet | Backup Material | 9/12/2024 |
| Correspondence from Charter | Backup Material | 9/17/2024 |

# Isle of Wight County Museum &
## Isle of Wight County Historic Resources

## August 2024 Report

**J.L. England, Museum Director & Isle of Wight County Historic Resources Manager**

# Isle of Wight County Museum 103 Main Street, Smithfield

- **VISITATION**: 678
- **SPECIAL EVENTS**
  - **Aug. 2. National Coloring Book Day.** Coloring and coloring books have always been popular with children, but over the past few years, adult coloring has become a huge trend because it is a fun way to relieve stress. Stop by the museum to destress in our main gallery. The Blackwater Regional Library will also be here with books, giveaways and a storytime session. 39 artists.
  - **Aug. 17. LUNCH & LEARN: Smithfield's Disastrous 1921 Wharf Fire.** Today marks the 103rd anniversary of the huge fire that radically changed the town's economy. Citizens raced down to the docks to the loud screams of steamboat whistles and the clanging of church bells. The conflagration consumed most of the industry that had made Smithfield "The peanut capital of the world" and was only stopped by the well-timed arrival of Suffolk's new "motor pump" fire engine. Come to the museum to learn the dramatic story of the blaze that turned the town's focus from peanuts to ham. 9 guests.

  - **Aug. 20-Sept. 6. The Life and Legacy of the Marquis de Lafayette: A Traveling Exhibit.** The American Friends of Lafayette's traveling exhibit tells the important stories of Lafayette's life and legacy including his American Revolution participation, his critical role in cementing the Franco-American Alliance, his lifelong passion for human rights and his return as Guest of the Nation in 1824-1825. Also highlighted are efforts of the American Friends of Lafayette to commemorate this bicentennial in 2024-2025. This exhibit strives to make Lafayette's story more accessible and relevant to today's citizens accenting the connections between Lafayette and George Washington as well as more recent history including the 2002 decision to proclaim Lafayette an honorary citizen of the United States. The final day of the exhibit's stay at the Isle of Wight County Museum is Lafayette's 267th birthday. The museum will host Frank Womble of the American Friends of Lafayette for a lecture and birthday celebration. Many visitors.

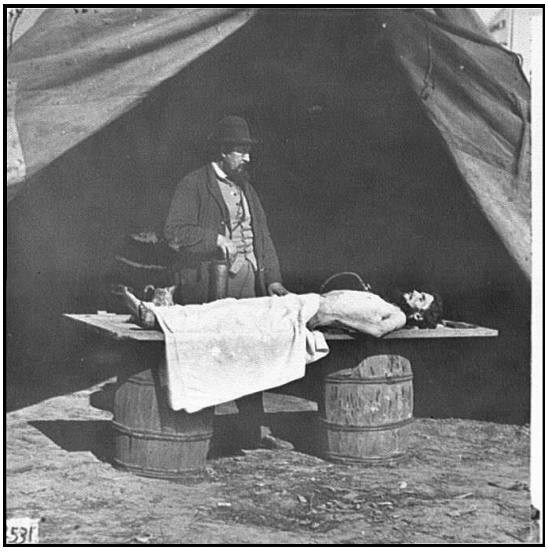
- **LIVESTREAMING EVENTS.** We continue to connect with visitors, supporters, fans and the community via social media. Our livestreaming tours and programs on Facebook are driving traffic and enhancing interaction on our sites. Events this month, still viewable in the videos section of our Facebook page, include:
  - **Aug. 1. LIVE at 12:05: What is Tanglefoot?** The Tanglefoot Company was established by the Thrum Brothers in 1885. They became known for their sticky fly paper and their

innovative adhesive formula. As the needs of consumers changed, the Tanglefoot Company changed with it by turning their attention to insect and wildlife damage to plants and trees. The company still exists today.

- **Aug. 6. LIVE at 12:05: Covering Some Ground in the Basement.** Courtesy of Isle of Wight County Public Works, the museum is experiencing some upgrades to its basement floor...sanding, patching, painting. Throughout history, there have been so many choices for materials used in the ground, and this change is very welcome. When you visit in a few weeks, you'll be floored!

- **Aug. 8. LIVE at 12:05: Cemetery Adventures Continue with Evergreen Cemetery.** Kathy Walls Mountjoy continues our cemetery adventures in Isle of Wight County by exploring Evergreen Cemetery. Established in Smithfield in 1886, the cemetery was overgrown and lost for quite some time before its rediscovery in 2002. Several community organizations have stepped in to rejuvenate and maintain the monuments and grounds of Evergreen Cemetery.

- **Aug. 13. LIVE at 12:05: George Taylor Nelms Story in Stone.** Join Kathy Walls Mountjoy at Ivy Hill Cemetery for another Story in Stone - this time highlighting George Taylor Nelms. Son of George and Sarah Nelms, George Taylor's tombstone was erected by the citizens of Isle of Wight County in memory of his attempted heroics on August 3, 1913, when he drowned while trying to save his companions.



- **Aug. 15. LIVE at 12:05: Happy Relaxation Day!** Join Curator Rachel Popp for a relaxing breath and quiet moment at Fort Boykin for Relaxation Day. Fort Boykin was originally named The Castle and established in 1623. The site has a rich history - perfect for a relaxing stroll today!
- **Aug. 20. LIVE at 12:05: Civil War Embalming.** While the origins of embalming can be traced back to the Egyptians, embalming in the U.S. didn't take hold until the American Civil War. With both Union and Confederate Troops fighting in battlefields far from home, embalming quickly became a regular practice as a means of returning the bodies of the deceased to their families despite the distance. It had previously been regular practice to bury people

in cemeteries located near their place of death whether they had a connection to the area or not.

- **Aug. 22. LIVE at 12:05: The Marquis de Lafayette Exhibit is Here.** The exhibit from The American Friends of Lafayette is on display in our main gallery. Visit before September 6 when it will head to its next location.
- **Aug. 27. LIVE at 12:05: Stories in Stone...Stories in Cemeteries.** Join Kathy Mountjoy at Ivy Hill Cemetery for this discussion of the stories that cemeteries hold as well as the Rural Cemetery Movement.
- **Aug. 29. LIVE at 12:05: Behind the Sinks at Carrollton-Nike Park.** Join museum volunteer extraordinaire Albert Burckard behind the scenes at Carrollton-Nike Park, once known as Nike Missile Battery N-75L and the site of Isle of Wight County Parks and Recreation as he highlights original portions of the site and explores a new item in the museum's collection.

- **MY ISLE: MEMORIES & RECOLLECTIONS**
  - This video series, launched in 2023, features residents and family members sharing stories of Isle of Wight County. **Two pieces are currently in production.** View all episodes in this series on our YouTube Channel, Facebook page or website: www.historicisleofwight.com/my-isle-memories-and-reflections.html.
- **BEHIND THESE WALLS**
  - This video series, launched in 2020, allows some of the county's most interesting structures to share their stories. View all episodes in this series on our YouTube Channel, Facebook page or website: www.historicisleofwight.com/behind-these-walls.html. **Currently in production is a feature on Sycamore Cross.**
- **GROUPS/TOURS/PROGRAMS**
  - Aug. 1. Noble Care, Suffolk. 4 guests.
  - Aug. 6. Noble Care, Suffolk. 4 guests.
  - Aug. 22. Smithfield Foods. 9 guests.
  - Aug. 22. Smithfield & Isle of Wight County Tourism FAM tour. 4 guests.
- **GIFT SHOP**
  - Added were Ashburn House and Windsor Train Station shelf sitters in coordination with the Woman's Club of Windsor and Lafayette Bicentennial calendars.

- **EXHIBIT/PROJECT UPDATE**
  - **Historic Smithfield.** Awaiting installation of the Sinclair sign on South Church Street.
  - **Sprigg Wing, Phase II: Crops, Trade & Merchants.** The new timeline is in production!
  - **First Residents.** Awaiting mounting of longleaf pine tree branches.
  - **Civil War Trails.** A new sign at Fort Boykin is in production.
  - **Local Treasures**. Currently on display is the collection of **Robert Cox** showcasing artifacts recovered from one of Isle of Wight County's early courthouses, the **Mount Holly**

**Courthouse**. This exhibit concept displays the private collections of Isle of Wight County residents and/or those with a local connection. For more information and applications: www.historicisleofwight.com/local-treasures.html.

- **English Telephone Box**. Dishman Fabrications LLC of Yorktown installed the door and glass. Next step is the flooring, exhibit production and installation.
- **Steamboats & Life on the Water; Unusual Objects; Vietnam War Veterans in Isle of Wight County: Online Exhibit; Unsung Heroes of Isle of Wight County: Online Exhibit.** Under development.
- **ISLE Be Home for Christmas.** This book project is collecting photographs, postcards, stories, mementos, songbooks, recipes and more that detail the holiday season in Isle of Wight County. To be published in November 2024.
- **Nike-Ajax N-75.** A book about the former missile battery in Carrollton is in production. To be published in 2024.
- **Riverside Smithfield Hospital.** Concept designs were presented to Riverside In July.

- **ARTIFACTS**
  - Donations included Nike Battery N-75L documents, photographs, glass bottles and postcards.
  - Town of Smithfield Records. Digitization has begun. The first of eight books is complete. Books 2, 3 and 4 are in progress.
- **STAFF TRAINING AND REQUIREMENTS**
  - None.

# Financials

| | |
|---|---|
| • Gift Shop Sales: | $ 901.85 |
| • Gift Shop Tax: | $ 58.45 |
| • Donations: | $ 0.00 |
| • Admission: | $ 968.00 |
| • Program/Lecture Fees: | $ 250.00 |
| **Total Monthly Deposit:** | **$ 2,178.30** |

# Social Media/Online Presence

- Visit our website at www.historicisleofwight or www.hamcamva.com.
- **LIVE at 12:05.** Each Tuesday and Thursday, we host pop-up broadcasts on the museum's Facebook page. Our segments which are shot in the museum or at any of our historic sites highlight events at the museum, announcements or artifacts from our collection. Tune in each Tuesday and Thursday at 12:05 p.m. on the museum's Facebook page to learn a bit about local history.
- **Facebook:** Isle of Wight County Museum: 3.7K likes and 4.7K followers. Daily posts.
- **Facebook:** World's Oldest Ham: 324/342 likes/followers. Semi-weekly posts.
- **Facebook:** Town of Smithfield. Periodic posts, responses and maintenance.

- **Twitter.** @WorldsOldestHam. The world's oldest ham has his own account. 1,476 followers.
- **Instagram.** @Isleofwightcountymuseum. 1,157 followers.
- **YouTube.** Isle of Wight County Museum. 211 subscribers.
- **Google Reviews.** 4.7/5 overall rating.
- **TripAdvisor.** 4.5/5 star overall rating.
- **Yelp.** 4.5/5 star overall rating.
- **Foursquare/Swarm.** 7.3/10 rating.
- **EarthCam/HamCam.** Streaming views from May 14 to Aug. 14: 103,627.

# Media Coverage/Promotion/Advertising/Lobbying

- Various pieces in area publications to include calendars and events.
- **Aug. 1. WHRO.** Radio segment: Nike-Ajax N-75 and Norfolk Defense Area Cold War History piece on "Morning Edition" and "All Things Considered"
- **Aug. 2. *Windsor Weekly*.** Article: Campers enjoy 'pig mania' in Isle of Wight - https://www.windsorweekly.com/2024/08/02/campers-enjoy-pig-mania-in-isle-of-wight/
- **Aug. 7. *Smithfield Times***. Article: Commemorating 250 years of freedom: Becoming Virginians.
- **Aug. 14. *Smithfield Times***. Article: IW Museum to host exhibit on Lafayette.
- **Aug. 21. *Smithfield Times***. Editorial: Tip of the cap to those who've chronicled IW history.
- **Aug. 28. *Smithfield Times***. Editorial: In the Short Rows: Isle of Wight Museum endures as a cultural jewel - https://www.smithfieldtimes.com/2024/08/28/column-isle-of-wight-museum-endures-as-a-cultural-jewel/
- **Aug. 30. *Gazette Leader***. Article: Events increasing as Virginia ramps up to celebration nation's 250th - https://www.gazetteleader.com/fairfax/news/events-increasing-as-va-ramps-up-to-celebration-nations-250th-9458818

# Outreach Lectures & Events

- **Aug. 7. Isle of Wight County Parks and Recreation Summer Blast Camp**, Windsor Town Center. Theme: Health, Fitness, Patent Medicines and the Olympics. 35 students.
- **Aug. 9. Isle of Wight County Parks and Recreation Summer Blast Camp**, Nike-Carrollton Park. Theme: Health, Fitness, Patent Medicines and the Olympics. 35 students.
- **Aug. 15. Hampon Roads Civil War Roundtable**, Virginia Beach. Theme: Captain Norsworthy, CSA and foods of Civil War. 55 guests.
- **Aug. 21. Warwick County Historical Society**, Newport News. Theme: Collis Potter Huntington. 33 guests.

## Windsor Castle 705 Cedar Street, Smithfield

- **Aug. 4. Walking Tour.** From the site's pre-colonial existence to the present day, Windsor Castle tells the fascinating history of the development of Smithfield. Join us for this walking tour through history as we explore the house and several of the outbuildings. Meet on the front steps of Windsor Castle, 301 Jericho Road, Smithfield. $5 per person. 6 guests.
- Aug. 20. Bookworm Discoveries at Windsor Castle Park. Join the Blackwater Regional Library and Isle of Wight County Museum at Windsor Castle Park for outdoor programming featuring themes of agriculture, nature and bugs! This fun and free opportunity to learn a little local history with STEAM themes while enjoying some fresh air and the chance to check out some books is perfect for bookworms of all ages. Theme: Root Vegetables. Meet in the pole barn next to Windsor Castle, 301 Jericho Road. Dressing as a bookworm is optional but encouraged! For more information, www.blackwaterlib.org or 757-356-1223. 9 guests.

## Fort Boykin 7410 Fort Boykin Trail, Isle of Wight County

- No updates.

## Fort Huger 15080 Talcott Terrace, Isle of Wight County

- **Aug. 3. Walking Tour.** Visit this Civil War fort and learn the significance of this gateway to the Confederate capital. Tour meets at Fort Huger, 15080 Talcott Terrace, Smithfield. 17 guests.

## Nike-Carrollton Park 13036 Nike Park Road, Carrollton

- **Nike-Ajax Missile Restoration.** Isle of Wight County Public Utilities is at work on the site plan for the missile. ECS Mid-Atlantic LLC completed the subsurface exploration, laboratory testing and geotechnical engineering analyses.
- **Aug.** 24. Walking Tour. Visit Nike-Ajax Missile Site N-75L, one of the Cold War's few surviving Army Air-Defense Posts. Local historian Albert Burckard along with former missile mechanic Ira Abbott host a short presentation and walking tour of this site which contains the original barracks, mess hall, administration and recreation building, officer/non-commissioned officer family housing,

fueling area and underground missile magazines. Event begins in the Recreation Hall (former soldier barracks) at Nike Park, 13036 Nike Park Road, Carrollton. 14 guests.

## Boykin's Tavern, 1820 Clerk's Office & Isle of Wight County Court House Complex 17146 Monument Circle, Isle of Wight County

- Boykin's Tavern Visitors: 2

## Meetings

- Aug. 7. Peninsula Museums Forum, hosted by the Isle of Wight County Museum at Windsor Castle.
- Aug. 20. Town of Smithfield staff meeting.
- Aug. 22. Library of Virginia.

## Other Events & Notable Information

- **Volunteer Hours**: 208 (including the hours of our devoted summer intern Jason Barnum who went back to Bridgewater College for his senior year.)
- **Staff.** Docent Dee Campbell's last day was Aug. 29. She and her husband are in the process of relocating to a place that will make commuting too difficult. We already miss her!
- **Smithfield and Isle of Wight County Tourism**
    - Aug. 21. At the annual Tourism breakfast, Director Jennifer England was recognized as a 2024 Community Ambassador.
- **Ashburn House**
    - The Town of Windsor Town Council is considering the purchase of the Ashburn House and has reached out to staff for assistance regarding plans and considerations towards this goal. Further details are TBA.
- **Isle of Wight County Museum Economic Impact Survey for August 2024:**
    - 24.0% made a gift shop purchase
    - 51.4% indicated that they had lunch/dinner plans in Smithfield/Isle of Wight County
    - 65.3% indicated that they were planning to or had already shopped in Smithfield/Isle of Wight County

- **Isle of Wight County Department of Community Development & Planning**
  - Reviews for the following projects:
    - St. Luke's Village Amendment to Conditional Zoning Application – Proffer Amendment #2 (ZA-5-22), 20081 and 20041 Brewer's Neck Boulevard (Route 258), Tax Map Numbers 33-01-012B and 33-01-012C MUNIS #26896 – Fourth Submittal
    - Sycamore Cross Phase I Review
- **Town of Smithfield Department of Community Development & Planning**
  - No updates.
- **Virginia American Revolution 250 Commission**
  - **Smithfield Times Article Series**: 2024-2026. Published Aug. 7 was ***Commemorating 250 Years of Freedom:*** *Becoming Virginians.*
  - **Virginia 250 Preservation Fund.** Two pre-applications for this grant were submitted. Full applications will be submitted if approved:
    - Fort Huger site improvements
    - Nike-Carrollton Park Nike-Ajax Missile Restoration
- **The Schoolhouse Museum**
  - No updates.
- **Ivy Hill Cemetery**
  - No updates.
- **Isle of Wight County IT Department**
  - Delivery and installation of three new desktop computers requiring updates.

## Safety & Repairs

- Isle of Wight County Public Works is repairing and repainting the floor in the museum's basement. The project will be completed by mid-September.

# Selections from Our Website and Social Media

Ben Neal
Blackwater Regional Library
bneal@blackwaterlib.org
757.653.0298, ext. 303

August 27, 2024

**Blackwater Regional Library Announces Roku Streaming Kits Now Available to Check Out!**

*Roku devices loaded up with the most popular Streaming Services now available for check out!*

Blackwater Regional Library now has Roku Kits available to check out for free! These devices will connect with your HDMI-enabled television and give you access to thousands of streaming titles from your favorite streaming services.

"Our patrons commonly ask us for ways to access the newest and most popular shows on streaming services, and we are proud to find a way to connect them with the shows and movies that they most want to watch", said Elizabeth Qualls, the library's Collection Development Manager, who spearheaded this project.

Each Roku will be loaded with at least one premium streaming service, as well as lots of free streaming services offered through Roku. To help bridge the broadband divide, some Roku kits will come with MiFi Hotspots, while others will not. The library encourages patrons to request one with a hotspot, only if they do not have home internet access. We are pleased to offer devices programmed with these streaming services:

- Disney+, Hulu, and ESPN+
- Apple TV and Acorn TV
- Max (HBO) and Peacock
- Prime, with Paramount+ and Hallmark Movies Now channels (**Channels located within Prime app**)
- Netflix

All the Roku kits will also come pre-loaded with several free streaming services to supplement the premium streaming offerings. You may request the specific Roku kit you need through the library catalog. More information can be found at www.blackwaterlib.org/roku

Ben Neal, Library Director shared, "Blackwater Regional Library is thrilled and thankful to be able to offer this creative solution to meet the entertainment needs of our community!"

Blackwater Regional Library's mission is to provide a safe and attractive space that promotes creativity, literacy, community enrichment and development, and lifelong learning to all segments of our service area through programming and outreach. Blackwater Regional Library serves the City of Franklin and the Counties of Isle of Wight, Southampton, Surry & Sussex. www.blackwaterlib.org

# Isle of Wight County

Dominion Energy
Powering Your Every Day.

Dominion Energy is committed to safely providing reliable, affordable, and increasingly clean energy. We are excited to share some key details about your community.

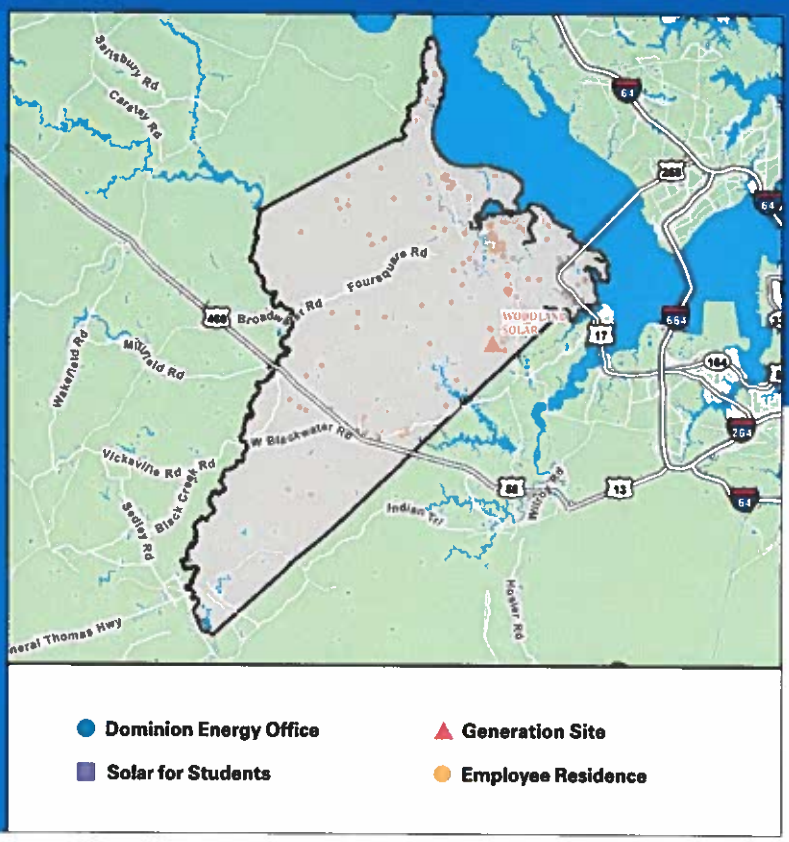
## Who we serve in your county:

**13,000**
Residential

**1,100**
Commercial

**4**
Industrial

**155**
Governmental




## Dominion Energy Constituents

Employees residing in your district: **180**
Employees working in your district: **N/A**
Retirees: **155**
Shareholders: **495**

## Energy Infrastructure

Distribution overhead line miles: **330**
Distribution underground line miles: **195**
Transmission overhead line miles: **145**
Transmission underground line miles: **N/A**
Fiber / rural broadband miles: **25**
Smart meters installed: **14,500**

## Community Contributions in 2023

Participants in regulated energy conservation programs, including our Income & Age Qualifying option: **2,800**
EnergyShare® homes weatherized: **N/A**
EnergyShare® total weatherization assistance: **N/A**
EnergyShare® customers receiving bill assistance: **10**
EnergyShare® total bill assistance: **$5,200**
Total charitable contributions: **$2,700**
Hours volunteered by employees: **335**
Taxes paid: **$1 Million**
Number of vendor partners: **10**
Spending with vendors: **$2 Million**

700024R8028 5/24

Dear Franchise Official:

We value our customers and continue to improve our services with the finest entertainment products available, while also providing a compelling suite of video services at the greatest value. Effective on or around September 17, 2024, Charter will begin implementing all-in pricing for **new** video customers. Below is **new** customer package pricing.

| **Service** | **Rack Rate** | **Broadcast TV Surcharge** | **Increase (due to increase in programming costs)** | **New All-In Pricing Total*** |
|---|---|---|---|---|
| Spectrum TV Select Plus | $94.99 | $25.75 | $4.26 | $125.00 |
| Spectrum TV Select | $89.99 | $25.75 | $4.26 | $120.00 |
| Spectrum Select Signature | $84.99 | $25.75 | $4.26 | $115.00 |
| Spectrum Mi Plan Latino | $59.99 | $25.75 | $4.26 | $90.00 |
| Spectrum TV Choice | $49.99 | $25.75 | $4.26 | $80.00 |
| Spectrum Basic | $9.99 | $25.75 | $0.26 | $36.00 |

Package prices will not change for **existing** customers.

We remain committed to providing excellent entertainment services in your community. If you have any questions about this change, please feel free to contact me at (910)734-2425 or via email at Eric.Collins@charter.com

Sincerely,

Director of Government Affairs

**Eric Collins** | Director of Government Affairs

Charter Communications

6202 Raeford Road | Fayetteville, NC 28304

O: 910.401.5168 | C: 910.734.2425

E: eric.collins@charter.com

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**ISSUE:**

Application of Elk Development, LLC, Applicant, and William Pennie, Jr. and Teresa L. Crocker, Property Owners, for a Conditional Use Permit for a Major Utility Service, Specifically a 3.0 MW Utility-Scale Solar Energy Generation Facility, on Approximately 27.32 Acres on a 94.21-Acre Tract Located on Old Stage Highway in the Rural Agricultural Conservation (RAC) Zoning District

**BACKGROUND:**

Elk Development, LLC, applicant, and William Pennie, Jr. and Teresa L. Crocker, property owners, submitted an application for a conditional use permit for a major utility service, specifically a 3.0 MW utility-scale solar energy generation facility, on approximately 27.32 acres on a 94.21-acre tract located on Old Stage Highway with tax parcel number 13-01-005 in the Rural Agricultural Conservation (RAC) zoning district.

The 22.62-acre project is situated on a parcel consisting of approximately 94.21 acres primarily consisting of agricultural fields. The property is in the RAC zoning district. Not all acreage comprising this parcel is proposed for the solar facility. Based on the project area, 22.62 acres of crops will be removed from production. Approximately 18 acres will be in the fenced area of the solar facility project area. The subject property has never been developed and has been used historically for agriculture. Of the acreage included in the project area, six of the acres are considered prime farmland, with four of those acres included inside the fenced area.

After the June Planning Commission meeting, the applicant submitted a revised layout to show compliance with Ordinance requirements. The revised layout includes new locations for the panels and an increased distance from the Keystone Segment of the Captain John Smith National Historic Trail. The panels are now shown a minimum of 250 feet from the historic trail which meets the supplementary use regulations of the zoning ordinance. The revised layout also includes a reduction in the amount of acreage in the project area. The updated documents have been attached for your use.

<u>Project Update</u>
After the August Board of Supervisors meeting, the applicant submitted a revised conceptual plan. The revision involves extending the landscape buffer along the project boundary to the south by 10 feet, resulting in a new 20-foot-wide

landscape buffer. This adjustment aims to enhance the visual screening of the project from the south. If the row of trees discussed at the August meeting is ever removed, adding additional trees to this buffer will further contribute to shielding the project from view from the south.

A full analysis of the consistency of the application with County plans and ordinances is attached in the Planning Commission staff report.

**BUDGETARY IMPACT:**

None

**RECOMMENDATION:**

At their June 25, 2024, regular meeting, the Planning Commission recommended denial of the application with a unanimous vote (10-0).

With the updated layout reducing the amount of acreage being used for the project and increasing the distance to the nearest historic resource, staff recommends approval of the application with the following conditions: 1) Topsoil shall be stockpiled on the site and shall be stored out of view from adjacent properties and public roads. 2) No improvements shall be located closer than 250 feet from boundary of the Keystone Segment of the Captain John Smith Trail. 3) The applicant shall submit a seed mix for site groundcover that includes native pollinators blooming in spring/summer as recommended by DCR. 4) The applicant will work directly with the Isle of Wight County Chamber of Commerce, Paul D. Camp Community College, and the Economic Development Department to ensure inclusion of local contractors in the bidding process. 5) A laminated Emergency Response Poster will be mounted near the front gate. The poster will include a general site plan, evacuation routes and muster points, emergency response chain of command, directions to the closest hospital, coordinates to the closest life flight landing area, and other pertinent information associated with the facility during an emergency response. 6) The facility perimeter fencing will be equipped with push bar pedestrian gates to permit emergency exits from the facility. 7) Adherence to the proposed transportation plan shall be required for all facility traffic. Truck traffic shall be limited to only to the preferred route as described in in the transportation plan. No other local routes in Isle of Wight County may be used. The applicant shall coordinate deliveries outside of school bus pickup and drop-off times. 8) Excluding the bufferyards, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing

and/or grazing. 9) Hours of operation for construction and post-construction operation shall be limited to Monday through Friday, 7:00 a.m. to 6:00 p.m. Saturdays from 7:00 a.m. to 5:00 p.m. No construction is to occur on Sundays by any party involved with the project. 10) As part of the site plan review, the applicant shall provide documentation that the selected panels and all power-generating equipment on-site are "Tier 1" modules, as established by the most recent "PV Module Tier 1 List" issued by Bloomberg NEF or a similar third party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power-generating equipment initially installed and replaced on the site must qualify, for disposal purposes only, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP). 11) The applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil conditions, including depth, density, and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to at least baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results. 12) Any recommendations provided by VDHR during site plan review will be adhered to, in addition to requirements in the zoning ordinance.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Application | Backup Material | 6/14/2024 |
| Revised Concept Plan | Backup Material | 8/5/2024 |
| Concept Plan | Backup Material | 5/20/2024 |
| Narrative | Backup Material | 6/14/2024 |
| Transportation Route | Backup Material | 5/20/2024 |
| Economic Impact Analysis | Backup Material | 6/14/2024 |
| Visual Impact Analysis | Backup Material | 5/20/2024 |

| | | |
|---|---|---|
| Wetland Study | Backup Material | 5/22/2024 |
| Threatened and Endangered Species Assesssment | Backup Material | 5/22/2024 |
| Phase 1 Study | Backup Material | 5/20/2024 |
| Isle of Wight County Musuem Response | Backup Material | 5/20/2024 |
| Mitigation Memo DHR | Backup Material | 5/20/2024 |
| Location Map | Backup Material | 5/20/2024 |
| Location Closeup Map | Backup Material | 5/20/2024 |
| Zoning Map | Backup Material | 5/20/2024 |
| Land Use Map | Backup Material | 5/20/2024 |
| Ecological Core map | Backup Material | 5/22/2024 |
| Solar Facility Table | Backup Material | 6/18/2024 |
| PC Staff Report | Backup Material | 8/1/2024 |
| Revised Application | Backup Material | 8/5/2024 |
| Revised Narrative | Backup Material | 8/5/2024 |
| Ordinance | Ordinance | 8/5/2024 |
| Revised Concept Plan | Backup Material | 9/6/2024 |

Local Roots, Global Reach

ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF PLANNING AND ZONING

# APPLICATION FOR CONDITIONAL / SPECIAL USE PERMIT

This application should be used to petition for a permit for certain uses which, because of their unique characteristics or potential impacts on adjacent land uses, are not generally permitted in certain zoning districts as a matter of right, but which may, under the right set of circumstances and conditions be acceptable in certain specific locations. The following application requirements are consistent with the procedures set forth in Section 1-1017, *Conditional Uses,* and Section 1-1018, *Special Use Permits for Uses Not Provided For,* of the Isle of Wight County Zoning Ordinance, as amended.

**A. APPLICATION FOR (CHECK ALL THAT APPLY):**

[x] Conditional Use Permit (Are applicant proposed conditions attached?): x Yes _____ No

The proposed use or activity is listed as a conditional use in the RAC zoning district as per Section 4-2003 in Article IV of the Isle of Wight County Zoning Ordinance.

[ ] Special Use Permit (Are applicant proposed conditions attached?):_____Yes _____ No

Proposed Use or Activity: Solar Energy Generation Facility

**B. PROJECT DESCRIPTION:**

Project Name: VAL025

Property Address (if any): 8699 OLD STAGE HWY, SMITHFIELD, VA 23430

Election District: 3

Comprehensive Plan Designation: RURAL AGRICULTURAL CONSERVATION

The use permit will apply to 27.32 acres out of 94.21 total acres

Tax Parcel Identification # 13-01-005 Number of acres to be effected: 94.21

Tax Parcel Identification #_____Number of acres to be effected: _____

Tax Parcel Identification #_____Number of acres to be effected: _____

Proposed Utilities (check all that apply): Public Water_____ Private Well _____

Public Sewer_____ Private Septic _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): ELK DEVELOPMENT, LLC

Address: 6865 DEERPATH ROAD, SUITE 330

City, State, Zip Code: ELKRIDGE, MD, 21075

Phone No.: 570-847-7555 Email: rhickox@pivotenergy.net Fax No.:

Property Owner(s) Name(s): CROCKER WILLIAM PENNIE JR & TERESA L

Address: 16338 MORGARTS BEACH RD

City, State, Zip Code: SMITHFIELD, VA 23430

Phone No.: 757-651-9280 Email: fnhrugershooter@gmail.com Fax No.:

5/16/2024

**Applicant Signature** **Date**

24 MAR 23

**Owner Signature *if different*** **Date**

**NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.**

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

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**FOR OFFICE USE ONLY:**

Complete Application Received On: _____ Fees Paid: _____
Tax Query: [ ] Current [ ] Delinquent Distribution Date: _____
Posted/Date to Post: _____

**AGENCIES REFERRALS:**

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: _____ Date: _____

# COUNTY OF ISLE OF WIGHT
## DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant ELK DEVELOPMENT, LLC

Address 6865 DEERPATH ROAD, SUITE 330
Street

ELKRIDGE MD 21075
City State Zip

### REAL ESTATE HOLDINGS TO BE AFFECTED

| Location or Address | Description |
|---|---|
| 8699 OLD STAGE HWY, SMITHFIELD, VA 23430 | AGRICULTURE FIELDS & WOODLAND |
| | |
| | |
| | |

### OTHER OWNERS OF AFFECTED REAL ESTATE

(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

| Name of Individuals Corporation/Partnership Business Association | Address |
|---|---|
| CROCKER WILLIAM PENNIE JR & TERESA L | 16338 MORGARTS BEACH RD |
| | SMITHFIELD, VA 23430 |
| Pivot Energy | |
| Elk Development, LLC (a wholly owned subsidiary of Pivot Energy) | |

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes[ ] No[X]
If yes, names of members:

_____

_____

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct, and true.

Applicant: Michael Sloan - President, East of Pivot Energy Applicant: _____ Date: _____
Printed or Typed Name Signature

Commonwealth of Virginia
County of Isle of Wight

Subscribed and sworn to before me_____,
A Notary Public in and for the County of Isle of Wight, Commonwealth
of Virginia, this_____day of_____, 20_____.

_____
Notary Public

My Commission Expires_____

## SUBMITTAL CHECKLIST FOR CONDITIONAL / SPECIAL USE PERMIT APPLICATIONS

In conjunction with Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Uses Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended, the following information shall be submitted for a Conditional / Special Use Permit Application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for a Conditional / Special Use shall be certified as complete unless the following information is provided**. The required number of copies may be reduced with permission of the Zoning Administrator.**

- ☒ Application: Ten (10) copies of the original, executed application, one (1) digital copy of all application documents, and one (1) original executed application. Both the applicant(s) and the property owner(s) must have their signature(s) notarized on page 3 of the application.

- ☒ The appropriate fees have been submitted with the application. Checks should be made payable to: Treasurer, Isle of Wight County.

- ☒ Ten (10) copies of a statement of the reasons for seeking such permit and if applicable, a statement of conditions.

- ☒ Ten (10) copies of a narrative description of the property which shall include the Tax Parcel Identification

- ☒ Ten (10) copies of a concept plan of the property showing all existing and proposed physical improvements and such other information as is necessary to clearly indicate to the Planning Commission and Board of Supervisors that adequate provisions shall be made for compliance with all standards for that particular use and the extent of the property to be so used on a given parcel or parcels. Such document shall be drawn to scale and shall include the following information:
    - A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
    - Title of drawing
    - Date of drawing
    - Existing wood line
    - North arrow
    - Scale bar
    - Current zoning of parcel(s) to be rezoned, including tax map number(s) and owner(s)
    - Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
    - Street names including route number and width(s) of the right-of-way(s)
    - Ten (10) full size copies, with one (1) reduced 11-inch X 17-inch copy and a digital copy shall be submitted

- Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process to **review the application and prepare the staff reports for the Planning Commission and Board of Supervisors more effectively**.

☒ Ten (10) copies of such supplemental material as may be necessitated by the proposal itself or the district in which located or proposed to be located, and in accordance with Section 5-5000, *Supplementary Use Regulations,* of the Isle of Wight County Zoning Ordinance.

☒ A WQIA (Water Quality Impact Assessment) if located in the Chesapeake Bay Preservation Area.

☒ All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal will be refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete and correct information available. I understand that any section not completed in its entirety may delay processing of this application and the date of the Planning Commission public hearing and that the submittal of a complete application does not guarantee the application will be placed on the next available Planning Commission agenda.

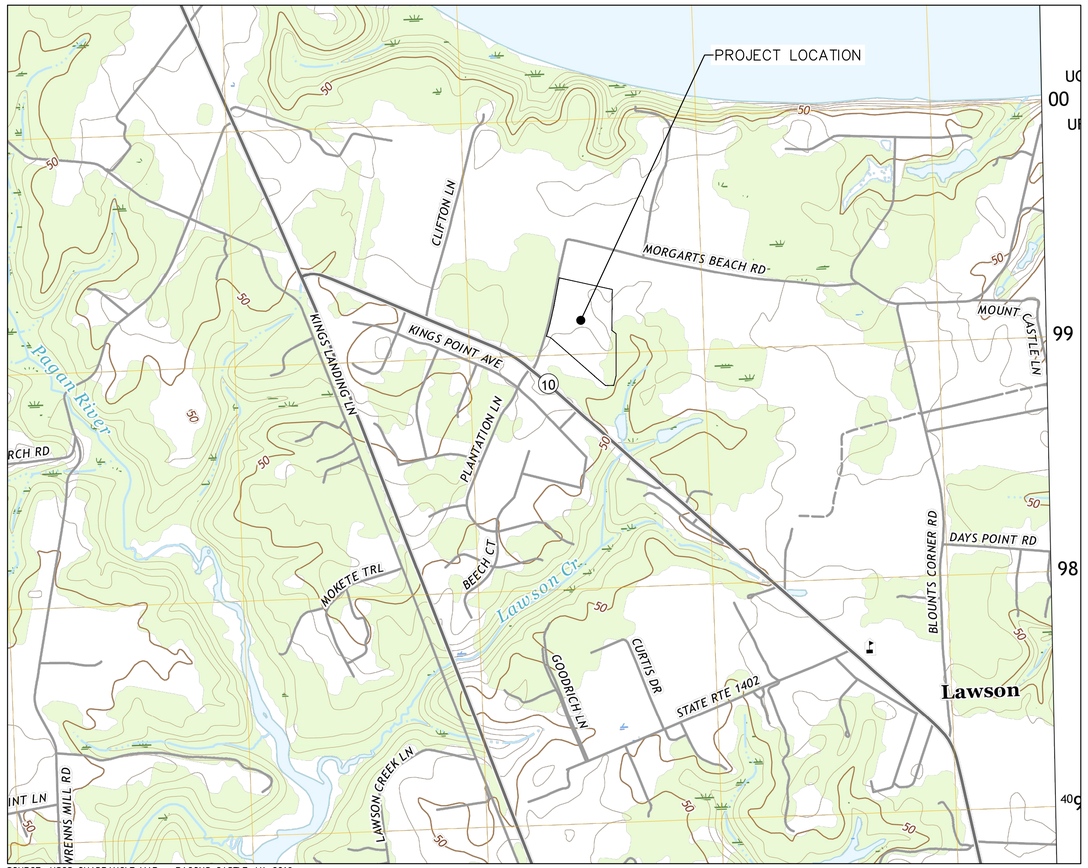
Jon Fitzpatrick

Printed or Typed Name

Signature

16/05/2024

Date




SOURCE: USGS QUADRANGLE MAP – BACONS CASTLE, VA 2019

## VICINITY MAP

1000 0 1000 2000

SCALE: 1" = 1000'

# CONDITIONAL USE CONCEPT PLAN

# VAL025
# Solar Energy System

8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT
ISLE OF WIGHT COUNTY, VIRGINIA

## GENERAL NOTES

1. SOLAR PANEL AND ELECTRICAL LAYOUT AND DESIGN PROVIDED BY PIVOT ENERGY, 6865 DEERPATH ROAD, STE 330, ELKRIDGE, MD 21075. 410-779-9377
2. SITE PLANS AND DESIGN PERFORMED BY DAWOOD ENGINEERING, INC., 11 GRANDVIEW CIRCLE, SUITE 116, CANONSBURG, PA 15317, 855-432-9663.
3. THE DEVELOPER SHALL COMPLY WITH ALL APPLICABLE COUNTY ORDINANCES IN EFFECT AT TIME OF SUBMISSION OF THE PLAN.
4. SITE DEVELOPMENT PLAN APPROVAL DOES NOT RELIEVE THE OWNER FROM ALL APPLICABLE SIGN REGULATIONS. ALL PROPOSED ON-SITE SIGNAGE SHALL CONFORM TO THE COUNTY ORDINANCES.
5. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING CONSTRUCTION. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SITE CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER IN WRITING.
6. NOTHING SHALL BE PLACED, PLANTED, SET OR PUT WITHIN THE AREA OF ANY EASEMENT THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT OR CONFLICT WITH THE EASEMENT AGREEMENT.
7. ALL EXISTING UTILITIES HAVE BEEN SHOWN IN ACCORDANCE WITH THE AVAILABLE INFORMATION. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. ADDITIONAL UTILITIES MAY BE ENCOUNTERED.
8. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL ABOVE AND BELOW GROUND UTILITIES AND STRUCTURES AND WILL BE RESPONSIBLE FOR THE PROTECTION OF THESE UTILITIES AND STRUCTURES AT ALL TIMES.
9. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED IMMEDIATELY AND COMPLETELY AT HIS EXPENSE.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A COPY OF ALL PERMITS RELATED TO THE CONSTRUCTION SHOWN ON THESE PLANS ON THE JOB SITE AT ALL TIMES.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC SAFETY AS MANDATED BY DOT, OSHA, DEQ AND OTHER AGENCIES.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF CONSTRUCTION AND DEMOLITION WASTE MATERIAL.
13. CONTRACTOR SHALL DEVELOP A PLAN FOR CONSTRUCTION TO AVOID DIRECT IMPACT TO ANY OF THE HISTORICAL RESOURCES IDENTIFIED. IN ADDITION, SHOULD ANY ARCHAEOLOGICAL ARTIFACTS BE DISCOVERED DURING CONSTRUCTION THE LANDOWNER SHALL BE NOTIFIED IMMEDIATELY. THE LANDOWNER SHALL CONSIDER USING THE ISLE OF WIGHT COUNTY MUSEUM AS A REPOSITORY FOR DISCOVERED ARTIFACTS.
14. IN ACCORDANCE WITH ISLE OF WIGHT ZONING ORDINANCE 5-5003, SECTION M.4.h., CONTRACTOR SHALL INSPECT AND VIDEO DOCUMENT ALL SECONDARY ROADS TO BE UTILIZED BY CONSTRUCTION VEHICLES PRIOR TO STARTING CONSTRUCTION AND AGAIN AFTER CONSTRUCTION IS COMPLETE. ALL ROADS DAMAGED BY SOLAR FARM CONSTRUCTION TO BE REPAIRED BY THE CONTRACTOR IN ACCORDANCE WITH VDOT STANDARDS AND SPECIFICATIONS.

## SURVEY NOTES

1. BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED ON FIELD SURVEY PERFORMED BY DAWOOD ENGINEERING, INC. IN OCTOBER AND NOVEMBER 2022.
2. THE LEGAL RIGHT-OF-WAY ON VA-10 IS 50 FEET.
3. THE LEGAL RIGHT-OF-WAY ON SR 673 IS 30 FEET BASED ON INSTRUMENT #040006491
4. VERTICAL CONTROL IS BASED ON NAVD 88 GEOID 18.
5. HORIZONTAL CONTROL IS BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM-SOUTH ZONE, NAD83 (2011) (EPOCH 2010.00).
6. ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY AND ARE BASED UPON SURFACE FEATURES AND RECORD DRAWINGS PROVIDED. LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES MAY VARY FROM LOCATION SHOWN HEREON. ADDITIONAL BURIED UTILITIES AND STRUCTURES MAY BE ENCOUNTERED.
7. THE SITE IS NOT SITUATED WITHIN A FLOOD HAZARD AREA ACCORDING TO FEMA FLOOD INSURANCE RATE MAP PANEL NUMBER 51093C0070E, EFFECTIVE DATE 12/2/2015.
8. A FIELD DELINEATION OF WETLAND HABITATS WAS CONDUCTED BY DAWOOD ENGINEERING, INC. IN OCTOBER 2022. THE WETLANDS AND WATERCOURSES IDENTIFIED HAVE BEEN DELINEATED ON THE SURVEY.

## LAND OWNERS

PARCEL 13-01-005
WILLIAM PENNIE JR & TERESA L CROCKER

## SOURCE OF TITLE

INSTRUMENT #090005573
RECORDED IN ISLE OF WIGHT COUNTY
ON SEPTEMBER 18, 2009
GRANTEE: WILLIAM PENNIE CROCKER, JR
AND TERESA L. CROCKER
GRANTOR: MARY C. CROCKER

## LEGEND
(TYPICAL ALL PLAN SHEETS)

- Right of Way
- Center Line
- Record
- Found
- Used
- Book
- Page
- Iron Pin Found
- Pipe Found
- Stone Monument Found
- Iron Pin Monument Found
- Concrete Monument Found
- Axle Found
- Fence Post Found
- Angle Iron Found
- Mag Nail Found
- Railroad Spike Found
- Benchmark
- Bollard
- Road Sign
- Post Or Pole
- Handicapped Parking
- Electric Vault
- Electric Meter
- Electric Pole
- Guy Wire
- Light Post/Pole
- Telephone Manhole
- Cable Box
- Water Meter
- Water Manhole
- Water Spigot
- Water Valve
- Sanitary Sewer Cleanout
- Sanitary Sewer Manhole
- Gas Meter
- Gas Valve
- Gas Marker
- Gas Test Station
- Storm Sewer Inlet
- Storm Sewer Manhole
- Parcel Boundary Line
- Legal Right-Of-Way Line
- Center Line
- Edge Of Bituminous Paving
- Edge Of Gravel
- Curb
- Fence Line
- Guide Rail
- Building Line
- Tree Line
- Overhead Electric Line
- Underground Electric Line
- Overhead Telephone Line
- Underground Telephone Line
- Overhead Cable TV
- Underground Cable TV
- Water Line
- Sanitary Sewer Line
- Gas Line
- Storm Sewer Line
- Water Edge / Stream
- Wetlands
- Soil Type and Limits (XXX)
- Minor Contour
- Major Contour

VISIT va811.com Dig With CARE

CALL 811 BEFORE YOU DIG
ALLOW REQUIRED TIME FOR MARKING
RESPECT THE MARKS
EXCAVATE CAREFULLY

THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT, AS AMENDED, REQUIRES THREE BUSINESS DAYS NOTICE TO UTILITIES BEFORE YOU DIG, DRILL, OR BLAST. DIAL 8-1-1 OR 1-800-552-7001 NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 15 BUSINESS DAYS PRIOR TO THE EXCAVATION OF A WORK AREA.

VIRGINIA ONE CALL SYSTEM TICKET NUMBER
DESIGN TICKET No.: A230601979-00A DATE: 11/02/22

## LIST OF PUBLIC UTILITIES

COMPANY: AT&T (ATT392)
CONTACT: COLIN PROFITT
804-869-7359
IN EVENT OF DAMAGE CALL: 800-252-1133

COMPANY: COLUMBIA GAS (CGV333)
CONTACT: UTILIQUEST
703-754-2116
IN EVENT OF DAMAGE CALL: 800-544-5606

COMPANY: CHARTER COMMUNICATIONS (CHC191)
CONTACT: JEFF WAGGONER
804-641-3544
IN EVENT OF DAMAGE CALL: 855-272-2862

COMPANY: DOMINION EAST DISTRIBUTIO (DOM409)
CONTACT: UTILIQUEST
804-286-1721
IN EVENT OF DAMAGE CALL: 866-366-4357

COMPANY: MID-ATLANTIC BROADBAND (MBC487)
CONTACT: STAKE CENTER LOCATING
801-364-1063
IN EVENT OF DAMAGE CALL: 866-480-1934

COMPANY: VERIZON (VZN757)
CONTACT: UTILIQUEST
757-315-8119
IN EVENT OF DAMAGE CALL: 888-483-1233

## LISTING OF REQUIRED PERMITS

- ISLE OF WIGHT COUNTY APPROVALS
  CONDITIONAL USE
  SITE DEVELOPMENT PLAN
- VDOT LAND USE PERMIT (LUP-CEI) FOR DRIVEWAY CONSTRUCTION WITHIN MORGARTS BEACH RD RIGHT-OF-WAY
- VDOT LAND USE PERMIT (LUP-UT) FOR UTILITY INSTALLATION WITHIN MORGARTS BEACH RD AND OLD STAGE HWY RIGHT-OF-WAY (BY DOMINION)
- VDEQ VPDES (VAR10) FOR LAND DISTURBANCE EXCEEDING 1-ACRE

## PLAN SHEET INDEX:


C1 ..... COVER SHEET
C2 ..... PROPERTY PLAT / NEARBY RESOURCES MAP
C3 ..... ENVIRONMENTAL SITE ASSESSMENT PLAN
C4 ..... EXISTING CONDITIONS SITE PLAN
C5 ..... SITE DEVELOPMENT PLAN


REVISIONS

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 10/03/23 | PER COUNTY COMMENTS |
| 2 | 12/13/23 | PER COUNTY COMMENTS |
| 3 | 4/10/24 | REVISED SOLAR LAYOUT |
| 4 | 7/02/24 | REVISED SOLAR LAYOUT |

DOCUMENT PREPARED BY:
DAWOOD
11 Grandview Cir, Ste 116, Canonsburg, PA 15317
T 724.746.0730 www.dawood.us

SCALE:

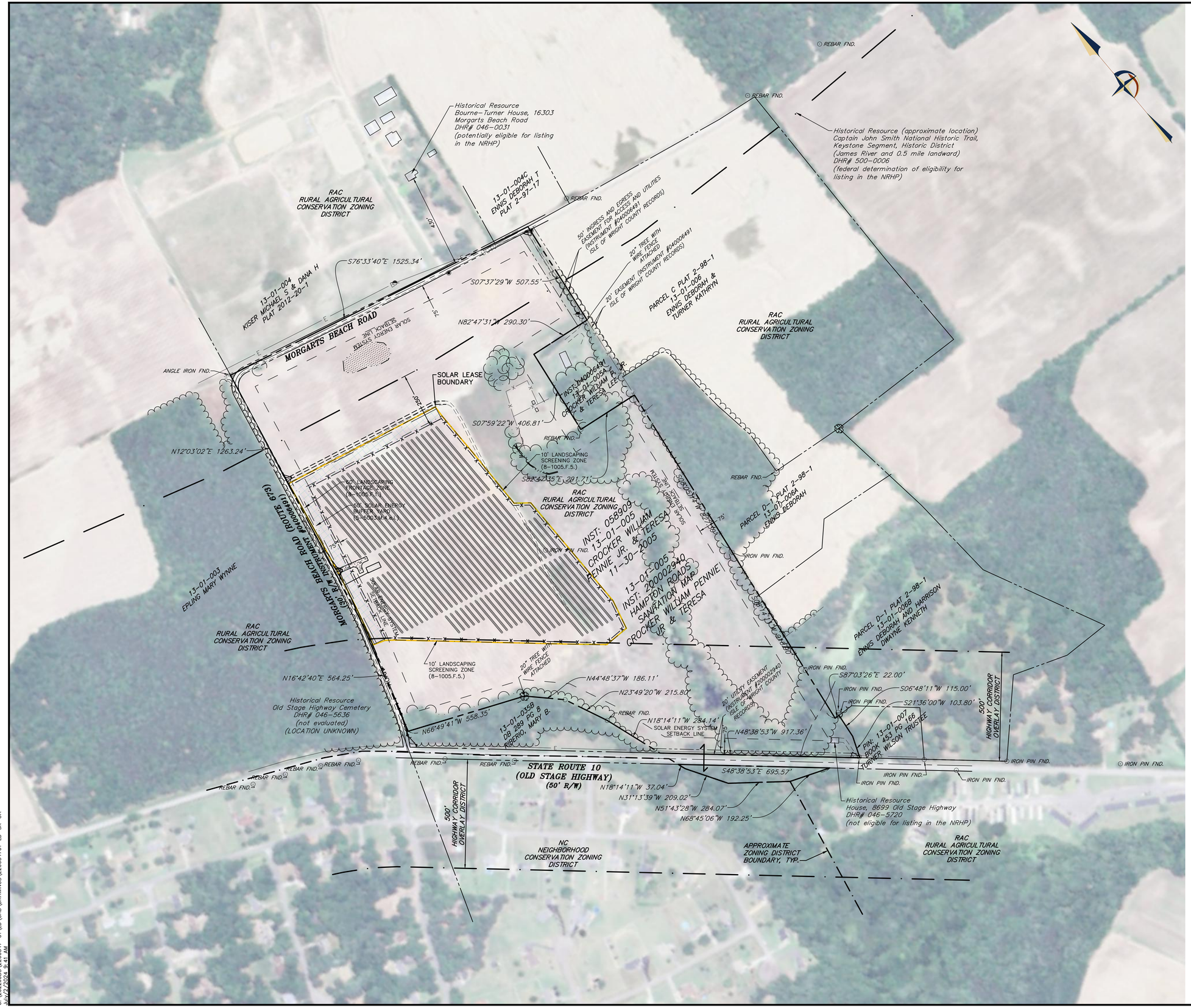
DOCUMENT PREPARED FOR:
ELK DEVELOPMENT, LLC
6865 DEERPATH ROAD, SUITE 330
ELKRIDGE, MD 21075
410-779-9377

CONDITIONAL USE CONCEPT PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
COVER SHEET

| | |
|---|---|
| DATE | MARCH 28, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | LD-SK-TI |
| DRAWN BY | CWW |
| CHECKED BY | JTP |
| SHEET NO | C1 |

0:\2022\08S\2200547-01\LD\CAD\DRAWINGS\2200547101-LD-SK-TI
July/2/2024 9:40 AM




| ZONING REQUIREMENTS / SITE DATA | | |
|---|---|---|
| TAX PARCEL | 13–01–005 | |
| ZONING DISTRICT | RURAL AGRICULTURAL CONSERVATION (RAC) DISTRICT & HIGHWAY CORRIDOR OVERLAY (HCO) DISTRICT | |
| EXISTING LAND USE | AGRICULTURE | |
| PROPOSED LAND USE | AGRICULTURE | SOLAR ENERGY SYSTEM (UTILITY SERVICE/MAJOR) |
| WATER/WASTEWATER | EXISTING TO REMAIN | N/A |
| SITE ACCESS | MORGARTS BEACH ROAD | |
| REQUIRED LOT SIZE | 40,000–SF | |
| ACTUAL LOT SIZE PER USE | 59.40 AC | 22.62 AC |
| TOTAL LOT SIZE | 82.02 AC | |
| REQUIRED LOT WIDTH | 150–FT | |
| ACTUAL LOT WIDTH | 1818 FT | |
| REQUIRED LOT FRONTAGE | 120–FT | |
| ACTUAL LOT FRONTAGE | 917 FT (VA 10) + 3260 FT (SR 673) | |
| MINIMUM FRONT SETBACK | 60–FT | SOLAR ENERGY SYSTEMS: 75–FT ALL PROPERTY LINES (125–FT FROM RESIDENTIAL PARCELS) |
| MINIMUM SIDE SETBACK | 15–FT (ONE SIDE) 35–FT (BOTH SIDES) (15–FT ACCESSORY STRUCTURES) | |
| MINIMUM REAR SETBACK | 35–FT (5–FT ACCESSORY STRUCTURES) | |
| MAXIMUM BUILDING HEIGHT | LESSOR OF 35–FT OR 3–STORIES | |
| ACTUAL BUILDING HEIGHT | < 35 FT | N/A |
| MAXIMUM HEIGHT FOR GROUND–MOUNTED SOLAR PANELS | 15–FT AT MAXIMUM TILT (EXCEPT FOR VEGETATION MANAGEMENT OR FOR INSPECTION, MAINTENANCE, OR REPAIR) | |
| MAXIMUM SOUND FROM SOLAR ENERGY SYSTEM | 60 DbA (A–WEIGHTED DECIBELS) AS MEASURED AT ANY PARCEL LINE | |
| MINIMUM STORMWATER MANAGEMENT FACILITY SETBACK | 20–FT FROM PUBLIC RIGHT–OF–WAY, PROPERTY LINES, EASEMENTS, OR ANY BUILDING | |

| LANDSCAPING AND SCREENING REQUIREMENTS | |
|---|---|
| **TOTAL SITE REQUIREMENTS** | |
| 8–1003.B. | MINIMUM 25% EVERGREEN SPECIES<br>MINIMUM 50% NATIVE SPECIES<br>MINIMUM 15% LANDSCAPE SURFACE RATIO |
| **LANDSCAPING ZONE REQUIREMENTS** | |
| 8–1005.F.1. | 60' WIDE FRONTAGE ZONE<br>1.75 POINTS / LF<br>MINIMUM 60% NON–ORNAMENTAL<br>MAXIMUM 50% EVERGREEN |
| 8–1005.F.2. | 10' WIDE BUFFER ZONE<br>0.9 POINTS / LF (ADJ. TO RES. STRUCTURE)<br>0.45 POINTS / LF (NOT ADJ.)<br>ONE PEDESTRIAN BREAK PER 50 LF (MIN. 6' WIDE) |
| 8–1005.F.5. | 10' WIDE SCREENING ZONE<br>0.8 POINTS / LF<br>NOT INCLUDING FENCES/BERMS/WALLS |
| **SOLAR ENERGY REQUIREMENTS** | |
| 5–5003.M.4.e.i. | PUBLIC ROAD<br>50' WIDE BUFFERYARD<br>THREE STAGGERED ROWS OF TREES AND SHRUBS AT MAXIMUM 8–FT ON CENTER |
| 5–5003.M.4.e.ii. | ABUTTING RESIDENTIAL PARCEL<br>50' WIDE BUFFERYARD<br>THREE STAGGERED ROWS OF LARGE AND SMALL CANOPY TREES AND MEDIUM SHRUBS AT MAXIMUM 8–FT ON CENTER |

| SITE AREA TABULATION | | |
|---|---|---|
| NET (LESS R/W) PARCEL SIZE | 3,572,717 SF | 82.02 AC |
| PROJECT AREA LIMITS OF CONSTRUCTION | 1,177,098 SF | 27.02 AC |
| PROPOSED LAND DISTURBANCE | TBD | TBD |
| PROPOSED TREE CLEARING | 2700 SF | 0.06 AC |
| **PROJECT AREA ACREAGE:** | **EXISTING** | **PROPOSED** |
| SOLAR FARM (FENCED AREA) | 0 | 19.88 AC (88%) |
| OPEN SPACE | 22.62 AC (100%) | 2.74 AC (12%) |
| BUILDING AREA | 0 | 0 |
| IMPERVIOUS COVERAGE | 0 | 0.13 AC |
| MOUNTED SOLAR PANELS | n/a | 5.04 AC |
| FENCING | 0 | 0.18 AC |
| LANDSCAPING | n/a | 2.65 AC |
| POINT OF INTERCONNECTION | n/a | 0.08 AC |
| CROPS (TYPE VARIES) | 22.62 AC | 0 |
| PASTURE | 0 | 0 |
| WOODLAND | 0 | 0 |
| **PARCEL AREA ACREAGE:** | **EXISTING** | **PROPOSED** |
| CROPS (TYPE VARIES) | 45 AC | 24 AC |
| PASTURE | 0 | 0 |
| WOODLAND | 11 AC | 11 AC |

| NET DEVELOPABLE ACREAGE * | | |
|---|---|---|
| GROSS SOLAR LEASE AREA | 22.62 Acres | |
| TIDAL WETLANDS | 0 | AT 100% |
| 100–YEAR FLOODPLAINS | 0 | AT 100% |
| RESOURCE PROTECTION AREAS (INCLUDING 100–FT BUFFER) | 0 | AT 100% |
| NON–TIDAL WETLANDS | 0 | AT 50% |
| SLOPES >15% BUT <30% | 0.03 | AT 50% |
| SLOPES >30% | 0.01 | AT 100% |
| POWER TRANSMISSION LINE EASEMENTS | 0 | AT 100% |
| GAS TRANSMISSION LINE EASEMENTS | 0 | AT 100% |
| STREET RIGHT–OF–WAY, EXISTING OR PLANNED, PUBLIC OR PRIVATE | 22.62 | AT 20% |
| SOLAR LEASE AREA NET DEVELOPABLE AREA * | 18.07 Acres | |

* NDA CALCULATIONS FOR SOLAR LEASE AREA ONLY. NDA OUTSIDE THE SOLAR LEASE AREA HAS NOT BEEN DETERMINED

REVISIONS

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 10/03/23 | PER COUNTY COMMENTS |
| 2 | 12/13/23 | PER COUNTY COMMENTS |
| 3 | 4/10/24 | REVISED SOLAR LAYOUT |
| 4 | 7/02/24 | REVISED SOLAR LAYOUT |

DOCUMENT PREPARED BY:

DAWOOD
11 Grandview Ave, Suite 116, Greensburg, PA 15377
T 724.746.0700 www.dawood.us

SCALE: 1" = 200'

DOCUMENT PREPARED FOR:

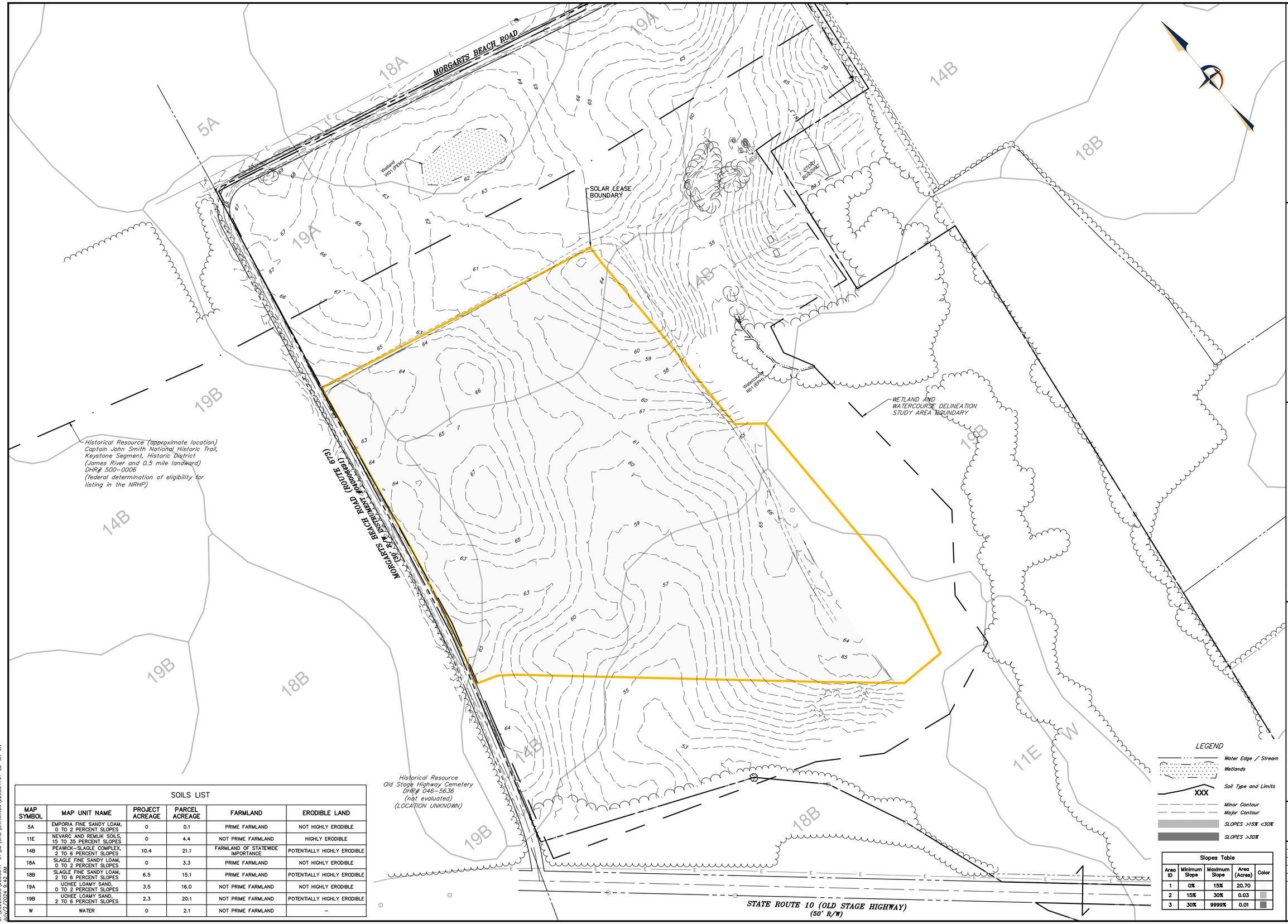
ELK DEVELOPMENT, LLC
6865 DEERPATH ROAD, SUITE 330
ELKRIDGE, MD 21075
410-779-9377

CONDITIONAL USE CONCEPT PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
PROPERTY PLAT / NEARBY RESOURCES MAP

| | |
|---|---|
| DATE | MARCH 28, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | LD–SK–OA |
| DRAWN BY | CWW |
| CHECKED BY | JTP |
| SHEET NO | C2 |

O:\2022JOBS\2200547-01\LD\CAD\DRAWINGS\2200547101-LD-SK-OA
JUN/27/2024 9:41 AM




| SOILS LIST | | | | | |
|---|---|---|---|---|---|
| MAP SYMBOL | MAP UNIT NAME | PROJECT ACREAGE | PARCEL ACREAGE | FARMLAND | ERODIBLE LAND |
| 5A | EMPORIA FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES | 0 | 0.1 | PRIME FARMLAND | NOT HIGHLY ERODIBLE |
| 11E | NEVARC AND REMLIK SOILS, 15 TO 35 PERCENT SLOPES | 0 | 4.4 | NOT PRIME FARMLAND | HIGHLY ERODIBLE |
| 14B | PEAWICK-SLAGLE COMPLEX, 2 TO 6 PERCENT SLOPES | 10.4 | 21.1 | FARMLAND OF STATEWIDE IMPORTANCE | POTENTIALLY HIGHLY ERODIBLE |
| 18A | SLAGLE FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES | 0 | 3.3 | PRIME FARMLAND | NOT HIGHLY ERODIBLE |
| 18B | SLAGLE FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES | 6.5 | 15.1 | PRIME FARMLAND | POTENTIALLY HIGHLY ERODIBLE |
| 19A | UCHEE LOAMY SAND, 0 TO 2 PERCENT SLOPES | 3.5 | 16.0 | NOT PRIME FARMLAND | NOT HIGHLY ERODIBLE |
| 19B | UCHEE LOAMY SAND, 2 TO 6 PERCENT SLOPES | 2.3 | 20.1 | NOT PRIME FARMLAND | POTENTIALLY HIGHLY ERODIBLE |
| W | WATER | 0 | 2.1 | NOT PRIME FARMLAND | – |

| Slopes Table | | | | |
|---|---|---|---|---|
| Area ID | Minimum Slope | Maximum Slope | Area (Acres) | Color |
| 1 | 0% | 15% | 20.70 | |
| 2 | 15% | 30% | 0.03 | |
| 3 | 30% | 9999% | 0.01 | |

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SCALE: 1" = 100'

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6865 DEERPATH ROAD, SUITE 330
ELKRIDGE, MD 21075
410-779-9377

CONDITIONAL USE CONCEPT PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
ENVIRONMENTAL SITE ASSESSMENT PLAN

| | |
|---|---|
| DATE | MARCH 28, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | LD-SK-EN |
| DRAWN BY | CWW |
| CHECKED BY | JTP |
| SHEET NO | C3 |

O:\2022\OBS\2200547-01\LD\CAD\DRAWINGS\2200547-01-LD-SK-EN
July 2, 2024 9:42 AM

MORGARTS BEACH ROAD

13-01-004
KISER MICHAEL S & DANA H
PLAT 2012-20-1

LOCATION BASED ON AERIAL IMAGERY

E POLE

50' INGRESS AND EGRESS EASEMENT FOR ACCESS AND UTILITIES (INSTRUMENT #040006491 ISLE OF WIGHT COUNTY RECORDS)

LOCATION BASED ON AERIAL IMAGERY

20' EASEMENT (INSTRUMENT #040006491 ISLE OF WRIGHT COUNTY RECORDS)

PARCEL C PLAT 2-98-1
13-01-006
ENNIS DEBORAH &
TURNER KATHRYN

RAC
RURAL AGRICULTURAL CONSERVATION
ZONING DISTRICT

Wetland W01 (PEM)

SOLAR LEASE BOUNDARY

1 STORY BUILDING

INST: 040006491
13-01-006A
CROCKER WILLIAM P. JR.
& TERESA LEE

FARM LANE

Watercourse R01 (EPH)

WETLAND AND WATERCOURSE DELINEATION STUDY AREA BOUNDARY

PARCEL D-1 PLAT 2-98-1
13-01-006A
ENNIS DEBORAH

Historical Resource (approximate location)
Captain John Smith National Historic Trail, Keystone Segment, Historic District
(James River and 0.5 mile landward)
DHR# 500-0006
(federal determination of eligibility for listing in the NRHP)

MORGARTS BEACH ROAD (ROUTE 673)
(50' R/W DEDICATED & ACCEPTED)

13-01-003
EPLING MARY WYNNE

INST: 058909
13-01-005
CROCKER WILLIAM
PENNIE JR. & TERESA
11-30-2005

INST: 200002940
13-01-005
HAMPTON ROADS SANITATION MAP
CROCKER WILLIAM PENNIE JR & TERESA

RAC
RURAL AGRICULTURAL CONSERVATION
ZONING DISTRICT

Historical Resource
Old Stage Highway Cemetery
DHR# 046-5636
(not evaluated)
(LOCATION UNKNOWN)

13-01-035B
DB 289 PG 8
RIBERIO, MARY B.

HIGHWAY CORRIDOR OVERLAY DISTRICT 500'

20' UTILITY EASEMENT (INSTRUMENT #200002940 ISLE OF WRIGHT COUNTY RECORDS)

APPROXIMATE LOCATION OF LOCATION BASED ON AERIAL IMAGERY

ASPHALT

50.0'

STATE ROUTE 10 (OLD STAGE HIGHWAY)
(50' R/W)

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ELKRIDGE, MD 21075
410-779-9377

CONDITIONAL USE CONCEPT PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
EXISTING CONDITIONS SITE PLAN

| | |
|---|---|
| DATE | MARCH 28, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | LD-SK-EC |
| DRAWN BY | CWW |
| CHECKED BY | JTP |
| SHEET NO | C4 |

O:\2022JOBS\2200547-01\LD\CAD\DRAWINGS\2200547-01-LD-SK-EC
JUL 2, 2024 - 9:43 AM

MORGARTS BEACH ROAD

13-01-004
KISER MICHAEL S & DANA H
PLAT 2012-20-1

LOCATION BASED ON AERIAL IMAGERY

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PARCEL C PLAT 2-98-1
13-01-006
ENNIS DEBORAH &
TURNER KATHRYN

RAC
RURAL AGRICULTURAL CONSERVATION
ZONING DISTRICT

SOLAR ENERGY SYSTEM SETBACK LINE

Wetland W01 (PEM)

SOLAR LEASE BOUNDARY

1 STORY BUILDING

INST: 040006491
13-01-006A
CROCKER WILLIAM P. JR.
& TERESA LEE

3 STAGGERED ROWS OF TREES AND SHRUBS AT MAXIMUM 8-FT ON CENTER

TEMPORARY STAGING AREA, PARKING, AND LAYDOWN YARD

DIRT FARM LANE (12' WIDE)

25' CLEAR SIGHT TRIANGLE

PRIVATE ENTRANCE (GRAVEL)

SDR REQ'D, TABLE 2-5, 25 MPH, = 280'
(ACTUAL SDR >280')

50' LANDSCAPING FRONTAGE ZONE (8-1005F.1.)

50' SOLAR ENERGY BUFFER YARD (5-8003M.4.e.)

WETLAND AND WATERCOURSE DELINEATION STUDY AREA BOUNDARY

Watercourse R01 (EPH)

10' LANDSCAPING SCREENING ZONE (8-1005.F.5.)

PARCEL D-1 PLAT 2-98-1
13-01-006A
ENNIS DEBORAH

Historical Resource (approximate location)
Captain John Smith National Historic Trail,
Keystone Segment, Historic District
(James River and 0.5 mile landward)
DHR# 500-0006
(federal determination of eligibility for listing in the NRHP)

MORGARTS BEACH ROAD (ROUTE 673)
(50' R/W PER SUBDIVISION #040006491)

13-01-003
EPLING MARY WYNNE

25' CLEAR SIGHT TRIANGLE

GRAVEL ROAD (20' WIDE)

CONC. EQUIPMENT PAD (26'x65')

MODERATE VOLUME COMMERCIAL ENTRANCE (GRAVEL)

15" CULVERT

3 STAGGERED ROWS OF TREES AND SHRUBS AT MAXIMUM 8-FT ON CENTER

SDL REQ'D, TABLE 2-5, 25 MPH, = 280'
(ACTUAL SDL >280')

UNDERGROUND MV LINE

SOLAR ENERGY SYSTEM SETBACK LINE

INST: 058909
13-01-005
CROCKER WILLIAM
PENNIE JR. & TERESA
11-50-2005

INST: 200002940
13-01-005
HAMPTON ROADS SANITATION MAP
CROCKER WILLIAM PENNIE JR. & TERESA

96'

SECURITY FENCE

PV MODULES, TYP

CONTINUOUS VEGETATIVE LANDSCAPING SCREEN

10' LANDSCAPING SCREENING ZONE (8-1005.F.5.)

AERIAL MV LINE

UTILITY POLE, TYP 7 PLACES

RAC
RURAL AGRICULTURAL CONSERVATION
ZONING DISTRICT

Historical Resource
Old Stage Highway Cemetery
DHR# 046-5636
(not evaluated)
(LOCATION UNKNOWN)

HIGHWAY CORRIDOR OVERLAY DISTRICT
500'

13-01-035B
DB 289 PG 8
RIBERO, MARY B.

20' UTILITY EASEMENT (INSTRUMENT #200002940 ISLE OF WRIGHT COUNTY RECORDS)

APPROXIMATE LOCATION OF WATSON CREEK LOCATION BASED ON AERIAL IMAGERY

SOLAR ENERGY SYSTEM SETBACK LINE

VEGETATION TO BE CUT AS REQUIRED FOR AERIAL LINES

AERIAL MV LINE

ASPHALT

POI MV INTERCONNECTION (EXISTING POLE)

LIMITS OF CONSTRUCTION (LOC)

50.0'

STATE ROUTE 10 (OLD STAGE HIGHWAY)
(50' R/W)

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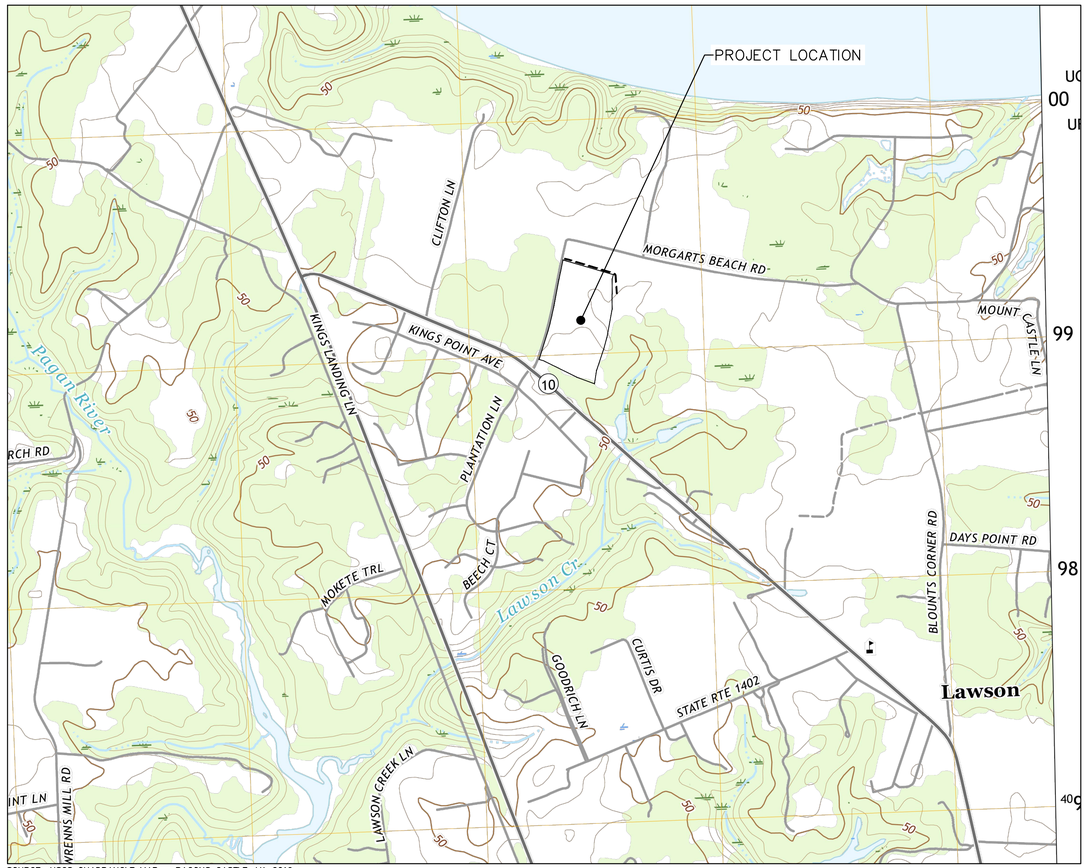
CONDITIONAL USE CONCEPT PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
SITE DEVELOPMENT PLAN

| | |
|---|---|
| DATE | MARCH 28, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | LD-SK-PN |
| DRAWN BY | CWW |
| CHECKED BY | JTP |
| SHEET NO | C5 |

O:\2022\OBS\2200547-01\LD\CAD\DRAWINGS\220054701-LD-SK-PN
July 22, 2024 9:45 AM




SOURCE: USGS QUADRANGLE MAP – BACONS CASTLE, VA 2019

## VICINITY MAP

1000 0 1000 2000

SCALE: 1" = 1000'

# CONDITIONAL USE CONCEPT PLAN

# VAL025
# Solar Energy System

8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT
ISLE OF WIGHT COUNTY, VIRGINIA

## GENERAL NOTES

1. SOLAR PANEL AND ELECTRICAL LAYOUT AND DESIGN PROVIDED BY PIVOT ENERGY, 6865 DEERPATH ROAD, STE 330, ELKRIDGE, MD 21075. 410-779-9377
2. SITE PLANS AND DESIGN PERFORMED BY DAWOOD ENGINEERING, INC., 11 GRANDVIEW CIRCLE, SUITE 116, CANONSBURG, PA 15317, 855-432-9663.
3. THE DEVELOPER SHALL COMPLY WITH ALL APPLICABLE COUNTY ORDINANCES IN EFFECT AT TIME OF SUBMISSION OF THE PLAN.
4. SITE DEVELOPMENT PLAN APPROVAL DOES NOT RELIEVE THE OWNER FROM ALL APPLICABLE SIGN REGULATIONS. ALL PROPOSED ON-SITE SIGNAGE SHALL CONFORM TO THE COUNTY ORDINANCES.
5. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING CONSTRUCTION. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SITE CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER IN WRITING.
6. NOTHING SHALL BE PLACED, PLANTED, SET OR PUT WITHIN THE AREA OF ANY EASEMENT THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT OR CONFLICT WITH THE EASEMENT AGREEMENT.
7. ALL EXISTING UTILITIES HAVE BEEN SHOWN IN ACCORDANCE WITH THE AVAILABLE INFORMATION. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. ADDITIONAL UTILITIES MAY BE ENCOUNTERED.
8. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL ABOVE AND BELOW GROUND UTILITIES AND STRUCTURES AND WILL BE RESPONSIBLE FOR THE PROTECTION OF THESE UTILITIES AND STRUCTURES AT ALL TIMES.
9. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED IMMEDIATELY AND COMPLETELY AT HIS EXPENSE.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A COPY OF ALL PERMITS RELATED TO THE CONSTRUCTION SHOWN ON THESE PLANS ON THE JOB SITE AT ALL TIMES.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC SAFETY AS MANDATED BY DOT, OSHA, DEQ AND OTHER AGENCIES.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF CONSTRUCTION AND DEMOLITION WASTE MATERIAL.
13. CONTRACTOR SHALL DEVELOP A PLAN FOR CONSTRUCTION TO AVOID DIRECT IMPACT TO ANY OF THE HISTORICAL RESOURCES IDENTIFIED. IN ADDITION, SHOULD ANY ARCHAEOLOGICAL ARTIFACTS BE DISCOVERED DURING CONSTRUCTION THE LANDOWNER SHALL BE NOTIFIED IMMEDIATELY. THE LANDOWNER SHALL CONSIDER USING THE ISLE OF WIGHT COUNTY MUSEUM AS A REPOSITORY FOR DISCOVERED ARTIFACTS.
14. IN ACCORDANCE WITH ISLE OF WIGHT ZONING ORDINANCE 5-5003, SECTION M.4.h., CONTRACTOR SHALL INSPECT AND VIDEO DOCUMENT ALL SECONDARY ROADS TO BE UTILIZED BY CONSTRUCTION VEHICLES PRIOR TO STARTING CONSTRUCTION AND AGAIN AFTER CONSTRUCTION IS COMPLETE. ALL ROADS DAMAGED BY SOLAR FARM CONSTRUCTION TO BE REPAIRED BY THE CONTRACTOR IN ACCORDANCE WITH VDOT STANDARDS AND SPECIFICATIONS.

## SURVEY NOTES

1. BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED ON FIELD SURVEY PERFORMED BY DAWOOD ENGINEERING, INC. IN OCTOBER AND NOVEMBER 2022.
2. THE LEGAL RIGHT-OF-WAY ON VA-10 IS 50 FEET.
3. THE LEGAL RIGHT-OF-WAY ON SR 673 IS 30 FEET BASED ON INSTRUMENT #040006491
4. VERTICAL CONTROL IS BASED ON NAVD 88 GEOID 18.
5. HORIZONTAL CONTROL IS BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM-SOUTH ZONE, NAD83 (2011) (EPOCH 2010.00).
6. ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY AND ARE BASED UPON SURFACE FEATURES AND RECORD DRAWINGS PROVIDED. LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES MAY VARY FROM LOCATION SHOWN HEREON. ADDITIONAL BURIED UTILITIES AND STRUCTURES MAY BE ENCOUNTERED.
7. THE SITE IS NOT SITUATED WITHIN A FLOOD HAZARD AREA ACCORDING TO FEMA FLOOD INSURANCE RATE MAP PANEL NUMBER 51093C0070E, EFFECTIVE DATE 12/2/2015.
8. A FIELD DELINEATION OF WETLAND HABITATS WAS CONDUCTED BY DAWOOD ENGINEERING, INC. IN OCTOBER 2022. THE WETLANDS AND WATERCOURSES IDENTIFIED HAVE BEEN DELINEATED ON THE SURVEY.

## LAND OWNERS

PARCEL 13-01-005
WILLIAM PENNIE JR & TERESA L CROCKER

## SOURCE OF TITLE

INSTRUMENT #090005573
RECORDED IN ISLE OF WIGHT COUNTY
ON SEPTEMBER 18, 2009
GRANTEE: WILLIAM PENNIE CROCKER, JR
AND TERESA L. CROCKER
GRANTOR: MARY C. CROCKER

## LEGEND
(TYPICAL ALL PLAN SHEETS)

- R/W Right of Way
- ℄ Center Line
- R Record
- F Found
- U Used
- B Book
- P Page
- I.P. Fnd. Iron Pin Found
- Pipe. Fnd. Pipe Found
- Stone Fnd. Stone Monument Found
- IP. Mon. Fnd. Iron Pin Monument Found
- Mon. Fnd. Concrete Monument Found
- Axle Found
- Fence Post Found
- Angle Iron Found
- Mag Nail Found
- Railroad Spike Found
- Benchmark
- Bollard
- Road Sign
- Post Or Pole
- Handicapped Parking
- Electric Vault
- Electric Meter
- Electric Pole
- Guy Wire
- Light Post/Pole
- Telephone Manhole
- Cable Box
- Water Meter
- Water Manhole
- Water Spigot
- Water Valve
- Sanitary Sewer Cleanout
- Sanitary Sewer Manhole
- Gas Meter
- Gas Valve
- Gas Marker
- Gas Test Station
- Storm Sewer Inlet
- Storm Sewer Manhole
- Parcel Boundary Line
- Legal Right-Of-Way Line
- Center Line
- Edge Of Bituminous Paving
- Edge Of Gravel
- Curb
- Fence Line
- Guide Rail
- Building Line
- Tree Line
- Overhead Electric Line
- Underground Electric Line
- Overhead Telephone Line
- Underground Telephone Line
- Overhead Cable TV
- Underground Cable TV
- Water Line
- Sanitary Sewer Line
- Gas Line
- Storm Sewer Line
- Water Edge / Stream
- Wetlands
- Soil Type and Limits (XXX / XXX)
- Minor Contour
- Major Contour


VISIT va811.com Dig With CARE

CALL 811 BEFORE YOU DIG
ALLOW REQUIRED TIME FOR MARKING
RESPECT THE MARKS
EXCAVATE CAREFULLY

THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT, AS AMENDED, REQUIRES THREE BUSINESS DAYS NOTICE TO UTILITIES BEFORE YOU DIG, DRILL, OR BLAST. DIAL 8-1-1 OR 1-800-552-7001 NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 15 BUSINESS DAYS PRIOR TO THE EXCAVATION OF A WORK AREA.

VIRGINIA ONE CALL SYSTEM TICKET NUMBER
DESIGN TICKET No.: A230601979-00A DATE: 11/02/22


## LIST OF PUBLIC UTILITIES

COMPANY: AT&T (ATT392)
CONTACT: COLIN PROFITT
804-869-7359
IN EVENT OF DAMAGE CALL: 800-252-1133

COMPANY: COLUMBIA GAS (CGV333)
CONTACT: UTILIQUEST
703-754-2116
IN EVENT OF DAMAGE CALL: 800-544-5606

COMPANY: CHARTER COMMUNICATIONS (CHC191)
CONTACT: JEFF WAGGONER
804-641-3544
IN EVENT OF DAMAGE CALL: 855-272-2862

COMPANY: DOMINION EAST DISTRIBUTIO (DOM409)
CONTACT: UTILIQUEST
804-286-1721
IN EVENT OF DAMAGE CALL: 866-366-4357

COMPANY: MID-ATLANTIC BROADBAND (MBC487)
CONTACT: STAKE CENTER LOCATING
801-364-1063
IN EVENT OF DAMAGE CALL: 866-480-1934

COMPANY: VERIZON (VZN757)
CONTACT: UTILIQUEST
757-315-8119
IN EVENT OF DAMAGE CALL: 888-483-1233

## LISTING OF REQUIRED PERMITS

- ISLE OF WIGHT COUNTY APPROVALS
  CONDITIONAL USE
  SITE DEVELOPMENT PLAN
- VDOT LAND USE PERMIT (LUP-CEI) FOR DRIVEWAY CONSTRUCTION WITHIN MORGARTS BEACH RD RIGHT-OF-WAY
- VDOT LAND USE PERMIT (LUP-UT) FOR UTILITY INSTALLATION WITHIN MORGARTS BEACH RD AND OLD STAGE HWY RIGHT-OF-WAY (BY DOMINION)
- VDEQ VPDES (VAR10) FOR LAND DISTURBANCE EXCEEDING 1-ACRE

## PLAN SHEET INDEX:


C1 ..... COVER SHEET
C2 ..... PROPERTY PLAT / NEARBY RESOURCES MAP
C3 ..... ENVIRONMENTAL SITE ASSESSMENT PLAN
C4 ..... EXISTING CONDITIONS SITE PLAN
C5 ..... SITE DEVELOPMENT PLAN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SCALE:

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DRAWING TITLE
COVER SHEET

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| DATE | MARCH 28, 2023 |
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0:\2022\08S\2200547-01\LD\CAD\DRAWINGS\2200547101-LD-SK-TI
April 10, 2024 5:53 PM

| ZONING REQUIREMENTS / SITE DATA | | |
|---|---|---|
| TAX PARCEL | 13-01-005 | |
| ZONING DISTRICT | RURAL AGRICULTURAL CONSERVATION (RAC) DISTRICT & HIGHWAY CORRIDOR OVERLAY (HCO) DISTRICT | |
| EXISTING LAND USE | AGRICULTURE | |
| PROPOSED LAND USE | AGRICULTURE | SOLAR ENERGY SYSTEM (UTILITY SERVICE/MAJOR) |
| WATER/WASTEWATER | EXISTING TO REMAIN | N/A |
| SITE ACCESS | MORGARTS BEACH ROAD | |
| REQUIRED LOT SIZE | 40,000-SF | |
| ACTUAL LOT SIZE PER USE | 57.33 AC | 24.79 AC |
| TOTAL LOT SIZE | 82.12 AC | |
| REQUIRED LOT WIDTH | 150-FT | |
| ACTUAL LOT WIDTH | 1818 FT | |
| REQUIRED LOT FRONTAGE | 120-FT | |
| ACTUAL LOT FRONTAGE | 917 FT (VA 10) + 3260 FT (SR 673) | |
| MINIMUM FRONT SETBACK | 60-FT | SOLAR ENERGY SYSTEMS: 75-FT ALL PROPERTY LINES (125-FT FROM RESIDENTIAL PARCELS) |
| MINIMUM SIDE SETBACK | 15-FT (ONE SIDE) 35-FT (BOTH SIDES) (15-FT ACCESSORY STRUCTURES) | |
| MINIMUM REAR SETBACK | 35-FT (5-FT ACCESSORY STRUCTURES) | |
| MAXIMUM BUILDING HEIGHT | LESSOR OF 35-FT OR 3-STORIES | |
| ACTUAL BUILDING HEIGHT | < 35 FT | N/A |
| MAXIMUM HEIGHT FOR GROUND-MOUNTED SOLAR PANELS | 15-FT AT MAXIMUM TILT (EXCEPT FOR VEGETATION MANAGEMENT OR FOR INSPECTION, MAINTENANCE, OR REPAIR) | |
| MAXIMUM SOUND FROM SOLAR ENERGY SYSTEM | 60 DbA (A-WEIGHTED DECIBELS) AS MEASURED AT ANY PARCEL LINE | |
| MINIMUM STORMWATER MANAGEMENT FACILITY SETBACK | 20-FT FROM PUBLIC RIGHT-OF-WAY, PROPERTY LINES, EASEMENTS, OR ANY BUILDING | |

| LANDSCAPING AND SCREENING REQUIREMENTS | |
|---|---|
| **TOTAL SITE REQUIREMENTS** | |
| 8-1003.B. | MINIMUM 25% EVERGREEN SPECIES<br>MINIMUM 50% NATIVE SPECIES<br>MINIMUM 15% LANDSCAPE SURFACE RATIO |
| **LANDSCAPING ZONE REQUIREMENTS** | |
| 8-1005.F.1. | 60' WIDE FRONTAGE ZONE<br>1.75 POINTS / LF<br>MINIMUM 60% NON-ORNAMENTAL<br>MAXIMUM 50% EVERGREEN |
| 8-1005.F.2. | 10' WIDE BUFFER ZONE<br>0.9 POINTS / LF (ADJ. TO RES. STRUCTURE)<br>0.45 POINTS / LF (NOT ADJ.)<br>ONE PEDESTRIAN BREAK PER 50 LF (MIN. 6' WIDE) |
| 8-1005.F.5. | 10' WIDE SCREENING ZONE<br>0.8 POINTS / LF<br>NOT INCLUDING FENCES/BERMS/WALLS |
| **SOLAR ENERGY REQUIREMENTS** | |
| 5-5003.M.4.e.i. | PUBLIC ROAD<br>50' WIDE BUFFERYARD<br>THREE STAGGERED ROWS OF TREES AND SHRUBS AT MAXIMUM 8-FT ON CENTER |
| 5-5003.M.4.e.ii. | ABUTTING RESIDENTIAL PARCEL<br>50' WIDE BUFFERYARD<br>THREE STAGGERED ROWS OF LARGE AND SMALL CANOPY TREES AND MEDIUM SHRUBS AT MAXIMUM 8-FT ON CENTER |

| SITE AREA TABULATION | | |
|---|---|---|
| PARCEL SIZE | 3,577,326 SF | 82.12 AC |
| PROJECT AREA LIMITS OF CONSTRUCTION | 1,273,421 SF | 29.23 AC |
| PROPOSED LAND DISTURBANCE | TBD | TBD |
| PROPOSED TREE CLEARING | 2700 SF | 0.06 AC |
| **PROJECT AREA ACREAGE:** | **EXISTING** | **PROPOSED** |
| SOLAR FARM (FENCED AREA) | 0 | 23.60 AC (86%) |
| OPEN SPACE | 24.79 AC (100%) | 3.72 AC (14%) |
| BUILDING AREA | 0 | 0 |
| IMPERVIOUS COVERAGE | 0 | 0.26 AC |
| MOUNTED SOLAR PANELS | n/a | 4.99 AC |
| FENCING | 0 | 0.20 AC |
| LANDSCAPING | n/a | 3.02 AC |
| POINT OF INTERCONNECTION | n/a | 0.08 AC |
| CROPS (TYPE VARIES) | 24.79 AC | 0 |
| PASTURE | 0 | 0 |
| WOODLAND | 0.06 AC | 0 |
| **PARCEL AREA ACREAGE:** | **EXISTING** | **PROPOSED** |
| CROPS (TYPE VARIES) | 48 AC | 15 AC |
| PASTURE | 0 | 0 |
| WOODLAND | 31 AC | 31 AC |

| NET DEVELOPABLE ACREAGE * | | |
|---|---|---|
| GROSS SOLAR LEASE AREA | 27.32 Acres | |
| TIDAL WETLANDS | 0 | AT 100% |
| 100-YEAR FLOODPLAINS | 0 | AT 100% |
| RESOURCE PROTECTION AREAS (INCLUDING 100-FT BUFFER) | 0 | AT 100% |
| NON-TIDAL WETLANDS | 0 | AT 50% |
| SLOPES >15% BUT <30% | 0.03 | AT 50% |
| SLOPES >30% | 0.01 | AT 100% |
| POWER TRANSMISSION LINE EASEMENTS | 0 | AT 100% |
| GAS TRANSMISSION LINE EASEMENTS | 0 | AT 100% |
| STREET RIGHT-OF-WAY, EXISTING OR PLANNED, PUBLIC OR PRIVATE | 27.32 | AT 20% |
| SOLAR LEASE AREA<br>NET DEVELOPABLE AREA * | 21.83 Acres | |

* NDA CALCULATIONS FOR SOLAR LEASE AREA ONLY. NDA OUTSIDE THE SOLAR LEASE AREA HAS NOT BEEN DETERMINED

| NO. | DATE | REVISIONS DESCRIPTION |
|---|---|---|
| 1 | 10/03/23 | PER COUNTY COMMENTS |
| 2 | 12/13/23 | PER COUNTY COMMENTS |
| 3 | 4/10/24 | REVISED SOLAR LAYOUT |

DOCUMENT PREPARED BY:

DAWOOD
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SCALE: 1" = 200'

DOCUMENT PREPARED FOR:

ELK DEVELOPMENT, LLC

6865 DEERPATH ROAD, SUITE 330
ELKRIDGE, MD 21075
410-779-9377

CONDITIONAL USE CONCEPT PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
PROPERTY PLAT / NEARBY RESOURCES MAP

| | |
|---|---|
| DATE | MARCH 28, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | LD-SK-0A |
| DRAWN BY | CWW |
| CHECKED BY | JTP |
| SHEET NO | C2 |

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MORGARTS BEACH ROAD

SOLAR LEASE BOUNDARY

WETLAND AND WATERCOURSE DELINEATION STUDY AREA BOUNDARY

Wetland W01 (PEM)

Watercourse R01 (EPH)

1 STORY BUILDING

Historical Resource (approximate location)
Captain John Smith National Historic Trail, Keystone Segment, Historic District
(James River and 0.5 mile landward)
DHR# 500-0006
(federal determination of eligibility for listing in the NRHP)

MORGARTS BEACH ROAD (ROUTE 673)
(50' R/W DEPARTMENT OF TRANSPORTATION)

Historical Resource
Old Stage Highway Cemetery
DHR# 046-5636
(not evaluated)
(LOCATION UNKNOWN)

STATE ROUTE 10 (OLD STAGE HIGHWAY)
(50' R/W)

| SOILS LIST | | | | | |
|---|---|---|---|---|---|
| MAP SYMBOL | MAP UNIT NAME | PROJECT ACREAGE | PARCEL ACREAGE | FARMLAND | ERODIBLE LAND |
| 5A | EMPORIA FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES | 0 | 0.1 | PRIME FARMLAND | NOT HIGHLY ERODIBLE |
| 11E | NEVARC AND REMLIK SOILS, 15 TO 35 PERCENT SLOPES | 0 | 4.4 | NOT PRIME FARMLAND | HIGHLY ERODIBLE |
| 14B | PEAWICK-SLAGLE COMPLEX, 2 TO 6 PERCENT SLOPES | 12.5 | 21.1 | FARMLAND OF STATEWIDE IMPORTANCE | POTENTIALLY HIGHLY ERODIBLE |
| 18A | SLAGLE FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES | 0 | 3.3 | PRIME FARMLAND | NOT HIGHLY ERODIBLE |
| 18B | SLAGLE FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES | 6.0 | 15.1 | PRIME FARMLAND | POTENTIALLY HIGHLY ERODIBLE |
| 19A | UCHEE LOAMY SAND, 0 TO 2 PERCENT SLOPES | 4.4 | 16.0 | NOT PRIME FARMLAND | NOT HIGHLY ERODIBLE |
| 19B | UCHEE LOAMY SAND, 2 TO 6 PERCENT SLOPES | 1.9 | 20.1 | NOT PRIME FARMLAND | POTENTIALLY HIGHLY ERODIBLE |
| W | WATER | 0 | 2.1 | NOT PRIME FARMLAND | – |

LEGEND

- Water Edge / Stream
- Wetlands
- Soil Type and Limits (XXX)
- Minor Contour
- Major Contour
- SLOPES >15% <30%
- SLOPES >30%

| Slopes Table | | | | |
|---|---|---|---|---|
| Area ID | Minimum Slope | Maximum Slope | Area (Acres) | Color |
| 1 | 0% | 15% | 27.29 | |
| 2 | 15% | 30% | 0.03 | |
| 3 | 30% | 9999% | 0.01 | |

REVISIONS

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SCALE: 1" = 100'

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CONDITIONAL USE CONCEPT PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
ENVIRONMENTAL SITE ASSESSMENT PLAN

| | |
|---|---|
| DATE | MARCH 28, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | LD-SK-EN |
| DRAWN BY | CWW |
| CHECKED BY | JTP |
| SHEET NO | C3 |

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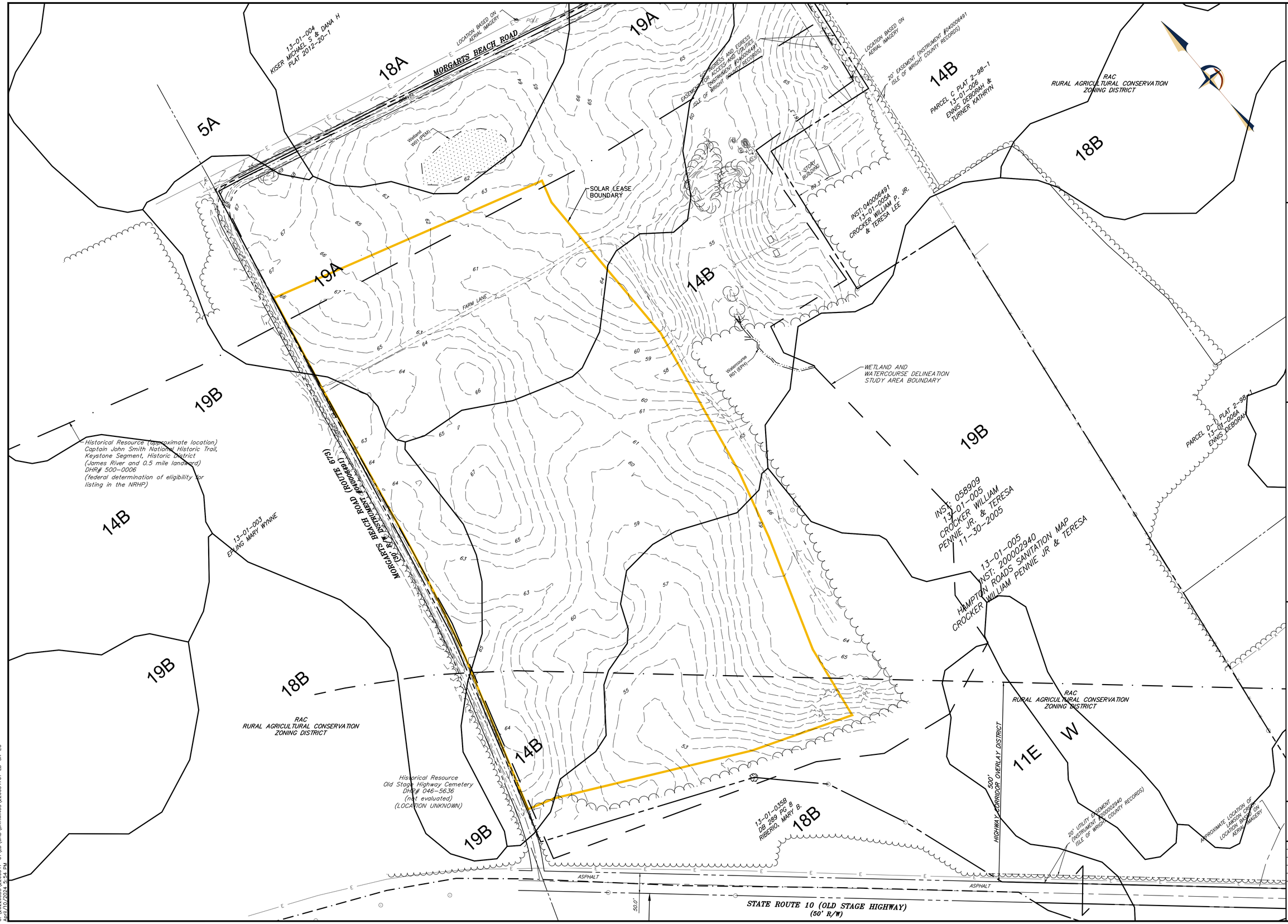


REVISIONS

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|---|---|---|
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| 2 | 12/13/23 | PER COUNTY COMMENTS |
| 3 | 4/10/24 | REVISED SOLAR LAYOUT |

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SCALE: 100 0 100 200
SCALE: 1" = 100'

DOCUMENT PREPARED FOR:

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410-779-9377

CONDITIONAL USE CONCEPT PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
EXISTING CONDITIONS SITE PLAN

| | |
|---|---|
| DATE | MARCH 28, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | LD-SK-EC |
| DRAWN BY | CWW |
| CHECKED BY | JTP |
| SHEET NO | C4 |

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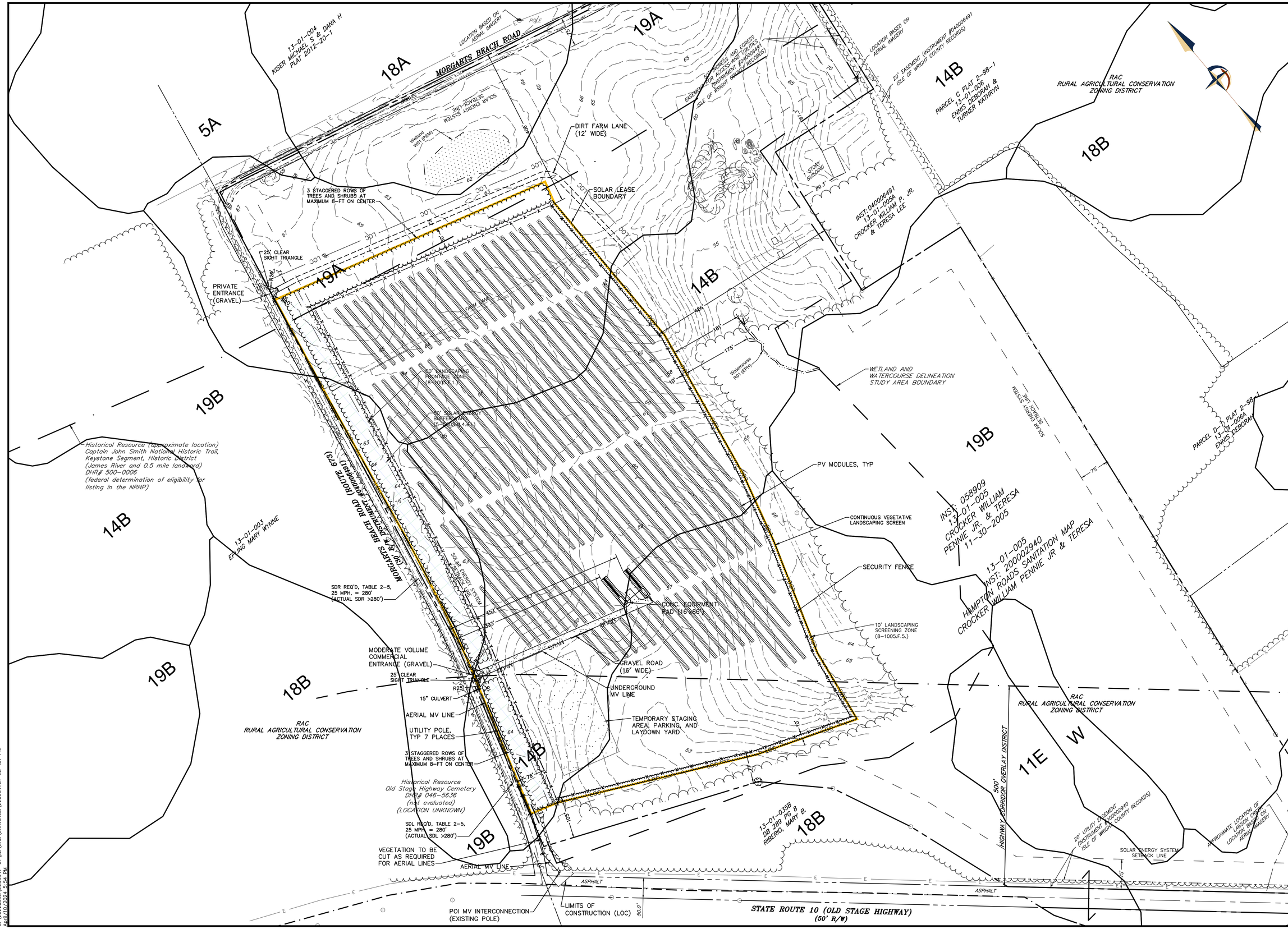


REVISIONS

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CONDITIONAL USE CONCEPT PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
SITE DEVELOPMENT PLAN

| | |
|---|---|
| DATE | MARCH 28, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | LD-SK-PN |
| DRAWN BY | CWW |
| CHECKED BY | JTP |
| SHEET NO | C5 |

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Pivot Energy

# Conditional Use Permit Application for: Elk Development, LLC's

(a holding Company of Pivot energy)

# VAL025- Old Stage Highway Project

Pivot Energy

1601 Wewatta St., # 700
Denver, CO 80202

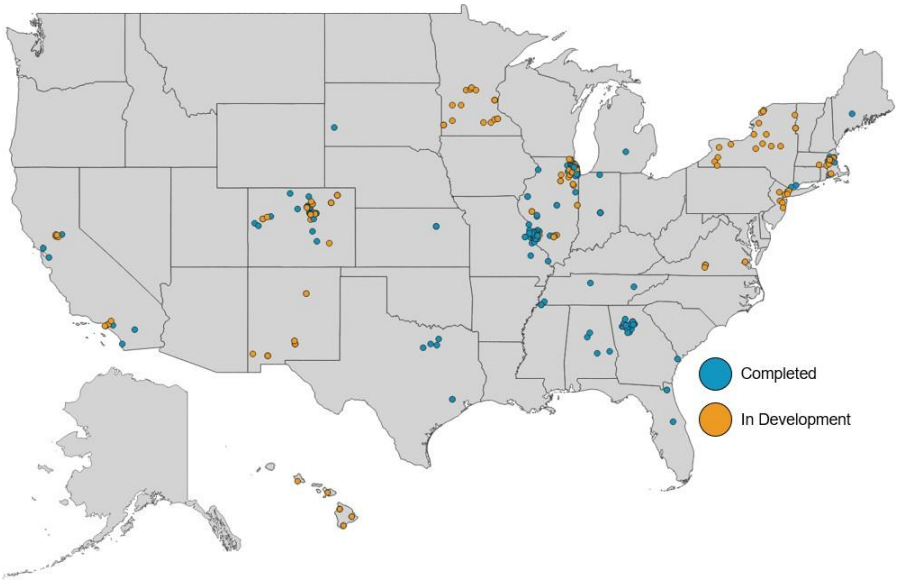
# Executive Summary

Elk Development, LLC, a holding company of, Pivot Energy is pleased to apply for a Conditional Use Permit (CUP) from the County of Isle of Wight for Elk Development, LLC's VAL025- Old Stage Highway Project (aka: Old Stage) (the Project). This Project represents a small, solar photovoltaic (PV) facility totalling three (3) megawatts in capacity as measured in alternating-current (AC). The proposed project is located at 8699 Old Stage Hwy, Smithfield, Virginia. The subject parcel is identified as tax parcel 13-01-005 owned by William Pennie Jr & Teresa L Crocker. The site is accessed off Morgarts Beach Rd (SR 673), approximately 3.5-miles north of Smithfield. The site is in the Rural Agriculture Conservation (RAC) zoning district in Isle of Wight County. Hardy Elementary School is located approximately 0.7 miles southeast of the subject parcel. There are no recreation facilities within 1-mile of the site. The parcel is 94.21 acres, the project will encompass 27.32 acres (leased area) of the parcel with 23.6 within the fence line and 33 acres of land coming out of production (Please see Plan Drawing C2 for full tabulation of acrage).

This project will positively impact the local community by employing local labor, decarbonizing the local grid, offering a discount to local subscribing Dominion customers, and providing increased resources to the County over the life of the project. Pivot's lead developer on this project, Robert Hickox, has previous experience permitting similar solar projects in Virginia. With a strong development and customer relationship background in small utility, commercial, and community solar projects, Pivot continues to expand its offerings throughout the solar industry by working with low-income communities, residential renters and homeowners, agricultural customers, local businesses, & local government organizations.

## Prior Solar Development Success:

### Recently Completed and Ongoing Projects



# Community Solar Development Experience

## Background on Pivot Energy

Pivot Energy is a turnkey solar developer of commercial and industrial solar projects founded in 2009 and headquartered in Denver, Colorado. Pivot has become a national leader in commercial and industrial solar projects, with hundreds of successful projects completed for many small, mid-sized and Fortune 500 companies, as well as for nonprofit, government, and military organizations.

Pivot Energy has built or developed the most community solar projects of any developer in Colorado and has expanded to build projects nationwide over the last several years. Our development team works in conjunction with our EPC team to plan a project for success from the beginning and execute in a timely manner. Pivot will provide turnkey development of the community solar garden, from initial site planning and engineering to system design, construction, commissioning, and customer subscriptions.

Pivot Energy is a certified B Corps, using a triple bottom line approach to measure our progress on more than just a financial basis. Our goal is to achieve balance between three, sometimes opposing, ends of People, Planet, and Profit. B Corps, or Benefit Corporations, are redefining success in business to include benefits to workers, society, and the environment. We aim to balance these measures in all aspects of our projects to bring widespread benefit to multiple areas of the community.

## Experience with Developing and Operating Similar Solar Facilities

Pivot Energy has invested heavily in both the Colorado community solar market as well as community and commercial solar nationally. Our company also has community solar projects either under construction or in development in states including Minnesota, Illinois, New York, New Mexico, Virginia, and more totaling well over 150MW.

In Colorado Pivot has become the largest community solar developer having built or in process of developing more than 70 MW of community solar. Pivot Energy is also one of the only developers to never abandon a community solar project with a 100% success rate post-bid. Our team's experience is deeply rooted in development having built many of the early projects at previous companies and then coming together as a team of industry experts to accelerate community solar development, construction, and customer adoption throughout the country.

Pivot Energy's SunCentral team has also become the largest and most all-encompassing subscription manager in Colorado with thousands of residential customers and serving more than 16MW of low-income customer capacity throughout Colorado. We are proud that our SunCentral management platform is so widely used by the market. Our team regularly communicates with MPEI to not only manage customers within the market but also look for ways to improve how utilities and developers can communicate and operate to continuously provide better experiences to the end customer and bring projects to successful completion.

# Pivot Energy Acquisition by ECP

As of June 1, 2021 Pivot Energy is wholly owned by Energy Capital Partners (ECP)[1]. Founded in 2005, ECP is a leading investor across energy transition, electrification and decarbonization infrastructure assets, including power generation, renewables and storage solutions, environmental infrastructure and efficiency & reliability assets facilitating the energy transition. The ECP team, comprised of 53 people with 500 years of collective industry experience, deep expertise and extensive relationships, has consummated more than 60 transactions over the last 10 years, representing more than $45 billion of enterprise value.

More information on the acquisition available at: https://www.prnewswire.com/news-releases/ecp-announces-acquisition-of-pivot-energy-301303505.html

ECP has extensive experience in energy infrastructure with portfolio companies including Sunnova and Calpine. The investment in Pivot Energy by ECP allows for Pivot to not only develop solar assets and manage customers through our SunCentral platform but to maintain ownership of the assets through their full life. Additionally, Pivot Energy is a part of ECP's continued commitment to Environmental, Social, and Governance (ESG) goals and their expansion into renewable energy. Pivot Energy is ECP's first certified B Corporation and, as noted in their 2021 ESG Report highlights ECP's "ability to source attractive investments that have positive benefits from both a social justice and environmental standpoint."[2]

More information on ECP's ESG goals available at:
https://www.ecpgp.com/system/uploads/fae/file/asset/136/ECP_ESG_Report_2021_Web.pdf

In addition to the funding from ECP, Pivot Energy is nearing closing with both our tax equity partner and back leverage partner for our 2024 project portfolio that this project would be placed into. Pivot Energy is in final negotiations with a single tax equity partner that we have chosen as well as a single back leverage partner which are allowing us to get industry leading terms and cost of capital to make these projects very financially efficient.

In August 2022, Pivot Energy acquires SGC Power a Maryland-based community solar developer, who develops, and designs solar projects that produce long-term lease income for property owners while providing affordable clean energy to surrounding communities.

More information on the acquisition available at: Pivot Energy Announces Acquisition of Maryland-Based Community Solar Developer SGC Power (prnewswire.com)

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[1] PR Newswire – ECP Announces Acquisition of Pivot Energy: https://www.prnewswire.com/news-releases/ecp-announces-acquisition-of-pivot-energy-301303505.html

[2] Energy Capital Partners (ECP) – ESG Report: https://www.ecpgp.com/system/uploads/fae/file/asset/136/ECP_ESG_Report_2021_Web.pdf

## Selected Customer List

Our customer list includes small, midsized, and Fortune 500 companies, as well as utilities, nonprofits, governments, and military institutions.

# Project Design

Elk Development, LLC seeks to develop Old Stage with a collective nameplate capacity up to 3MWac. The clean energy generated by the solar array will be delivered to Dominion Energy's grid (the Grid) at 12kV, 3 phase distribution line along Old Stage Hwy. The Project is designed to be a community solar project that would offer a discount to local Dominion customers on their utility bill once operational. The system will be installed at 8699 Old Stage Hwy in Isle of Wight County. The subject parcel is identified as tax parcel 13-01- 005 owned by William Pennie Jr & Teresa L Crocker. The site is accessed off Morgarts Beach Rd (SR 673), approximately 3.5-miles north of Smithfield. The property consists of woodland and agricultural fields. The site is in the Rural Agriculture Conservation (RAC) zoning district.

Old Stage will be comprised of approximately 7,770 solar PV panels from Tier 1 manufacturers. Elk Development and Pivot Energy only uses crystalline solar panel using silicon and inert borophosphosilicate glass on their solar facilities. These panel are recyclable and do not have the potential toxic effects of cadmium-telluride panels (CDTe).

Standard additional equipment includes single axis tracker components, DC to AC inverters, medium-voltage transformers and control cabinets, project switchgear, meters, and the attachment facilities to the current local grid.

These panels will be mounted to a single-axis tracking (SAT) system designed to maximize the panel production by following the rising and setting of the sun. This SAT system includes linked horizontal steel support beams known as torque tubes, with a centrally located drive train system. The rows will be 22 feet apart (center-to-center) and the square footage of the panels will account for approximately 24% of the total Project acreage. The racking system will be affixed to pile-driven metal beams at a depth of approximately 10 feet. At full tilt, the maximum height of any panel will be under fifteen feet (15').

The solar panels in each row will be wired together into a circuit. There will be a DC to AC string inverter for approximately every 3 rows, typically mounted on a piling adjacent to the tracker structure. Once the inverter converts the panels DC power to AC, this power will be transmitted from the string inverters via three-phase direct-buried cables (at a depth of approximately 4.5 feet) and aggregated at the AC collection switch gear before moving to the medium-voltage transformer. This transformer will be mounted on a concrete slab alongside project switchgear and control cabinet. After the transformer steps up the electric power voltage to match the existing Grid, the power is transmitted to the Project's protective recloser and metering equipment before connecting with Dominion's powerlines.

An internal access drive made from all-weather aggregate base will provide access to the array. This Site access will be restricted by a perimeter security fence in compliance with Federal and State regulations. Manual swing gates will be built at the main entrance and other required entry points as determined by maintenance crews and/or safety personnel. National Electric Code Standards for safety and signage will be met or exceeded.

The project will be obscured from view by providing fence and using natural and planted vegetative buffers will meet or exceed the standards outlined by the County of Isle of Wight's ordinance.

# Environmental Impact

## Land Use

The project area is currently open agricultural field. Woodland areas exist on the subject parcel outside the project limits. The site is bounded on three sides by woodland and agricultural fields with a dwelling to the north. A residential neighborhood is located south of the property across Old Stage Hwy. The site fronts on Old Stage Hwy (BUS VA-10) to the south and Morgarts Beach Rd (SR 673) to the west and north.

## Topography

The site topography can be described as fairly flat coastal plain. The site predominately slopes gently eastward with some low spots on the property. There are no steep slopes within the project area. A topographic survey of the project area was performed by Dawood Engineering, Inc. in October and November 2022. The streams and wetlands within the project area were delineated by Dawood Engineering, Inc. in October 2022. The vertical datum used is the North American Vertical Datum 1988 (NAVD 88). The horizontal datum is the North American Datum 1983 (NAD 83), Virginia State Plane Coordinate System.

## Soils

The soil delineation for this project was completed using the United States Department of Agriculture Natural Resource Conservation Service Web Soil Survey. Soil types expected within the subject parcel include Slagle fine sandy loam (18A, 18B), Yemassee fine sandy loam (23), Emporia fine sandy loam (5A, 5B), Chipley sand (4), Nawney loam (10), and Nevarc and Remlik soils (11E). Of these, 11E is a highly erodible soil, 5B and 18B are potentially highly erodible, and 4, 5A, 10, 18A, and 23 are not highly erodible. Soils 5A, 5B, 18A, and 18B are prime farmland. Soils 23 are prime farmland if drained. Soils 4, 10, and 11E are not prime farmland.

As indicated by the Virginia Department of Energy geological mapping, the site is underlain by the Charles City Formation (Qcc). This formation varies from 0-55 feet or more in thickness and consists of light- to medium-gray and light- to dark-yellowish and reddish-brown sand, silt, and clay composing surficial deposits of riverine terraces and coast-parallel plains. This unit is adjacent to, and inset below, the Windsor Formation and older deposits.

## Wetlands & Receiving Waters

Pivot Energy has engaged a qualified environmental professional to conduct a field delineation to confirm that the site is designed away from the few identified, isolated wetlands to ensure no negative environmental impact. A summarized copy of this report is included in our application packet. Runoff from the subject parcel drains to Lawson Creek, or one of its tributaries. Lawson Creek flows through the eastern edge of the property. Lawson Creek is a tributary of Pagan River in the James River basin.

## Wildlife Habitats

Coordination with various state and federal agencies determined no adverse impacts to threatened or endangered species are anticipated as a result of the project. Refer to the Threatened and Endangered Species Assessment prepared by Dawood Engineering, Inc for additional information.

## Cultural and Historical Resources

A Phase I Cultural Resources Survey was completed by Stantec Consulting Services. Inc. in February and March 2023. No previously recorded archaeological nor architectural sites are located within the project area. One new isolated archaeological find, a whiteware body sherd, was identified. The find is not eligible for listing to the NRHP. One new architectural resource was identified on the subject parcel outside the project limits but was determined not eligible for listing in the NRHP. Three resources located within 0.5 miles of the project were considered eligible or potentially eligible for listing in the NRHP. Refer to the Cultural Resource Assessment prepared by Dawood Engineering, Inc for additional information.

## State Agency Diligence

Before solar projects in Virginia can begin construction, they must be vetted by the Virginia Department of Environmental Quality (VADEQ) regulation process in the form of permits by rule (PBR). This state-level oversight ensures that conditions and standards necessary to protect the Commonwealth's natural resources are met by a proposed project. This review, in coordination with the Virginia Department of Historic Resources, the Virginia Department of Wildlife Resources, and the Virginia Department of Conservation and Recreation analyze the proposal for potential impacts on wildlife, historic resources, prime farmland, and environmental impact.

The thorough diligence involved in securing VADEQ's PBR—and any subsequent mitigation measures required—offer strong protection for localities considering a project like ours. The land use decision within our CUP application is only the first of many steps a project must satisfy before submitting for a building permit.

# Construction

Construction of the solar energy system, including access road and interconnection to the electric grid, is to occur in three phases. The first phase of the project is anticipated to take 6 months to complete and will consist of construction of 1 MW of solar panels, electrical switch gear, site preparation, fencing, access road, and vegetative buffers. As Dominion Energy approves the interconnection of the second and third 1MW section of solar panels (both currently in study by the utility) they will be installed.

Construction of first phase is scheduled to start in September 2024. Finish date of the third phase is anticipated to be in April 2025. This schedule is based on the latest available information. Actual dates may vary based on regulatory requirements, weather, and other unforeseen issues. It is anticipated that onsite work will be conducted during the standard workweek (Monday through Friday) when workers will be onsite from 7:00AM to 5:00PM (10 hours). In the event of inclement weather, missed weekdays may be occasion made up on Saturdays to maintain construction schedules.

Construction activities associated with the project include establishing access, material delivery and storage, loading and hauling, construction of racking system with driven posts for foundations, mounting of solar modules, construction of equipment pads, installing equipment, trenching underground cable ductbanks, backfill and compaction, installing utility poles and aerial power lines, installing security fencing, and revegetation.

Construction of the solar energy system and site appurtenances is to occur in sections to limit disturbed area. The following is a general estimation of duration of the activities associated with the project. Some will occur simultaneously as work progresses. Estimated timing of the construction activities are as follows:

- Sediment control devices are to be installed in each area before any upslope earth disturbance commences. It is anticipated installing the sediment control devices will take approximately 1 week.
- Access road construction is anticipated to take roughly 1 week.
- Construction of the racking system and installation of solar modules will take approximately 4 months.
- Construction of the equipment pad and installation of equipment will take approximately 3 weeks.
- Trenching and cable installation will take approximately 6 weeks.
- Installing the poles and overhead power lines, including the interconnection, will take approximately 2 weeks.
- Final restoration, including seeding and mulching, is to be completed immediately as improvements are finished in each area. It is anticipated final restoration will take approximately 2 weeks.
- Sediment control devices are to be removed once the upslope area has been permanently stabilized. This should take less than 1 week.

## Operations and Maintenance

After construction is complete, we anticipate minimal site access requirements for Project maintenance activities. At a minimum, the Project will undergo two annual preventative maintenance checks, once in the spring (~April) and once in the fall (~August). While all products installed on site are of the highest quality per industry standard testing practices & classifications, occasional dispatch to site may be required to correct outages on an as-needed basis. Corrective activities such as this may add two to four site access instances each year.

As the long-term owners & operators of the proposed Project, our team will also actively monitor site performance 24/7 and will address any issues in a timely manner. Based on performance impact, our contracted O&M providers will respond within 24, 48, or 72 hours depending on the outage type. Our sites are unmanned regularly unless maintenance is required, which would occur between Monday – Friday from 8 AM – 5 PM.

Average rainfall in the County of Orbit Rd. anticipated to be adequate for natural cleaning of the panels. Vegetative ground cover will be managed during the growing season in compliance with local requirements, including but not limited to land use permit specifications, water management plans, and site access agreements.

## Solar Grazing – Vegetative Maintenance through Dual Ag Use

**“**Solar Grazing” is a method of vegetation control for solar sites that utilizes livestock. Sheep are best suited due to their size and grazing behavior. Ground cover is established with a “Fuzz and Buzz” mix that is conducive to grazing as well as pollinating. Projects such as the proposed Old Stage. would contract with local sheep farmers to move onto site in the Spring, care for them during grazing season, and move off site in the Winter. Sheep are excellent at grazing under panels where mowing is more labor intensive. The perimeter fence protects sheep from predators and solar panels provide shelter from rain, wind, and direct sun on hot days.

Pivot Energy has established a partnership with United Agrivoltaics to help lead our Solar Grazing initiatives. With a network of sites across the country and partners in Solar Grazing since 2015, United Agrivoltaics will assist Pivot Energy in a vegetative maintenance plan for this dual use.

## Impacts and Mitigations

**Water –** No on-site source of potable water will be required during construction or operations for Old Stage. If any on-site water source is required during construction or operation, it will be supplied by the host Project and sourced off-site. No new well will be dug for this project.

**Sound –** The majority of sound associated with the proposed Project will occur during construction. This is expected to be the result of material deliveries to the Property and support beam installation for the array. Impacts from noise are mitigated from a selected site that has few abutting neighbors and restricted hours of construction operations.

Once operational, Old Stage will be practically inaudible. At a distance of 3ft from the security fence, our inverters and racking equipment create a sound comparable to a home HVAC unit. These sound measurements fall to less than 50dB at only 50ft from the perimeter—equivalent to background noise in the County.

**Glare –** No glare hazard is expected during construction or operations. Our Tier I panels are treated with anti-glare coating and are designed to absorb as much sunlight as possible. The setbacks and robust vegetative screening from neighbors will further obscure any visual impact of the proposed Project.

**Odor –** Our EPC team will store, collect, and dispose of any solid construction material waste to prevent any odors from the Site, mitigating any impact on neighboring properties. No detectable odors are produced from the solar array components during operations.

**Dust –** Possible dust occurrence during operations is most likely to result from delivery or construction trucks on the Site. This will be mitigated by spraying water on dry dirt and enforcing a 5 MPH speed limit within the construction area. Minimal vehicle or foot traffic during operations and vegetative groundcover will naturally mitigate against concerns for dust.

**Security and Access –** The perimeter fence around the array will be no taller than 8 feet in height and contain no barbed wire. This fence will be black or another neutral color with final design approval to be sought from the Planning Director. The gates within the fence will remain locked while access will be coordinated through our operations and maintenance personnel. Our Site will provide a "Knox Box" to provide 24/7 access for local emergency personnel. The Applicant will ensure suitable access from Pocket Road is maintained for fire or other emergency vehicles.

## Removal

At the end of the Project's life, it will be decommissioned and removed from the Property. Formal notice of end of operations will be sent to County via Certified Mail. The Project will then be completely removed from the Property and reasonably restored to previous condition within 365 days of receipt of notice. Old Stage would expect County approval of our decommissioning plan—to include posting of surety funds—prior to building permit issuance. We have included a preliminary decommissioning cost estimate in our submission.

# Economic Development

## Jobs

To the extent possible, Old Stage will source local materials and labor for the construction and maintenance of the project. We estimate that this project will create approximately 30 new construction positions and 1-2 operations positions. Operations jobs will be focused on facility upkeep with responsibilities such as vegetation management, equipment repair, and component maintenance. Typical cadence for site maintenance is every two to three months.

## Increased County Revenue

Additionally, this project's lease revenue would provide direct fiscal benefit to the County. This has been outlined in a report commissioned from MAGNUM ECONOMIC's *"VAL025 - OLD STAGE HIGHWAY ECONOMIC AND FISCAL CONTRIBUTION TO ISLE OF WIGHT COUNTY, VIRGINIA*". This report has been included in our application.

# Regulatory Conformance

Virginia Code § 15.2-2232 requires that the Board of Supervisors makes a determination as to whether or not the general location, character, and extent of a proposed solar energy facility is in substantial accord with the locality's adopted comprehensive plan.

The Project includes construction of an approximately 27.32-acre solar farm (including buffer areas) within the existing field. Existing woodland and buildings are to remain. The proposed development is shown on the concept plan included with the conditional use application. A solar energy system (utility service/major) is a permissible use by conditional use within the RAC district. This statement has been prepared to show the proposed use will conform to the standards of the Zoning Ordinance. We believe the standards of section 1-1017 (Conditional Uses) have been met and respectively request the conditional use be granted. The standards for review and the conditions and guarantees have been addressed as follows:

**Zoning Ordinance Section 1-1017.H – Standards for review of a conditional use application**

1. *That the establishment, maintenance, and operation of the conditional use will not be detrimental to or endanger the public health, safety, and general welfare;*
   The adverse effects of the proposed use on the public health, safety, and general welfare would be minimal. The developer intends to design, construct, operate, inspect, and maintain the proposed development to meet or exceed all applicable federal, state, and local requirements and in general conformance with manufacturer recommendations and industry standards. All proposed equipment is to be readily accessible for fire and police protection. Measures, such as vegetative screening and security fencing, are proposed to mitigate any potential adverse effects and limit access.
2. *That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially impair the use of other property within the immediate proximity;*
   The proposed use is compatible with the other uses in the area providing energy for the neighborhood and will not be injurious nor substantially impair the use of other property in the area. Existing and proposed screening will limit the visual impact from adjacent property and roadways.
3. *That adequate utilities, water, sewer or septic system, access roads, storm drainage and/or other necessary public facilities and improvements have been or will be provided;*
   The proposed use does not require permanent water supply or sewage disposal. With established vegetation beneath and around the solar panels, the existing storm drainage facilities should be adequate and will be supplemented with further management facilities as needed during Site Plan Review. A short gravel access road is to be constructed to provide direct access to the solar energy system. Connection to the existing power lines in the adjacent roadway is to be provided in conformance with the electric company and regulatory standards.
4. *That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion on the public streets;*
   Traffic generated by the use should be negligible consisting of the occasional inspection or maintenance vehicle. A gravel drive from the public roadway is to be constructed to provide access directly to the solar farm.

5. *That the proposed conditional use is not contrary to the goals and objectives of the Isle of Wight County comprehensive Plan;*

The proposed use is consistent with the comprehensive plan. As stated in the plan, a solar farm is an appropriate use for the Rural Agricultural Conservation area. The use is consistent with the priority to protect natural resources and rural lifestyle and the policy to facilitate non-residential development. Converting the area from an agricultural field has the potential to reduce the amount of stormwater runoff, increasing groundwater quantity, by changing the ground cover. This would also potentially improve the quality of surface water and groundwater by reducing the use of fertilizers and pesticides. The combination of natural and supplemental screening and fencing to be maintained around the solar panels will preserve the rural character of the area.

**"Require facilities to be located adjacent or close to existing electric transmission lines."**

The project proposes to interconnect to the Dominion three-phase powerlines that run across the property's road frontage along Old Stage Hwy.

**"Require facilities to be located outside of DSDs."**

The project is sited on a property that is approximately 7.0 miles away from the nearest DSD (Newport).

**"Avoid or minimize impact to prime farmland or farmlands of statewide importance as defined by the USDA and Commonwealth of Virginia, respectively."**

The parcel being used takes up only 24.78. acres of cropland out the 94 acre property, which will continue to be farmed. Given the average farm size of 340 acres and over 80,000 total farm acres in Isle of Wight County, Old Stage presents a negligible impact on farmlands, which it more than offsets by providing homes with clean, locally generated power.

Additionally Pivot Energy promotes as a standard the use of sheep grazing as vegetation control on the site, which will allow the land to continue to function as agricultural lands.

**"Facilities should be located outside of the viewshed of any scenic, cultural, or recreational resources (i.e., solar facilities may not be seen from surrounding points that are in line-of sight with a resource location) or within the Highway Corridor Overlay district."**

The proposed existing, mature vegetative buffer along Old Stage Hwy will provide complete screening of the site from the public.

The Comprehensive Plan also outlines several Policy themes with Action Items associated toward those ends. Below are some of the more applicable selections regarding solar projects and our determination of the project would fit.

**Preserve: Protect water quality from sedimentation and pollutants carried by runoff through the continued enforcement of the local stormwater management program.**

Before final site plan approval, Pivot Energy must secure confirmation from the Virginia Department of Environmental Quality that the designed stormwater management features will meet or exceed the rates of current property use. Verification of this confirmation will safeguard against any degradation of local stormwater management as a result of the project.

**Shape: Protect rural historic landscapes by ensuring development is consistent with existing community character through performance criteria for new development.**

The vegetative screening plans provided offer mature, existing bufferings required by the solar ordinance. Exceeding the vegetative screening standard by this degree shows the specific focus on existing community character.

**Serve: Encourage collaboration with the private sector to provide integrated infrastructure in the most efficient way possible.**

**Serve: Design and develop public facilities, wherever possible, that take advantage of alternative energy sources and conserve energy in operations.**

**Serve: Ensure all major utility service use types mitigate any potential negative impacts to the character and future viability of surrounding land uses.**

The Old Stage project offers alternative energy sourced power generation for the local community, financed by private investment, to the net fiscal benefit for the county. By designing vegetative buffering that exceeds the county requirement for solar projects in its particular location, Old Stage is sited respectfully to local character and land uses while allowing the site landowner to exercise his property rights.

**Educate: Continue to grow programs that enhance job skills of County residents needed by employers.**

Pivot has contacted SHINE to coordinate plans for community colleges and academic institutions across Virginia so we can increase access to solar training programs across the state.

6. *That the conditional use shall, in all other respects, conform to the applicable regulations of the zoning district classification in which it is located and to the special requirements established for the specific use;*

   The developer intends to design, construct, operate, inspect, and maintain the proposed development to meet or exceed all applicable regulations.

7. *That the use(s) at the location proposed will not result in a multiplicity or saturation of similar uses in the same general neighborhood of the proposed use.*

   The proposed use at this location will not result in a saturation of similar uses in the same neighborhood. The only other known solar farms in the county are at Oliver Farms and Bennetts Creek Nursery located approximately 9-miles south of the site off VA-10/VA-32 near the county line with Suffolk. There are two other proposed solar projects approximately 10-miles south of this project. One project is currently under construction on Redhouse Road. Another project is approved but not yet constructed on Orbit Road.

   Proximity to three phase power lines and substations limits the available areas suitable for the installation of solar projects. After this site is constructed the electrical infrastructure supporting these facilities will be built out and not able to support further development.

**Zoning Ordinance Section 1-1017.I – Conditions and guarantees**

1. *The number of persons living or working in the immediate area and the proposed hours of operation, as may applicable.*

   N/A - No persons are to be located on-site. Any necessary maintenance personnel will be stationed elsewhere. Operations will be continuous while the sun is shining though personnel will generally only be onsite during inspections and maintenance.

2. *Traffic conditions, including facilities for pedestrians, such as sidewalks and parking facilities; the access of vehicles to roads; peak periods of traffic; and proposed roads, but only if construction of such roads will commence within the reasonably foreseeable future;*
   The nature of the proposed use, the site layout, and its relation to access streets are such that both pedestrian and vehicular traffic should not conflict with the normal traffic of the neighborhood. Traffic should be minimal utilizing a proposed gravel drive for access. Adequate parking is proposed for the occasional need. Fencing is proposed to restrict access.

3. *The orderly growth of the neighborhood and community and the fiscal impact on the county;*
   The proposed use is of such location, size, and character that, in general, it will be in harmony with the appropriate and orderly growth of the neighborhood and will not be detrimental to the orderly growth of adjacent properties. The proposed use will a provide supplementary energy source for the community. Traffic will be minimal and sufficient landscaping is proposed to screen adjacent properties. The proposed use will not have a significant fiscal impact on the county, other than the increase in tax base due to the change in use.

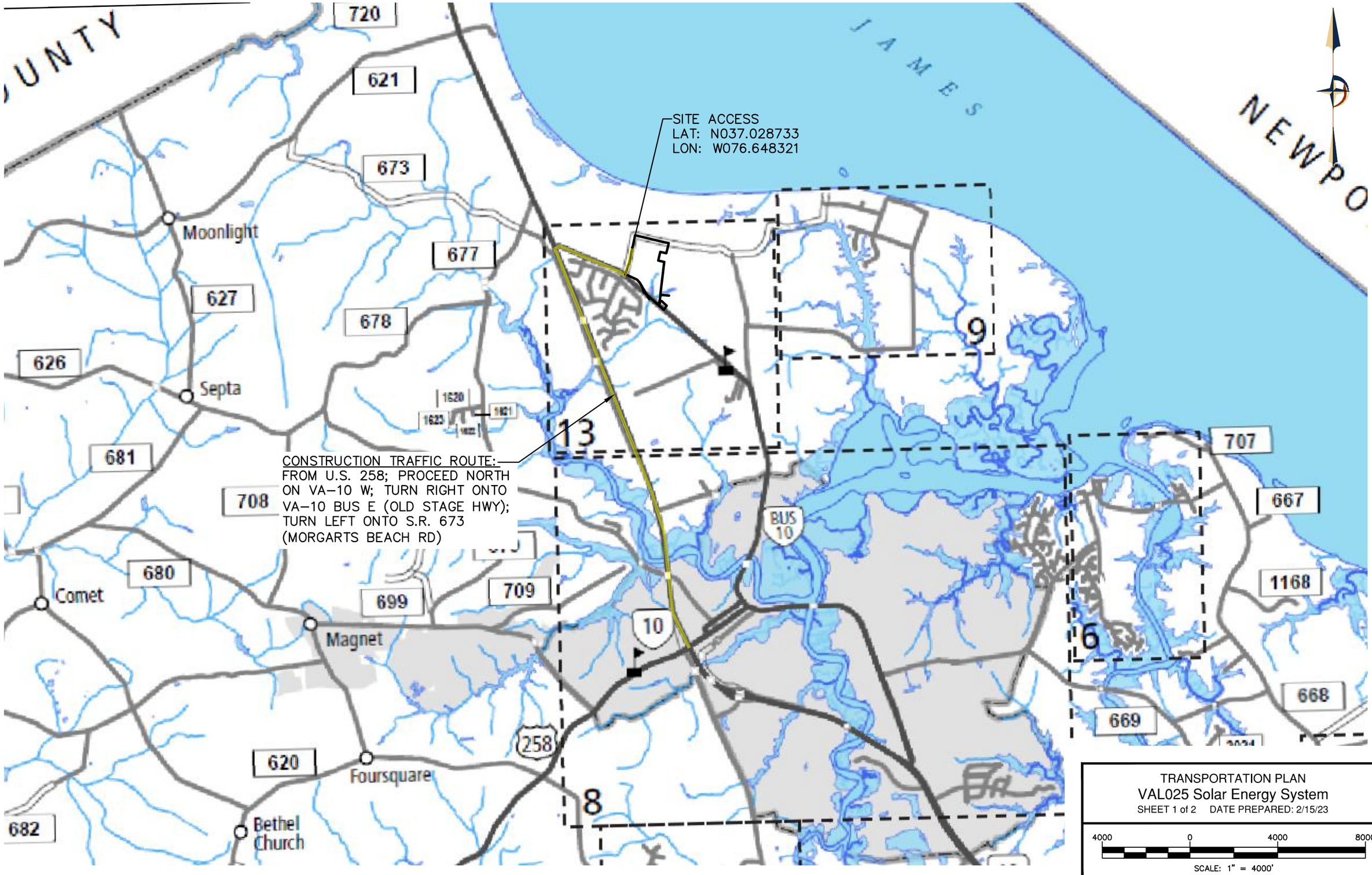
4. *The effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise upon the use of surrounding properties;*
   The proposed use, under normal operations, is not expected to produce any significant effects that would adversely impact the surrounding properties. Solar panels are designed to absorb light, with any glare to be minimized by the angle and tilt of the panels. Additionally, the proposed screening will further obscure any glare to adjacent roads and properties. All equipment is to be designed and operated in accordance with Federal, State, and local regulations. The solar panels will produce virtually no noise, vibrations, fumes, smoke, gas, dust, or odors. The system equipment is not expected to generate meaningful noise levels, vibrations, fumes, smoke, gas, dust, or odors. The location of the solar panels and equipment within the parcel and the use of vegetative screening will reduce the effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise from the use adversely impacting surrounding properties.

5. *Facilities for police, fire protection, sewerage, water, trash and garbage collection and disposal, and the ability of the county or persons to supply such services;*
   The proposed use would not create undue impacts to police, fire protection, or ambulance services. Fencing is proposed to restrict access and standard fire safety measures are to be utilized to reduce fire hazards. All proposed equipment is to be readily accessible for fire and police protection. Emergency response service to the site is to be facilitated through the construction of a new access road. Connection to the existing power lines in the adjacent roadway is to be provided in conformance with the electric company and regulatory standards. The proposed use does not require sewerage, water, or waste disposal services.

6. *The degree to which the development is consistent with generally accepted engineering and planning principles and practices;*
   The developer intends to design, construct, operate, inspect, and maintain the proposed development to be consistent with generally accepted engineering and planning principles and practices.

7. *The structures in the vicinity such as schools, houses of worship, theaters, hospitals, and similar places of public use;*
   The nearest such public facility is the Hardy Elementary School approximately 0.7-miles southeast of the subject parcel.

8. *The purposes set forth in this ordinance, the county's comprehensive plan, and related studies for land use, roads, parks, schools, sewers, water, population, recreation, and the like;*
   The proposed use does not conflict with the purposes set forth in the ordinance nor comprehensive plan. The proposed use is consistent with the comprehensive plan. Due to the nature of the use, the effect on the roads, parks, schools, sewers, water, population, and recreation should be negligible. The use does not involve the construction of facilities that would directly cause an increase in population or increase the demand for public facilities and services.
9. *The environmental impact, the effect on sensitive natural features, and opportunities for recreation and open space;*
   N/A – Any adverse environmental impact from the proposed use is negligible. The proposed construction area is limited to the existing farm field. The development will not result in the loss or damage of any sensitive feature. Recreation and open space aren't applicable to this development as it will not result in additional residents.
10. *The preservation of cultural and historic resources or landmarks.*
    There are no known cultural or historic resources or landmarks within the project area. The proposed construction area is limited to the existing access and farm field. One new architectural resource, a house, was identified on the subject parcel outside the project limits. Three historical resources are located near the project, a cemetery across Morgarts Beach Road west of the project, a house on the parcel north of the project site, and the Captain John Smith Historic Trail north of the project area. Existing and proposed screening will minimize any adverse impact to these resources. Mitigation for any adverse effect of the proposed project on the resources is being coordinated with the Virginia Department of Historic Resources.




TRANSPORTATION PLAN
VAL025 Solar Energy System
SHEET 1 of 2 DATE PREPARED: 2/15/23

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SCALE: 1" = 4000'

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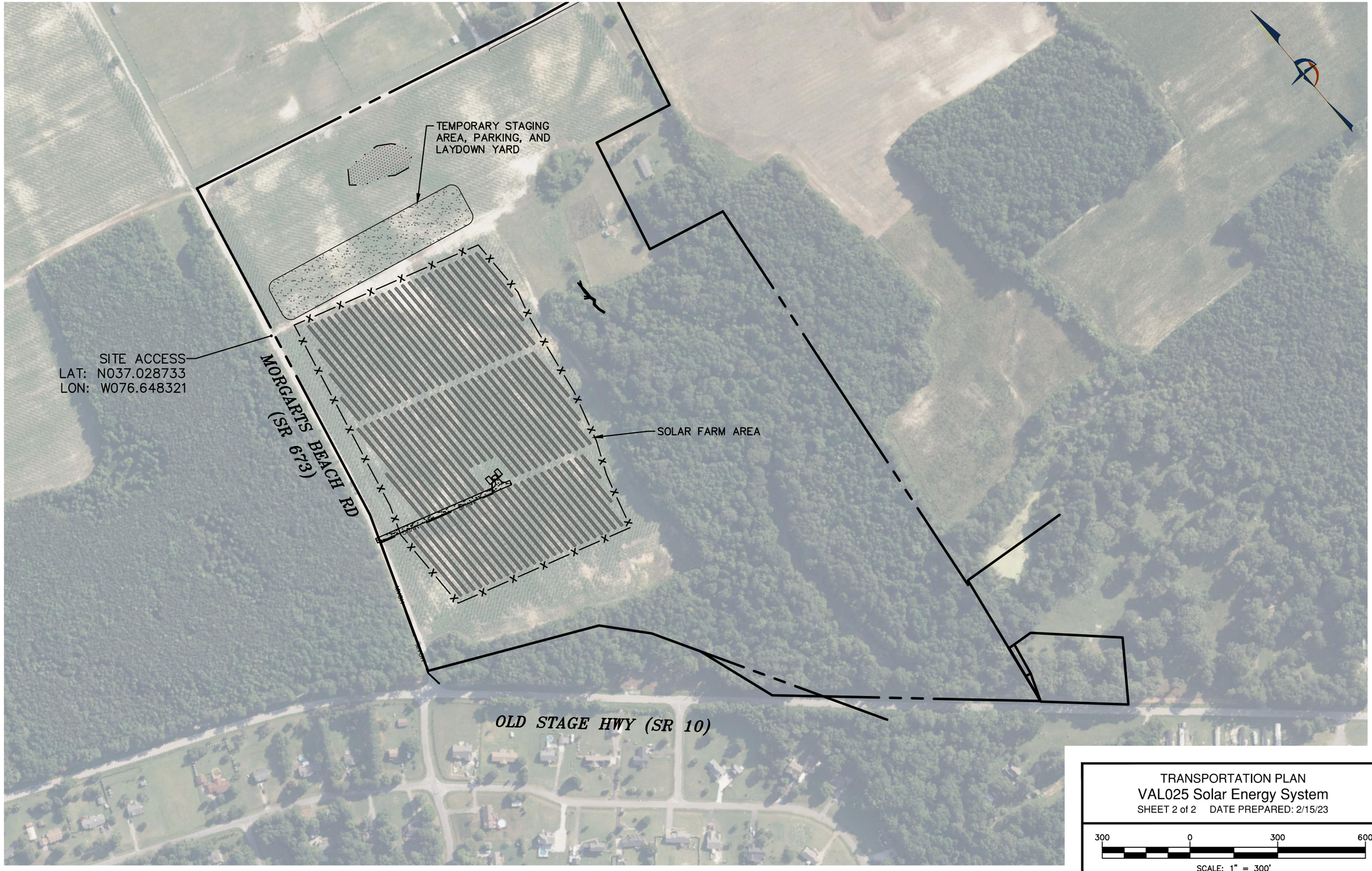


TRANSPORTATION PLAN

VAL025 Solar Energy System

SHEET 2 of 2 DATE PREPARED: 2/15/23

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# VAL025- OLD STAGE HIGHWAY

## ECONOMIC AND FISCAL CONTRIBUTION TO ISLE OF WIGHT COUNTY, VIRGINIA

**Prepared for**

Pivot Energy

MAY 2024

MANGUM economics

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# About Mangum Economics, LLC

Mangum Economics is a Glen Allen, Virginia based firm that was founded in 2003. Since then, we have become known as a leader in industry analysis, economic impact assessment, policy and program evaluation, and economic and workforce strategy development. The Mangum Team specializes in producing objective and actionable quantitative economic research that our clients use for strategic decision making in a variety of industries and environments. We know that our clients are unique, and that one size does not fit all. As a result, we have a well-earned reputation for tailoring our analyses to meet the specific needs of specific clients, with a specific audience.

Most of our research falls into four general categories:

- **Economic Development and Special Projects:** The Mangum Team has performed hundreds of analyses of proposed economic development projects. One recent example was an analysis of the proposed $2.3 billion Green City "net-zero eco district." The Mangum Team has also authored multiple economic development plans, including identifying industry recruitment opportunities created by the high-speed MAREA and BRUSA sub-sea cable landings in Virginia Beach.
- **Energy:** The Mangum Team has produced analyses of the economic and fiscal impact of over 29 GW of proposed solar, wind, battery energy storage, and hydro projects spanning more than twenty-five states. Among those projects was Dominion's 2.6 GW Coastal Virginia Offshore Wind project off of Virginia Beach. In addition, the Mangum Team has also performed economic and fiscal impact analyses for the natural gas, nuclear, oil, and pipeline industries.
- **Advanced Applied Technology:** The Mangum Team specializes in analyzing how advanced technology developments (like data centers, fiber networks, and advanced manufacturing plants) contribute to the state and local economies. We have worked with local governments, trade associations, developers, and operating firms across the country to show how investments in advanced critical infrastructure transform local economies across the country.
- **Policy Analysis:** The Mangum Team also has extensive experience in identifying and quantifying the intended and unintended economic consequences of proposed legislative and regulatory initiatives.

## The Project Team

Rebecca Kyle
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Martina Arel, M.B.A.
*Director – Economic Development & Energy Research*

A. Fletcher Mangum, Ph.D.
*Founder and CEO*

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# Executive Summary

**This report assesses the economic and fiscal contribution that the proposed Old Stage Highway project would make to Isle of Wight County, Virginia. The primary findings from that assessment are as follows:**

1) **VAL025- Old Stage Highway (Old Stage Highway) is a proposed 3-megawatt (MW) alternating current (AC) solar photovoltaic power generating facility. The project would be located near Morgart's Beach Road and Old Stage Highway in Isle of Wight County, Virginia. The total actively used, fenced-in solar site including a solar buffer would be approximately 27.32 acres of land.**

2) **The proposed Old Stage Highway project would make an economic contribution to Isle of Wight County:**

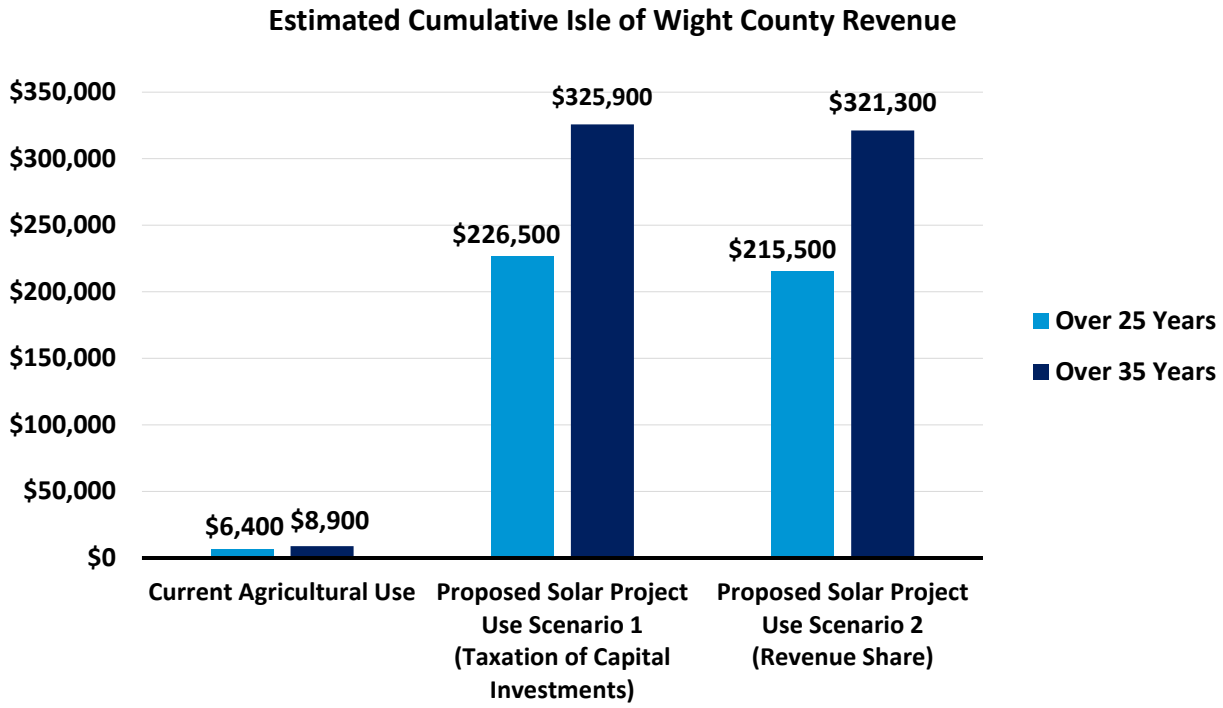
   - The proposed Old Stage Highway project would provide an estimated one-time pulse of economic activity to Isle of Wight County during its construction phase supporting approximately:
     - 3 jobs.
     - $98,000 in associated wages and benefits.
     - $180,500 in economic output.
   - The proposed Old Stage Highway project would provide an estimated annual economic impact to Isle of Wight County during its ongoing operational phase supporting approximately:
     - < 1 job.
     - $21,200 in associated wages and benefits.
     - $72,400 in economic output.

3) **The Old Stage Highway project would have a significantly greater fiscal impact on Isle of Wight County than the property generates in its current agricultural use:**

   - $24,000 in state and local tax revenue from the one-time pulse of economic activity associated with the project's construction.
   - The proposed Old Stage Highway project would generate approximately $226,500 in cumulative county revenue over a 25-year operational life and approximately $325,900 in cumulative county revenue over a 35-year operational life assuming revenues are generated from the reassessment of the real property and the taxation of the associated capital investments (Scenario 1).
   - The proposed Old Stage Highway project would generate approximately $215,500 in cumulative county revenue over a 25-year operational life and approximately $321,300 in cumulative county revenue over a 35-year operational life assuming revenues are

generated from the reassessment of the real property and payments associated with a locally adopted revenue share ordinance (Scenario 2).

- In the property's current agricultural use, it would generate approximately $6,400 in cumulative county revenue over 25 years and approximately $8,900 in cumulative county revenue over 35 years.




*The estimates provided in this report are based on the best information available and all reasonable care has been taken in assessing the quality of that information. However, because these estimates attempt to foresee the consequences of circumstances that have not yet occurred, it is not possible to be certain that they will be representative of actual events. These estimates are intended to provide a good indication of likely future outcomes and should not be construed to represent a precise measure of those outcomes.*

# Introduction

This report assesses the economic and fiscal contribution that the proposed VAL025- Old Stage Highway (Old Stage Highway) project would make to Isle of Wight County, Virginia. This report was commissioned by Pivot Energy and produced by Mangum Economics.

# The Project

Old Stage Highway is a proposed 3-megawatt (MW) alternating current (AC) solar photovoltaic power generating facility. The project would be located near Morgart's Beach Road and Old Stage Highway in Isle of Wight County, Virginia. The total actively used, fenced-in solar site including a solar buffer would be approximately 27.32 acres of land.

# Economic and Fiscal Impact

This section quantifies the economic and fiscal contribution that the proposed Old Stage Highway project would make to Isle of Wight County. The analysis separately evaluates the one-time pulse of economic activity that would occur during the construction phase of the project, as well as the annual economic activity that the project would generate during its ongoing operations phase.

## Method

To empirically evaluate the likely local economic impact attributable to the proposed Old Stage Highway project, the analysis employs a regional economic impact model called IMPLAN.[1] The IMPLAN model is one of the most commonly used economic impact simulation models in the U.S., and in Virginia is used by UVA's Weldon Cooper Center, the Virginia Department of Planning and Budget, the Virginia Employment Commission, and other state agencies and research institutes. Like all economic impact models, the IMPLAN model uses economic multipliers to quantify economic impact.

Economic multipliers measure the ripple effects that an expenditure generates as it makes its way through the economy. For example, as when the Old Stage Highway project purchases goods and services – or when contractors hired by the facility use their salaries and wages to make household purchases – thereby generating income for someone else, which is in turn spent, thereby becoming income for yet someone else, and so on, and so on. Through this process, one dollar in expenditures generates multiple dollars of income. The mathematical relationship between the initial expenditure and the total income generated is the economic multiplier.

One of the primary advantages of the IMPLAN model is that it uses regional and national production and trade flow data to construct region-specific and industry-specific economic multipliers, which are then further adjusted to reflect anticipated actual spending patterns within the specific geographic study area

[1] IMPLAN is produced by IMPLAN Group, LLC.

that is being evaluated. As a result, the economic impact estimates produced by IMPLAN are not generic. They reflect as precisely as possible the economic realities of the specific industry, and the specific study area, being evaluated.

In the analysis that follows, these impact estimates are divided into three categories. First round direct impact measures the direct economic contribution of the entity being evaluated (e.g., own employment, wages paid, goods and services purchased by the Old Stage Highway project). Second round indirect and induced impact measures the economic ripple effects of this direct impact in terms of business to business, and household (employee) to business, transactions. Total impact is simply the sum of the preceding two. These categories of impact are then further defined in terms of employment (the jobs that are created), labor income (the wages and benefits associated with those jobs), and economic output (the total amount of economic activity that is created in the economy).

## Construction Phase

This portion of the section assesses the economic and fiscal impact that the one-time pulse of activity associated with construction of the proposed Old Stage Highway project would have on Isle of Wight County.

### Economic Impact Assumptions

The analysis is based on the following assumptions:

- The Old Stage Highway project would employ approximately 50 full-time equivalent construction workers. Approximately 80 percent of those workers would be from Virginia, but are assumed to be from outside of Isle of Wight County.[2]
- The out-of-state workers would stay in the county during the construction period.
- Per diem spending for in-state workers would be approximately $15.[3]
- Per diem spending for out-state workers would be approximately $139.[4]
- All construction expenditures are assumed to take place during a six-month period.[5]

### Economic Impact

Applying these assumptions in the IMPLAN model results in the following estimates of one-time economic and fiscal impact. As shown in Table 1, construction of the proposed Old Stage Highway project would not provide a direct impact to Isle of Wight County because the construction labor is assumed to be from outside of the county.[6]

[2] Data Source: Pivot Energy.
[3] Data Source: U.S. General Services Administration.
[4] Data Source: U.S. General Services Administration.
[5] Data Source: Pivot Energy.
[6] Per diem spending is considered a household (employee) to business transaction and is therefore not a direct impact.

Taking into account the per diem spending of the construction workers, the total estimated one-time impact on Isle of Wight County would support approximately: 1) 3 jobs, 2) $98,000 in wages and benefits, 3) $180,500 in economic output, and 4) $24,000 in state and local tax revenue.

Table 1: Estimated One-Time Economic and Fiscal Impact on Isle of Wight County from Construction of the Old Stage Highway Project

| Economic Impact | Employment | Wages and Benefits | Output |
|---|---|---|---|
| **1st Round Direct Economic Activity** | - | - | - |
| **2nd Round Indirect and Induced Economic Activity** | 3 | $98,000 | $180,500 |
| **Total Economic Activity** | **3** | **$98,000** | **$180,500** |
| **Fiscal Impact** | | | |
| **State and Local Tax Revenue** | | | **$24,000** |

**Totals may not sum due to rounding.*

## Ongoing Operations Phase

This portion of the section assesses the annual economic and fiscal impact that the proposed Old Stage Highway project would have on Isle of Wight County during its operational phase.

### Economic Impact Assumptions

The analysis is based on the following assumptions:

- The Old Stage Highway project would spend approximately $53,000 each year for maintenance and repair, vegetative control, and other operational expenditures.[7]
- The Old Stage Highway project would make confidential lease payments to landowners.[8]

### Economic Impact

Applying these assumptions in the IMPLAN model results in the following estimates of annual economic impact. As shown in Table 2, annual operation of the proposed Old Stage Highway project would directly support approximately: 1) < 1 job, 2) $13,800 in wages and benefits, and 3) $41,800 in economic output to Isle of Wight County.

Taking into account the economic ripple effects that direct impact would generate, the total estimated annually supported impact on Isle of Wight County would be approximately: 1) < 1 job, 2) $21,200 in wages and benefits, and 3) $72,400 in economic output.

[7] Data Source: Pivot Energy.
[8] Data Source: Pivot Energy.

Table 2: Estimated Annual Economic Impact on Isle of Wight County from the Ongoing Operation of the Old Stage Highway Project

| Economic Impact | Employment | Wages and Benefits | Output |
|---|---|---|---|
| **1st Round Direct Economic Activity** | < 1 | $13,800 | $41,800 |
| **2nd Round Indirect and Induced Economic Activity** | < 1 | $7,400 | $30,600 |
| **Total Economic Activity** | **< 1** | **$21,200** | **$72,400** |

## Fiscal Impact Assumptions

The analysis is based on the following assumptions:

- Total capitalized investment in machinery and tools in the Old Stage Highway project is estimated to be approximately $6.2 million.[9]
- The leased acreage of the Old Stage Highway project would encompass approximately 24.8 acres located in Isle of Wight County.[10]
- The approximately 27.32 actively used, fenced-in acres including a solar buffer would be removed from the land use program and reassessed at a solar use assessment value of $15,000 per acre.[11]
- The initial interconnection request for Old Stage Highway was filed in 2021.[12]
- Tax rates are assumed to remain constant throughout the analysis.
- The Old Stage Highway project's total generation capacity would be 3 MW AC.[13]
- The Old Stage Highway project would become operational in 2025.[14]

## Fiscal Impact

This portion of the section quantifies the direct fiscal contribution that the proposed Old Stage Highway project would make to Isle of Wight County. The analysis considers two scenarios. Both scenarios include the additional revenue that the Old Stage Highway project would generate for Isle of Wight County over a 25-year period and a 35-year period from the increased property assessments associated with reassessing the site as solar use property. Scenario 1 then describes the additional revenue Old Stage Highway would generate for Isle of Wight County from taxes levied on the capital investment in machinery and tools, while Scenario 2 tax revenue generated from the capital investment will be

[9] Data Source: Derived from data provided by Pivot Energy.
[10] Data Source: Pivot Energy.
[11] Data Source: Isle of Wight County staff and Pivot Energy.
[12] Data Source: Pivot Energy.
[13] Data Source: Pivot Energy.
[14] Data Source: Pivot Energy.

replaced with revenue associated with a locally adopted revenue share ordinance and based on the project's total generation capacity.

### *Reassessment of Property*

Table 3 details the increased tax revenue associated with reassessing the 27.32-acre solar site as solar use property. The county real estate tax revenue from the fenced-in acreage after reassessment is estimated to be approximately $2,900 per year, for a cumulative total of approximately $72,700 over a 25-year operational life and approximately $101,800 over a 35-year operational life. Adding one-time rollback taxes of approximately $4,300 increases that cumulative total to approximately $77,100 over 25 years and approximately $106,200 over 35 years. In contrast, the property currently generates approximately $260 per year for the county, for a cumulative total of approximately $6,400 over 25 years and approximately $8,900 over 35 years.

Table 3: Estimated County Revenue Generated by the Proposed Old Stage Highway Project over 25 Years and 35 Years from Real Estate Taxes

| | Over 25 Years | Over 35 Years |
|---|---|---|
| Estimated Increased Appraised Value of Property[15] | $409,800 | $409,800 |
| Isle of Wight County Real Estate Tax Rate[16] | 0.0071 | 0.0071 |
| Annual County Real Estate Tax – Solar Use | $2,900 | $2,900 |
| **Revenue over Operational Life** | **$72,700** | **$101,800** |
| **One-time Rollback Taxes[17]** | **$4,300** | **$4,300** |
| **Total Cumulative Revenue over Operational Life** | **$77,100** | **$106,200** |

**Totals may not sum due to rounding.*

### *Scenario 1: Taxation of Capital Investment in Machinery and Tools*

Table 4 separately details the additional annual revenue that the proposed Old Stage Highway project would generate for Isle of Wight County over a 25-year period and a 35-year period from taxes levied on capital investment in machinery and tools. 1) the taxable portion of capital investments based on the stepdown local tax exemption pursuant to Virginia Code §58.1-2606.1[18], times 2) Isle of Wight County's

[15] Calculated as 19.4 acres times $15,000 per acre.
[16] Data Source: Isle of Wight County's Commissioner of Revenue's office.
[17] Rollback taxes are computed as the difference between the current land use value assessment tax and the tax on the fair market value for the affected acreage for five complete tax years plus the current year. Does not account for changes in assessment values over time.
[18] Virginia Code §58.1-2606.1 stipulates that solar facilities 5MW or less are subject to a stepdown exemption from local property taxes if the project is approved by the locality on or after July 1, 2022. The amount of the exemption is 80 percent in the first five years, 70 percent in years six through ten, and 60 percent thereafter.

depreciation guidelines for machinery and tools[19], times 3) Isle of Wight County's real estate tax rate of $0.71 per $100 of assessed value pursuant to Virginia Code §58.1-2606.1.[20]

As the data in Table 4 indicate, based on these calculations the estimated additional county revenue from taxation of capital investments associated with the proposed Old Stage Highway project would be approximately $3,520 in the project's first year of operation, with that figure projected to increase to approximately $7,030 in year 11 of the project as the value of the exemption is reduced for a cumulative total of approximately $149,400 over 25 years and approximately $219,700 over 35 years.

Table 4: Estimated County Revenue by Proposed Solar Investment Over 25 Years and 35 Years

| Year | Total Capital Investment Subject to Exemption[21] | Depreciated Value of Taxable Capital Investment[22] | Additional Annual County Tax Revenue Solar Investment[23] |
|---|---|---|---|
| 1 | $6,190,100 | $495,208 | $3,520 |
| 2 | $6,190,100 | $495,208 | $3,520 |
| 3 | $6,190,100 | $495,208 | $3,520 |
| 4 | $6,190,100 | $495,208 | $3,520 |
| 5 | $6,190,100 | $495,208 | $3,520 |
| 6 | $6,190,100 | $742,812 | $5,270 |
| 7 | $6,190,100 | $742,812 | $5,270 |
| 8 | $6,190,100 | $742,812 | $5,270 |
| 9 | $6,190,100 | $742,812 | $5,270 |
| 10 | $6,190,100 | $742,812 | $5,270 |
| 11 | $6,190,100 | $990,416 | $7,030 |
| 12 | $6,190,100 | $990,416 | $7,030 |
| 13 | $6,190,100 | $990,416 | $7,030 |
| 14 | $6,190,100 | $990,416 | $7,030 |
| 15 | $6,190,100 | $990,416 | $7,030 |
| 16 | $6,190,100 | $990,416 | $7,030 |
| 17 | $6,190,100 | $990,416 | $7,030 |
| 18 | $6,190,100 | $990,416 | $7,030 |

[19] Because Old Stage Highway would be independently owned and does not meet the definition of an "Electric Supplier" because it is under 25 MW, it would be assessed locally. Although the actual potential local assessment methodology is not known, the analysis presented is based on the assumption that the investment would be assessed as machinery and tools because of the Virginia Department of Taxation Tax Ruling 14-37, which determined that production of electricity for sale or resale by a private entity is eligible for the industrial manufacturing processing exemption from sales and use taxes.

[20] Data Source: Isle of Wight County's Commissioner of Revenue's office. Pursuant to Virginia Code §58.1-2606.1, Old Stage Highway would be taxable at a rate not exceeding the county's real estate tax rate.

[21] Data Source: Pivot Energy.

[22] Accounts for Isle of Wight County's depreciation guidelines for Machinery and Tools. Also accounts for the stepdown exemption from local property taxes pursuant to Virginia Code §58.1-2606.1 for projects 5 MW or less and approved by a locality after July 1, 2022. The amount of the exemption is 80 percent in the first five years, 70 percent in years six through ten, and 60 percent thereafter.

[23] Calculated pursuant to Virginia Code §58.1-2606.1. Because Old Stage Highway would be independently owned and does not meet the definition of an "Electric Supplier" because it is under 5 MW, it would be taxed at the Isle of Wight County real estate tax rate of $0.71 per $100.

| Year | Total Capital Investment Subject to Exemption[21] | Depreciated Value of Taxable Capital Investment[22] | Additional Annual County Tax Revenue Solar Investment[23] |
|---|---|---|---|
| 19 | $6,190,100 | $990,416 | $7,030 |
| 20 | $6,190,100 | $990,416 | $7,030 |
| 21 | $6,190,100 | $990,416 | $7,030 |
| 22 | $6,190,100 | $990,416 | $7,030 |
| 23 | $6,190,100 | $990,416 | $7,030 |
| 24 | $6,190,100 | $990,416 | $7,030 |
| 25 | $6,190,100 | $990,416 | $7,030 |
| **CUMULATIVE TOTAL OVER 25 YEARS** | | | **$149,400** |
| 26 | $6,190,100 | $990,416 | $7,030 |
| 27 | $6,190,100 | $990,416 | $7,030 |
| 28 | $6,190,100 | $990,416 | $7,030 |
| 29 | $6,190,100 | $990,416 | $7,030 |
| 30 | $6,190,100 | $990,416 | $7,030 |
| 31 | $6,190,100 | $990,416 | $7,030 |
| 32 | $6,190,100 | $990,416 | $7,030 |
| 33 | $6,190,100 | $990,416 | $7,030 |
| 34 | $6,190,100 | $990,416 | $7,030 |
| 35 | $6,190,100 | $990,416 | $7,030 |
| **CUMULATIVE TOTAL OVER 35 YEARS** | | | **$219,700** |

**Totals may not sum due to rounding.*

### *Scenario 1: Total Fiscal Impact*

Table 5 combines the results from the calculations depicted in Tables 3 and 4 to provide an estimate of the cumulative fiscal contribution that the proposed Old Stage Highway project would make to Isle of Wight County over its operational life under Scenario 1. As these data indicate, that cumulative total is approximately $226,500 over 25 years and approximately $325,900 over 35 years.

Table 5: Estimated Cumulative County Tax Revenue from the Proposed Old Stage Highway Project under Scenario 1

| | Over 25 Years | Over 35 Years |
|---|---|---|
| County Real Estate Tax Revenue | $77,100 | $106,200 |
| County Revenue from Taxation of Capital Investments | $149,400 | $219,700 |
| **TOTAL Cumulative Revenue** | **$226,500** | **$325,900** |

**Totals may not sum due to rounding.*

### *Scenario 2: Revenue Share Ordinance*

The following section describes the additional annual revenue that the proposed Old Stage Highway project would generate for Isle of Wight County assuming the county adopts an energy revenue share ordinance under Virginia Code §58.1-2636. The Virginia Code currently stipulates that a locality may assess an annual revenue share of up to $1,400 per megawatt (MW) alternating current (AC) generation capacity of a solar facility. However, legislation that was passed in the 2021 General Assembly (SB 1201/HB 2006) and went into effect on July 1, 2021, allows a 10 percent escalator to be applied to the $1,400 per MW revenue share every five years, beginning in 2026. Section 58.1-3660 further stipulates that capital investment associated with the solar project will be exempt from taxation if the county adopts an energy revenue share ordinance.

Table 6 details the revenue generated from a revenue share ordinance including the 10 percent escalator. Based on a total generation capacity of 3 MW AC and an assumed commissioning date of 2025, a revenue share ordinance would generate approximately $138,500 over a 25-year operational life and approximately $215,200 over a 35-year operational life.

Table 6: Estimated County Revenue Generated from Revenue Share Ordinance over 25 Years and 35 Years[24]

| Year | MW | Payment per MW with Escalator | Annual County Revenue |
|---|---|---|---|
| 1 | 3 | $1,400 | $4,200 |
| 2 | 3 | $1,540 | $4,620 |
| 3 | 3 | $1,540 | $4,620 |
| 4 | 3 | $1,540 | $4,620 |
| 5 | 3 | $1,540 | $4,620 |
| 6 | 3 | $1,540 | $4,620 |
| 7 | 3 | $1,694 | $5,082 |
| 8 | 3 | $1,694 | $5,082 |
| 9 | 3 | $1,694 | $5,082 |
| 10 | 3 | $1,694 | $5,082 |
| 11 | 3 | $1,694 | $5,082 |
| 12 | 3 | $1,863 | $5,590 |
| 13 | 3 | $1,863 | $5,590 |
| 14 | 3 | $1,863 | $5,590 |
| 15 | 3 | $1,863 | $5,590 |
| 16 | 3 | $1,863 | $5,590 |
| 17 | 3 | $2,050 | $6,149 |
| 18 | 3 | $2,050 | $6,149 |
| 19 | 3 | $2,050 | $6,149 |
| 20 | 3 | $2,050 | $6,149 |
| 21 | 3 | $2,050 | $6,149 |
| 22 | 3 | $2,255 | $6,764 |

[24] Data Source: Pivot Energy.

| Year | MW | Payment per MW with Escalator | Annual County Revenue |
|---|---|---|---|
| 23 | 3 | $2,255 | $6,764 |
| 24 | 3 | $2,255 | $6,764 |
| 25 | 3 | $2,255 | $6,764 |
| **CUMULATIVE TOTAL OVER 25 YEARS** | | | **$138,500** |
| 27 | 3 | $2,480 | $7,441 |
| 28 | 3 | $2,480 | $7,441 |
| 29 | 3 | $2,480 | $7,441 |
| 30 | 3 | $2,480 | $7,441 |
| 31 | 3 | $2,480 | $7,441 |
| 32 | 3 | $2,728 | $8,185 |
| 33 | 3 | $2,728 | $8,185 |
| 34 | 3 | $2,728 | $8,185 |
| 35 | 3 | $2,728 | $8,185 |
| **CUMULATIVE TOTAL OVER 35 YEARS** | | | **$215,200** |

**Totals may not sum due to rounding.*

### *Scenario 2: Total Fiscal Impact*

Table 7 combines the results from the calculations depicted in Tables 3 and 6 to provide an estimate of the cumulative fiscal contribution that the proposed Old Stage Highway project would make to Isle of Wight County over its operational life. As these data indicate, that cumulative total is approximately $215,500 over 25 years and approximately $321,300 over 35 years.

Table 7: Estimated Cumulative County Revenue from the Proposed Old Stage Highway Project over 25 Years and 35 Years under Scenario 2

| | Over 25 Years | Over 35 Years |
|---|---|---|
| County Real Estate Tax Revenue | $77,100 | $106,200 |
| County Revenue from Revenue Share Ordinance | $138,500 | $215,200 |
| **TOTAL Cumulative Revenue** | **$215,500** | **$321,300** |

**Totals may not sum due to rounding.*

# Current Agricultural Use

This section provides a benchmark for the previous estimates of the fiscal contribution that the proposed Old Stage Highway project would make to Isle of Wight County by estimating the fiscal contribution that the site makes to the county in its current agricultural use.

## Economic Impact Assumptions

The analysis is based on the following assumptions:

- The proposed Old Stage Highway project would be situated within an approximate 24.8-acre tract of agricultural land used to produce cotton.[25]

## Economic Impact

Applying these assumptions in the IMPLAN model results in the following estimates of annual economic impact. As shown in Table 8, in its current agricultural use the proposed Old Stage Highway project site directly supports approximately: 1) < 1 job, 2) $6,700 in wages and benefits, and 3) $17,700 in economic output to Isle of Wight County.

Taking into account the economic ripple effects that direct impact generates, on average, the total annually supported impact on Isle of Wight County is approximately: 1) < 1 job, 2) $10,500 in wages and benefits, and 3) $27,200 in economic output.

Table 8: Total Estimated Annual Economic Impact of the Old Stage Highway Project Site on Isle of Wight County – Current Agricultural Use[26]

| Economic Impact | Employment | Wages and Benefits | Output |
|---|---|---|---|
| **1st Round Direct Economic Activity** | < 1 | $6,700 | $17,700 |
| **2nd Round Indirect and Induced Economic Activity** | < 1 | $3,800 | $9,500 |
| **Total Economic Activity** | **< 1** | **$10,500** | **$27,200** |

**Totals may not sum due to rounding.*

## Fiscal Impact Assumptions

- The current assessment value of the affected acreage is approximately $35,900.[27]

[25] Data Source: Pivot Energy.
[26] Calculations based data from the U.S. Department of Agriculture and IMPLAN Group, LLC for Virginia.
[27] Data Source: Derived from Isle of Wight County's property card database.

## Fiscal Impact

Table 9 details the estimated tax revenue that the proposed Old Stage Highway site generates for Isle of Wight County in its current agricultural use. As the data in Table 9 indicate, the current county real estate tax revenue from the project site is estimated to be approximately $260 per year, for a cumulative total of approximately $6,400 over 25 years and approximately $8,900 over 35 years.

Table 9: Estimated County Revenue Generated by the Proposed Old Stage Highway Project Site over 25 Years and 35 Years from Real Estate Taxes – Current Agricultural Use

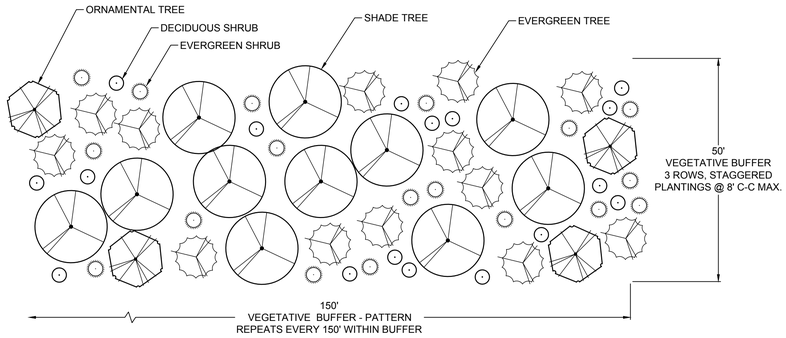
| | Over 25 Years | Over 35 Years |
|---|---|---|
| Estimated Assessed Value of Property – Current Agricultural Use[28] | $35,900 | $35,900 |
| Isle of Wight County Real Estate Tax Rate[29] | 0.0071 | 0.0071 |
| Estimated Annual County Real Estate Tax – Current Agricultural Use | $260 | $260 |
| **Total Cumulative Revenue over Operational Life** | **$6,400** | **$8,900** |

**Totals may not sum due to rounding.*

*The estimates provided in this report are based on the best information available and all reasonable care has been taken in assessing that information. However, because these estimates attempt to foresee circumstances that have not yet occurred, it is not possible to provide any assurance that they will be representative of actual events. These estimates are intended to provide a general indication of likely future outcomes and should not be construed to represent a precise measure of those outcomes.*

[28] Data Source: Derived from Isle of Wight County's property card database.
[29] Data Source: Isle of Wight County's Commissioner of Revenue's office.

KEY MAP
NOT TO SCALE




PROPOSED LANDSCAPE BUFFER | VIEW 1
NOT TO SCALE

EXISTING CONDITIONS | VIEW 1
NOT TO SCALE

PROPOSED LANDSCAPE BUFFER | ESTIMATED TIME OF PLANTING | VIEW 1
NOT TO SCALE

PROPOSED LANDSCAPE BUFFER | ESTIMATED 5 YEAR GROWTH | VIEW 1
NOT TO SCALE

PROPOSED LANDSCAPE BUFFER | ESTIMATED 10 YEAR GROWTH | VIEW 1
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11 Grandview Circle, Suite 116, Canonsburg, PA 15317
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SCALE:

DOCUMENT PREPARED FOR:
ELK DEVELOPMENT, LLC
6865 DEERPATH ROAD, SUITE 330
ELKRIDGE, MD 21075
410-779-9377

LANDSCAPE PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
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- VIEW 1 -

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KEY MAP
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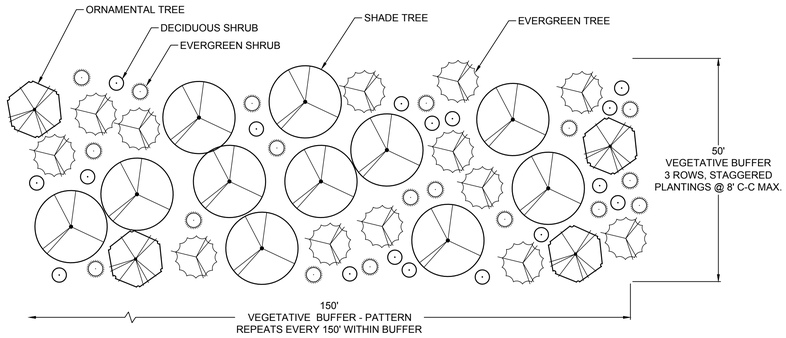


PROPOSED LANDSCAPE BUFFER | VIEW 2
NOT TO SCALE

EXISTING CONDITIONS | VIEW 2
NOT TO SCALE

PROPOSED LANDSCAPE BUFFER | ESTIMATED TIME OF PLANTING | VIEW 2
NOT TO SCALE

PROPOSED LANDSCAPE BUFFER | ESTIMATED 5 GROWTH | VIEW 2
NOT TO SCALE

PROPOSED LANDSCAPE BUFFER | ESTIMATED 10 YEAR GROWTH | VIEW 2
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LANDSCAPE PLAN
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- VIEW 2 -

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EASTERN RED CEDAR

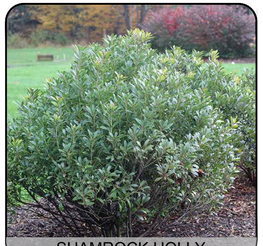
GREEN GIANT ARBORVITAE

FLOWERING DOGWOOD

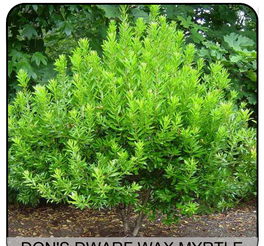
RED SUNSET RED MAPLE

WINTERBERRY HOLLY

RED TWIG DOGWOOD



SHAMROCK HOLLY



DON'S DWARF WAX MYRTLE

## PLANT PALETTE

### DECIDUOUS TREES

**QUERCUS PALUSTRIS (PIN OAK)**
HEIGHT: 50-70 FT
SPREAD: 40-60 FT
GROWTH RATE: +1-2 FT/YEAR

**ACER RUBRUM ' RED SUNSET'**
HEIGHT: 40-50 FT
SPREAD: 30-40 FT
GROWTH RATE: + 2 FT/YEAR

### EVERGREEN TREES

**JUNIPERUS VIRGINIANA (EASTERN RED CEDAR)**
HEIGHT: 30-65 FT
SPREAD: 8-25 FT
GROWTH RATE: + 1-2 FT/YEAR

**THUJA PLICATA ' GREEN GIANT"**
HEIGHT: 40-60 FT
SPREAD: 12-15 FT
GROWTH RATE: + 2-3 FT/YEAR

### ORNAMENTAL TREES

**CORNUS FLORIDA (FLOWERING DOGWOOD)**
HEIGHT: 15-30 FT
SPREAD: 15-30 FT
GROWTH RATE: + 1-2 FT/YEAR

**CRATAEGUS VIRIDIS ' WINTER KING'**
HEIGHT: 25-35 FT
SPREAD: 25-35 FT
GROWTH RATE: + 1-2 FT/YEAR

### EVERGREEN SHRUBS

**MYRICA CERIFERA ' DONS DWARF'**
HEIGHT: 3-4 FT
SPREAD: 4-6 FT

**ILEX GLABRA ' SHAMROCK'**
HEIGHT: 3-4 FT
SPREAD: 3-4 FT

### DECIDUOUS SHRUBS

**CORNUS STOLONIFERA ' ARTIC FIRE'**
HEIGHT: 3-5 FT
SPREAD: 3-5 FT
ILEX VERTICILLATA ' NANA'
HEIGHT: 3-12 FT
SPREAD: 3-12 FT

NOTE: TREES SHALL BE INSTALLED AT 6' - 8' HEIGHT MINIMUM. SHRUBS SHALL BE INSTALLED AT 24-30" HEIGHT MINIMUM. THE PROPOSED VEGETATION DEPICTED IN THIS EXHIBIT ARE FOR CONCEPT PURPOSES ONLY. FINAL PLANT SPECIES WILL BE DETERMINED WITH FINAL DESIGN.

PIN OAK

WINTER KING HAWTHORNE

SUBJECT TO FINAL ENGINEERING

REVISIONS

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# WETLAND AND WATERCOURSE DELINEATION REPORT

**VAL025**

2200547.01

**ISLE OF WIGHT COUNTY, VIRGINIA**

DAWOOD
ENGINEERS ▸ PLANNERS ▸ SURVEYORS
4250 Crums Mill Road, Suite 301, Harrisburg, PA 17112
p: (717) 732-8576 f: (717) 732-8596

Prepared for:

**ELK DEVELOPMENT, LLC**
6865 Deerpath Road, Suite 330
Elkridge, MD 21075

November 18, 2022

Revised: October 03, 2023

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## APPENDICES

Appendix A – Data Sheets
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Table 2 – Summary of Wetlands
Table 3 – Summary of Watercourses

# 1.0 EXECUTIVE SUMMARY

This report presents the findings of a wetland and watercourse delineation study conducted by Dawood Engineering, Inc. (Dawood) for the VAL025 Project ("Project"). The project area of investigation (AOI) consists of approximately 56.9-acres in Isle of Wight County, Virginia (Figure 1).

One palustrine emergent (PEM) wetland and one ephemeral watercourse were delineated for the proposed Project.

The AOI is comprised primarily of active agricultural fields and forest. At the time of the investigation, all fields were planted in cotton.

# 2.0 METHODOLOGY

Dawood reviewed the AOI for potential jurisdictional waters including wetlands and watercourses (ephemeral, intermittent, and perennial). The methodology for conducting the wetland and watercourse delineation work is presented below.

## 2.1 Methodology for Delineating Wetlands

The wetland delineation was based on Dawood's professional judgment and interpretation of the technical criteria presented in the *Corps of Engineers Wetlands Delineation Manual, Environmental Laboratory, 1987* (Manual) and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0)*. The routine onsite determination method described in the Manual supplemented by the *National Wetland Plant List* (2020) and U.S. Department of Agriculture (USDA) Natural Resources Conservation Service's *Soil Survey Geographic Database* (SSURGO) for Isle of Wight County, Virginia map and metadata were utilized to determine site characteristics and determine if wetlands were present on the site. Dawood completed the following scope of services to identify and delineate jurisdictional wetland boundaries at the site:

1. Office Data Review: Dawood personnel reviewed the U.S. Geological Survey (USGS) topographic mapping (Figure 1), U.S. Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) Map (Figure 2), USDA's SSURGO map (Figure 3), existing aerial photography, and the hydric soils list from the SSURGO's metadata file. These resources were used to identify potential wetland areas prior to conducting the fieldwork. Other potential jurisdictional water bodies located within the project area, such as watercourses and ponds, are also identified from these resources.

2. Site Reconnaissance: Dawood conducted the initial site reconnaissance on October 20, 2022, and performed a follow-up investigation for an expansion of the AOI on October 01, 2023. Dawood performed the investigation using the routine onsite determination method (Environmental Laboratory 1987). First, plant communities present on the site were identified. The dominant plant species within each community were identified and a determination was made on whether hydrophytic (wetland) plants dominated the plant community. Next, a representative test site was located within the plant community and soils were sampled using a manual soil auger to determine if hydric soil indicators were present. Lastly, the test site was inspected to determine if indicators of wetland hydrology (inundation, soil saturation, etc.) were present. When a test site was determined to be within a wetland, further testing was performed to locate the wetland/non-wetland boundary and a second test was typically established

outside of the wetland boundary to document non-wetland conditions. Completed wetland determination data forms are provided in Appendix A. Representative photographs of the AOI were taken and are in Appendix B.

## 2.2 Methodology for Delineating Watercourses

Dawood reviewed the site for watercourses that would likely be considered jurisdictional by state and or federal regulatory agencies. A weight-of-evidence approach for identifying watercourses is used to evaluate multiple lines of evidence concerning physical and biological indicators of watercourse hydrology. Dawood uses field indicators such as flow, substrate composition, embeddedness, presence/absence of defined bed and banks, origin of hydrologic source, presence/absence of vegetation in the watercourse channel, and composition and relative abundances of resident benthic macroinvertebrates to classify on-site watercourse segments into three watercourse types: ephemeral, intermittent, or perennial. A description of each watercourse type is provided below.

- Ephemeral Watercourse – Watercourse reaches lacking flow or benthic macroinvertebrate communities. Ephemeral watercourses typically flow in direct response to precipitation events and/or snow melt.
- Intermittent Watercourse – Watercourse reaches containing seasonal flows and possibly containing a benthic macroinvertebrate community comprised of taxa with short aquatic life stages (e.g., midges, blackfly larvae).
- Perennial Watercourse – Watercourse reaches containing year-round flow dominated by a diverse benthic macroinvertebrate community and containing permanently aquatic taxa or those with long aquatic life stages (e.g., freshwater mussels, dobsonflies, mayflies, spring salamanders, and stoneflies).

The uppermost limit of a perennial watercourse is determined at the point where there is a shift in the benthic macroinvertebrate community, from one with a predominance of long-lived taxa to one dominated by short-lived taxa. The uppermost limit of an intermittent watercourse is determined at the point where there is a loss of flow and/or benthic macroinvertebrate communities. At this point, the break between intermittent and ephemeral is identified. The uppermost limit of an ephemeral watercourse is determined at the point where the watercourse loses its defined bed and bank, or ordinary high-water mark (OHWM) and a predominance of upland vegetation is observed within the channel.

The limit of each watercourse segment, if present, is marked in the field with surveyor's ribbon flags and subsequently georeferenced using a handheld GPS unit with sub-centimeter accuracy capability.

# 3.0 FINDINGS

## 3.1 National Wetlands Inventory Maps

The USFWS NWI map has been prepared based on high altitude infrared aerial photography and limited ground truthing. Wetlands and deepwater habitats are identified on these maps and classified according to the system developed by Cowardin and et. al. (1979).

One NWI resource (PEM1/SS1C) was identified along the eastern limit of the AOI on the Bacons Castle, VA quadrangle NWI map (see Figure 2). Ground truthing was performed in this area during the field investigation and the area was determined to be non-wetland.

## 3.2 Site Soils

A review of the SSURGO map and database for Isle of Wight County, Virginia (USDA 2022) identifies seven soil mapping units within the project area of investigation. The soil mapping units identified are shown in Figure 3 and summarized in Table 1.

**TABLE 1. SUMMARY OF ONSITE SOILS**

| Map Unit Symbol | Map Unit Name | Drainage Class | Hydric Soil Classification |
|---|---|---|---|
| 5A | Emporia fine sandy loam, 0 to 2 percent slopes | Well drained | Hydric |
| 11E | Nevarc and Remlik soils, 15 to 35 percent slopes | Moderately well drained | Hydric |
| 14B | Peawick-Slagle complex, 2 to 6 percent slopes | Moderately well drained | Hydric |
| 18A | Slagle fine sandy loam, 0 to 2 percent slopes | Moderately well drained | Hydric |
| 18B | Slagle fine sandy loam, 2 to 6 percent slopes | Moderately well drained | Hydric |
| 19A | Uchee loamy sand, 0 to 2 percent slopes | Well drained | Hydric |
| 19B | Uchee loamy sand, 2 to 6 percent slopes | Well drained | Hydric |

USDA [Survey Area Version: 19 Survey Area Version Date: 09/05/2023]

The following paragraphs provide a short description of the soil series found at the site:

The Emporia series consists of very deep, well drained, and moderately slow to slow permeability soils commonly found in upland areas of the Coastal Plain. Soils of this series are formed in marine sediments. Slopes range from 0 to 50 percent. Depth to bedrock is greater than 72 inches.

The Nevarc series consists of very deep, moderately well drained, and slow permeability soils commonly found int marine terraces of the Coastal Plain. Soils of this series are formed in marine deposits. Slopes range from 2 to 55 percent. Depth to bedrock is greater than 72 inches.

Soils of the Peawick series are very deep and moderately well drained with very slow permeability. They formed in clayey fluvial sediments on stream terraces of the Coastal Plain and Peidmont. Slopes range from 0 to 15 percent. Depth to bedrock is greater than 72 inches.

The Remlik series consists of very deep, well drained soils that formed in loamy and sandy sediments on Coastal Plain side slopes. Permeability is moderate or moderately rapid. Slopes range from 2 to 65 percent. Depth to bedrock is greater than 60 inches.

The Slagle series consists of very deep, moderately well drained soils formed in marine deposits. Slopes range from 0 to 25 percent. Permeability is moderately slow to slow. Depth to bedrock is greater than 72 inches

The Uchee series consists of very deep, well drained, moderately slowly permeable soils that formed in sandy and loamy marine sediments. They are on smooth ridgetops and dissected side slopes of the Coastal Plain. Slopes range from 0 to 25 percent.

## 3.3 Site Plant Communities

Dominant plant species within extant plant communities were identified and the U.S. Army Corps of Engineers (USACE) wetland plant indicator status was determined according to the *National Wetland Plant List* (2020). The USACE has established five wetland plant indicator categories, defined as follows:

(1) Obligate Wetland (OBL) – Almost always occur in wetlands; rarely in non-wetlands;
(2) Facultative Wetland (FACW) – Usually occur in wetlands, but occasionally occur in non-wetlands;
(3) Facultative (FAC) – Commonly occur in wetlands and non-wetlands;
(4) Facultative Upland (FACU) – Usually occur in non-wetlands, but occasionally occur in wetlands; and
(5) Upland (UPL) – Almost always occur in non-wetlands, rarely in wetlands.

The USACE considers plants classified as OBL, FACW or FAC to be wetland plants (or hydrophytes). The plant communities present on the site are composed of agricultural fields, grassland, and forest.

The dominant plant species observed in the area of investigation and their indicator statuses are recorded on individual data forms presented in Appendix A.

Representative photographs of watercourses, wetlands, and habitat within the project area of investigation are provided in Appendix B.

## 3.4 Site Hydrology

Site elevations in the project area range from approximately 45 to 75 feet above mean sea level. Surface water on the site is conveyed to Lawson Creek, which carries surface water to Pagan River.

## 3.5 Delineated Wetlands

One wetland was identified within the area of investigation for the proposed Project. The size, cover-type, based on the Cowardin classification system, and corresponding test sites and photograph numbers are provided below in Table 2. A wetland determination data form is provided in Appendix A and resource photographs are provided in Appendix B. Wetland W01 is classified as non-tidal.

**TABLE 2. SUMMARY OF WETLANDS**

| Wetland Name | Sample Point | Total Delineated Wetland Acreage[1] | Wetland Classification[2] | Tidal/Non-tidal | Isolated? | Associated Photograph Number(s) |
|---|---|---|---|---|---|---|
| W01 | W01-SPW | 0.46 | PEM | Non-tidal | Yes | 3, 4 |

[1] Total Wetland Acreage within AOI

[2]Cowardin 1979

## 3.6 Delineated Watercourses

Dawood identified one watercourse within the area of investigation that may be considered "jurisdictional" by applicable regulatory agencies. Watercourse name, classification, and delineated length are provided in Table 3 below. Resource photographs are included in Appendix B.

**TABLE 3. SUMMARY OF WATERCOURSES**

| Watercourse Name | Waters Classification | Delineated Watercourse Length (feet)[1] | Associated Photograph Number(s) |
|---|---|---|---|
| R01 | Ephemeral | 258 | 1, 2 |

[1] Total length of Watercourse within AOI

## 3.7 Other Delineated Waters

No other potentially jurisdictional waters were identified during the site reconnaissance.

# 4.0 CONCLUSIONS

One PEM wetland and one ephemeral watercourse were identified and delineated for the proposed VAL025 project. No other potentially jurisdictional waters were delineated within the Project's area of investigation. Dawood ecologists flagged and subsequently georeferenced the wetland boundary using a GPS unit with sub-meter accuracy capability. The boundaries of all potential jurisdictional waters are shown on Figure 4. Wetland W01 is considered significantly disturbed due to its location within an agricultural field; however, hydrology, hydrophytic vegetation, and hydric soil indicators were all observed and used to delineate the wetland boundary. Detailed site conditions have been documented in wetland determination data forms included as Appendix A.

# 5.0 REGULATORY CONSIDERATIONS

## 5.1 Meetings with Regulatory Agencies

To date, there have been no meetings between Dawood, VMRC, DEQ, or USACE regarding potentially jurisdictional waters identified within the project area of investigation.

## 5.2 Regulatory Discussion

The USACE and Virginia DEQ regulate discharges of fill and obstructions/encroachments within or across jurisdictional wetlands and watercourses. Discharges of dredged or fill material into waters of the United States, including non-isolated wetlands, require permits from the USACE under the provisions of Section 404 of the Clean Water Act (CWA).

Excavation, filling, dumping, permanent flooding or impounding of wetlands; or activities that may cause draining, that significantly alter or degrade existing wetland acreage or functions are prohibited without a Virginia Water Protection Permit.

To determine if a wetland is classified as an isolated wetland and therefore not regulated under Section 404 of the CWA or Section 10 of the rivers and Harbors Act, an Approved JD must be obtained from the Corps. A Jurisdictional Determination (JD) is a two-step process of 1) identifying and locating aquatic resources (including wetlands) on a property, and 2) determining whether those identified resources are regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act (CWA) and/or Section 10 of the Rivers and Harbors Act. Regarding wetlands, the JD process determines if a wetland is located adjacent to a traditionally navigable water (TNW) or a relatively permanent water (RPW) that is a tributary to a TNW. If such a connection exists, then USACE will assert jurisdiction over such a wetland. If a wetland is located adjacent to, but not abutting, a RPW or TNW, then the JD process will determine if a significant nexus exists between a wetland and a TNW. If such a nexus exists, then the wetland is regulated by USACE. If the Corps determines that no such nexus exists, then the identified wetland is considered an isolated wetland and is not regulated under Section 404 of the CWA or Section 10 of the Rivers and Harbors Act, presuming that the use, degradation, or destruction of the wetland could not affect interstate commerce.

## 6.0 DISCLAIMER

Dawood's wetlands and watercourse delineation services were conducted in a manner consistent with the criteria contained in the Manual and the 2012 Supplement and with the level of care and skill ordinarily exercised by members of the environmental consulting profession practicing contemporaneously under similar conditions in the locality of the project. It must be recognized that the delineation was based on field observations and Dawood's professional interpretation of the criteria in the Manual and Regional Supplement at the time of the fieldwork. Wetland determinations may change subsequent to Dawood's delineation based on changes in the regulatory criteria, seasonal variations in hydrology, alterations to drainage patterns and other human activities and/or land disturbances.

# 7.0 REFERENCES

Cowardin, L. M., V. Carter, and F. C. Golet. 1979. *Classification of Wetlands and Deep Water Habitats of the United States*. U.S. Department of the Interior, Fish and Wildlife Service. Washington D. C. FWS/OBS-79/31.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual,* Technical Report Y-87-1, U.S. Army Engineer Waterway Experiment Station, Vicksburg, Mississippi.

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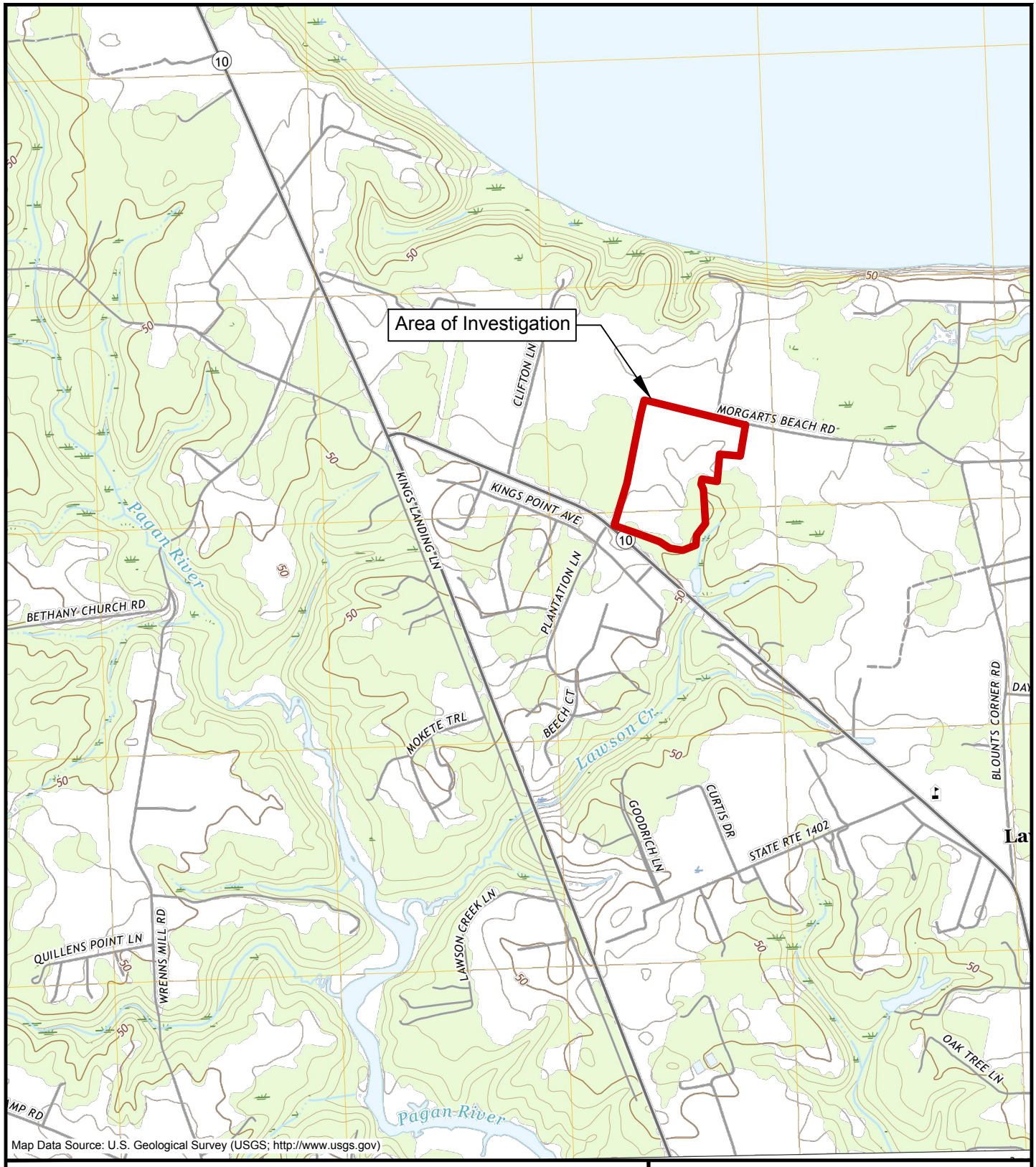
U.S. Army Corps of Engineers 2020. National Wetland Plant List, version 3.5 https://nam11.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwetland-plants.usace.army.mil%2F&data=02%7C01%7Cjyealy%40dawood.cc%7C483257dd51d24ffe801a08d81d23a087%7C38930086194e44da953df5a40ceb6a67%7C0%7C1%7C637291386156387875&sdata=JhZs8n2u95%2BIYXBm4ieGe3vNQH0pSrMcZMbjTfJx8xA%3D&reserved=0. U.S. Army Corps of Engineers. Engineer Research and Development Center Cold Regions Research and Engineering Laboratory, Hanover, NH.

# FIGURES




Map Data Source: U.S. Geological Survey (USGS; http://www.usgs.gov)

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**f:** 717.732.8596

| | | | |
|---|---|---|---|
| TITLE: | ----: 220054701-EN-FL-WL01 - LAYOUT1 | | |
| PROJECT NAME: | VAL025 | | |
| LOCATION: | ISLE OF WIGHT COUNTY, VIRGINIA | | |
| MAP REFERENCE: | USGS QUADRANGLE: BACONS CASTLE, VA | | |
| PROJECT NUMBER: | 2200547.01 | | |
| DRAWN BY: | JWY | APPROVED BY: | KRR |

N

2000 0 2000

SCALE: 1" = 2000'

O:\2022\JOBS\2200547-01\EN\DRAWINGS\220054701-EN-FL-WL01
October 3, 2023 2:21 PM

DOCUMENT PREPARED BY:

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| | |
|---|---|
| TITLE: | ----: 220054701-EN-FL-WN01 - LAYOUT1 |
| PROJECT NAME: | VAL025 |
| LOCATION: | ISLE OF WIGHT COUNTY, VIRGINIA |
| MAP REFERENCE: | USGS QUADRANGLE: BACONS CASTLE, VA |
| PROJECT NUMBER: | 2200547.01 |
| DRAWN BY: | JWY |
| APPROVED BY: | KRR |

N

400 0 400

SCALE: 1" = 400'

O:\2022JOBS\2200547-01\EN\DRAWINGS\220054701-EN-FL-WN01
October/3/2023 2:21 PM

Aerial Photography Source: Virginia Geographic Information Network (VGIN; http://vgin.vdem.virginia.gov)
Soil Survey Data Source: NRCS, USDA Soil Survey for Isle of Wight County, Virginia (http://soildatamart.nrcs.usda.gov/)

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| | |
|---|---|
| TITLE: | ----: 220054701-EN-FL-WS01 - LAYOUT1 |
| PROJECT NAME: | VAL025 |
| LOCATION: | ISLE OF WIGHT COUNTY, VIRGINIA |
| MAP REFERENCE: | USGS QUADRANGLE: BACONS CASTLE, VA |
| PROJECT NUMBER: | 2200547.01 |
| DRAWN BY: | JWY |
| APPROVED BY: | KRR |

N

400 0 400

SCALE: 1" = 400'

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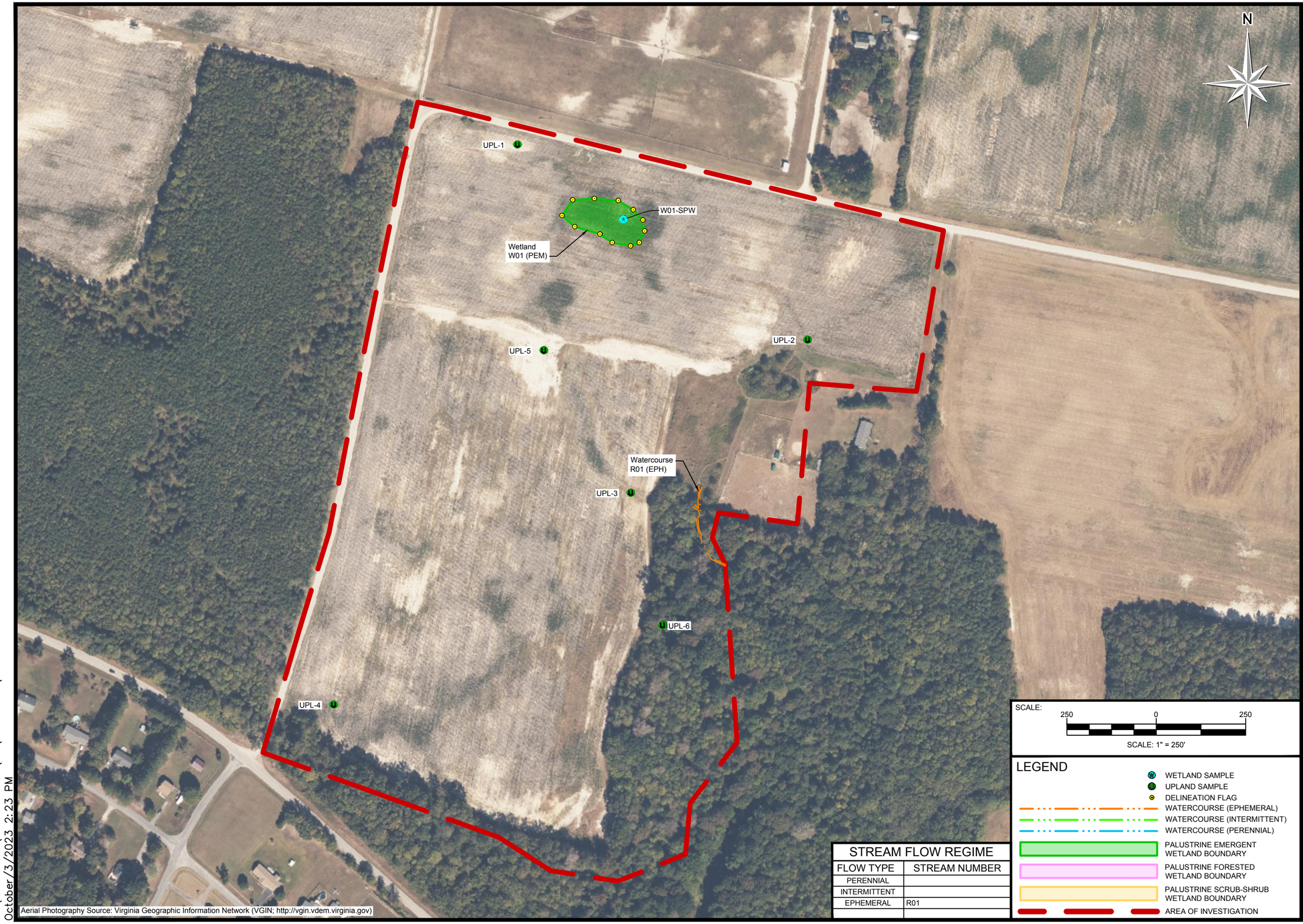


| STREAM FLOW REGIME | |
|---|---|
| FLOW TYPE | STREAM NUMBER |
| PERENNIAL | |
| INTERMITTENT | |
| EPHEMERAL | R01 |
| | |

SCALE:

250 0 250

SCALE: 1" = 250'

LEGEND

- WETLAND SAMPLE
- UPLAND SAMPLE
- DELINEATION FLAG
- WATERCOURSE (EPHEMERAL)
- WATERCOURSE (INTERMITTENT)
- WATERCOURSE (PERENNIAL)
- PALUSTRINE EMERGENT WETLAND BOUNDARY
- PALUSTRINE FORESTED WETLAND BOUNDARY
- PALUSTRINE SCRUB-SHRUB WETLAND BOUNDARY
- AREA OF INVESTIGATION

REVISIONS

| NO. | DATE | DESCRIPTION |
|---|---|---|
| | | |

DOCUMENT PREPARED FOR:

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FIGURE 4:

# WETLAND AND WATERCOURSE DELINEATION MAP

| | |
|---|---|
| DATE | OCTOBER 03, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | EN-FL-WD01 |
| DRAWN BY | JWY |
| CHECKED BY | KRR |

PROJECT NAME

VAL025

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# APPENDIX A

# DATA SHEETS

# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: VAL025 City/County: Isle of Wight County Sampling Date: 10/20/2022

Applicant/Owner: Pivot Energy State: VA Sampling Point: UPL-1

Investigator(s): K. Rucker & J. Yealy Section, Township, Range: _____

Landform (hillslope, terrace, etc.): swale/lowland Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR or MLRA): LRR T Lat: 37.029863 Long: 37.029863 Datum: NAD83

Soil Map Unit Name: Slagle fine sandy loam, 0 to 2 percent slopes (18A) NWI classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes _____ | No ✓ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ | No ✓ | |
| Wetland Hydrology Present? | Yes _____ | No ✓ | |

Remarks:
The sample plot is located within an active agricultural field; therefore, vegetation is considered significantly disturbed.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

**Field Observations:**

| | | | | |
|---|---|---|---|---|
| Surface Water Present? | Yes _____ | No _____ | Depth (inches): _____ | |
| Water Table Present? | Yes _____ | No _____ | Depth (inches): _____ | |
| Saturation Present? (includes capillary fringe) | Yes _____ | No _____ | Depth (inches): _____ | **Wetland Hydrology Present?** Yes _____ No ✓ |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No primary hydrology indicators were observed.

**VEGETATION (Five Strata) –** Use scientific names of plants.

Sampling Point: UPL-1

| | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| **Tree Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Sapling Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Shrub Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Herb Stratum** (Plot size: 5' ) | | | |
| 1. Gossypium hirsutum | 20 | Y | FACU |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| | 20.0 = Total Cover | | |
| 50% of total cover: 10.0 | 20% of total cover: 4.0 | | |
| **Woody Vine Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x 1 = | 0 |
| FACW species | 0 | x 2 = | 0 |
| FAC species | 0 | x 3 = | 0 |
| FACU species | 20 | x 4 = | 80 |
| UPL species | 0 | x 5 = | 0 |
| Column Totals: | 20 (A) | | 80 (B) |

Prevalence Index = B/A = 4.00

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes No ✔

Remarks: (If observed, list morphological adaptations below). A dominant hydrophytic vegetative community was not observed

**SOIL**

Sampling Point: UPL-1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Redox Features Type[1] | Redox Features Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-20 | 10YR 6/3 | 100 | | | | | Sand | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** **Yes** _____ **No** ✔

Remarks: No hydric soil indicators were observed.

# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: VAL025 City/County: Isle of Wight County Sampling Date: 10/20/2022

Applicant/Owner: Pivot Energy State: VA Sampling Point: UPL-2

Investigator(s): K. Rucker & J. Yealy Section, Township, Range: _____

Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR or MLRA): LRR T Lat: 37.028389 Long: -76.644147 Datum: NAD83

Soil Map Unit Name: Peawick-Slagle complex, 2 to 6 percent slopes (14B) NWI classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes _____ | No ✓ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ | No ✓ | |
| Wetland Hydrology Present? | Yes _____ | No ✓ | |

Remarks:
The sample plot is located within an active agricultural field; therefore, vegetation is considered significantly disturbed. The sample plot was documented due to evidence of lack of growth of cotton individuals.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

**Field Observations:**

| | | | | |
|---|---|---|---|---|
| Surface Water Present? | Yes _____ | No _____ | Depth (inches): _____ | |
| Water Table Present? | Yes _____ | No _____ | Depth (inches): _____ | |
| Saturation Present? (includes capillary fringe) | Yes _____ | No _____ | Depth (inches): _____ | **Wetland Hydrology Present?** Yes _____ No ✓ |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No primary hydrology indicators were observed.

**VEGETATION (Five Strata) –** Use scientific names of plants.

Sampling Point: UPL-2

| | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| **Tree Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Sapling Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Shrub Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Herb Stratum** (Plot size: 5' ) | | | |
| 1. Gossypium hirsutum | 30 | Y | FACU |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| | 30.0 = Total Cover | | |
| 50% of total cover: 15.0 | 20% of total cover: 6.0 | | |
| **Woody Vine Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x 1 = | 0 |
| FACW species | 0 | x 2 = | 0 |
| FAC species | 0 | x 3 = | 0 |
| FACU species | 30 | x 4 = | 120 |
| UPL species | 0 | x 5 = | 0 |
| Column Totals: | 30 (A) | | 120 (B) |

Prevalence Index = B/A = 4.00

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes No ✔

Remarks: (If observed, list morphological adaptations below). A dominant hydrophytic vegetative community was not observed. Cotton was observed not growing within portions of the sample plot. Due to a lack of hydrology and hydric soil indicators, the sample plot area was not considered naturally problematic in qualifying for the presence of hydrophytic vegetation.

**SOIL**

Sampling Point: UPL-2

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | % | Redox Features Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-2 | 10YR 5/3 | 100 | | | | | Sand | |
| 2-20 | 10YR 5/6 | 100 | | | | | Sand | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** **Yes** _____ **No** ✔

Remarks: No hydric soil indicators were observed.

# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: VAL025 City/County: Isle of Wight County Sampling Date: 10/20/2022

Applicant/Owner: Pivot Energy State: VA Sampling Point: UPL-3

Investigator(s): K. Rucker & J. Yealy Section, Township, Range: _____

Landform (hillslope, terrace, etc.): swale/lowland Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR or MLRA): LRR T Lat: 37.027170 Long: -76.645861 Datum: NAD83

Soil Map Unit Name: Peawick-Slagle complex, 2 to 6 percent slopes (14B) NWI classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes _____ | No ✓ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ | No ✓ | |
| Wetland Hydrology Present? | Yes _____ | No ✓ | |

Remarks:
The sample plot is located within an active agricultural field; therefore, vegetation is considered significantly disturbed.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

**Field Observations:**

| | | | | |
|---|---|---|---|---|
| Surface Water Present? | Yes _____ | No _____ | Depth (inches): _____ | |
| Water Table Present? | Yes _____ | No _____ | Depth (inches): _____ | |
| Saturation Present? (includes capillary fringe) | Yes _____ | No _____ | Depth (inches): _____ | **Wetland Hydrology Present?** Yes _____ No ✓ |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No primary hydrology indicators were observed.

**VEGETATION (Five Strata) –** Use scientific names of plants.

Sampling Point: UPL-3

| Tree Stratum (Plot size: 30' ) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Sapling Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Shrub Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Herb Stratum** (Plot size: 5' ) | | | |
| 1. Gossypium hirsutum | 30 | Y | FACU |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| | 30.0 = Total Cover | | |
| 50% of total cover: 15.0 | 20% of total cover: 6.0 | | |
| **Woody Vine Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x 1 = | 0 |
| FACW species | 0 | x 2 = | 0 |
| FAC species | 0 | x 3 = | 0 |
| FACU species | 30 | x 4 = | 120 |
| UPL species | 0 | x 5 = | 0 |
| Column Totals: | 30 (A) | | 120 (B) |

Prevalence Index = B/A = 4.00

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes No ✔

Remarks: (If observed, list morphological adaptations below). A dominant hydrophytic vegetative community was not observed

**SOIL**

Sampling Point: UPL-3

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | % | Redox Features Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-12 | 10YR 4/3 | 100 | | | | | Loamy Sand | |
| 12-20 | 2.5Y 5/3 | 100 | | | | | Sand | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** **Yes** _____ **No** ✔

Remarks: No hydric soil indicators were observed.

# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: VAL025 City/County: Isle of Wight County Sampling Date: 10/20/2022

Applicant/Owner: Pivot Energy State: VA Sampling Point: UPL-4

Investigator(s): K. Rucker & J. Yealy Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Undulating Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR or MLRA): LRR T Lat: 37.025393 Long: -76.648930 Datum: NAD83

Soil Map Unit Name: Slagle fine sandy loam, 2 to 6 percent slopes (18B) NWI classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes _____ | No ✓ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ | No ✓ | |
| Wetland Hydrology Present? | Yes _____ | No ✓ | |

Remarks:
The sample plot is located within an active agricultural field; therefore, vegetation is considered significantly disturbed.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

**Field Observations:**

| | | | | |
|---|---|---|---|---|
| Surface Water Present? | Yes _____ | No _____ | Depth (inches): _____ | |
| Water Table Present? | Yes _____ | No _____ | Depth (inches): _____ | |
| Saturation Present? (includes capillary fringe) | Yes _____ | No _____ | Depth (inches): _____ | **Wetland Hydrology Present?** Yes _____ No ✓ |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators were observed.

**VEGETATION (Five Strata) –** Use scientific names of plants.

Sampling Point: UPL-4

| | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| **Tree Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Sapling Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Shrub Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Herb Stratum** (Plot size: 5' ) | | | |
| 1. Gossypium hirsutum | 40 | Y | FACU |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| | 40.0 = Total Cover | | |
| 50% of total cover: 20.0 | 20% of total cover: 8.0 | | |
| **Woody Vine Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x 1 = | 0 |
| FACW species | 0 | x 2 = | 0 |
| FAC species | 0 | x 3 = | 0 |
| FACU species | 40 | x 4 = | 160 |
| UPL species | 0 | x 5 = | 0 |
| Column Totals: | 40 (A) | | 160 (B) |

Prevalence Index = B/A = 4.00

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes No ✔

Remarks: (If observed, list morphological adaptations below). A dominant hydrophytic vegetative community was not observed

**SOIL**

Sampling Point: UPL-4

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | % | Redox Features Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-18 | 10YR 5/4 | 100 | | | | | Sand | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** **Yes** _____ **No** ✔

Remarks: No hydric soil indicators were observed.

# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: VAL025 City/County: Isle of Wight County Sampling Date: 10/20/2022

Applicant/Owner: Pivot Energy State: VA Sampling Point: UPL-5

Investigator(s): K. Rucker & J. Yealy Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Lowland Local relief (concave, convex, none): Level Slope (%): 1

Subregion (LRR or MLRA): LRR T Lat: 37.028277 Long: -76.646666 Datum: NAD83

Soil Map Unit Name: Uchee loamy sand, 0 to 2 percent slopes (19A) NWI classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes _____ | No ✓ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ | No ✓ | |
| Wetland Hydrology Present? | Yes _____ | No ✓ | |

Remarks:
The sample plot is located within an active agricultural field; therefore, vegetation is considered significantly disturbed.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

**Field Observations:**

| | | | | |
|---|---|---|---|---|
| Surface Water Present? | Yes _____ | No _____ | Depth (inches): _____ | |
| Water Table Present? | Yes _____ | No _____ | Depth (inches): _____ | |
| Saturation Present? (includes capillary fringe) | Yes _____ | No _____ | Depth (inches): _____ | **Wetland Hydrology Present?** Yes _____ No ✓ |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators were observed.

**VEGETATION (Five Strata) –** Use scientific names of plants.

Sampling Point: UPL-5

| | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| **Tree Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Sapling Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Shrub Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Herb Stratum** (Plot size: 5' ) | | | |
| 1. Gossypium hirsutum | 20 | Y | FACU |
| 2. Digitaria sanguinalis | 15 | Y | FACU |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| | 35.0 = Total Cover | | |
| 50% of total cover: 17.5 | 20% of total cover: 7.0 | | |
| **Woody Vine Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x 1 = | 0 |
| FACW species | 0 | x 2 = | 0 |
| FAC species | 0 | x 3 = | 0 |
| FACU species | 35 | x 4 = | 140 |
| UPL species | 0 | x 5 = | 0 |
| Column Totals: | 35 (A) | | 140 (B) |

Prevalence Index = B/A = 4.00

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes No ✔

Remarks: (If observed, list morphological adaptations below). A dominant hydrophytic vegetative community was not observed

**SOIL**

Sampling Point: UPL-5

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | % | Redox Features Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-4 | 10YR 5/2 | 100 | | | | | Sand | |
| 4-16 | 10YR 5/3 | 100 | | | | | Sand | |
| 16-24 | 2.5Y 6/3 | 100 | | | | | Sand | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Organic Bodies (A6) **(LRR P, T, U)**
___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
___ Muck Presence (A8) **(LRR U)**
___ 1 cm Muck (A9) **(LRR P, T)**
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Coast Prairie Redox (A16) **(MLRA 150A)**
___ Sandy Mucky Mineral (S1) **(LRR O, S)**
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR P, S, T, U)**
___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
___ Thin Dark Surface (S9) **(LRR S, T, U)**
___ Loamy Mucky Mineral (F1) **(LRR O)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Marl (F10) **(LRR U)**
___ Depleted Ochric (F11) **(MLRA 151)**
___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
___ Umbric Surface (F13) **(LRR P, T, U)**
___ Delta Ochric (F17) **(MLRA 151)**
___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

**Indicators for Problematic Hydric Soils[3]:**

___ 1 cm Muck (A9) **(LRR O)**
___ 2 cm Muck (A10) **(LRR S)**
___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** **Yes** _____ **No** ✔

Remarks: No hydric soil indicators were observed.

# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: VAL025 City/County: Isle of Wight County Sampling Date: 10/02/2023

Applicant/Owner: Pivot Energy State: VA Sampling Point: UPL-6

Investigator(s): K. Rucker Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): Undulating Slope (%): 2

Subregion (LRR or MLRA): LRR T Lat: _____ Long: _____ Datum: NAD83

Soil Map Unit Name: Uchee loamy sand, 2 to 6 percent slopes (19B) NWI classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes _____ | No ✓ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ | No ✓ | |
| Wetland Hydrology Present? | Yes _____ | No ✓ | |

Remarks:
The sample plot is located within a previously logged area (likely <3 years). Though woody vegetation was observed regrowing, vegetation is considered significantly disturbed.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

**Field Observations:**

| | | | | |
|---|---|---|---|---|
| Surface Water Present? | Yes _____ | No _____ | Depth (inches): _____ | |
| Water Table Present? | Yes _____ | No _____ | Depth (inches): _____ | |
| Saturation Present? (includes capillary fringe) | Yes _____ | No _____ | Depth (inches): _____ | **Wetland Hydrology Present?** Yes _____ No ✓ |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators were observed.

**VEGETATION (Five Strata) –** Use scientific names of plants.

Sampling Point: UPL-6

| | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| **Tree Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Sapling Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Shrub Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Herb Stratum** (Plot size: 5' ) | | | |
| 1. Eupatorium capillifolium | 45 | Y | FACU |
| 2. Erigeron canadensis | 20 | Y | FACU |
| 3. Phytolacca americana | 15 | N | FACU |
| 4. Albizia lebbeck | 15 | N | UPL |
| 5. Senecio hieracilfolius | 15 | N | FAC |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| | 110.0 = Total Cover | | |
| 50% of total cover: 55.0 | 20% of total cover: 22.0 | | |
| **Woody Vine Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x 1 = | 0 |
| FACW species | 0 | x 2 = | 0 |
| FAC species | 15 | x 3 = | 45 |
| FACU species | 80 | x 4 = | 320 |
| UPL species | 15 | x 5 = | 75 |
| Column Totals: | 110 (A) | | 440 (B) |

Prevalence Index = B/A = 4.00

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes No ✔

Remarks: (If observed, list morphological adaptations below). A dominant hydrophytic vegetative community was not observed

**SOIL**

Sampling Point: UPL-6

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | % | Redox Features Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-4 | 7.5yr 3/2 | 100 | | | | | Sand | |
| 4-18 | 10YR 4/4 | 100 | | | | | Sand | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** **Yes** _____ **No** ✔

Remarks: No hydric soil indicators were observed.

# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: VAL025 City/County: Isle of Wight County Sampling Date: 10/20/2022

Applicant/Owner: Pivot Energy State: VA Sampling Point: W01-SPW

Investigator(s): K. Rucker & J. Yealy Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Lowland Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR or MLRA): LRR T Lat: 37.029272 Long: -76.645878 Datum: NAD83

Soil Map Unit Name: Slagle fine sandy loam, 0 to 2 percent slopes (18A) NWI classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ✓ | No _____ | **Is the Sampled Area within a Wetland?** Yes ✓ No _____ |
| Hydric Soil Present? | Yes ✓ | No _____ | |
| Wetland Hydrology Present? | Yes ✓ | No _____ | |

Remarks:
The sample plot is located within an active agricultural field; therefore, vegetation is considered significantly disturbed.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ✓ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

**Field Observations:**

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

**Wetland Hydrology Present?** Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION (Five Strata) –** Use scientific names of plants.

Sampling Point: W01-SPW

| | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| **Tree Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Sapling Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Shrub Stratum** (Plot size: 15' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |
| **Herb Stratum** (Plot size: 5' ) | | | |
| 1. Cyperus odoratus | 50 | Y | FACW |
| 2. Rorippa sylvestris | 15 | Y | OBL |
| 3. Cyperus iria | 5 | N | FACW |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| | 70.0 = Total Cover | | |
| 50% of total cover: 35.0 | 20% of total cover: 14.0 | | |
| **Woody Vine Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0.0 = Total Cover | | |
| 50% of total cover: 0.0 | 20% of total cover: 0.0 | | |

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 15 | x 1 = | 15 |
| FACW species | 55 | x 2 = | 110 |
| FAC species | 0 | x 3 = | 0 |
| FACU species | 0 | x 4 = | 0 |
| UPL species | 0 | x 5 = | 0 |
| Column Totals: | 70 (A) | | 125 (B) |

Prevalence Index = B/A = 1.79

**Hydrophytic Vegetation Indicators:**

- ✔ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes ✔ No

Remarks: (If observed, list morphological adaptations below).

**SOIL**

Sampling Point: W01-SPW

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | % | Redox Features Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-3 | 10YR 5/2 | 97 | 2.5YR 5/8 | 3 | C | PL | Loam | |
| 3-18 | 10YR 5/2 | 100 | | | | | Loam | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: _____

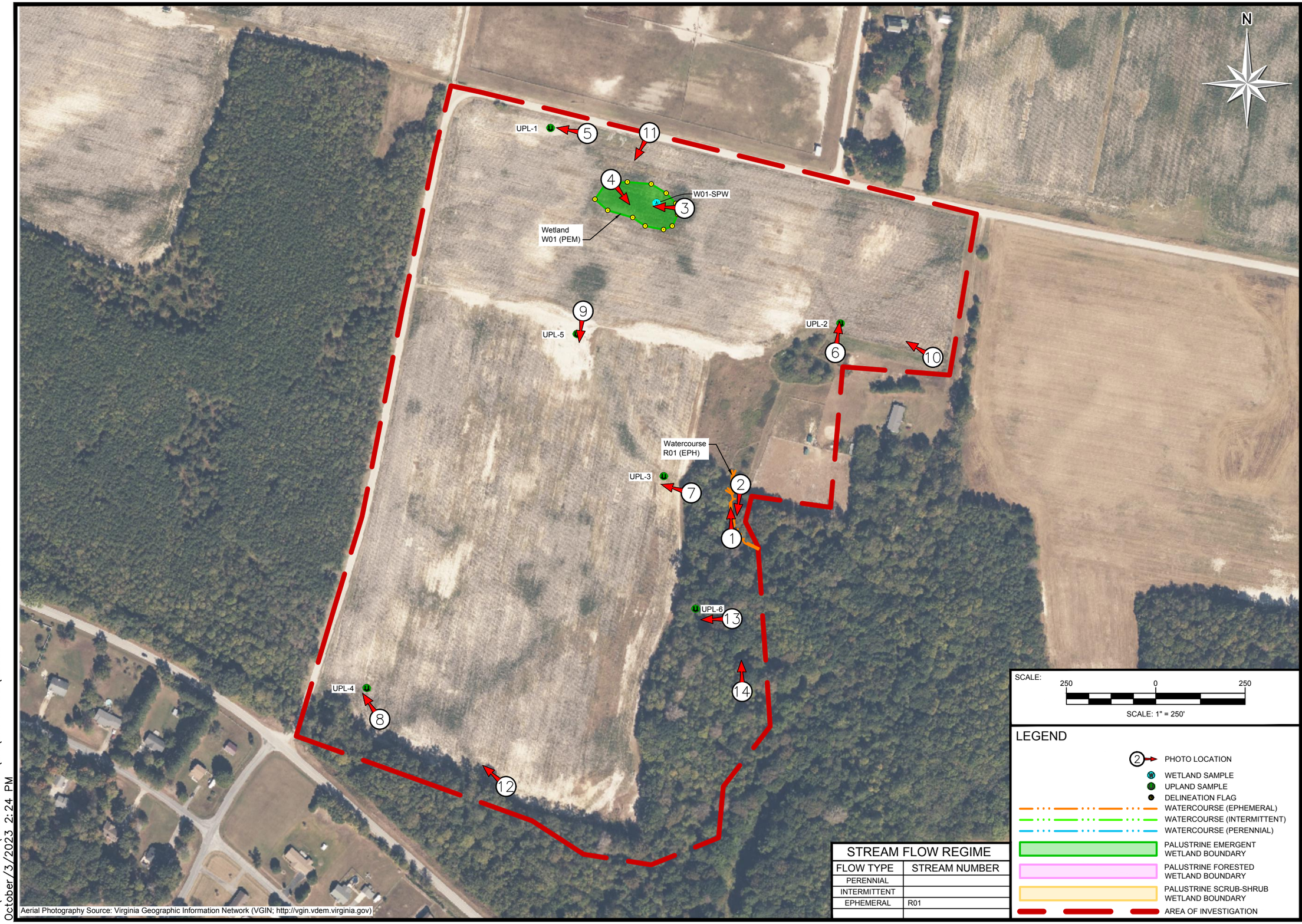
Depth (inches): _____

**Hydric Soil Present?** **Yes** ✓ **No** ___

Remarks:

# APPENDIX B

# SITE PHOTOGRAPHS




| STREAM FLOW REGIME | |
|---|---|
| FLOW TYPE | STREAM NUMBER |
| PERENNIAL | |
| INTERMITTENT | |
| EPHEMERAL | R01 |
| | |

SCALE:

250 0 250

SCALE: 1" = 250'

LEGEND

- PHOTO LOCATION
- WETLAND SAMPLE
- UPLAND SAMPLE
- DELINEATION FLAG
- WATERCOURSE (EPHEMERAL)
- WATERCOURSE (INTERMITTENT)
- WATERCOURSE (PERENNIAL)
- PALUSTRINE EMERGENT WETLAND BOUNDARY
- PALUSTRINE FORESTED WETLAND BOUNDARY
- PALUSTRINE SCRUB-SHRUB WETLAND BOUNDARY
- AREA OF INVESTIGATION

REVISIONS

| NO. | DATE | DESCRIPTION |
|---|---|---|
| | | |

DOCUMENT PREPARED FOR:

DOCUMENT PREPARED BY:

DAWOOD
4250 Crums Mill Road
Suite 301
Harrisburg, PA 17112
t: 855.432.9663
f: 717.732.8596

DRAWING TITLE:

PHOTO LOCATION MAP

| | |
|---|---|
| DATE | OCTOBER 03, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | EN-FL-WP01 |
| DRAWN BY | JWY |
| CHECKED BY | KRR |

PROJECT NAME

VAL025

O:\2022JOBS\2200547-01\EN\DRAWINGS\220054701-EN-FL-WP01
October 3, 2023 2:24 PM

1. VIEW OF WATERCOURSE R01 LOOKING UPSTREAM

2. VIEW OF WATERCOURSE R01 LOOKING DOWNSTREAM

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ENGINEERS • PLANNERS • SURVEYORS

Job Nos. 2200547.01

SITE PHOTOGRAPHS
VAL025
ISLE OF WIGHT COUNTY, VIRGINIA

3. VIEW OF WETLAND W01 LOOKING WEST

4. VIEW OF WETLAND W01 LOOKING SOUTHEAST

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Job Nos. 2200547.01

SITE PHOTOGRAPHS
VAL025
ISLE OF WIGHT COUNTY, VIRGINIA

5. VIEW OF UPL-1 LOOKING WEST

6. VIEW OF UPL-2 LOOKING NORTH

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Job Nos. 2200547.01

SITE PHOTOGRAPHS
VAL025
ISLE OF WIGHT COUNTY, VIRGINIA

7. VIEW OF UPL-3 LOOKING WEST

8. VIEW OF UPL-4 LOOKING NORTHWEST

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Job Nos. 2200547.01

SITE PHOTOGRAPHS
VAL025
ISLE OF WIGHT COUNTY, VIRGINIA

9. VIEW OF UPL-5 LOOKING SOUTH

10. GENERAL VIEW OF AOI

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SITE PHOTOGRAPHS
VAL025
ISLE OF WIGHT COUNTY, VIRGINIA

11. GENERAL VIEW OF AOI

12. GENERAL VIEW OF AOI

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ISLE OF WIGHT COUNTY, VIRGINIA

Job Nos. 2200547.01

13. VIEW OF UPL-6 LOOKING WEST

14. GENERAL VIEW OF FORMER WOODED AREA LOOKING NORTH

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Job Nos. 2200547.01

SITE PHOTOGRAPHS
VAL025
ISLE OF WIGHT COUNTY, VIRGINIA

# VAL025: THREATENED AND ENDANGERED SPECIES ASSESSMENT

Isle of Wight County, Virginia


Prepared by:

DAWOOD
ENGINEERS ▸ PLANNERS ▸ SURVEYORS

4250 Crums Mill Road, Suite 301
Harrisburg, PA 17112


Prepared For:

Elk Development, LLC
6865 Deerpath Road, Suite 330
Elkridge, MD 21075

**Summary**

Dawood has performed desktop surveys, reviewed publicly available maps and information, and coordinated with state and federal agencies to determine if the proposed VAL025 Solar Facility Project has the potential to impact threatened or endangered species. A review for threatened and endangered species within or potentially impacted by the project area was coordinated with United States Fish and Wildlife Service (USFWS) via the IPaC system, with Virginia Department of Conservation and Recreation (DCR) via an Information Services Order Form, with Virginia Department of Wildlife Resources (DWR) via a VaFWIS system review and email coordination, and with the National Oceanic and Atmospheric Administration (NOAA) via email. No impacts to threatened and/or endangered species are proposed or anticipated as a result of the project. A summary of identified threatened and endangered species within the proposed project area and agency coordination is below.

**USFWS**

The USFWS species list generated by the IPaC system noted one endangered species (Northern Long-eared Bat) and one candidate species (Monarch Butterfly) potentially within the proposed project area. No response from the Service was received in the 30-day period determined by USFWS; therefore, the conclusions of the Consistency Letter are deemed appropriate.

*Northern Long-eared Bat*

A "may affect" determination was issued by USFWS for the Northern Long-eared Bat; however, the USFWS Consistency Letter states that any take that would occur is not prohibited under ESA Section 4(d). Neither tree-clearing or disturbance of caves is proposed by the project. Therefore, no take of this species is proposed nor anticipated as a result of the project. Additionally, a review of the NLEB Winter Habitat and Roost Trees mapper maintained by VA Department of Game and Inland Fisheries does not denote any hibernaculum or known maternity roost trees within or in proximity to the proposed project area.

*Monarch Butterfly*

The proposed project area is an actively managed agricultural field and lacks potential habitat (e.g., milkweed and flowering plants) for the species. Therefore, no impacts to this species are proposed or anticipated. Additionally, enhancement of the proposed project area with native pollinator plant species will improve the potential to support this species.

*Migratory Birds*

Migratory birds are not anticipated to be impacted by the proposed project. General measures and habitat protection will be implemented by the proposed project in accordance with USFWS Nationwide Standard Conservation Measures to reduce impacts to migratory bird species. Such measures include but are not limited to: no proposed tree-clearing, proper management of waste, limiting project impacts to already disturbed lands, implementing an Erosion and Sedimentation Control Plan, and restoration with native plant species.

**Virginia Department of Wildlife Resources**

A 2-mile radius search via the VaFWIS system was used to develop an Initial Project Assessment (IPA) Report. One confirmed federally listed endangered species, the Atlantic Sturgeon, and two Anadromous Fish Use Areas were confirmed to be within the 2-mile radius of the proposed project area. One Tier IIa species, the Barking Treefrog was also confirmed within the 2-mile radius. The IPA identified one Colonial Water Bird Colony within the 2-mile radius. One Bald Eagle nest and

two Bald Eagle Concentration Areas and Roosts were identified within the 2-mile radius. Coordination with Virginia DWR was performed to ensure no potential impacts to threatened and endangered species were anticipated as a result of the proposed project. The response email from DWR, dated March 17, 2023, indicates there are no anticipated adverse impacts to species under their jurisdiction from the proposed work.

**Virginia Department of Conservation and Recreation**

Consultation with the Virginia Department of Conservation and Recreation (DCR) was performed via their Information Services Order Form to determine if the proposed project had the potential to impact species under their jurisdiction. Per the DCR response letter, dated 03/10/2023, no impacts to species under their jurisdiction are anticipated as a result of the proposed project. DCR does recommend the development of an invasive species management plan for the project and planting of native species following construction activities. Such activities will be included for the proposed project to maximize benefits to native pollinators. The DCR response letter is included in Enclosure C.

**NOAA**

Project details were provided to NOAA via email. NOAA stated that although four species of sea turtles, shortnose sturgeon, and Atlantic sturgeon originating from five Distinct Population Segments (DPS) are known to occur in the Chesapeake Bay and its rivers and tributaries, direct and/or indirect impacts to these species are not anticipated. The email response from NOAA's Brian D Hopper is included as Enclosure D.

**Coastal Avian Protection Zone (CAPZ)**

The proposed VAL025 project is located within Coastal Avian Protection Zone 12. The Virginia DEQ's Solar Permit by Rule Guidance for CAPZ areas defines Zone 12 as:

> "Zone 12: Outer fringes of the lower, middle and northern peninsulas. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles)."

As discussed above, coordination with the Virginia Department of Game and Inland Fisheries has determined that the proposed project is not anticipated to have the potential to impact Bald Eagles. Therefore, no impacts to protected species within Zone 12 are anticipated.

# Enclosure A: USFWS - IPaC Species List & Consistency Letter

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694 Fax: (804) 693-9032

In Reply Refer To:
Project code: 2023-0040990
Project Name: Pivot_VAL025

February 02, 2023

Subject: Consistency letter for the 'Pivot_VAL025' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Jacob Yealy:

The U.S. Fish and Wildlife Service (Service) received on February 02, 2023 your effects determination for the 'Pivot_VAL025' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause "take"[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will

first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

The IPaC-assisted determination for the northern long-eared bat **does not** apply to the following ESA-protected species that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

**Action Description**
You provided to IPaC the following name and description for the subject Action.

**1. Name**

Pivot_VAL025

**2. Description**

The following description was provided for the project 'Pivot_VAL025':

> Construction of a solar photovoltaic energy system and associated site improvements including solar panels, equipment, cables, interconnection to the existing power lines, and access road.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.0266467,-76.64739632449405,14z

**Determination Key Result**

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

**Determination Key Description: Northern Long-eared Bat 4(d) Rule**
This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

# Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

## Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   *No*

2. Will your activity purposefully **Take** northern long-eared bats?

   *No*

3. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

   Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/media/nleb-roost-tree-and-hibernacula-state-specific-data-links-0.

   *Yes*

4. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

   *No*

5. Will the action involve Tree Removal?

   *No*

# Project Questionnaire

**If the project includes forest conversion, report the appropriate acreages below. Otherwise, type ‘0’ in questions 1-3.**

1. Estimated total acres of forest conversion:

*0*

2. If known, estimated acres of forest conversion from April 1 to October 31

*0*

3. If known, estimated acres of forest conversion from June 1 to July 31

*0*

**If the project includes timber harvest, report the appropriate acreages below. Otherwise, type ‘0’ in questions 4-6.**

4. Estimated total acres of timber harvest

*0*

5. If known, estimated acres of timber harvest from April 1 to October 31

*0*

6. If known, estimated acres of timber harvest from June 1 to July 31

*0*

**If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type ‘0’ in questions 7-9.**

7. Estimated total acres of prescribed fire

*0*

8. If known, estimated acres of prescribed fire from April 1 to October 31

*0*

9. If known, estimated acres of prescribed fire from June 1 to July 31

*0*

**If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type ‘0’ in question 10.**

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

*0*

## IPaC User Contact Information


| | |
|---|---|
| Agency: | Dawood Engineering, Inc. |
| Name: | Jacob Yealy |
| Address: | 4250 Crums Mill Road |
| Address Line 2: | Suite 301 |
| City: | Harrisburg |
| State: | PA |
| Zip: | 17112 |
| Email | jacob.yealy@dawood.net |
| Phone: | 7179651521 |

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694 Fax: (804) 693-9032

In Reply Refer To:
Project Code: 2023-0040990
Project Name: Pivot_VAL025

February 02, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

**Migratory Birds**: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Project Code in the header of this

letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds

# Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Virginia Ecological Services Field Office**
6669 Short Lane
Gloucester, VA 23061-4410
(804) 693-6694

# Project Summary

Project Code: 2023-0040990
Project Name: Pivot_VAL025
Project Type: Power Gen - Solar
Project Description: Construction of a solar photovoltaic energy system and associated site improvements including solar panels, equipment, cables, interconnection to the existing power lines, and access road.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.0266467,-76.64739632449405,14z

Counties: Isle of Wight County, Virginia

# Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Mammals

| NAME | STATUS |
|---|---|
| Northern Long-eared Bat *Myotis septentrionalis*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/9045 | Threatened |

## Insects

| NAME | STATUS |
|---|---|
| Monarch Butterfly *Danaus plexippus*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/9743 | Candidate |

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

# USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

# Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|---|---|
| Bald Eagle *Haliaeetus leucocephalus*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Oct 15 to Aug 31 |
| Black Skimmer *Rynchops niger*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br>https://ecos.fws.gov/ecp/species/5234 | Breeds May 20 to Sep 15 |

| NAME | BREEDING SEASON |
|---|---|
| Blue-winged Warbler *Vermivora pinus*<br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds May 1 to Jun 30 |
| Bobolink *Dolichonyx oryzivorus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 20 to Jul 31 |
| Canada Warbler *Cardellina canadensis*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 20 to Aug 10 |
| Chimney Swift *Chaetura pelagica*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Mar 15 to Aug 25 |
| Eastern Whip-poor-will *Antrostomus vociferus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 1 to Aug 20 |
| Kentucky Warbler *Oporornis formosus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Apr 20 to Aug 20 |
| Lesser Yellowlegs *Tringa flavipes*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br>https://ecos.fws.gov/ecp/species/9679 | Breeds elsewhere |
| Prairie Warbler *Dendroica discolor*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 1 to Jul 31 |
| Prothonotary Warbler *Protonotaria citrea*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Apr 1 to Jul 31 |
| Red-headed Woodpecker *Melanerpes erythrocephalus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 10 to Sep 10 |
| Rusty Blackbird *Euphagus carolinus*<br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds elsewhere |
| Short-billed Dowitcher *Limnodromus griseus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br>https://ecos.fws.gov/ecp/species/9480 | Breeds elsewhere |

| NAME | BREEDING SEASON |
| --- | --- |
| Wood Thrush *Hylocichla mustelina*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 10 to Aug 31 |

## Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

**Probability of Presence** (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

**Breeding Season** (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

**Survey Effort** (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

**No Data** (–)
A week is marked as having no data if there were no survey events for that week.

**Survey Timeframe**
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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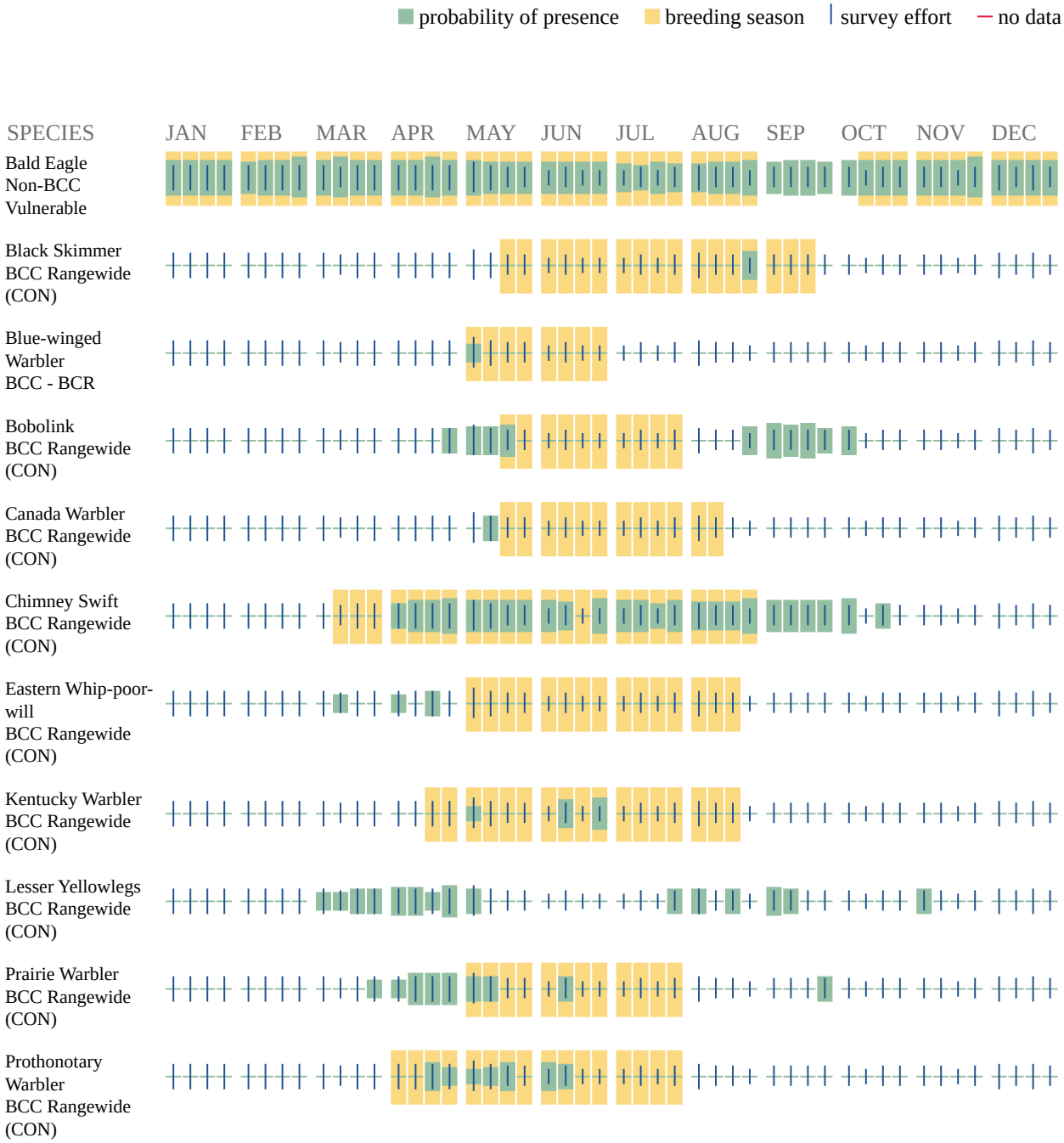
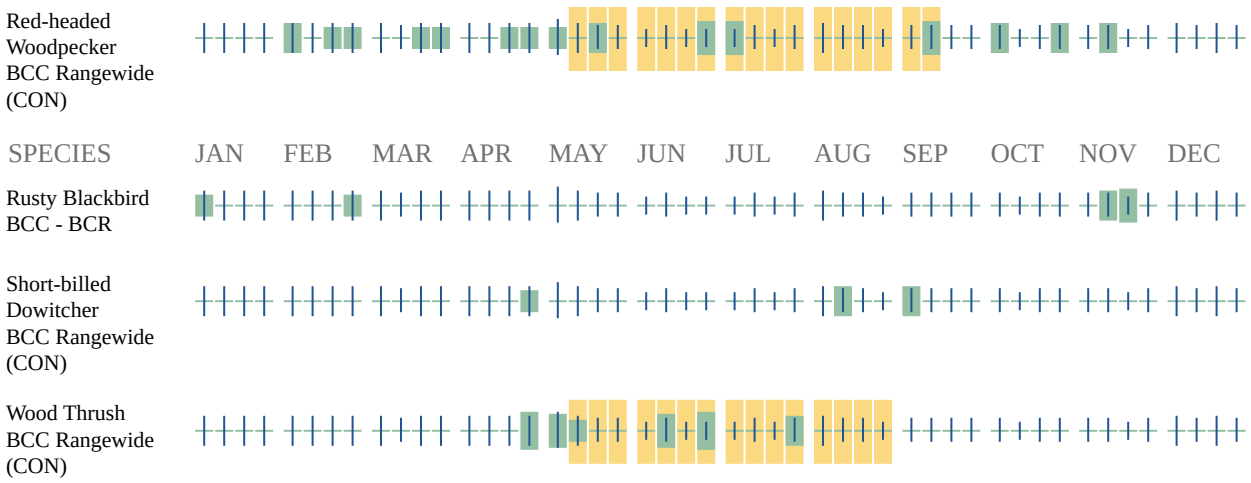





Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

## Migratory Birds FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act

requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering or migrating in my area?**
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

**What are the levels of concern for migratory birds?**
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

**Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

**What if I have eagles on my list?**
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

**Proper Interpretation and Use of Your Migratory Bird Report**
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## IPaC User Contact Information


| | |
|---|---|
| Agency: | Dawood Engineering, Inc. |
| Name: | Jacob Yealy |
| Address: | 4250 Crums Mill Road |
| Address Line 2: | Suite 301 |
| City: | Harrisburg |
| State: | PA |
| Zip: | 17112 |
| Email | jacob.yealy@dawood.net |
| Phone: | 7179651521 |

# Enclosure B: VaFWIS Initial Project Assessment, CCB Maps & VA DWR Response

# VaFWIS Initial Project Assessment Report Compiled on 3/15/2023, 7:53:46 AM

Help

Known or likely to occur within a **2 mile radius around point 37.0268690 -76.6473158** in **093 Isle of Wight County, VA**

View Map of Site Location

480 Known or Likely Species ordered by Status Concern for Conservation
(displaying first 30) (30 species with Status* or Tier I** or Tier II** )

| BOVA Code | Status* | Tier** | Common Name | Scientific Name | Confirmed | Database(s) |
|---|---|---|---|---|---|---|
| 010032 | FESE | Ib | Sturgeon, Atlantic | Acipenser oxyrinchus | Yes | BOVA,SppObs |
| 030071 | FTST | Ia | Turtle, loggerhead sea | Caretta caretta | | BOVA |
| 040144 | FTST | Ia | Knot, red | Calidris canutus rufa | | BOVA |
| 040110 | FTSE | Ia | Rail, eastern black | Laterallus jamaicensis jamaicensis | | BOVA,Habitat |
| 050022 | FTST | Ia | Bat, northern long-eared | Myotis septentrionalis | | BOVA |
| 030064 | SE | Ia | Turtle, eastern chicken | Deirochelys reticularia reticularia | | BOVA |
| 050020 | SE | Ia | Bat, little brown | Myotis lucifugus | | BOVA |
| 050034 | SE | Ia | Bat, Rafinesque's eastern big-eared | Corynorhinus rafinesquii macrotis | | BOVA |
| 050027 | FPSE | Ia | Bat, tri-colored | Perimyotis subflavus | | BOVA |
| 020052 | SE | IIa | Salamander, eastern tiger | Ambystoma tigrinum | | BOVA |
| 030013 | SE | IIa | Rattlesnake, canebrake | Crotalus horridus | | Habitat |
| 040096 | ST | Ia | Falcon, peregrine | Falco peregrinus | | BOVA |
| 040293 | ST | Ia | Shrike, loggerhead | Lanius ludovicianus | | BOVA |
| 040379 | ST | Ia | Sparrow, Henslow's | Centronyx henslowii | | Habitat |
| 020044 | ST | IIa | Salamander, Mabee's | Ambystoma mabeei | | BOVA,Habitat |
| 040292 | ST | | Shrike, migrant loggerhead | Lanius ludovicianus migrans | | BOVA |
| 030067 | CC | IIa | Terrapin, northern diamond-backed | Malaclemys terrapin terrapin | | BOVA,Habitat |
| 030063 | CC | IIIa | Turtle, spotted | Clemmys guttata | | BOVA |
| 070131 | | Ic | Isopod, Phreatic | Caecidotea phreatica | | BOVA |
| 020063 | | IIa | Toad, oak | Anaxyrus quercicus | | BOVA,Habitat |
| 020002 | | IIa | Treefrog, barking | Hyla gratiosa | Yes | BOVA,SppObs |
| 040052 | | IIa | Duck, American black | Anas rubripes | | BOVA |
| 040033 | | IIa | Egret, snowy | Egretta thula | | BOVA |
| 040029 | | IIa | Heron, little blue | Egretta caerulea caerulea | | BOVA |
| 040036 | | IIa | Night-heron, yellow-crowned | Nyctanassa violacea violacea | | BOVA |
| 040181 | | IIa | Tern, common | Sterna hirundo | | BOVA |
| 040320 | | IIa | Warbler, cerulean | Setophaga cerulea | | BOVA |
| 040140 | | IIa | Woodcock, American | Scolopax minor | | BOVA |
| 040105 | | IIb | Rail, king | Rallus elegans | | BOVA |
| 040304 | | IIc | Warbler, Swainson's | Limnothlypis swainsonii | | BOVA |

To view **All 480 species** View 480

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need
Virginia Widlife Action Plan Conservation Opportunity Ranking:
a - On the ground management strategies/actions exist and can be feasibly implemented.; b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.; c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

View Map of All Query Results from All Observation Tables

Bat Colonies or Hibernacula: **Not Known**

**Anadromous Fish Use Streams** ( 2 records )

View Map of All Anadromous Fish Use Streams

| Stream ID | Stream Name | Reach Status | Anadromous Fish Species | | | View Map |
|---|---|---|---|---|---|---|
| | | | Different Species | Highest TE* | Highest Tier** | |
| C92 | James River 1 | Confirmed | 6 | | IV | Yes |
| P127 | Pagan river | Potential | 0 | | | Yes |

**Impediments to Fish Passage** ( 1 records )

View Map of All Fish Impediments

| ID | Name | River | View Map |
|---|---|---|---|
| 396 | WRENNS DAM | PAGAN RIVER | Yes |

**Colonial Water Bird Survey** ( 1 records )

View Map of All Query Results Colonial Water Bird Survey

| Colony_Name | N Obs | Latest Date | N Species | | | View Map |
|---|---|---|---|---|---|---|
| | | | Different Species | Highest TE* | Highest Tier** | |
| Warren Creek | 1 | Jun 1 1993 | 1 | | | Yes |

Displayed 1 Colonial Water Bird Survey

**Threatened and Endangered Waters**

N/A

**Managed Trout Streams**

N/A

**Bald Eagle Concentration Areas and Roosts**

**are present.** View Map of Bald Eagle Concentration Areas and Roosts

( 2 records )

| BECAR ID | Observation Year | Authority | Type | Comments | View Map |
|---|---|---|---|---|---|
| 48 | 2006 - 2007 | Center for Conservation Biology at the College of William and Mary/Virginia Commonwealth University | Summer Concentration Area | Eagle_use Low | Yes |
| 51 | 2006 - 2007 | Center for Conservation Biology at the College of William and Mary/Virginia Commonwealth University | Winter Concentration Area | Eagle_use Low | Yes |

**Bald Eagle Nests** ( 1 records )

View Map of All Query Results
Bald Eagle Nests

| Nest | N Obs | Latest Date | DGIF Nest Status | View Map |
|---|---|---|---|---|
| IW0702 | 4 | Apr 23 2008 | Unknown | Yes |

Displayed 1 Bald Eagle Nests

**Habitat Predicted for Aquatic WAP Tier I & II Species**

N/A

**Habitat Predicted for Terrestrial WAP Tier I & II Species** ( 6 Species )

View Map of Combined Terrestrial Habitat Predicted for 6 WAP Tier I & II Species Listed Below

ordered by Status Concern for Conservation

| BOVA Code | Status* | Tier** | Common Name | Scientific Name | View Map |
|---|---|---|---|---|---|
| 040110 | FTSE | Ia | Rail, eastern black | Laterallus jamaicensis jamaicensis | Yes |
| 030013 | SE | IIa | Rattlesnake, canebrake | Crotalus horridus | Yes |
| 040379 | ST | Ia | Sparrow, Henslow's | Centronyx henslowii | Yes |
| 020044 | ST | IIa | Salamander, Mabee's | Ambystoma mabeei | Yes |
| 030067 | CC | IIa | Terrapin, northern diamond-backed | Malaclemys terrapin terrapin | Yes |
| 020063 | | IIa | Toad, oak | Anaxyrus quercicus | Yes |

**Public Holdings:**

N/A

Compiled on 3/15/2023, 7:53:46 AM I1466865.0 report=IPA searchType= R dist= 3218 poi= 37.0268690 -76.6473158

PixelSize=64; Anadromous=0.021199; BECAR=0.026016; Bats=0.018249; Buffer=0.059286; County=0.065083; Impediments=0.020612; Init=0.096113; PublicLands=0.022049; SppObs=0.305503; TEWaters=0.026976; TierReaches=0.03766; TierTerrestrial=0.095867; Total=0.951569; Tracking_BOVA=0.191886; Trout=0.020844

**Anadromous James River 1**

37,01,36.7 -76,38,50.3
is **the Search Point**

| Display at center | **Item Location** is not at map center |
|---|---|

**Show Position Rings**
(•) Yes ( ) No
1 mile and 1/4 mile at the **Search Point**

**Show Search Area**
(•) Yes ( ) No
2 Search distance miles radius

**Search Point** is at map center

**Base Map** Choices
Topography

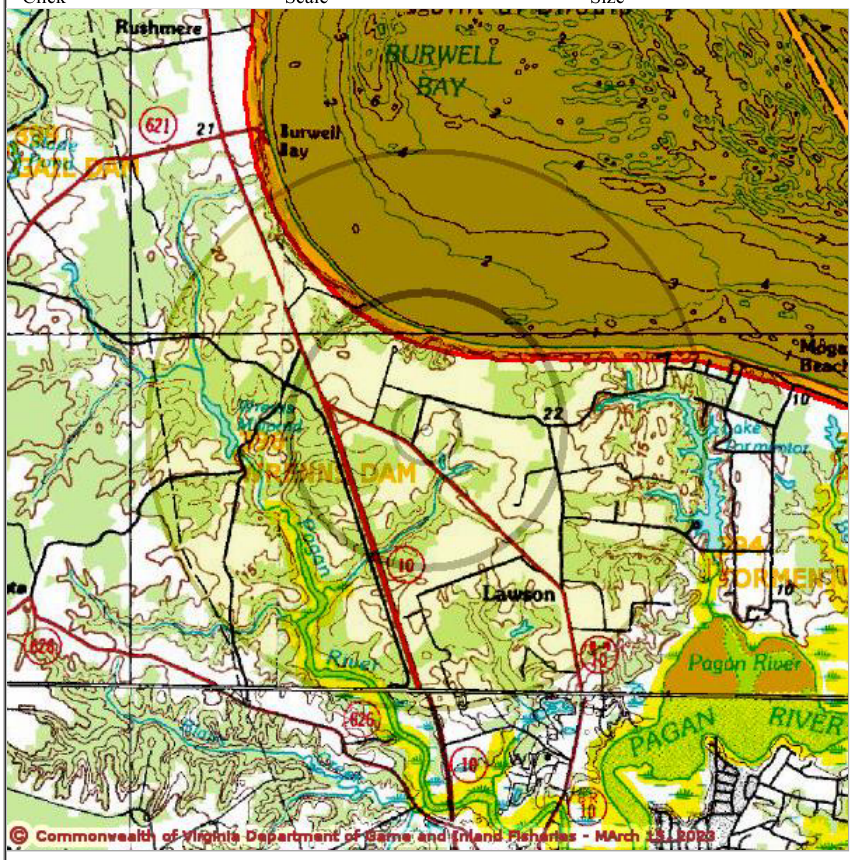
**Map Overlay** Choices
Current List: Position, Search, Observation

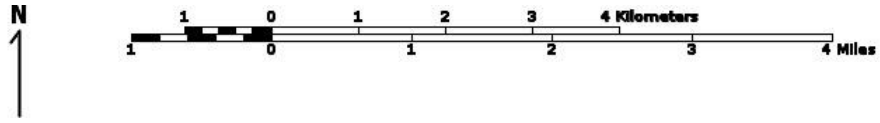
**Map Overlay Legend**

Anadromous Fish Reach
Confirmed
Selected Confirmed
Potential
Selected Potential
123 Impediment
Position Rings 1 mile and 1/4 mile at the Search Point
2 mile radius Search Area
Data Observation Site

Refresh Browser Page

Map Click: Pan | Id | M
Map Scale: In — Zoom — Out
Screen Size: Small — Size — Big
Help




Point of Search 37,01,36.7 -76,38,50.3
Map Location 37,01,36.7 -76,38,50.3

Select **Coordinate System:**
(•) Degrees,Minutes,Seconds Latitude - Longitude
( ) Decimal Degrees Latitude - Longitude
( ) Meters UTM NAD83 East North Zone
( ) Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 348676 and top 4103922. Pixel size is 16 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5 square miles.

Topographic maps and Black and white aerial photography for year 1990+-
are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
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All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2023-03-15 07:48:36 (qa/qc March 21, 2016 12:20 - tn=1466865.0 dist=3218 I )
$poi=37.0268690 -76.6473158$query=select min(b.minx),min(b.miny),max(b.maxx),max(b.maxy) from vafwis_tables.dbo.cvAnadromous a join vafwis_tables.dbo.cvAnadromous_XY b on b.anadromous = a.anadromous where a.anadromous = 'C92'


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**Anadromous Pagan river**

37,01,36.7 -76,38,50.3
is **the Search Point**

| Display at center | **Item Location** is not at map center |
|---|---|

**Show Position Rings**
(•) Yes ( ) No
1 mile and 1/4 mile at the **Search Point**

**Show Search Area**
(•) Yes ( ) No
2 Search distance miles radius

**Search Point** is at map center

**Base Map** Choices
Topography

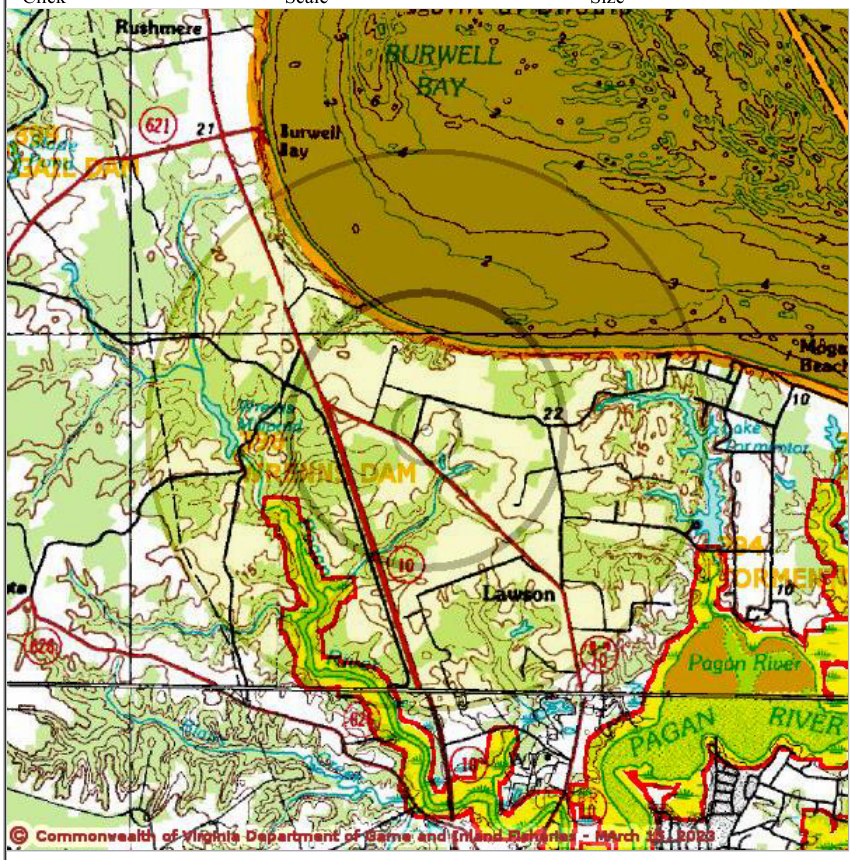
**Map Overlay** Choices
Current List: Position, Search, Observation

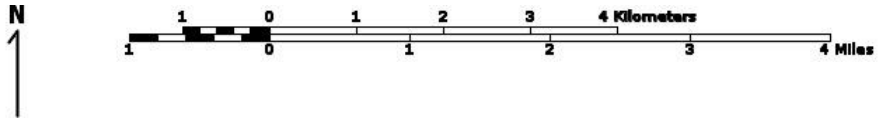
**Map Overlay Legend**

Anadromous Fish Reach
Confirmed
Selected Confirmed
Potential
Selected Potential
123 Impediment
Position Rings 1 mile and 1/4 mile at the Search Point
2 mile radius Search Area
Data Observation Site

Refresh Browser Page

Map Click Pan Id M  Map Scale In Zoom Out  Screen Size Small Size Big  Help




Point of Search 37,01,36.7 -76,38,50.3
Map Location 37,01,36.7 -76,38,50.3

Select **Coordinate System:**
(•) Degrees,Minutes,Seconds Latitude - Longitude
( ) Decimal Degrees Latitude - Longitude
( ) Meters UTM NAD83 East North Zone
( ) Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 348676 and top 4103922. Pixel size is 16 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5 square miles.

Topographic maps and Black and white aerial photography for year 1990+-
are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
Shaded topographic maps are from TOPO! ©2006 National Geographic
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map assembled 2023-03-15 07:50:06 (qa/qc March 21, 2016 12:20 - tn=1466865.0 dist=3218 I )
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**Bald Eagle Concentration Areas and Roosts 48**

37,01,36.7 -76,38,50.3 is **the Search Point**

Display at center | **Item Location** is not at map center

**Show Position Rings**
(•) Yes ( ) No
1 mile and 1/4 mile at the **Search Point**

**Show Search Area**
(•) Yes ( ) No
2 Search distance miles radius

**Search Point** is at map center

**Base Map** Choices
Topography

**Map Overlay** Choices
Current List: Position, Search, Observation

**Map Overlay Legend**

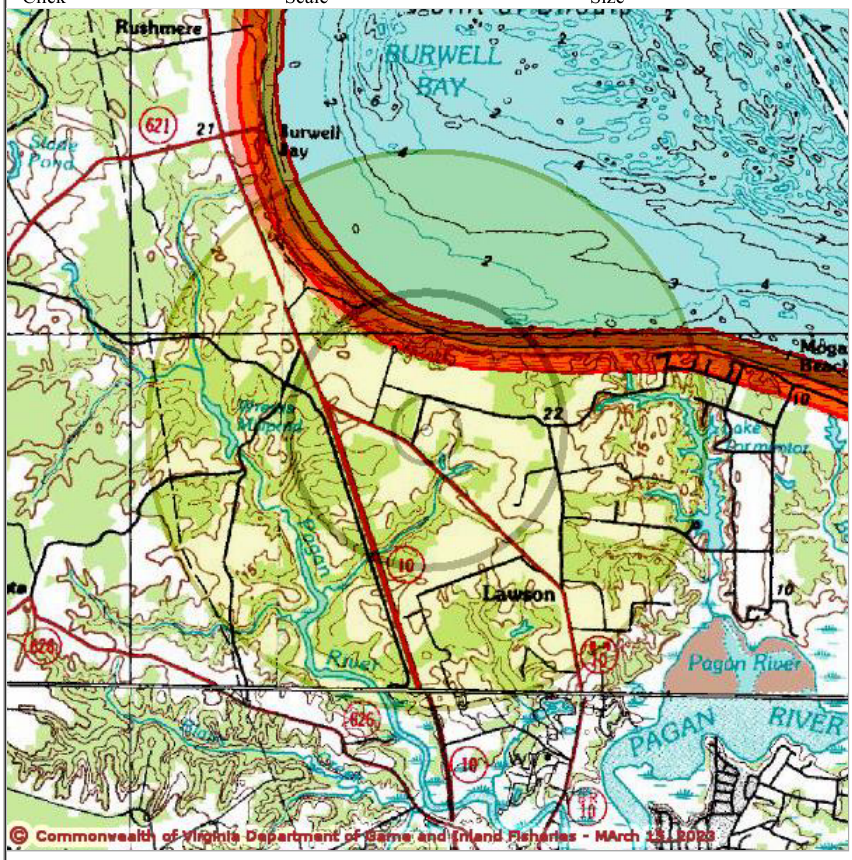
**Position Rings** 1 mile and 1/4 mile at the Search Point

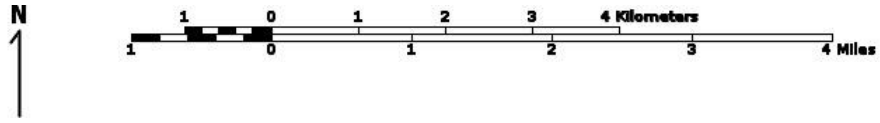
**2 mile radius Search Area**

**Data Observation Site**

Refresh Browser Page

Map Click Pan Id M  Map Scale In Zoom Out  Screen Size Small Size Big  Help




Point of Search 37,01,36.7 -76,38,50.3
Map Location 37,01,36.7 -76,38,50.3

Select **Coordinate System:**
(•) Degrees,Minutes,Seconds Latitude - Longitude
( ) Decimal Degrees Latitude - Longitude
( ) Meters UTM NAD83 East North Zone
( ) Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 348676 and top 4103922. Pixel size is 16 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5 square miles.

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are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
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map assembled 2023-03-15 07:54:25 (qa/qc March 21, 2016 12:20 - tn=1466865.0 dist=3218 I )
$poi=37.0268690 -76.6473158$query=select BECAR_ID from vafwis_tables.dbo.cvBECAR where BECAR_ID in ('48')


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**Bald Eagle Concentration Areas and Roosts 51**

37,01,36.7 -76,38,50.3 is **the Search Point**

Display at center | **Item Location** is not at map center

**Show Position Rings**
(•) Yes ( ) No
1 mile and 1/4 mile at the **Search Point**

**Show Search Area**
(•) Yes ( ) No
2 Search distance miles radius

**Search Point** is at map center

**Base Map** Choices
Topography

**Map Overlay** Choices
Current List: Position, Search, Observation

**Map Overlay Legend**

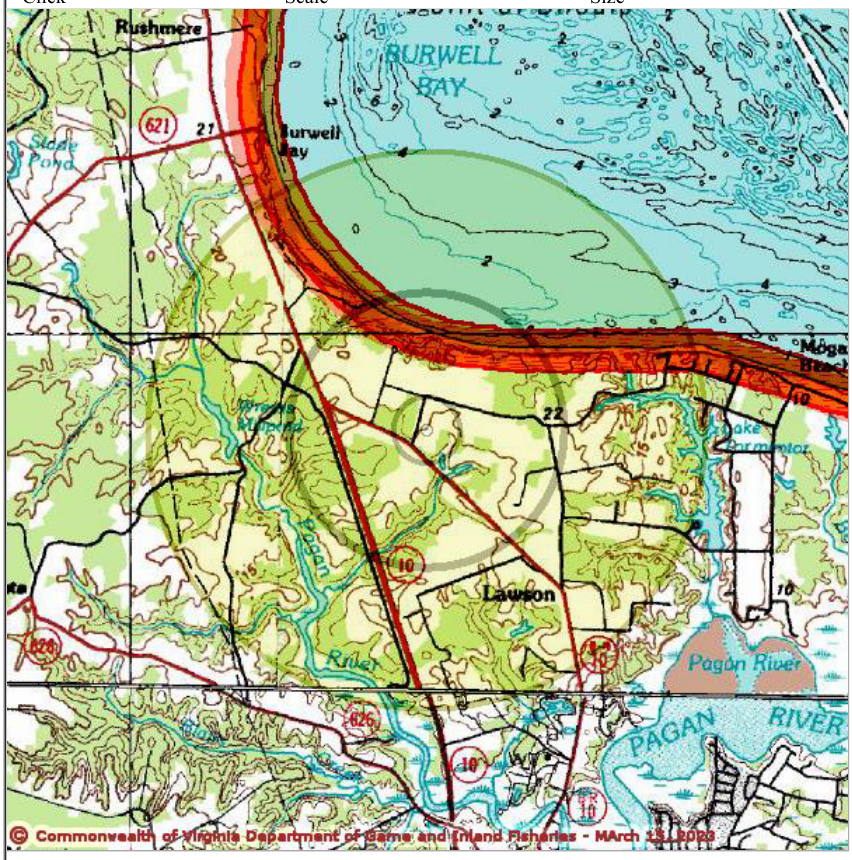
**Position Rings** 1 mile and 1/4 mile at the Search Point

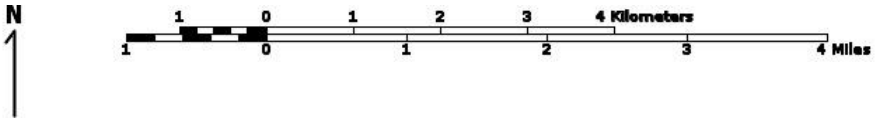
**2 mile radius Search Area**

**Data Observation Site**

Refresh Browser Page

Map Click Pan Id M  Map Scale In Zoom Out  Screen Size Small Size Big  Help




Point of Search 37,01,36.7 -76,38,50.3
Map Location 37,01,36.7 -76,38,50.3

Select **Coordinate System:**
(•) Degrees,Minutes,Seconds Latitude - Longitude
( ) Decimal Degrees Latitude - Longitude
( ) Meters UTM NAD83 East North Zone
( ) Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 348676 and top 4103922. Pixel size is 16 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5 square miles.

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Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
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map assembled 2023-03-15 07:55:00 (qa/qc March 21, 2016 12:20 - tn=1466865.0 dist=3218 I )
$poi=37.0268690 -76.6473158$query=select BECAR_ID from vafwis_tables.dbo.cvBECAR where BECAR_ID in ('51')


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**Bald agle Nest IW0702**

37,01,36.7 -76,38,50.3
is **the Search Point**

| Display at center | **Item Location** is not at map center |
|---|---|

**Show Position Rings**
(•) Yes ( ) No
1 mile and 1/4 mile at the **Search Point**

**Show Search Area**
(•) Yes ( ) No
2 Search distance miles radius

**Search Point** is at map center

**Base Map** Choices
Topography

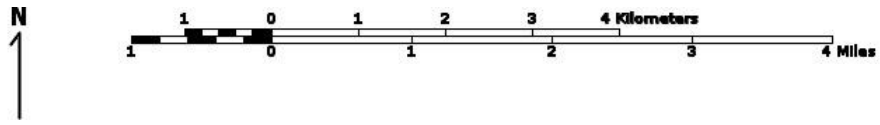
**Map Overlay** Choices
Current List: Position, Search, Observation

**Map Overlay Legend**

- **Position Rings** 1 mile and 1/4 mile at the Search Point
- **2 mile radius Search Area**
- **Bald Eagle nests** 660 and 330 foot management zones
- **Data Observation Site**

Refresh Browser Page

Map Click Pan Id M  Map Scale In Zoom Out  Screen Size Small Size Big  Help




Point of Search 37,01,36.7 -76,38,50.3
Map Location 37,01,36.7 -76,38,50.3

Select **Coordinate System:**
(•) Degrees,Minutes,Seconds Latitude - Longitude
( ) Decimal Degrees Latitude - Longitude
( ) Meters UTM NAD83 East North Zone
( ) Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 348676 and top 4103922. Pixel size is 16 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5 square miles.

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are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
Shaded topographic maps are from TOPO! ©2006 National Geographic
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All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2023-03-15 07:55:19 (qa/qc March 21, 2016 12:20 - tn=1466865.0 dist=3218 I )
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# CCB Mapping Portal

**Layers:** VA Eagle Nest Locator

**Map Center [longitude, latitude]:** [-76.64131164550781, 37.03041116282044]

**Map Link:**
https://www.ccbbirds.org/maps/#layer=VA+Eagle+Nest+Locator&zoom=15&lat=37.03041116282044&lng=-76.64131164550781&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=World+Imagery+%28ESRI%29

**Report Generated On:** 03/15/2023

The Center for Conservation Biology (CCB) provides certain data online as a free service to the public and the regulatory sector. CCB encourages the use of its data sets in wildlife conservation and management applications. These data are protected by intellectual property laws. All users are reminded to view the Data Use Agreement to ensure compliance with our data use policies. For additional data access questions, view our Data Distribution Policy, or contact our Data Manager, Marie Pitts, at mlpitts@wm.edu or 757-221-7503.

**Colonial Water Bird Survey Warren Creek**

37,01,36.7 -76,38,50.3
is **the Search Point**

| Display at center | **Item Location** is not at map center |
|---|---|

**Show Position Rings**
(•) Yes ( ) No
1 mile and 1/4 mile at the **Search Point**

**Show Search Area**
(•) Yes ( ) No
2 Search distance miles radius

**Search Point** is at map center

**Base Map** Choices
Topography

**Map Overlay** Choices
Current List: Position, Search, Observation

**Map Overlay Legend**

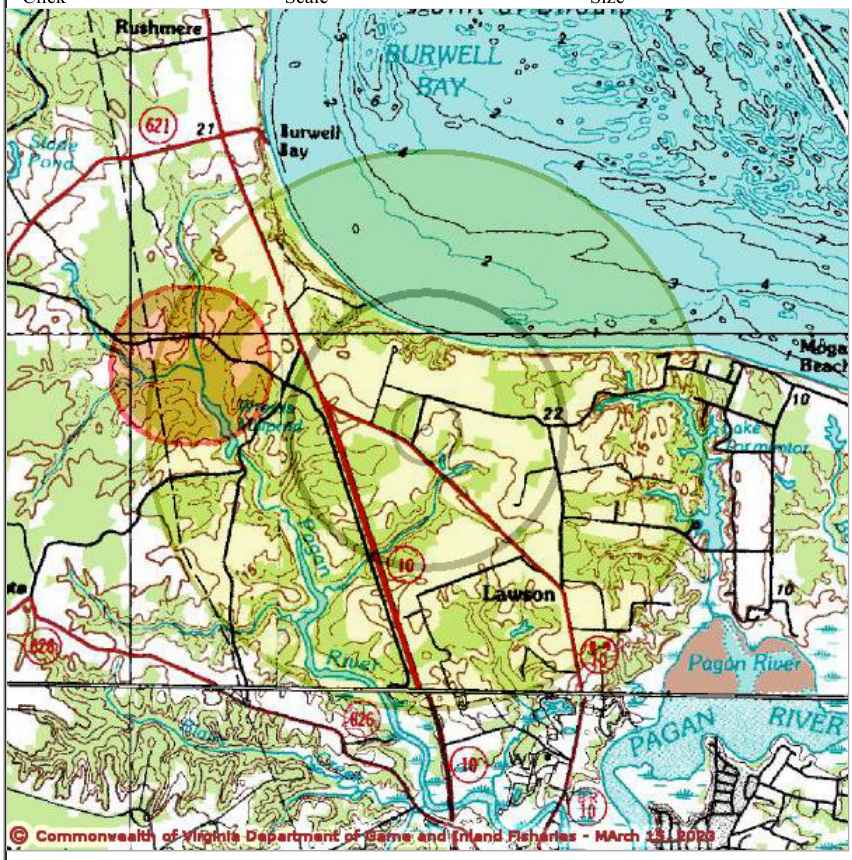
Position Rings 1 mile and 1/4 mile at the Search Point

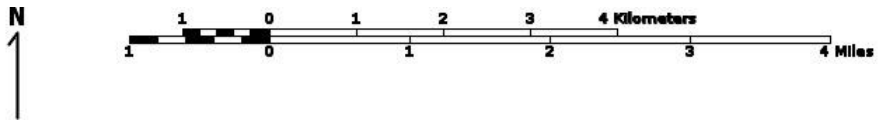
2 mile radius Search Area

Data Observation Site

Refresh Browser Page

Map Click Pan Id M  Map Scale In Zoom Out  Screen Size Small Size Big  Help




Point of Search 37,01,36.7 -76,38,50.3
Map Location 37,01,36.7 -76,38,50.3

Select **Coordinate System:**
(•) Degrees,Minutes,Seconds Latitude - Longitude
( ) Decimal Degrees Latitude - Longitude
( ) Meters UTM NAD83 East North Zone
( ) Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 348676 and top 4103922. Pixel size is 16 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5 square miles.

Topographic maps and Black and white aerial photography for year 1990+-
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map assembled 2023-03-15 07:51:21 (qa/qc March 21, 2016 12:20 - tn=1466865.0 dist=3218 I )
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# CCB Mapping Portal

**Layers:** Colonial Waterbirds 2013

**Map Center [longitude, latitude]:** [-76.64388656616211, 37.02595723163245]

**Map Link:**
https://ccbbirds.org/maps/#layer=Colonial+Waterbirds+2013&zoom=14&lat=37.02595723163245&lng=-76.64388656616211&legend=legend_tab_88b838c8-e51a-11e4-b5d2-0e0c41326911&base=World+Imagery+%28ESRI%29

**Report Generated On:** 03/15/2023

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**Fish Impediment**
**WRENNS DAM**

37,01,36.7 -76,38,50.3
is **the Search Point**

| Display at center | **Item Location** is not at map center |
|---|---|

**Show Position Rings**
(•) Yes ( ) No
1 mile and 1/4 mile at the **Search Point**

**Show Search Area**
(•) Yes ( ) No
2 Search distance miles radius

**Search Point** is at map center

**Base Map** Choices
Topography

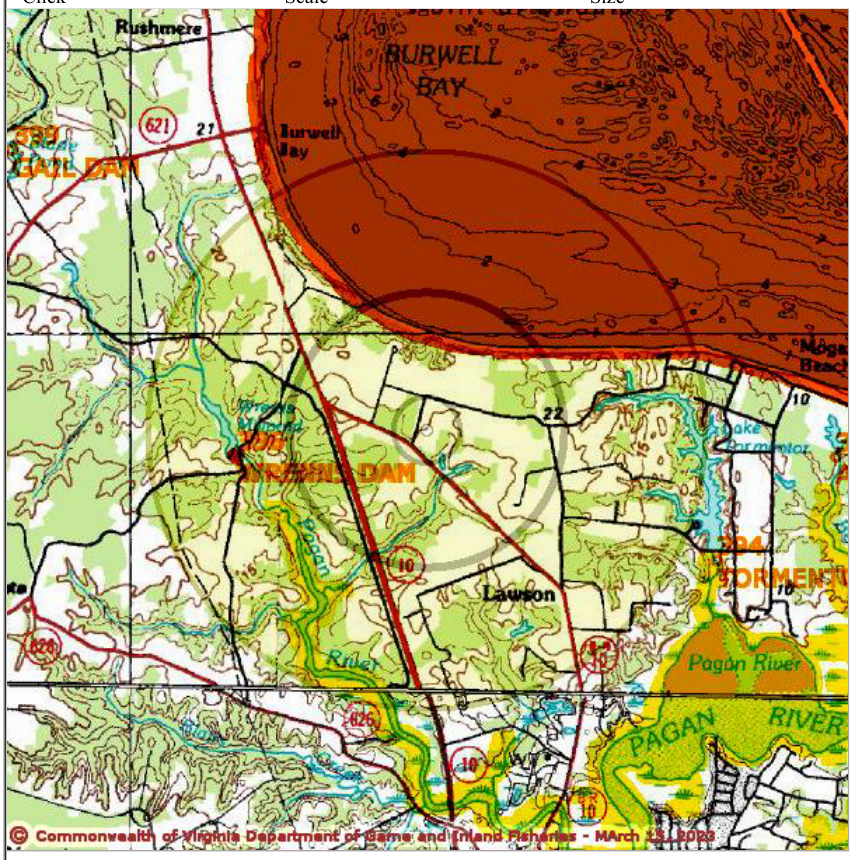
**Map Overlay** Choices
Current List: Position, Search, Observation

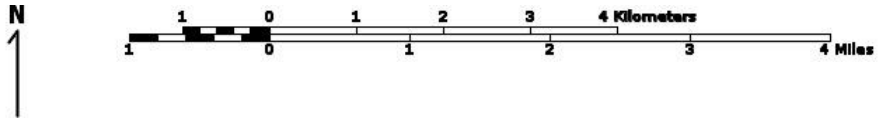
**Map Overlay Legend**

Anadromous Fish Reach
Confirmed
Potential
123 Impediment
Position Rings 1 mile and 1/4 mile at the Search Point
2 mile radius Search Area
Data Observation Site

Refresh Browser Page

Map Click Pan Id M  Map Scale In Zoom Out  Screen Size Small Size Big  Help




Point of Search 37,01,36.7 -76,38,50.3
Map Location 37,01,36.7 -76,38,50.3

Select **Coordinate System:**
(•) Degrees,Minutes,Seconds Latitude - Longitude
( ) Decimal Degrees Latitude - Longitude
( ) Meters UTM NAD83 East North Zone
( ) Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see Microsoft terraserver-usa.com for details)

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map assembled 2023-03-15 07:50:46 (qa/qc March 21, 2016 12:20 - tn=1466865.0 dist=3218 I )
$poi=37.0268690 -76.6473158$query=select UTM17NAD83East,UTM17NAD83North from vafwis_tables.dbo.cvImpediments_xy where Impediments = 396


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## Jacob Yealy

**From:** Martin, Amy (DWR) <Amy.Martin@dwr.virginia.gov>
**Sent:** Friday, March 17, 2023 2:26 PM
**To:** Jacob Yealy
**Subject:** ESSLog# 42853_VAL025 Solar_DWR_AEM20230317

**Categories:** Filed by Newforma

**ATTENTION:**This e-mail is from outside the organization. DO NOT click links or open attachments unless you confirm the incoming address of the sender.

Mr. Yealy,
We have reviewed the subject project that proposes to construct a solar facility in Isle of Wight County. We do not currently document any listed wildlife or designated resources under our jurisdiction from the project area. Therefore, we do not anticipate adverse impacts upon such species or resources to result from the proposed work.

To minimize impacts upon wildlife, we recommend review of and adherence to the solar facility development, operation, and fencing recommendations included within the document found here: https://dwr.virginia.gov/wp-content/uploads/media/Solar-Energy-Facility-Guidance.pdf

Thank you, Amy

**Amy Martin**
(she/her/hers)
Manager, Wildlife Information and Environmental Services
P 804.481.5296
**Virginia Department of Wildlife Resources**
*CONSERVE. CONNECT. PROTECT.*
A 7870 Villa Park Drive, P.O. Box 90778, Henrico, VA 23228-0778
**www.dwr.virginia.gov**

_*

# Enclosure C: VA DCR Coordination Letter

Travis A. Voyles
*Secretary of Natural and Historic Resources*

Matthew S. Wells
*Director*

Andrew W. Smith
*Chief Deputy Director*

# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF CONSERVATION AND RECREATION

Frank N. Stovall
*Deputy Director for Operations*

Darryl Glover
*Deputy Director for Dam Safety, Floodplain Management and Soil and Water Conservation*

Laura Ellis
*Deputy Director for Administration and Finance*

March 10, 2023

Jacob Yealy
Dawood Engineering
4250 Crums Mill Road, Suite 301
Harrisburg, PA 17112

Re: VAL025 Solar

Dear Mr. Yealy:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

Biotics documents the presence of natural heritage resources within the project boundary including a 100ft buffer. However, due to the scope of the activity we do not anticipate that this project will adversely impact these natural heritage resources. Please note, a predictive model identifying potential habitat for Barking treefrog (*Hyla gratiosa*, G5/S2S3/NL/NL) intersects the project boundary. However, based on DCR biologist's review of the proposed project a survey is not recommended for the resource.

DCR recommends the development of an invasive species management plan for the project and the planting of Virginia native pollinator plant species that bloom throughout the spring and summer, to maximize benefits to native pollinators. DCR recommends planting these species in at least the buffer areas of the planned facility, and optimally including other areas within the project site. For screening zones outside the perimeter fencing, DCR recommends native species appropriate for the region be used. Guidance on plant species can be found here: http://www.dcr.virginia.gov/natural-heritage/solar-site-native-plants-finder. In addition, Virginia native species alternatives to the non-native species listed in the Virginia Erosion and Sediment Control Handbook (Third Edition 1992), can be found in the 2017 addendum titled "Native versus Invasive Plant Species", here: https://www.deq.virginia.gov/home/showpublisheddocument?id=2466. Page 3 of the addendum provides a list of native alternatives for non-natives commonly used for site stabilization including native cover crop species (i.e. Virginia wildrye).

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

New and updated information is continually added to Biotics. Please re-submit a completed order form and project map for an update on this natural heritage information if the scope of the project changes and/or six months (September 10, 2023) has passed before it is utilized.

A fee of $90.00 has been assessed for the service of providing this information. Please find attached an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, DCR Finance, 600 East Main Street, 24th Floor, Richmond, VA 23219. Payment is due within thirty days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The Virginia Department of Wildlife Resources (VDWR) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from http://vafwis.org/fwis/ or contact Amy Martin at (804-367-2211) or amy.martin@dwr.virginia.gov.

Should you have any questions or concerns, please contact me at 804-225-2429. Thank you for the opportunity to comment on this project.

Sincerely,

Tyler Meader

Tyler Meader
Natural Heritage Locality Liaison

CC: Susan Tripp, DEQ
Randy R. Keaton, Isle of Wight County Administrator

# Enclosure D: NOAA ESA Section 7 Map & Coordination Email

# Drawn Action Area & Overlapping S7 Consultation Areas

**Area of Interest (AOI) Information**

Area : 2,583.06 acres

Feb 9 2023 13:27:44 Eastern Standard Time

Atlantic Sturgeon
Shortnose Sturgeon
Sea Turtles
In or Near Critical Habitat

## Summary

| Name | Count | Area(acres) | Length(mi) |
|---|---|---|---|
| Atlantic Sturgeon | 4 | 1,322.92 | N/A |
| Shortnose Sturgeon | 1 | 330.73 | N/A |
| Atlantic Salmon | 0 | 0 | N/A |
| Sea Turtles | 4 | 1,322.94 | N/A |
| Atlantic Large Whales | 0 | 0 | N/A |
| In or Near Critical Habitat | 1 | 330.73 | N/A |

## Atlantic Sturgeon

| # | Feature ID | Species | Lifestage | Behavior | Zone | From | Until | From (2) | Until (2) | Area(acres) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ANS_JAM_SUB_MAF | Atlantic sturgeon | Subadult | Migrating & Foraging | James River | 03/15 | 11/30 | N/A | N/A | 330.73 |
| 2 | ANS_JAM_JUV_MAF | Atlantic sturgeon | Juvenile | Migrating & Foraging | James River | 01/01 | 12/31 | N/A | N/A | 330.73 |
| 3 | ANS_JAM_ADU_STG | Atlantic sturgeon | Adult | Staging | James River | 05/01 | 11/30 | N/A | N/A | 330.73 |
| 4 | ANS_JAM_ADU_MAF | Atlantic sturgeon | Adult | Migrating & Foraging | James River | 03/15 | 11/30 | N/A | N/A | 330.73 |

## Shortnose Sturgeon

| # | Feature ID | Species | Life Stage | Behavior | Zone | From | Until | From (2) | Until (2) | Area(acres) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SNS_JAM_ADU_MAF | Shortnose sturgeon | Adult | Migrating & Foraging | James River | 03/01 | 11/30 | N/A | N/A | 330.73 |

## Sea Turtles

| # | Feature ID | Species | Life Stage | Behavior | Zone | From | Until | From (2) | Until (2) | Area(acres) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | GRN_STS_AJV_MAF | Green sea turtle | Adults and juveniles | Migrating & Foraging | Massachusetts (S of Cape Cod) through Virginia | 5/1 | 11/30 | *No Data* | *No Data* | 330.74 |
| 2 | KMP_STS_AJV_MAF | Kemp's ridley sea turtle | Adults and juveniles | Migrating & Foraging | Massachusetts (S of Cape Cod) through Virginia | 5/1 | 11/30 | *No Data* | *No Data* | 330.74 |
| 3 | LTR_STS_AJV_MAF | Leatherback sea turtle | Adults and juveniles | Migrating & Foraging | Massachusetts (S of Cape Cod) through Virginia | 5/1 | 11/30 | *No Data* | *No Data* | 330.74 |
| 4 | LOG_STS_AJV_MAF | Loggerhead sea turtle | Adults and juveniles | Migrating & Foraging | Massachusetts (S of Cape Cod) through Virginia | 5/1 | 11/30 | *No Data* | *No Data* | 330.74 |

## In or Near Critical Habitat

| # | Species | In or Near Critical Habitat | Area(acres) |
|---|---|---|---|
| 1 | Atlantic Sturgeon | Chesapeake Bay Unit 5: James River | 330.73 |

## Jacob Yealy

**From:** Brian D Hopper - NOAA Federal <brian.d.hopper@noaa.gov>
**Sent:** Friday, February 24, 2023 7:07 AM
**To:** Jacob Yealy
**Subject:** Re: ESA Section 7 Coordination

**Categories:** Filed by Newforma

**ATTENTION:**This e-mail is from outside the organization. DO NOT click links or open attachments unless you confirm the incoming address of the sender.

On Thu, Feb 16, 2023 at 7:43 AM Brian D Hopper - NOAA Federal <brian.d.hopper@noaa.gov> wrote:

Hi Jacob,

I apologize for the late response. Your email and attachments dated February 9, 2023, regarding three solar facility development projects in Virginia, requested information on the presence of ESA-listed species under our jurisdiction.

Although four species of sea turtles, shortnose sturgeon, and Atlantic sturgeon originating from five Distinct Population Segments (DPS) are known to occur in the Chesapeake Bay and its rivers and tributaries, based on the location the project and information you provided in your email and attachments, we believe that these species will not be exposed to any direct or indirect effects of the action. Therefore, we do not believe a consultation in accordance with section 7 of the Endangered Species Act (ESA) is necessary. As such, no further coordination on this activity with the NMFS Protected Resources Division is necessary at this time. Should there be additional changes to the project plans or new information becomes available that changes the basis for this determination, further coordination should be pursued. Please contact me (brian.d.hopper@noaa.gov), should you have any questions regarding these comments. If you have any questions regarding essential fish habitat, please contact Dave O'Brien (david.l.obrien@noaa.gov, 804-684-7828).
.

Regards,
-Brian

On Mon, Feb 13, 2023 at 10:17 AM NMFS.GAR ESA.Section7 - NOAA Service Account <nmfs.gar.esa.section7@noaa.gov> wrote:

Incoming tech assistance request

---------- Forwarded message ---------
From: **Jacob Yealy** <Jacob.Yealy@dawood.net>
Date: Thu, Feb 9, 2023 at 2:06 PM
Subject: ESA Section 7 Coordination
To: NMFS.GAR.ESA.Section7@noaa.gov <NMFS.GAR.ESA.Section7@noaa.gov>

Hello,

I am working on the T&E coordination for 3 solar facility development projects in Virginia. We're looking to verify that our projects have no potential to impact threatened or endangered species. A review of the Section 7 ESA Mapper was performed for each of the projects (attached). One of these (VAL025) has listed species and critical habitat near the project area. Another (VAL032) shows that the Section 7 Consultation Area is just outside of that 1-mile buffer, while the last (VAL035) has no Section 7 areas nearby.

Can you please confirm what materials are needed to perform a project review to ensure no potential impacts for the VAL025 project & that neither the VAL032 or VAL035 projects require further coordination with NOAA?

Thanks,

Jacob Yealy

Ecologist

**Dawood Engineering, Inc.**

Jacob.Yealy@dawood.net

Office: 717-732-8576

Mobile: 717-965-1521

--

Brian D. Hopper
Protected Resources Division
NOAA Fisheries
Greater Atlantic Regional Fisheries Office
200 Harry S Truman Parkway
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Annapolis, MD 21401
240-628-5420
Brian.D.Hopper@noaa.gov
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--

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Brian.D.Hopper@noaa.gov
http://www.greateratlantic.fisheries.noaa.gov/

*

Stantec

# A Phase I Cultural Resources Survey of Approximately 20 Acres Associated with the VAL-025 Solar Project, Isle of Wight County, Virginia

April 6, 2023

Prepared for:

Dawood Engineering, Inc.
Attn: Mr. Kevin Rucker
4250 Crums Mill Road, Suite 301
Harrisburg, PA 17112

Prepared by:

Donald Sadler, Project Archaeologist

Sandra DeChard, Senior Architectural Historian

and

Brynn Stewart, Senior Principal Investigator

Stantec Consulting Services Inc.
5209 Center Street
Williamsburg VA 23188
(757) 220-6869

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Prepared by _____
(signature)

**Donald Sadler, MA, Project Archaeologist**

Prepared by _____

**Sandra DeChard, Senior Architectural Historian**

Reviewed by _____
(signature)

**Brynn Stewart, MA, Senior Principal Investigator**

Approved by _____
(signature)

**Seth Mitchell, MA, RPA, Principal Archaeologist**

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# Executive Summary

From February 13 to March 8, 2023, Stantec Consulting Services Inc. (Stantec) conducted a cultural resources survey of approximately 20 acres associated with the proposed 3-megawatt (MW) VAL-025 Solar Project (Project) in Isle of Wight County, Virginia. The Project is located north of Old Stage Highway (Route 10) and northeast from the junction with Morgarts Beach Road (Route 628). The Project is bounded by Morgarts Beach Road to the west, Old Stage Highway to the south, and private dirt farm roads to the north and east. The Project Area comprises a gently rolling harvested cotton field. The work was conducted on behalf of Dawood Engineering, Inc. (Dawood).

The Phase I cultural resources survey was designed to locate and identify cultural resources within the Project Area, defined as the entire approximately 20-acre Project parcel, and to obtain sufficient information to make recommendations regarding their potential eligibility for listing to the National Register of Historic Places (NRHP).

**Archaeological Survey**

During the archaeological survey, Stantec conducted pedestrian survey of the entire Project Area concurrently with systematic subsurface testing. A total of 403 shovel tests were excavated at 50-foot intervals along 17 transects (Transects A–Q) spaced 50 feet apart throughout the Project Area. One shovel test was not excavated due to its location within standing water. One shovel test was positive for cultural material. Three radial shovel tests were excavated at 25-foot intervals to determine the bounds of the newly identified cultural resource, with no radial shovel tests positive for additional cultural material. One new isolated archaeological site find (2607-IF1) was identified during this investigation. ***By definition, Isolated Archaeological Find 2607-IF1 is not eligible for listing to the NRHP. No further archaeological work is recommended within the Project Area.***

**Recommendations for Archaeological Resources within the Project Area**

| Resource | Resource Type | Association | Stantec Recommendation |
|---|---|---|---|
| 2607-IF1 | 1 Whiteware Body Sherd | 1820+ | Not Eligible; No Further Work |

**Architecture Survey**

A total of 10 individual resources were located within the architectural Study Area, defined as the Project Area and a 0.5-mile radius around the Project Area, and included four previously recorded and six newly recorded resources. The Keystone Segment Historic District of the Captain John Smith National Historic Trail (DHR #500-0006) had a Federal Determination of Eligibility prior to the survey and was therefore not resurveyed. One resource was determined to be potentially eligible for listing and one resource was determined to be not eligible prior to the survey but was surveyed more than five years ago and therefore was redocumented during the current Project. One resource had not been evaluated for eligibility by the Virginia Department of Historic Resources (DHR). Resources which had been determined NRHP eligible as well as one previously unevaluated, but not visible resource, were evaluated for visual effects. The

surveyed resources consisted of farms and single dwellings with associated outbuildings as well as one late eighteenth to mid-nineteenth century cemetery.

The Bourne-Turner House (DHR #046-0031) had been determined as potentially eligible for listing in the NRHP by DHR in 2015. Based on the current survey, it is recommended that the resource maintain its NRHP eligibility status as the house and secondary resources retain integrity and appear to have not been significantly altered since the previous survey.

One resource, the Old State Highway Cemetery (DHR #046-5636), was not visible from the public right-of-way (ROW) and was therefore not able to be resurveyed. Based on the circumstances, the resource was considered eligible for the purposes of environmental review.

The remaining seven resources surveyed during the current project are generally reflective of the late nineteenth to mid-twentieth century development of Isle of Wight County and lack direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing in the NRHP. As such, it is recommended that the resources are not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered in evaluating the architectural resources documented during the survey.

***No further work is recommended for resources within the Architectural Study Area as part of the VAL025 Solar project.***

**Visual Effects**

An effects evaluation, in addition to the Phase I architectural survey, was conducted for NRHP-listed, eligible, and potentially eligible properties which may be affected by the proposed Project. Two resources were assessed for effects and included the potentially eligible Bourne-Turner House (DHR #046-0031) and the portion of the NRHP-eligible Keystone Segment Historic District of the Captain John Smith National Historic Trail (DHR #500-0006) within the current architectural Study Area. One resource, the Old Stage Highway Cemetery (DHR #046-5636), had not been evaluated for NRHP eligibility but was not visible from the public ROW. Therefore, for the purposes of environmental review, this resource is being considered eligible for listing. Based on the current proposed Project Area and the existing landscape it is recommended that the proposed Project would have an **Adverse Effect** on the Bourne-Turner House (DHR #046-0031) and the portion of the Keystone Segment of the Captain John Smith National Historic Trail Historic District (DHR #500-0006) located within the current architectural Study Area. The proposed Project would have **No Effect** on the Old Stage Highway Cemetery (DHR #046-5636). ***Based on the effects evaluation, it is likely DHR will require mitigation for Adverse Effect of the proposed Project. It is suggested that vegetative screening be installed on the north side of the solar parcel to lessen the Adverse Effect.***

**Effects Evaluation of NRHP Eligible and Potentially Eligible Properties**

| DHR # | Resource Name | Date | NRHP Status/ DHR Recommendation Prior to Survey | Effects Assessment |
|---|---|---|---|---|
| 046-0031 | Bourne-Turner House, 16303 Morgarts Beach Road | c. 1790 | Determined Potentially Eligible in 2015 under Criterion C | Adverse Effect |

| DHR # | Resource Name | Date | NRHP Status/ DHR Recommendation Prior to Survey | Effects Assessment |
|---|---|---|---|---|
| 046-5636 | Old Stage Highway Cemetery, Old Stage Highway | c. 1798 | Not Evaluated | No Effect |
| 500-0006 | Captain John Smith National Historic Trail, Keystone Segment, Historic District | c. 1550 | Federal Determination of Eligibility in 2015 | Adverse Effect* |

***Only for Portion of the Resource within the Study Area**

# Abbreviations

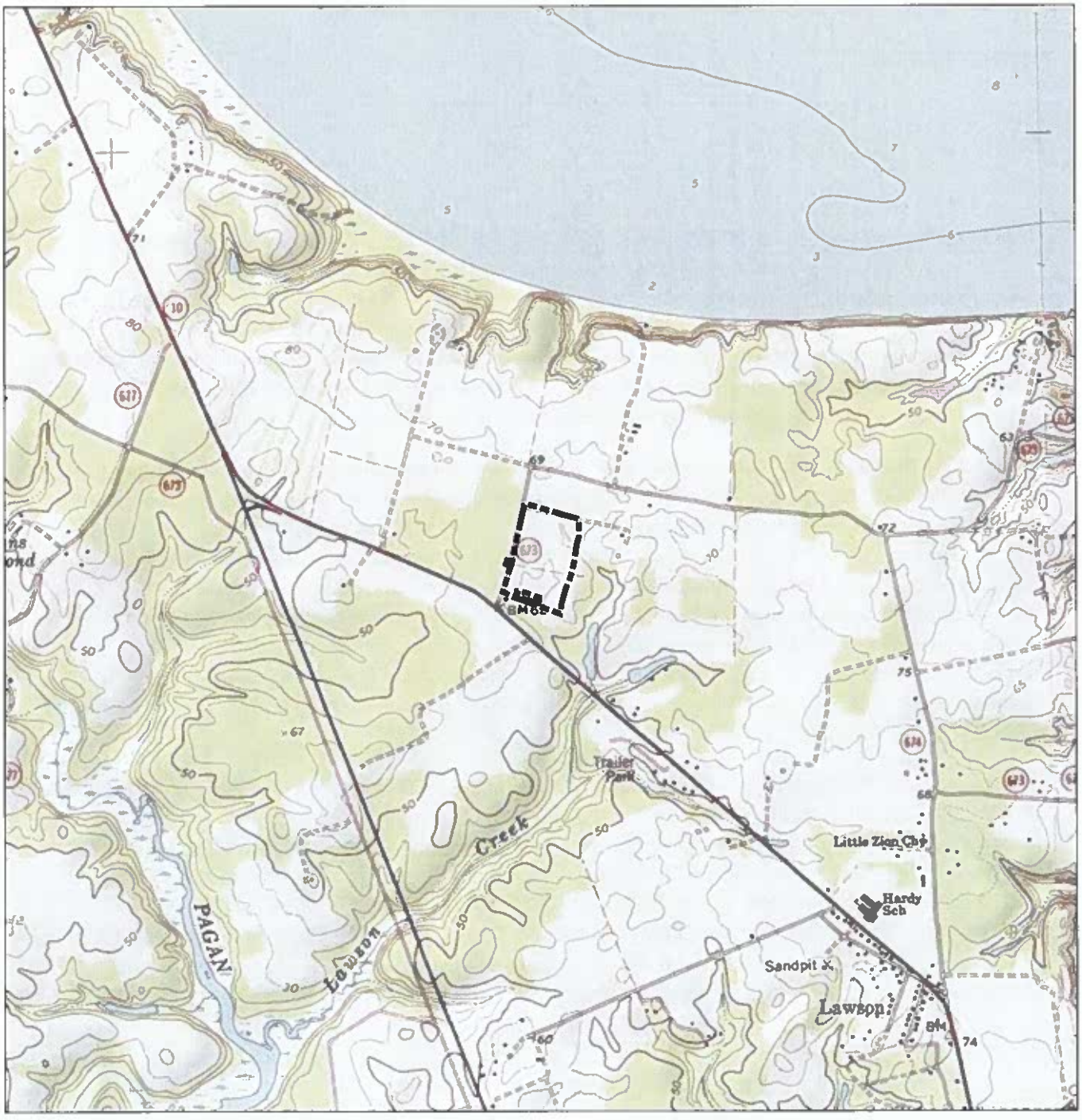
| | |
|---|---|
| ACC | Archaeological Consultants of the Carolinas, Inc. |
| amsl | above mean sea level |
| D+A | Dutton & Associates, LLC |
| DCR | Virginia Department of Conservation and Recreation |
| DEQ | Virginia Department of Environmental Quality |
| DHR | Virginia Department of Historic Resources |
| GPS | Global Positioning System |
| JRIA | James River Institute for Archaeology, Inc. |
| MW | megawatt |
| NHL | National Historic Landmark |
| NHPA | National Historic Preservation Act |
| NPS | National Park Service |
| NRHP | National Register of Historic Places |
| ROW | Right-of-Way |
| Stantec | Stantec Consulting Services Inc. |
| STP | shovel test pit |
| USDI | United States Department of the Interior |
| V-CRIS | Virginia Cultural Resource Information System |
| VHLC | Virginia Historic Landmarks Commission |
| VLR | Virginia Landmarks Register |
| WMCAR | William and Mary Center for Archaeological Research |

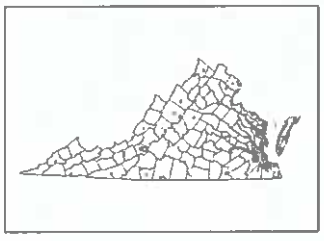
# 1.0 INTRODUCTION

From February 13 to March 8, 2023, Stantec Consulting Services Inc. (Stantec) conducted a cultural resources survey of approximately 20 acres associated with the proposed 3-megawatt (MW) VAL-025 Solar Project (Project) in Isle of Wight County, Virginia. The Project is located north of Old Stage Highway (Route 10) and northeast from the junction with Morgarts Beach Road (Route 628). The Project is bounded by Morgarts Beach Road to the west, Old Stage Highway to the south, and private dirt farm roads to the north and east. The Project Area comprises a gently rolling harvested cotton field (Figure 1). The work was conducted on behalf of Dawood Engineering, Inc. (Dawood).

The cultural resources investigations described herein were conducted as part of the State Corporation Commission (SCC) application process. Additionally, all cultural resources services detailed herein were conducted pursuant to the National Historic Preservation Act of 1966, as amended, the Archeological and Historic Preservation Act of 1974, Executive Order 11593, and relevant sections of 36 CFR 60 and 36 CFR 800. The Stantec Project Managers directing this survey meet the professional qualification standards of the Department of the Interior (48 FR 44738-9). The cultural resources fieldwork component of these investigations will conform to the qualifications specified in the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (Federal Register 48:44716-44742, September 29, 1983) and the DHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (2017).

Senior Principal Investigator Brynn Stewart oversaw the project. Project Archaeologist Donald Sadler and Senior Architectural Historian Sandra DeChard co-authored the resulting technical report. Project Archaeologist Donald Sadler directed the fieldwork and was assisted in the field by Archaeological Technicians Mark Jacobs and Noelle Thompson-Worthington. Senior Architectural Historian Sandra DeChard oversaw the architectural fieldwork conducted by Architectural Historian Technician Olivia McCarty. All artifact processing and analysis was completed by Laboratory Manager Emily Curme. GIS Analyst Elise Ljiko prepared the report graphics and project maps. Copies of all field notes, maps, correspondence, and historical research materials are on file at Stantec's office in Richmond, Virginia.



Project Area

0 1,000 2,000 Feet

(At original document size of 8.5x11)
1:24,000

N

Stantec

*Project Location*
Isle of Wight County, Virginia

Prepared by ECL on 2023-03-02
TR by JMH on 2023-03-29
IR by BSS on 2023-03-29

*Client/Project*
Dawood Engineering, Inc.
VAL025 Solar Project

195602607

*Figure No*
1

*Title*
**Project Location Map**

***Notes***
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dawood Engineering, Inc., U.S. Census Bureau
3. Topographic map © USGS 7.5 Minute Series Topographic Map, Bacons Castle, VA Quadrangle 1992

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# 2.0 PHYSICAL AND ENVIRONMENTAL CONTEXT

## 2.1 INTRODUCTION

The Project Area is located north of Old Stage Highway (Route 10) and northeast from the junction with Morgarts Beach Road (Route 628). The Project is bounded by Morgarts Beach Road to the west, Old Stage Highway to the south, and private dirt farm roads to the north and east. The Project Area comprises a gently rolling recently harvested cotton field.

## 2.2 GEOLOGY AND TOPOGRAPHY

The Project Area is located within the Coastal Plain physiographic province in the James River drainage basin. The Coastal Plain province is generally characterized by lowlands, with some elevated areas present, which are deeply dissected by drainages that trend mostly to the southeast, towards the Atlantic Ocean (Teifke 1973). Elevations within the Project Area range from approximately 55 to 66 feet above mean sea level (amsl).

The pre-Holocene geology of the Virginia Coastal Plain consists of igneous and metamorphic rocks of Precambrian and Paleozoic age overlain by a series of sedimentary deposits dating to the Cretaceous period. Geologists have divided the Cretaceous through Quaternary sedimentary deposits into five categories: Lower Cretaceous, Upper Cretaceous, Paleocene, Eocene, and Miocene (Teifke 1973). Beginning as early as the Late Cretaceous, a cycle of transgression and regression related to glacial activities and consequent sea level fluctuation is responsible for the formation of these sedimentary layers in the Coastal Plain. These layers have been named the Mattaponi (Upper Cretaceous/Paleocene), Nanjemoy (Eocene), Calvert (Eocene/Miocene), and Yorktown (Miocene) formations (Teifke 1973:10-11).

The Quaternary has been characterized by the continued deposition of clays, silts, sands, gravels and peat bogs. The Late Pleistocene-Holocene geology of the Virginia Coastal Plain has mostly been characterized by marine transgression onto the land, filling what is today known as the Chesapeake Bay. Sedimentary systems affecting the area include fluvial and marine-estuarine depositional systems. Fluvial forces included overbank flow and stream meander resulting in alluvial deposition. Marine-estuarine soil deposition occurs during hurricanes, tidal floods, and longshore currents (Onuschak 1973:111-124).

The Project Area is situated on the Bacons Castle Formation, comprised of gray, yellowish-orange, and reddish-brown sand, gravel, silt, and clay that constitutes surficial deposits of high plains extending from Richmond eastward to the Surry Scarp. Within the Project Area, the unit consists of massive to thick-bedded pebble and cobble gravel, grading upward into cross-bedded, pebble sand and sandy, clayey silt (Rader and Evans 1993).

## 2.3 HYDROLOGY

The Project Area is drained by Lawson Creek, a tributary of the Pagan River, which flows into the James River. The James River flows into the Chesapeake Bay and thence to the Atlantic Ocean.

## 2.4 SOIL MORPHOLOGY

Soils within the Project Area ranged from moderately well to well drained, with moderately well drained soils dominating. Table 1 presents the soil types found within the Project Area and serves as a key to Figure 2.

**Table 1 Key to the Soils Map**

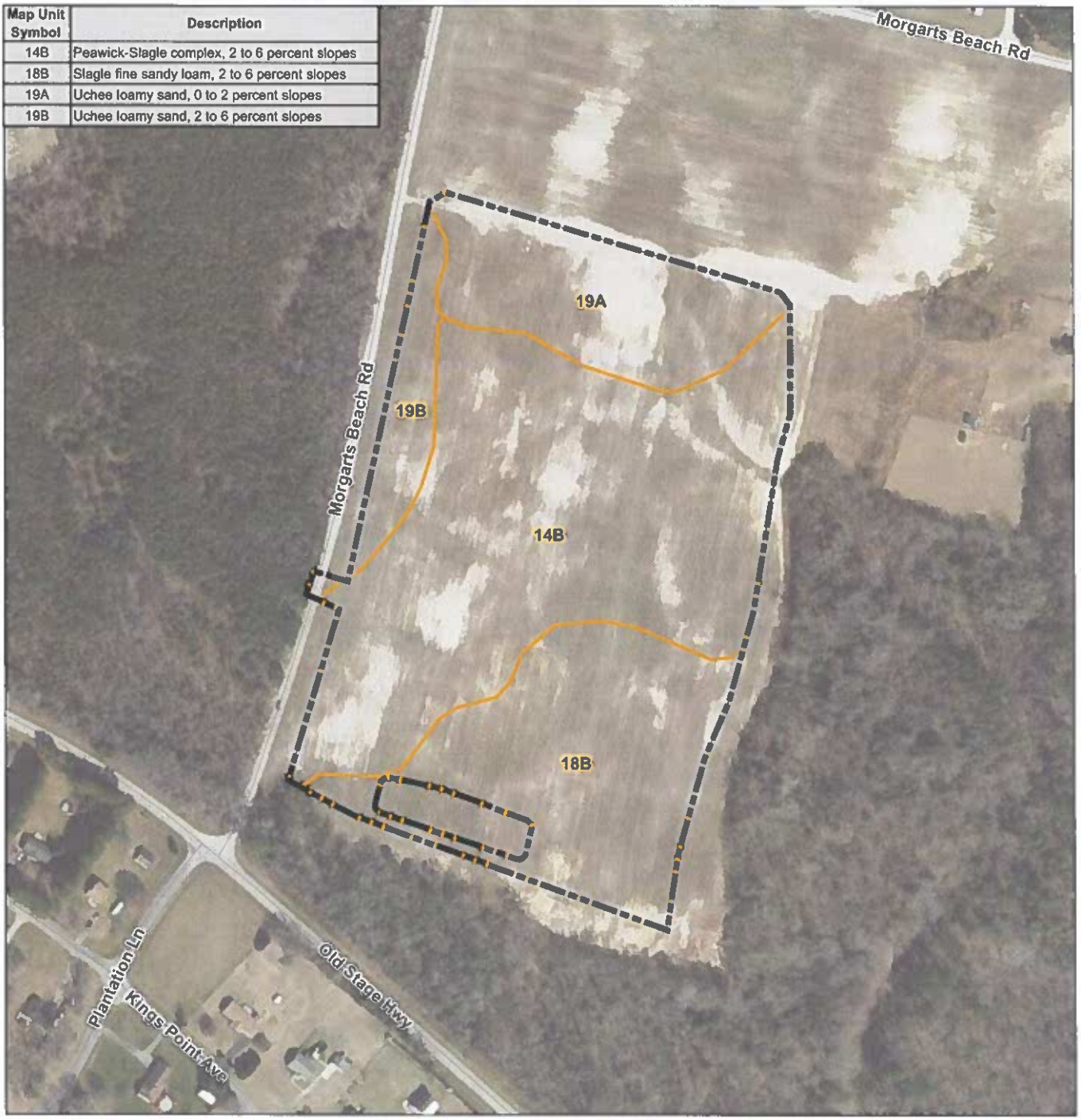
| Symbol | Map Unit Name | Percent Slope | Drainage Description |
|---|---|---|---|
| 14B | Peawick-Slagle complex | 2–6 | Moderately Well Drained |
| 18B | Slagle fine sandy loam | 2–6 | Moderately Well Drained |
| 19A | Uchee loamy sand | 0–2 | Well Drained |
| 19B | Uchee loamy sand | 2–6 | Well Drained |

## 2.5 NATURAL RESOURCES

Floral and faunal communities in southeastern Virginia have changed considerably over the past 10,000 years. This environmental change was linked to the warming trend that caused glaciers to melt and sea levels to rise. By the Early Holocene, beech, hemlock, and birch were the dominant species, and the former pine spruce forests of the Late Pleistocene became less common. In general, a mixed hardwood forest dominated the Mid-Holocene and included hazelnut, alder, maple, black gum, beech, ash, and walnut (Dent 1995:86). Stands of oak and hickory were also common during this period, and hickory nuts appear to have been a significant element of the diet of Mid-Holocene occupants of the Coastal Plain (Whyte 1990:126).

After 5,000 years ago, the climate of the Chesapeake Bay region became increasingly drier, and white oak continued to be the dominate forest species, with pine becoming increasingly more common. Additionally, legumes and arrowwood joined elderberry and blueberry as significant understory species. By approximately 1,700 years ago, the region became wetter and cooler, and mixed hardwood vegetation combined with an increase in pine, particularly in the lower Tidewater area, dominated the regional flora (Dent 1995:86-88).

| Map Unit Symbol | Description |
|---|---|
| 14B | Peawick-Slagle complex, 2 to 6 percent slopes |
| 18B | Slagle fine sandy loam, 2 to 6 percent slopes |
| 19A | Uchee loamy sand, 0 to 2 percent slopes |
| 19B | Uchee loamy sand, 2 to 6 percent slopes |



Project Area
Soils

0 150 300 Feet
(At original document size of 8.5x11)
1:3,600

N

Stantec

Project Location
Isle of Wight County, Virginia

Prepared by ECL on 2023-03-03
TR by JMH on 2023-03-29
IR by BSS on 2023-03-29

Client/Project
195602607
Dawood Engineering, Inc.
VAL025 Solar Project

Figure No.
2

Title
**Soils Map**

**Notes**
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dawood Engineering, Inc., U.S. Census Bureau, USDA NRCS SSURGO Soil Survey, VDOT
3. Orthoimagery © Virginia Geographic Information Network (VGIN)



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Wetland environs have also undergone considerable change over time as sea level fluctuations have created, destroyed, and recreated new estuaries and tidal flats. Cypress and white cedar were the most common trees in the wetland areas of the region during the prehistoric period, a trend that has continued into the present. While cordgrasses were prominent in estuarine areas, sedges and other grasses dominated freshwater wetlands. These grasses would have played an essential role in the lives of the region's indigenous population (Dent 1995:91-92).

The unique freshwater/saltwater environment found in the local estuary system has served to create a wide degree of faunal diversity in the region. By approximately 2,000 to 3,000 years ago, human populations would have enjoyed an ecosystem similar to that of today. A wide variety of fish and shellfish species coupled with numerous avian species would have allowed prehistoric inhabitants of the area to exploit an abundant food base. Likewise, the cultivation of plants such as corn, beans, and squash, and the hunting of mammalian species would have completed a tremendously diverse diet. Oysters, crabs, fresh and saltwater clams, shrimp, mussels, bass, flounder, shad, herring, snapper, sturgeon, and bluefish were among the important riverine and estuary fauna of the tidewater area that native inhabitants of the region would have exploited (Dent 1995; Stevens 1991).

# 3.0 CULTURAL CONTEXT

Virginia's Native American prehistory is typically divided into three main periods: Paleoindian; Archaic; and Woodland. These divisions are based on changes in material culture and settlement systems. In more recent decades, the possibility of human presence in the region that predates the Paleoindian period has moved from remote to probable. For this reason, a Pre-Clovis discussion precedes the traditional tripartite division of Virginia's Native American history. The seventeenth-through twentieth-century historical overview follows the DHR (2017) guidelines. The cultural context, as defined by the *Secretary of the Interior's Standards and Guidelines for Archaeology* and Chapter3 of the DHR's 2017 guidelines, provides the historic, social, and environmental information required for evaluation of any cultural resources present within the Project Area.

## 3.1 PRE-CLOVIS (? –13,000 BC)

The 1927 discovery of a fluted point in the ribs of an extinct species of bison at Folsom, New Mexico proved that ancient North Americans had immigrated during the Pleistocene. It did not, however, establish the precise timing of the arrival of humans in the Americas, nor did it adequately resolve questions about the lifestyle of those societies (Meltzer 1988:2-3). Both the stratigraphic record and the radiocarbon assays from several sites, including the Cactus Hill site in Sussex County, Virginia (44SX0202), suggest the possibility of human occupation of North America before the fluted point makers appeared on the scene (McAvoy and McAvoy 1997). Buried strata at the Cactus Hill Site have returned radiocarbon dates of 15,000 years ago from strata situated below levels containing fluted points (McAvoy and McAvoy 1997:165). To date only a handful of pre-Clovis sites have been identified in North America, including in Pennsylvania, Virginia, and New Mexico. Though the likelihood of identifying pre-Clovis sites within the Project Area is extremely low.

## 3.2 PALEOINDIAN PERIOD (PRIOR TO 8000 BC)

In the decades following the discovery at Folsom, New Mexico, the association of fluted points with the bones of large, extinct mammals, in particular mastodons, on the western plains coupled with the scarcity of other Paleoindian sites, led to the inference that the Paleoindian subsistence strategy centered on the pursuit of big game. This picture, however, exaggerates the reliance of western Paleoindian groups on large game, and appears to be of limited relevance to eastern Paleoindian life. The archaeological data from Virginia compiled by Dr. Ben McCary records numerous discoveries of fluted points, but no unambiguous association between extinct large game and fluted points (Boyd 1989:139). A similar situation occurs throughout the eastern United States. For this reason, many archaeologists now hold that eastern Paleoindians were generalized foragers (e.g., Grayson and Meltzer 2003; but see Fiedel and Haynes 2004).

Most large Paleoindian sites in the southeastern United States are quarry or quarry-related (Meltzer 1988:21), though multiple band aggregation sites also occur (McAvoy 1992:145). Recognizable sites most often result from long-term habitation or repeated use of the same location. It follows from the presence of primarily quarry or quarry-related sites that stone outcrops were regularly revisited. Though the full range of available lithic resources was used to manufacture fluted points (e.g., Phelps 1983), a number of studies have noted a focus on cryptocrystalline materials (e.g., chert, jasper, chalcedony) (Gardner 1974, 1989; Goodyear 1979). The recovery of cryptocrystalline materials at locations far removed from quarries indicates exchange, extensive group movement, or both characterized the Paleoindian era. In addition, the very limited differences between sites and within sites suggest that most people had access to all available resources, while the small size of most Paleoindian sites indicates group size generally was limited to extended families.

## 3.3 ARCHAIC PERIOD (8000–1200 BC)

The Archaic began with the northward retreat of periglacial environments and the appearance of archaeological assemblages lacking fluted points. In the Chesapeake Bay region, a shift from moist, cool conditions to a warmer, drier climate accompanied the glacial retreat. In response to changing climatic conditions, in particular the receding ice sheets, Chesapeake Bay sea levels rose continuously from roughly 15,000 years ago to the present. Simultaneously, local subsidence of the earth's crust also may have contributed to the formation of the Chesapeake Bay. Between 15,000 and 14,000 years ago, the waters of the Atlantic began to submerge portions of the continental shelf. For every 30 centimeters (approximately 1 foot) of sea level rise, approximately 510 meters (approximately 1,673 feet) of the shelf were inundated. Ten thousand years ago the sea began to flood the mouth of the ancestral Susquehanna River, located near the present-day mouth of the Chesapeake Bay. Sea level rose at 0.2 centimeters (approximately 0.1 inch) per year between 8000 and 3000 years ago. At 8000 years ago, the head of the ancestral bay was near Smith Island, at 5000, near Annapolis, and by 3000 years ago, it had reached the Sassafras River. Numerous archaeologists suggest that the stabilization of water levels in the bay at this time provided the necessary conditions for the development of extensive shellfish beds and habitats favorable for anadromous fish (e.g., Waselkov 1982). After approximately 1000 BC, sea level rise slowed to approximately 0.12 centimeters/year, and Chesapeake Bay approached its present contours (Dent 1995:69-95).

In addition, in contrast with the broad similarity among Paleoindian point forms, distinct style zones developed during the Early and Middle Archaic (8000–3500 BC). The Atlantic Coast/Southeastern stylistic sequence was not characteristic of the Midwest (Ford 1974:392). In addition, increased use of locally available lithics occurred between 8000 and 3500 BC (Custer 1990:36; Sassaman et al. 1988:85-88). The reduction of the size of style zones and the focus on local lithic materials implies contracting social networks and incipient territories, possibly a reaction to population growth (Anderson and Hanson 1988:271). Despite changes in patterns of mobility and point form, numerous archaeologists argue on environmental (Custer 1990:2-8) and subsistence (Smith 1986) grounds for continuity in social dynamics between 10,000 and 6,000 BC. From this point of view, Dalton through Lecroy populations exhibited "general similarities and regional habitat-related variation in settlement-subsistence patterns and material

culture assemblages" (Smith 1986:10). Band-level social organization involving seasonal movements corresponding to the seasonal availability of resources and, in some instances, shorter-interval movement characterized Archaic societies.

Reliance on ground-stone technology increased during the Archaic period. New tool categories associated with the Archaic include celts, net sinkers, pestles, pecked stones, and axes Archaic knappers also produced chipped-stone versions of celts and axes and, near the end of the Late Archaic, labor-intensive vessels carved from soapstone quarried in the Piedmont formed an important part of assemblages (Geier 1990; McLearen 1991).

### 3.3.1 Early Archaic (8000–6500 BC)

Corner- and side-notched points with serrated blades predominate at the beginning of the Early Archaic period, reflecting innovation in hafting technology and, possibly, the invention of the atlatl. Notched point forms include Palmer and Kirk Corner-Notched and, in localized areas, various side-notched types. Around 7000 BC, a variety of bifurcate base projectile point forms appeared in the Middle Atlantic region. In eastern Virginia, LeCroy points constitute the majority of bifurcate forms (Dent 1995; Justice 1995). Despite the shift in point form over time some researchers portray the Early Archaic as a continuation of the Paleoindian period, characterized by reliance on cryptocrystalline lithic material and similar settlement and subsistence patterns (Gardner 1989). Early Archaic sites are still locally uncommon at this time, and it is during the Middle Archaic period that a proliferation of sites occurs in the region (Gardner 1982, 1986).

### 3.3.2 Middle Archaic (6500–3000 BC)

The appearance of stemmed projectile points and a shift towards more expedient use of stone marks the beginning of the Middle Archaic across much of the Atlantic Slope and Southeast (Amick and Carr 1996:43-45; Justice 1995). In this area of Virginia, the most common Middle Archaic projectile point types are (from oldest to most recent) LeCroy, Stanly, Morrow Mountain, and Guilford, followed by the side-notched Halifax type sometime after 3500 BC. This latter type is generally one of the most abundant found in upland interior settings; however, it is possible that many riverine sites of the period are hidden under alluvial sediment. Informal modified flakes to some extent replaced formal unifacial tools, and local materials constitute a greater percentage of Middle Archaic assemblages than had been true of earlier time periods. Sites occur throughout the landscape, including beneath the now-inundated Chesapeake Bay (Blanton 1996; Dent 1995:173-178).

An analysis of components from the Piedmont (Klein and Klatka 1991) indicates only slightly higher use of interior uplands over riverine settings during the Middle Archaic period and, within the riverine settings such as the present Project Area, there is a fully equal use of both alluvial landforms (floodplains/low terraces) and upland landforms/bluffs adjacent to the rivers (Klein and Klatka 1991:155). However, a repetition of this pattern in the Project Area, located within the Valley and Ridge region, would be dependent on geomorphological conditions: i.e., artifacts indicating the entire span of the Middle Archaic could be present on all landforms, unless the alluvial bottoms are restricted to sediments of too recent an

age to contain deposits of such antiquity. Where sediments are too young, however, evidence of Middle Archaic presence should be concentrated on old, stable landforms lying as close as possible to the river and its small tributary streams.

### 3.3.3 Late Archaic (3000–1200 BC)

Stemmed and notched knife and spear point forms, including various large, broad-bladed stemmed knives and projectile points (e.g., Savannah River, Susquehanna, Perkiomen points), rank among the most distinctive and securely dated Late Archaic point forms (Coe 1964; Dent 1995; Justice 1995; Ritchie 1971). Marked increases in population, and, in some areas, decreased mobility appear to characterize the Late Archaic throughout eastern North America. Locally, the increase in the number of Halifax and Savannah River components and sites relative to the preceding periods suggests population rose in Virginia between about 3500 BC and ca. 1200 BC.

Mouer (1991a:262) believes it likely that "at least intensive harvesting of wild seeds," if not the beginnings of domestication, characterized Transitional through Early Woodland times (ca. 2000–500 BC) in the Chesapeake Bay region, as it did in the Midwest. The process, however, did not proceed at an even rate across the Eastern Woodlands or the Middle Atlantic Region (Stewart 1995:184-5). Yarnell (1976:268), for example, states that sunflower, sump weed, and possibly goosefoot may have been cultivated as early as 2000 BC. In the lower Little Tennessee River valley, the remains of squash have been found in Late Archaic Savannah River contexts (ca. 2400 BC), with both squash and gourd recovered from Iddins period contexts of slightly more recent date (Chapman and Shea 1981:70). Experiments with domestication in the Mid-Continent indicate the possibility, even the likelihood, that the inhabitants of the Middle Atlantic cultivated small grains and other plants (Hodges 1991:228-230; Mouer 1991b:259-263). "Scant" evidence for early cultivation appears in the archaeological record from Virginia, however (Mouer 1991a:259; Gallivan and McKnight 2006).

Soapstone bowls are a well-known feature of Late Archaic exchange systems (McLearen 1991:107-8). In addition, Stewart (1989:52) argues for broad-based exchange of "artifacts made from jasper, argillite, rhyolite, ironstone, soapstone, Midwestern lithics, obsidian, marine shell and copper" throughout the Middle Atlantic region during the Late Archaic. Thus, Late Archaic society clearly differed from that of earlier times. The production and wide-spread exchange of utilitarian and ritually important, labor-intensive goods does not fit the expected archaeological signature of highly egalitarian foragers. Rather, a social order exhibiting some sort of status differences among individuals or groups (Mouer 1991a:265) and somewhat restricted group movement (Stewart 1989:57) likely existed. Still, sites dating to the Late Archaic occur frequently throughout Virginia and the Middle Atlantic region. Late Archaic sites occur in greater numbers and in a wider range of environments than sites associated with the Early and Middle Archaic periods (Klein and Klatka 1991).

## 3.4 WOODLAND PERIOD (1200 BC–AD 1600)

Increasing use of ceramic technology, a growing dependence upon horticulture, and a shift toward greater sedentism characterize the Woodland period. Most researchers divide the Woodland period into

three sub-periods (Early Woodland, Middle Woodland, and Late Woodland), based primarily on stylistic and technological changes observed in ceramic wares and projectile points, as well as shifts in settlement patterns (e.g., Gardner 1982). Not all researchers agree with this tripartite subdivision, however.

### 3.4.1 Early Woodland (1200–500 BC)

The onset of the Woodland period traditionally correlates with the appearance of ceramics (Willey and Phillips 1958:118). Early theorists linked ceramics with agriculture, though few continue to support this position (cf. reviews in Egloff 1991; Hodges 1991). Rather, the evolution of subsistence and technological systems (e.g., Gardner 1982) and various aspects of pan-Eastern interaction (e.g., Egloff 1991; Klein 1997) currently are believed to underlie the evolution of ceramic containers.

The steatite-tempered Marcey Creek type and variants containing other mineral inclusions appear to date between 1200 and 800 BC (Egloff 1991:244-5). Manson (1947) unearthed flat-bottomed, plain sherds and cord-marked sherds with conoidal bases, both of which included soapstone-temper, in the uppermost of two distinct strata at the Marcey Creek Site. The lowermost level contained narrow variants of Savannah River points, termed Holmes Points by Gardner (1986), and soapstone bowls, suggesting that soapstone-tempered sherds post-date bowls of soapstone (but see Sassaman 1999). Earlier Slattery (1946) had identified similar sherds at a site on Seldon Island, along the Potomac River to the northeast of Leesburg, along with sand-and-grit tempered sherds. Though friable sand-and-grit-tempered Accokeek Creek and Elk Island ceramics appear subsequent to Marcey Creek, associated C-14 on stratified sites, dates range from 1100 through 500 BC. Klein and Stevens (1996) cite regional data to support the proposition that, while the thickness, amount of temper, and size of temper in quartz/sand-tempered, cord-marked ceramics shifted over time, similar pots continued in use into Middle Woodland times.

Small bifaces and expedient tools such as drills, perforators, scrapers and utilized flakes regularly appear in Early Woodland assemblages. Other lithic artifacts reported on Early Woodland sites in the Chesapeake region include bipolar flakes, hammerstones, net sinkers, mortars, and pestles (McLearen 1991). Also noted on sites in the region are tools of bone, and projectile points manufactured from antler, bone, turkey spurs, and shark's teeth (Waselkov 1982). The increased number of sites dating to the Early Woodland, coupled with the recognition of structures, features, and activity areas at some sites, suggests rising population size in the Chesapeake region (e.g., Mouer 1991b:38-9; Stewart 1995:183). In contrast, noting that the addition of pottery to stone adds temporally diagnostic artifacts to the archaeological record, Fiedel (2001:106–7) observes that more sites are expected to appear in the archaeological record during Woodland times. Furthermore, the various Broadspears, dating to the Terminal Archaic (ca. 2000–1000 BC), may represent a curated technology (Barber and Tolley 1984), while replication experiments suggest stemmed bifaces similar to Early Woodland types rank among the easiest forms to produce using quartz (Bourdeau 1981). Therefore, a shift from a curated, less commonly discarded biface form, to points easily produced from a ubiquitous material accompanied the appearance of ceramics. Thus, the absence of a dramatic swell in the number of sites, coupled with decreased representation of diagnostic point forms, indicates a demographic trough or at best a flat demographic curve characterized the period.

In general, sparse concentrations of artifacts characterize Early Woodland sites (Mouer 1990:160-174; Stewart 1998:2). Regardless, the preservation of an extensive accumulation of Early Woodland artifacts suggests the existence of a unique geomorphological, and probably social, setting. Overall, the data appear to indicate a return to the mobile, egalitarian social organization characteristic of Early and Middle Archaic times (Klein 2003). Even at large Early Woodland sites post-dating AD 800, very limited evidence of long-distance exchange or the manufacture of labor-intensive artifacts comparable to the soapstone exchange of the Terminal Archaic appears.

### 3.4.2 Middle Woodland (500 BC–AD 900)

Popes Creek net-impressed ceramics appear after roughly 500 B.C., marking the beginning of the Middle Woodland I period (500 BC–AD 200) (Blanton 1992:72-3; Egloff and Potter 1982:99). Cord-marked ceramics and stemmed points, however, continued in use for some time after AD 500 (McLearen 1992:44-5), for example, lumps the period between 3000 BC and AD 1000 under the rubric Woodland I based on the similarity in adaptation and the presence of considerable variation in the form of contemporaneous stemmed and notched points.

Net-impressed surface treatments occur on a variety of ceramic types manufactured during Middle Woodland times. Pope's Creek ceramics first appear after 500 BC, with the start of the Middle Woodland (Blanton 1992:72-3; Egloff and Potter 1982:99). Early Woodland cord-marked ceramics and stemmed projectile points are found in Middle Woodland contexts, suggesting a continuation of Early Woodland technologies (McLearen 1992:44-5). The Prince George and Varina types appear to represent a continuum of development in the technology used to produced Popes Creek sherds, rather than dramatically different types (Mouer et al. 1986).

The appearance of assemblages containing significant amounts of durable ceramics after 500 BC indicates a shift in the organization of production occurred during the Middle Woodland periods (Brown 1986, 1989). In addition to the advantages of ceramic vessels as cooking pots, ceramic production contrasts with the manufacture of baskets and wooden bowls in its embrace of economies of scale. Rather than a start-and-stop process that fits well into odd bits of time, ceramic production required greater scheduling and continued attention over an extended period of time. Shifts in the scheduling of work, therefore, accompanied the transition from Early to Middle Woodland times.

Broad-spectrum hunting-fishing-gathering continued to characterize the region as a whole throughout the Middle Woodland period. Shellfish, anadromous and resident fishes, deer, waterfowl, and turkey ranked high among the important fauna in the Middle Woodland diet. Various nuts, amaranth, and chenopod seeds also appear to be important resources during this period. After 300 BC, large shell middens containing dense concentrations of artifacts become increasingly common, indicating repeated use of at least one type of site. Middens and the presence of houses at a number of sites indicate longer stays, though populations remained far from sedentary (Gallivan 2003). People continued to reside for much of the year in relatively small settlements, and interior storage features rarely occur on Middle Woodland sites (Gallivan 2003:75-98).

### 3.4.3 Late Woodland (AD 900–1600)

Intensified use of cultivated plants, particularly maize, beans, and squash, distinguished the Late Woodland adaptation from that of earlier periods. European accounts describe a heavy reliance on slash-and-burn agricultural methods. In addition to cultigens and shellfish, Late Woodland peoples throughout the region continued to rely on various mammals, fish, and birds for sustenance (Dent 1995:251). Perhaps as a consequence of the greater importance of cultigens in the diet, access to expanses of arable land ranks among the most important factors influencing site selection (Dent 1995; Potter 1993).

Small, triangular arrow points, generally believed to reflect the widespread use of the bow-and-arrow, form the overwhelming majority of Late Woodland projectile points. Triangular points include the Levanna, Madison, Roanoke, and Clarksville types, which vary in size and base form. Point size may also decrease over time (Coe 1964; Potter 1993; Ritchie 1971). Shell beads and copper beads became important ornaments and symbols during the Late Woodland period, primarily in the last few centuries prior to the arrival of European colonists. Powhatan's Mantle, a deerskin cloak decorated with thousands of small marginella beads sewn into various patterns, reflects the use of shell beads as symbols of identity and status. Pendants and gorgets made of shell were also common. Of note, five engraved shell masks, decorated with a traditional Southeastern "forked/weeping eye" motif were found in a seventeenth-century burial on the floodplain of the Potomac River in Stafford County. Three of the five masks exhibit similarities to masks recovered from sites in the Southeastern U.S. (Smith and Smith 1989), possibly an indication of long-distance trade. Bone also was used to manufacture beads, as well as utilitarian items such as pins, fishhooks, and points.

Late Woodland populations constructed palisaded villages. In addition, Native American settlements included nucleated villages lacking palisades, dispersed hamlets, and temporary camps. Work by Potter (1993), Hodges and Hodges (1994), and Mouer et al. (1992) suggest that dispersed villages were common throughout Virginia. Housing varied throughout this region: some sites show evidence of longhouses located adjacent to the palisade, while elsewhere, short, oval structures have been unearthed (Dent 1995; Gallivan 2003; Hodges and Hodges 1994; Mouer et al. 1992; Potter 1993; Stephenson 1963).

The large base camps, hamlets, and villages are typically located on bluffs, terraces, or high floodplains adjacent to rivers or major tributaries. Small seasonal camps and non-seasonally based satellite camps supporting nearby sedentary villages and hamlets are located along smaller streams in the interior. Limited concentrations and sparse scatters of lithics and ceramics typically characterized these campsites. The majority of the Late Woodland sites that had been recorded at the time of the Barber et al. (1992) study were located along the major high order streams and rivers, consistent with the ethnohistoric evidence (e.g., Rountree et al. 2007). By the end of the Late Woodland Period, Dent (1995) notes that a generally unoccupied buffer zone appears to have been maintained between the Powhatan on the inner Coastal Plain and the Monacan west of the fall line. According to Dent, this, and other similar buffer zones throughout the Chesapeake region, may have been game preserves or just "...the result the tendency of chiefdoms to nucleate populations for the purposes of control."

## 3.5 SETTLEMENT TO SOCIETY (1600–1750)

In May 1607, a small group of Englishmen under the authority of the Virginia Company of London arrived at Jamestown Island, where they established the first permanent English settlement in the New World. English contact with Native Americans living in what is now Isle of Wight County occurred in 1608 when Captain John Smith purchased 20 bushels of corn from the Warrosquoyacke people. Smith and other early settlers contacted the Warrosquoyacke on several occasions as their villages were located along the James River near Pagan Point (Boddie 1938).

The first English settlers in what is now Isle of Wight County included Captain Christopher Lawne, Sir Richard Worsley, Nathaniel Basse, and John Hobson. Soon after their arrival at Jamestown in April 1619, a settlement was established on the south shore of the James River at Lawne's Creek, near the current boundary between Isle of Wight and Surry counties (Morrison 1907). Lawne's plantation was known as Warrosquoyacke, after the local Indian group. Lawne represented his plantation at the first meeting of the House of Burgesses in 1619; however, Lawne and most of the settlers on his plantation died within the year. After Lawn's death, the plantation was renamed Isle of Wight Plantation for the English island where a number of the early settlers were from (Morrison 1907). Edward Bennett was granted a patent along the Pagan River in 1621, and was soon followed by Nathaniel Basse, who settled at Basse's Choice. These Southside settlements were devastated and suffered the loss of 53 colonists the following year during the Powhatan uprising and massacre of 1622. Sir George Yeardley led a punitive expedition later in the year against the Warrosquoyacke and Nansemond, which helped to open the south shore of the James to increasing settlement. When Virginia's first counties were created in 1634, Warrosquoyacke County encompassed the Isle of Wight (Hiden 1957). Warrosquoyacke was divided in 1647 between Isle of Wight to the west, and Upper and Lower Norfolk counties to the east. Early settlement of the county centered round the James River's south shore and both the east and west shores of Pagan Creek (King 1993). In the 1623-1624 census, only 53 people lived at Warrosquoyacke as settlers were hesitant to return after the 1622 massacre (Boddie 1938; Morrison 1907).

As early as 1632, The Old Brick Church, now known locally as Old Saint Lukes Church, was constructed. Though the exact date of construction is not known, a church was extant at least by 1638. A deed registering the conveyance of 100 acres to John Marshall references the church and that the parcel was bound by a deep swamp (Jones Creek) (King 1993). John Fulgham, also in 1638, deeded one acre of land to the Lower Parish vestry which was described as the land on which the church stood and that it was located near a deep swamp. This information further confirms the presence of the church in 1638 (King 1993). In addition to confirming the location of the Old Brick Church, these deeds also reference the "main road" which appears to generally follow the current course of Route 10 between Smithfield and Suffolk. The colonial settlement of Isle of Wight County focused on the major rivers and especially along the James and Pagan rivers near Smithfield.

## 3.6 COLONY TO NATION (1751–1789)

The latter half of the eighteenth century brought widespread changes to the American colonies. The French and Indian War, which began on the Virginia frontier in 1753, caused Britain to levy new taxes and to impose new restrictions upon settlement of new territories in 1763. Parliamentary Acts restricted free trade and navigation, imposed unpopular taxes on items such as molasses (1733) and sugar (1764), and the Stamp Act of 1765 coupled with the doubling of the Export Tax the year before put severe strains on Northern merchants. The trickle-down effect on Southern planters was apparent. Tobacco prices were persistently low, the economy sluggish, and the dependence and indebtedness to British merchants was growing. The complaints of these southern planters, their northern merchants, and the western land speculators helped to "unite" an otherwise diverse continent into what would become a country (Sadler 2006:24; Billings 1975).

Isle of Wight's economy in the second half of the eighteenth century still centered around tobacco cultivation, despite the fact that the Southside's sandy soils were never particularly conducive to growing it. By the later years of the eighteenth century, however, Isle of Wight's farmers were beginning to diversify their crops and explore alternative products. Touring the Smithfield area in 1783, German visitor Johann David Schoeff commented that:

> "...the coast is nearer here, one has passed the tobacco country proper, the plant not thriving on the poorer sandy soil of the region, but tobacco is brought hither from more distant parts; on the other hand, the extensive pine forests supply a different sort of produce, namely tar, pitch and turpentine, which with salted hog meat are the most important articles for export of this place" (King 1993:194).

Isle of Wight County was the scene of several military actions during the seventeenth and eighteenth centuries. In 1676, the county was the scene of Bacon's Rebellion and during the Revolutionary War, British troops passed through the county (Morrison 1907). As with most other parts of Virginia, Isle of Wight's citizens' loyalties were divided, as revolution grew imminent in the 1770s. A considerable number of English and Scots immigrants resided in Isle of Wight, and when they left the county—willingly or not—their lands were considered escheated and sold to their more "patriotic" neighbors. A number of local men joined the Princess Anne District Battalion in 1775 and fought at Kempsville and Portsmouth. Later in the war, Isle of Wight men served in the 7th, 8th, and 9th companies of the 4th Virginia Regiment of Foot. No major battles were fought in Isle of Wight during the War of Independence, though British Lt. Col. Banastre Tarleton led a raid against the Isle of Wight courthouse in Smithfield in 1781. Tarleton succeeded in damaging the building, however, the court records were not lost to the attack, as they had recently been removed and hidden (King 1993:60-65).

## 3.7 EARLY NATIONAL PERIOD (1790–1829)

At the close of the Revolutionary War, residents across the state of Virginia entered a long period of social, political, and economic change. The rural economy based primarily in tobacco prior to the war was changed radically as farmland had been exhausted and the Capital moved to Richmond. It was not long

before a small group of Virginians dedicated to "scientific agriculture" helped to usher in a new era of productive farming. In his series of essays entitled *Arator*, Caroline County's John Taylor demonstrated the benefits of four-field crop rotation, in which soils could be improved significantly by rotating corn, wheat, fertilizer, and clover. Similarly, in the early 1820s, Edmund Ruffin publicized the effectiveness of marl in reducing soil acidity, a technique that could triple the productivity of Tidewater soils. Other agricultural improvements included contour plowing to reduce erosion, cast iron plows, threshing machines, and corn shellers (Kaplan 1993:87-88).

Despite the obvious benefits of the transition from tobacco to grain crops, the farming methods of the late eighteenth and early nineteenth centuries continued to have a deleterious effect on exhausted soils. Under the traditional three-crop rotation system, a field first would be planted in corn, the following year in wheat, then left unplowed the third year to provide grazing for cattle and hogs. Recognizing the need for improved agricultural practices, Loudoun County farmer John A. Binns spearheaded the agricultural reform movement in Virginia. His 1803 Treatise on Practical Farming, which won the admiration of President Thomas Jefferson, outlined a formula for improving crop yields that would come to be known as the "Loudoun System." In his widely read book, Binns recommended deep plowing, the use of gypsum to restore soil productivity, and revising the old crop rotation pattern to include a third year of clover (Poland 1976:84-88).

The first federal census of 1790 recorded that Isle of Wight County had a total population of 9,028, including 4,786 (53 percent) whites, 3,867 (43 percent) black slaves, and 375 (4 percent) free blacks. The total population of Isle of Wight grew little between 1790 and 1830, when county residents numbered 10,517. The number of free blacks, however, increased more than 300 percent over this same period (King 1993:139). During this period, Isle of Wight made the transition from an economy predominantly reliant upon tobacco as the cash crop to one characterized by diversified farming and the exploitation of the county's timber resources. The most important local products now included wheat, corn, oats, Irish potatoes, sweet potatoes, peas, beans, hogs, and forest products. By the 1830s, Isle of Wight farmers were also growing enough cotton to support two local factories (King 1993:198).

## 3.8 ANTEBELLUM PERIOD (1830–1860)

From 1830 to 1860, the population of Isle of Wight County remained virtually constant at around 5,000 inhabitants. Slavery was not as important to the social and economic makeup as in other Tidewater counties in the antebellum period, and Isle of Wight was also home to a significant number of free slaves before Emancipation. By 1860, there were 1,370 free blacks residing in the county; together they held 2,965 acres of land, a modest average of 44.25 acres per adult male (King 1993:146). Nevertheless, the institution of slavery differentiated Virginia from points north. Wealthy Virginians renewed their commitment to slavery. Other Anglo-Americans, however, became less likely to own slaves than during the earlier years of the Republic.

An agricultural and economic depression characterized much of this era, at least until the 1840s and 1850s. Wheat prices declined sharply. In addition, the completion of the Erie Canal opened the market to mid-western grains. Though agitation for the construction of canals had begun at the end of the previous

century, it was not until 1833 that the Chesapeake and Ohio Canal opened from Harpers Ferry to Georgetown (Keller 2000:24).

In order to compete with and for western commerce, the State borrowed heavily to invest in railroad and road construction between 1840 and 1860 (Willis 1986:425). In general, farm economies prospered during the 1850s as wheat prices rose. This period also witnessed the introduction and general use of animal-powered agricultural machinery (Parker 1986:90).

## 3.9 CIVIL WAR (1861–1865)

Isle of Wight County's economy had never been heavily oriented toward slave labor, and many of its citizens questioned the wisdom of fighting a sectional conflict to protect what they perceived to be the interests of large slave owners. However, when war was finally declared, many Isle of Wight men willingly took up arms to defend the Confederacy, some joining the Surry Light Artillery Company, and others the Isle of Wight Grays, which became Company D of the 16th Virginia Infantry Regiment (King 1993:164-66).

When Federal Major General Benjamin Butler seized Newport News in May 1861, Confederate General Robert E. Lee quickly realized the threat posed to Suffolk, an important junction of the Southside railroad lines connecting the port of Norfolk with Petersburg and Richmond. Immediately Lee ordered local commander Brigadier General Benjamin Huger to strengthen the region's defenses, and to erect or expand a number of fortifications along the Nansemond River and the south side of the James River in Isle of Wight County. On May 14, 1862, several Federal gunboats came up the James, and fired on Fort Boykin, an important Southside fortification located on Burwell's Bay, several miles west of Smithfield. Overwhelmed by the longer range of the Union guns, the Confederate defenders of Fort Boykin abandoned the defenses, destroying their guns and the fort's buildings in the process. After this engagement, Huger withdrew his forces from the Southside forts, and it is likely that the battery near Ragged Island was abandoned by late May 1862 (Cormier 1989:22-23; King 1993:168- 174).

Isle of Wight County saw few direct military engagements during the course of the war, the most significant being the Battle of Smithfield of January 31–February 1, 1864, in which a minor Union assault against the town was repulsed by its Confederate defenders. Living in a sort of no-man's-land, Isle of Wight's citizens were harried by frequent Federal cavalry raids, which frequently resulted in the appropriation of supplies and the destruction of property. An 1864 resolution of the county's justices succinctly outlined the hardships faced by Isle of Wight citizens during the war years:

> Whereas on account of the exposed condition of the county, being beyond the lines of the Confederate Army and subject to frequent and destructive raids of the enemy and the difficult and embarrassed communication with other sections of the state, our people, in a great measure, are dependent upon their own resources for an adequate supply of the necessities of life. And whereas, on account of the loss of almost our entire slave population, and the loss of a number of our free labor, and the conscription of white men between the ages of eighteen and forty-five to recruit the ranks of our armies, there is a

> great scarcity of productive labor, and whereas any further extension of conscription within the limits of this county will but result in the paralyzing of production and great suffering and hardships upon those who will be left at home... all other business is suspended in the county and, our people with scarcely an exception, are engaged in the cultivation of the soil (King 1993:179-80).

## 3.10 RECONSTRUCTION AND GROWTH (1866–1916)

Four years of civil war also had a devastating effect on Isle of Wight County, though it certainly suffered less than other parts of the Commonwealth. The county was left poorer in the wake of the conflict: agricultural life was hampered by the lack of draft animals and the poor condition of long-neglected fields; and it was difficult for most former slave owners to come to terms, both emotionally and financially, with emancipation. The county's population also dropped considerably in the immediate postwar years. In 1860, Isle of Wight's residents numbered nearly 10,000; by 1870, the population had dropped by almost 20 percent, to 8,320. After the war, both black and white residents left Isle of Wight in large numbers, many seeking work in nearby cities. Physically, economically, socially, and politically, the landscape of the county had been irrevocably altered in a short period of time (King 1993:139, 146).

Agricultural changes in Isle of Wight County, including the remarkable growth of peanut and soybean production, spurred population growth in the county toward the end of the nineteenth century, and by 1890 the county's population had well exceeded its pre-war levels. In the early twentieth century, Isle of Wight farmers profited from an expanding truck-farming market, supplying the growing cities of Newport News and Norfolk with a variety of fresh fruits and vegetables. The meat packing industry also grew considerably during this period, introducing the famed "Smithfield ham" to a national market (King 1993).

## 3.11 WORLD WAR I TO WORLD WAR II (1917–1945)

This era also saw frequent and rapid change in Isle of Wight County. For example, electric power became available to the majority of rural residents after 1939, when the Community Electric Cooperative first began raising power lines. But, perhaps the most significant local development witnessed during this period was the construction of the James River Bridge, officially opened by President Calvin Coolidge on November 17, 1928. Virtually overnight, the bridge ended Isle of Wight's relative isolation from Hampton Roads' growing urban centers. County businessman and booster Albert Sidney Johnson was instrumental in getting the main north-south U.S. highway (Route 17) routed through Isle of Wight via the James River Bridge and across the new Crittenden and Nansemond River bridges to Portsmouth and Norfolk. Initially the bridge tolls were high enough to discourage daily commuting to the Peninsula, but ready access to the region's cities still proved a significant stimulus to the local economy, despite the onset of the Depression (King 1993:214 and 227-28).

## 3.12 THE NEW DOMINION (1946–PRESENT)

Isle of Wight grew at an unprecedented rate after the Second World War, and today the county has a total of 28,500 residents, more than double the population at the turn of the twentieth century. In 1975, the state took over the James River Bridge and removed the tolls; as a result, Isle of Wight County quickly developed into a bedroom community of Newport News, with residential developments springing up along the Route 17 corridor. Despite this increasing residential growth, the majority of Isle of Wight County remains predominantly rural in character (King 1993).

# 4.0 HISTORIC MAP REVIEW

Historic maps were reviewed as part of the background research conducted for the archaeological survey. Online map repositories, including the Library of Congress, the United States Geological Survey (USGS) Historical Topographic Map Explorer, the online David Rumsey Map Collection hosted by Cartography Associates, and state and county maps of Virginia compiled online at www.mapgeeks.org were examined to identify historic maps which depict the Project Area. The details and observations from this review are summarized in Tables 2 and 3.

### Table 2 Summary of Observations for Historic Maps

| Figure | Year | Observations, Property and Adjoining Sites |
|---|---|---|
| 3 | 1624 | John Smith's early map of Virginia depicts the general vicinity of the Project Area as being located within the territory of the Powhatan. While no detail is provided for the Project Area itself, it is shown as being in close proximity to the village of the Warraskerack. It is also between two tributaries of the James River that separate it from the villages of Mokete to the south and Mathomauk to the east. |
| 4 | 1755 | This map illustrates the general location of the Project but does not offer significant detail. The Project Area is located near the confluence of the Pagan River, noted as "Pagan Cr." and the James River. The wider region includes major waterways, roads, towns, and plantations, often located along the James River. |
| 5 | 1781 | This map illustrates the marches of Lord Cornwallis through the Project Area vicinity during the American Revolution. One marching route was located south of the Project Area; however, there are no details depicted for the Project Area itself. Major waterways, towns, and plantations are shown in the wider region. The Pagan River ("Pagan Cr.") is shown and the nearest town is Burwell. |
| 6 | 1827 | Major waterways, including nearby "Burrels Bay" and the Pagan River ("Pagan C."), and roadways are depicted on this map as well as Smithfield Courthouse to the south. No detail is provided for the Project Area. |
| 7 | 1864 | This map shows roads and waterways but offers little additional detail of the Project Area vicinity. Portions of the Project Area appear to have been lightly wooded, mainly along the edges. |
| 8 | 1891 | This map depicts major waterways and roadways as well as mills, churches, and farmsteads. Farmsteads often include landowner or resident names. While there is no detail provided for the Project Ara, Fort Boykin is depicted to the east and a battery is shown to the northwest.. |

### Table 3 Summary of Observations for USGS Topographic Maps

| Figure | Year/Quad | Scale | Observations, Property and Adjoining Sites |
|---|---|---|---|
| 9 | 1907<br>Yorktown, Virginia | 1:62,500 | This map depicts the Project Area vicinity as primarily rural with sparse occupation. Structures are shown both on major roads as well as along driveways or access roads, including near the northeastern portion of the Project. The Project Area is shown as primarily open land; however, woodland is depicted in the southwest corner. |
| 10 | 1948<br>Bacon's Castle, Virginia | 1:24,000 | This map continues to show the Project Area vicinity as predominately rural with sparse occupation. A dirt farm road which borders the Project to the north appears for the first time on this map. This road was not present on a prior map from 1943. The Project Area is shown as partially wooded in the southern half. |

HISTORIC MAP REVIEW

**Figure 3 Detail from *Virginia Discovered and Described* Depicting the Project Area Vicinity (Smith and Hole 1624; Library of Congress Geography and Maps Division).**

HISTORIC MAP REVIEW

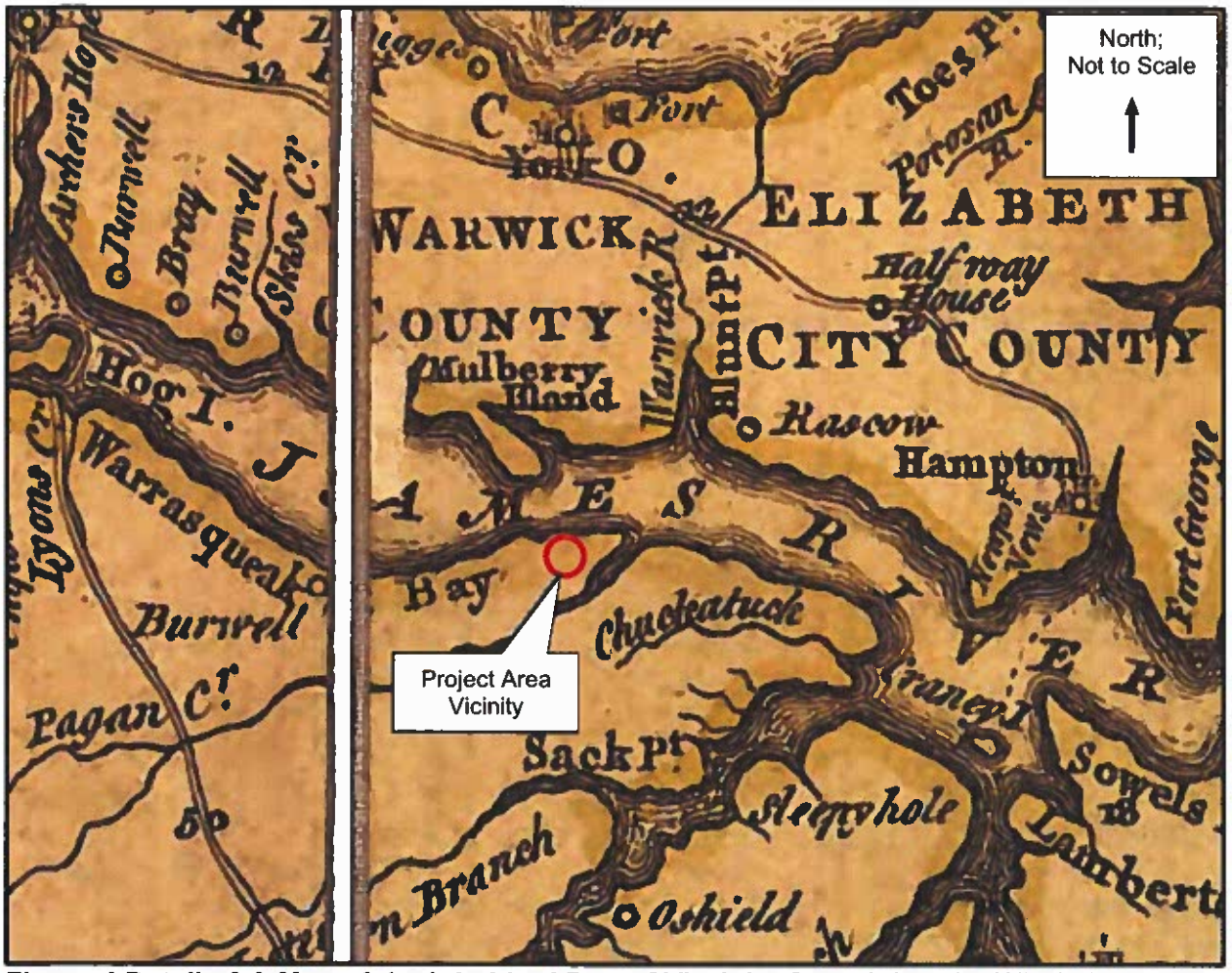



**Figure 4 Detail of *A Map of the Inhabited Part of Virginia, Containing the Whole Province of Maryland with Part of Pensilvania, New Jersey and North Carolina* Depicting the Project Area Vicinity (Fry et al. 1755; Library of Congress Geography and Map Division).**

HISTORIC MAP REVIEW

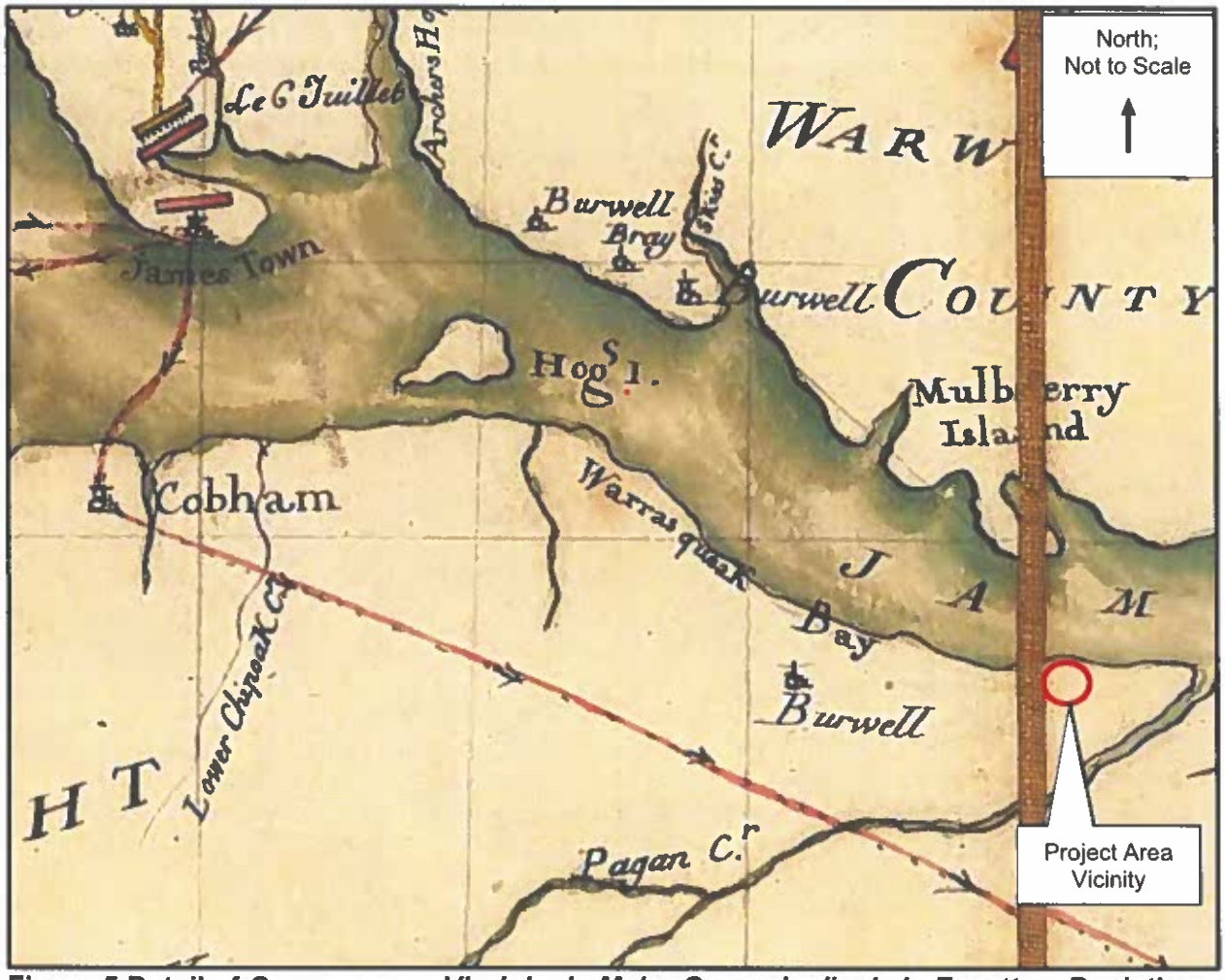



**Figure 5 Detail of *Campagne en Virginie du Major General m'is de LaFayette*... Depicting the Project Area Vicinity (Chesnoy and Lafayette 1781; Library of Congress Geography and Map Division).**

HISTORIC MAP REVIEW

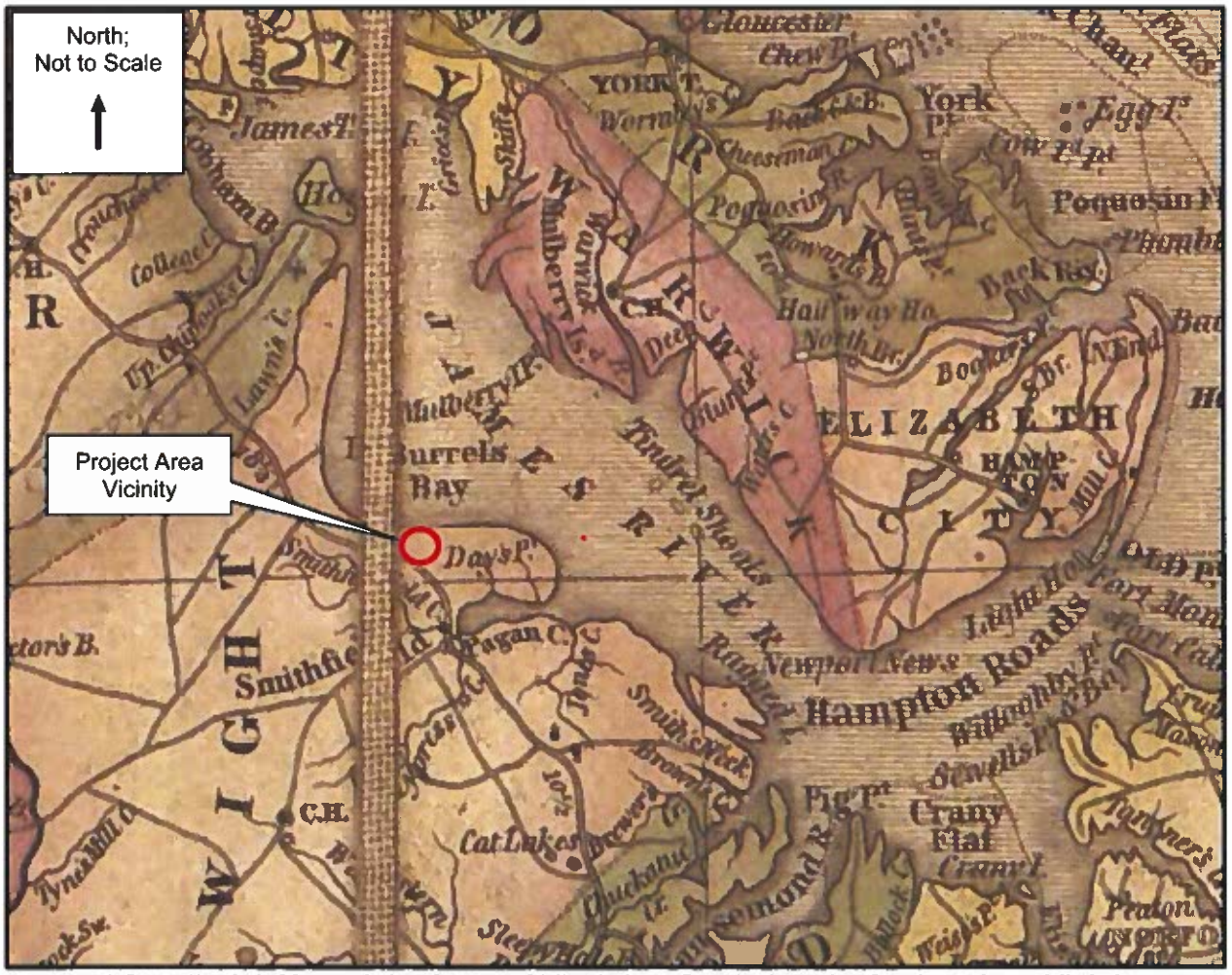



**Figure 6 Detail of *A Map of the State of Virginia…* Depicting the Project Area Vicinity (Böÿe 1827; Library of Congress Geography and Map Division).**

HISTORIC MAP REVIEW

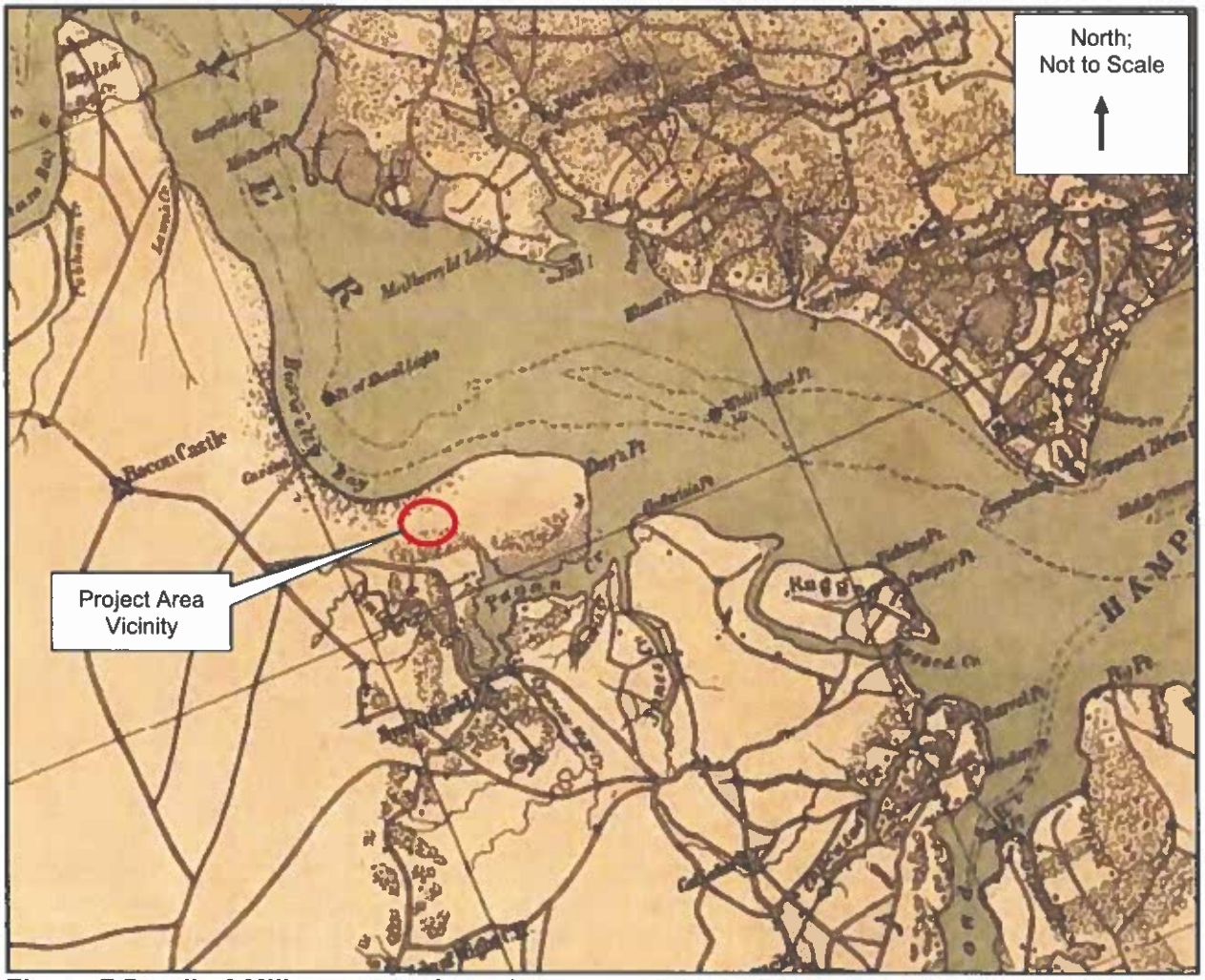



**Figure 7 Detail of *Military map of south-eastern Virginia*, Depicting the Project Area Vicinity (Lindenkohl 1864; Library of Congress Geography and Map Division).**

HISTORIC MAP REVIEW

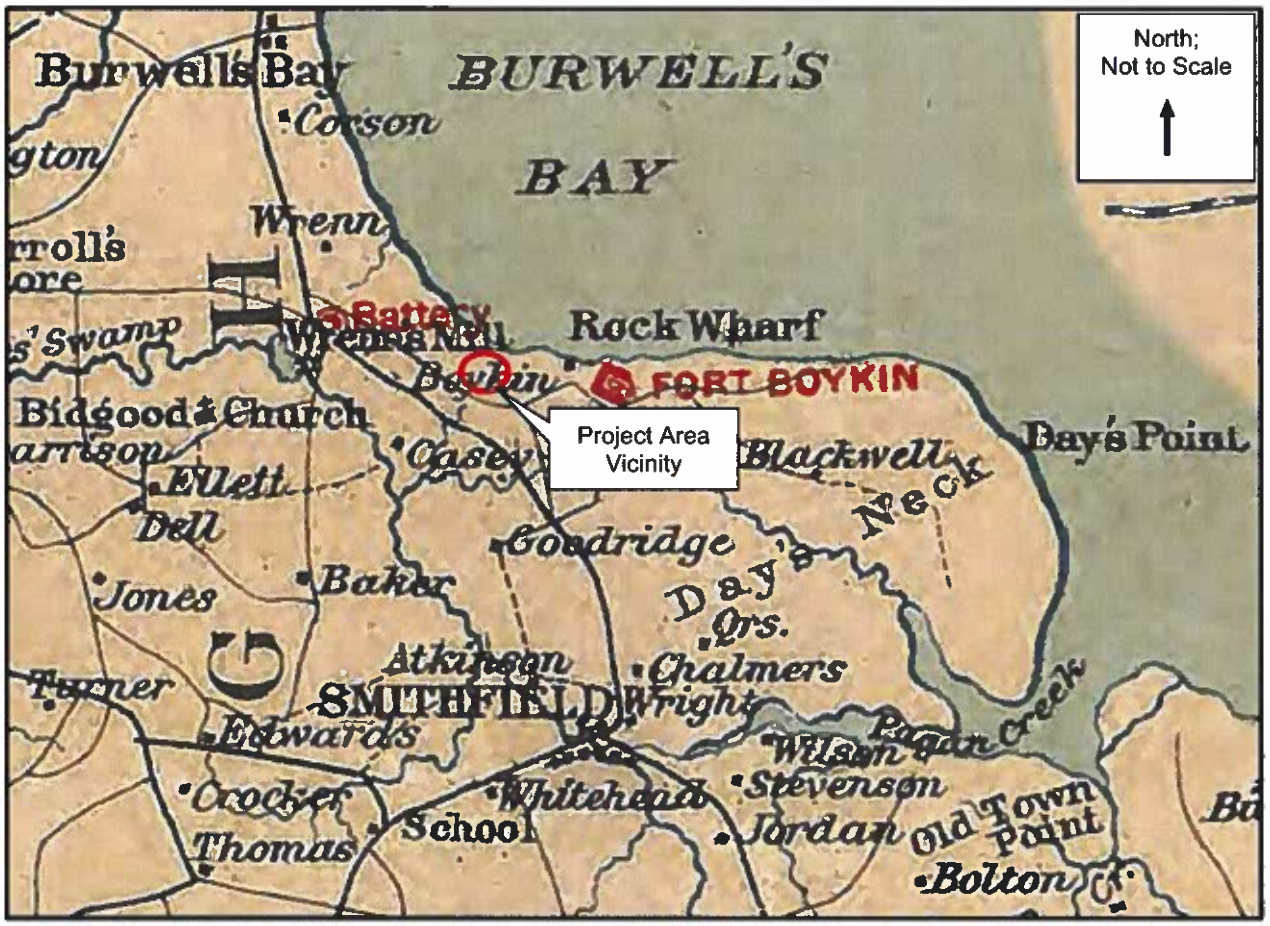



**Figure 8 Detail of *Preliminary map of a part of the south side of James River, Va.: from surveys and reconnaissances* Depicting the Project Area Vicinity (Campbell et al. 1891; Library of Congress Geography and Map Division).**

HISTORIC MAP REVIEW

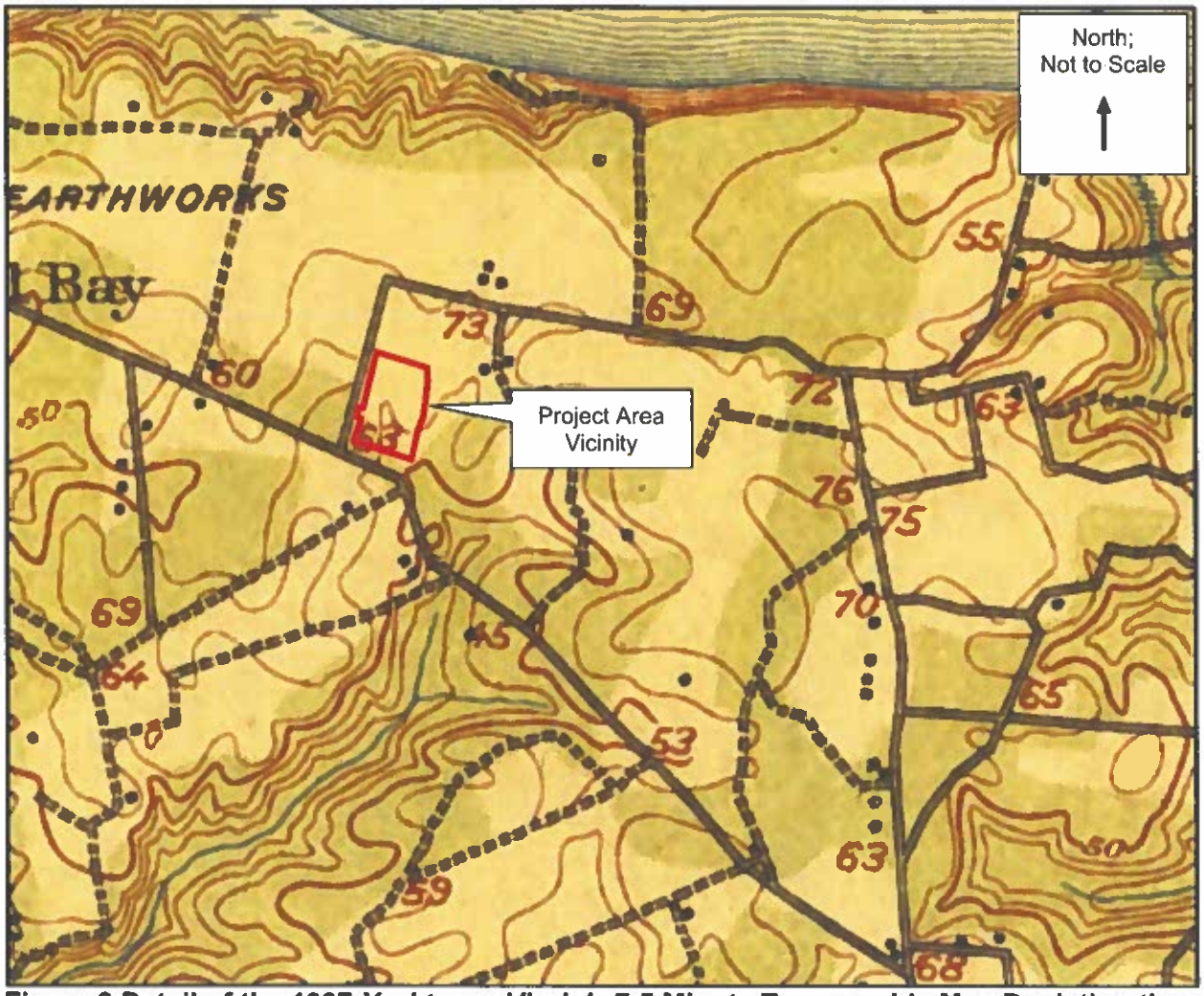



**Figure 9 Detail of the 1907 *Yorktown, Virginia* 7.5 Minute Topographic Map Depicting the Project Area (USGS 1907; http://historicalmaps.arcgis.com/usgs/, Accessed 2023).**

HISTORIC MAP REVIEW

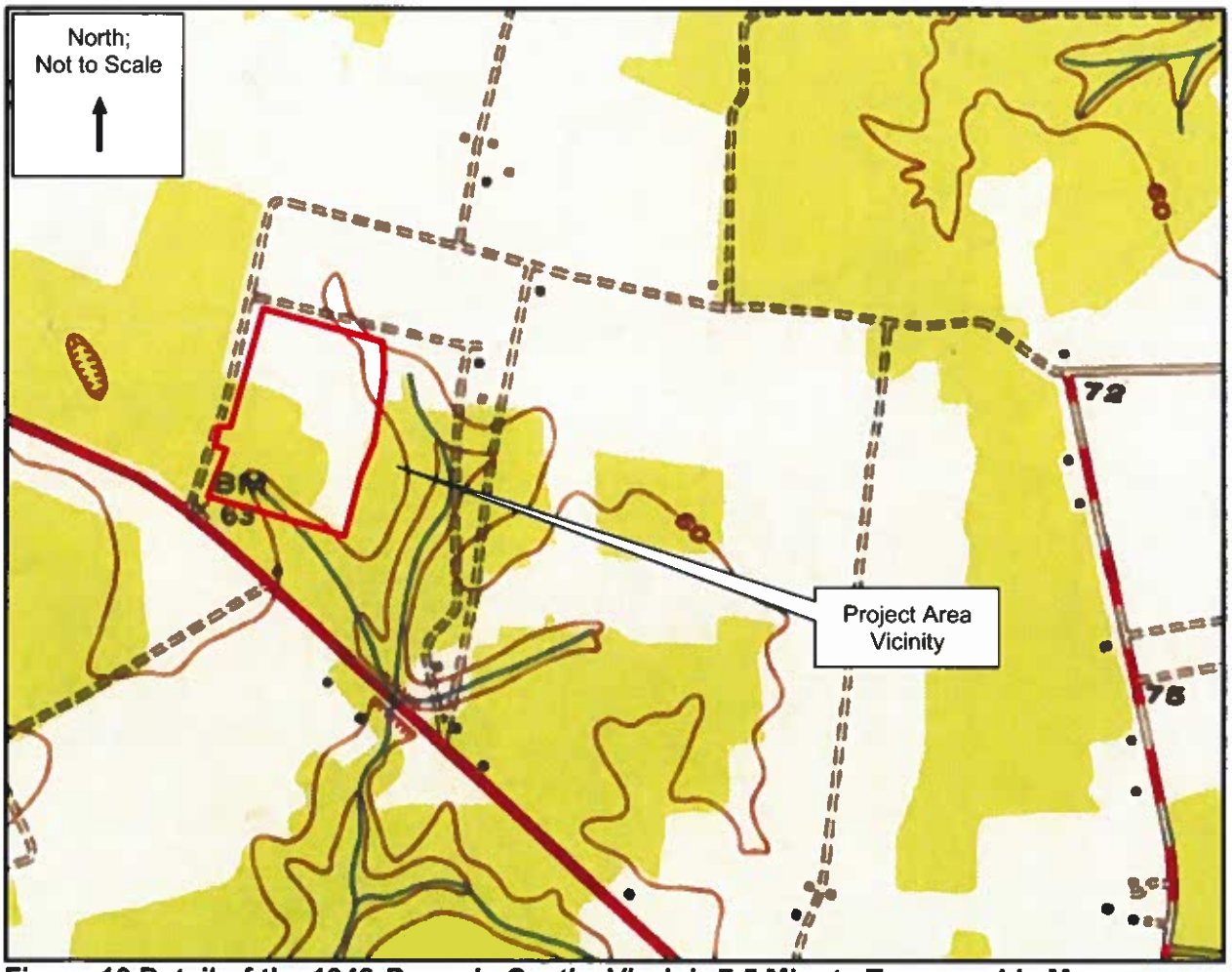



**Figure 10 Detail of the 1948 *Bacon's Castle, Virginia* 7.5 Minute Topographic Map Depicting the Project Area (USGS 1948; http://historicalmaps.arcgis.com/usgs/, accessed 2023).**

# 5.0 RESEARCH DESIGN

## 5.1 OBJECTIVES

The Phase I cultural resources survey was designed to locate and identify archaeological resources within the Project Area, as well as to document any standing structures 50 years of age or older located within the Project Area and within a 0.5-mile radius of the Project Area. Stantec designed the survey to obtain sufficient information to make recommendations about the research potential of identified cultural resources based on the resource's potential eligibility for listing on the NRHP. A cultural resource is gauged to be significant if it meets at least one of four NRHP criteria:

A. Associated with significant events in the broad patterns of national history.

B. Associated with the lives of persons significant in our past.

C. Representative of a type, period, or method of construction, or the work of a master.

D. Capable of yielding important information about the past.

Criterion D typically applies to archaeological sites. In order to be capable of yielding important information about the past, generally a site must possess artifacts, soil strata, structural remains, or other cultural features that make it possible to test historical hypotheses, corroborate and amplify currently available information, or reconstruct the sequence of the local archaeological record.

## 5.2 PREVIOUS INVESTIGATIONS

### 5.2.1 Previous Cultural Resources Surveys

No previously conducted cultural resource surveys have occurred within the Project Area.

### 5.2.2 Archaeological Sites

No previously recorded archaeological sites are located within the Project Area. Eleven previously recorded archaeological sites are located within a 1-mile radius of the Project Area (Table 4; Figure 11). Of these, three are Native American and eight are historic. None of the sites have been formally evaluated for potential NRHP eligibility.

**Table 4 Previously Identified Archaeological Sites within a 1-Mile Radius of the Project Area**

| Resource | Resource Type | Association | Reference | NRHP Status |
|---|---|---|---|---|
| 44IW0184 | Dwelling, single | 17th Century | JRIA 1999 | Not Evaluated |
| 44IW0356 | Earthworks | Civil War | ACC 2022 | Not Evaluated |

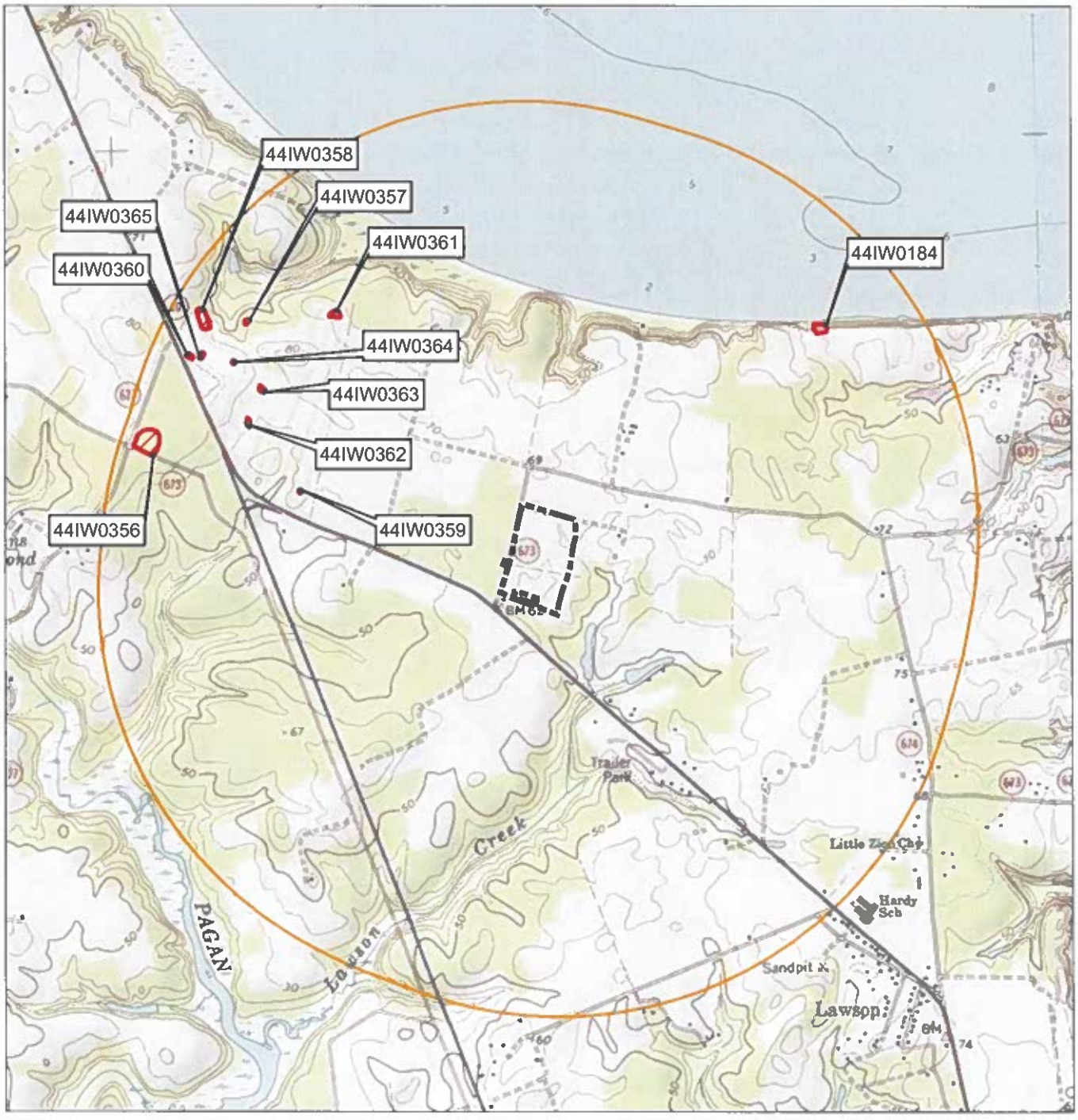
| Resource | Resource Type | Association | Reference | NRHP Status |
|---|---|---|---|---|
| 44IW0357 | Artifact Scatter | Mid-18th to Early 19th c. | ACC 2022 | Not Evaluated |
| 44IW0358 | Artifact Scatter | 20th Century | ACC 2022 | Not Evaluated |
| 44IW0359 | Artifact Scatter | Late 18th to Early 19th c. | ACC 2022 | Not Evaluated |
| 44IW0360 | Lithic Scatter | Pre-Contact | ACC 2022 | Not Evaluated |
| 44IW0361 | Artifact Scatter | Late 18th to Early 19th c. | ACC 2022 | Not Evaluated |
| 44IW0362 | Artifact Scatter | 18th Century | ACC 2022 | Not Evaluated |
| 44IW0363 | Artifact Scatter | 18th Century | ACC 2022 | Not Evaluated |
| 44IW0364 | Isolated Find | Pre-Contact | ACC 2022 | Not Evaluated |
| 44IW0365 | Isolated Find | Pre-Contact | ACC 2022 | Not Evaluated |

### 5.2.3 Architectural Resources

No previously identified architectural resources are located within the Project Area. Nine previously identified architectural resources are located within a 1-mile radius of the Project Area (Table 5; Figure 12). These resources include five houses ranging in date from circa 1775 to 1900, a cemetery, two farms, and the Captain John Smith Chesapeake National Historic Trail (DHR #500-0006). The latter resource has been determined to be eligible for NRHP listing, while the circa 1790 Bourne-Turner House (DHR #046-0031) has been determined to be potentially eligible for NRHP inclusion. Two resources have been determined to be not eligible for listing on the NRHP and the remaining five resources have not been evaluated for NRHP eligibility.

**Table 5 Previously Recorded Architectural Resources within a 1-Mile Radius of the Project Area**

| DHR # | Resource | Date | Reference | NRHP Recommendation |
|---|---|---|---|---|
| 046-0031 | Bourne-Turner House | c. 1790 | Stantec 2014; Loth 1969 | Potentially Eligible (DHR 2015) |
| 046-0043 | Casey House | c. 1806 | Unknown 1970 | Not Evaluated |
| 046-0045 | The Rocks | c. 1775 | Read 1971 | Not Evaluated |
| 046-5189 | Farmhouse, 7428 Clifton Lane | c. 1905 | Stantec 2014; Kimble 2005 | Not Eligible (DHR 2015) |
| 046-5205 | Rowland Edwards House | 1834 | Kimble 2005 | Not Evaluated |
| 046-5461 | Farm, 15138 Green Run Lane | c. 1900 | Stantec 2014 | Not Eligible (DHR 2015) |
| 046-5636 | Old Stage Highway Cemetery | c. 1798 | Gordon 2020 | Not Evaluated |
| 046-5708 | House, Green Run Lane | 1900 | ACC 2022 | Not Evaluated |
| 500-0006 | Captain John Smith Chesapeake National Historic Trail, Keystone Segment, Historic District | c. 1550 | D+A 2022; WMCAR 2015 | Eligible (NPS 2015) |



Project Area
1-Mile Buffer
Archaeological Site

0 1,000 2,000 Feet
(At original document size of 8.5x11)
1:24,000

N

Stantec

Project Location
Isle of Wight County, Virginia

Prepared by ECL on 2023-03-03
TR by JMH on 2023-03-29
IR by BSS on 2023-03-29

Client/Project
195602607
Dawood Engineering, Inc.
VAL025 Solar Project

Figure No
11

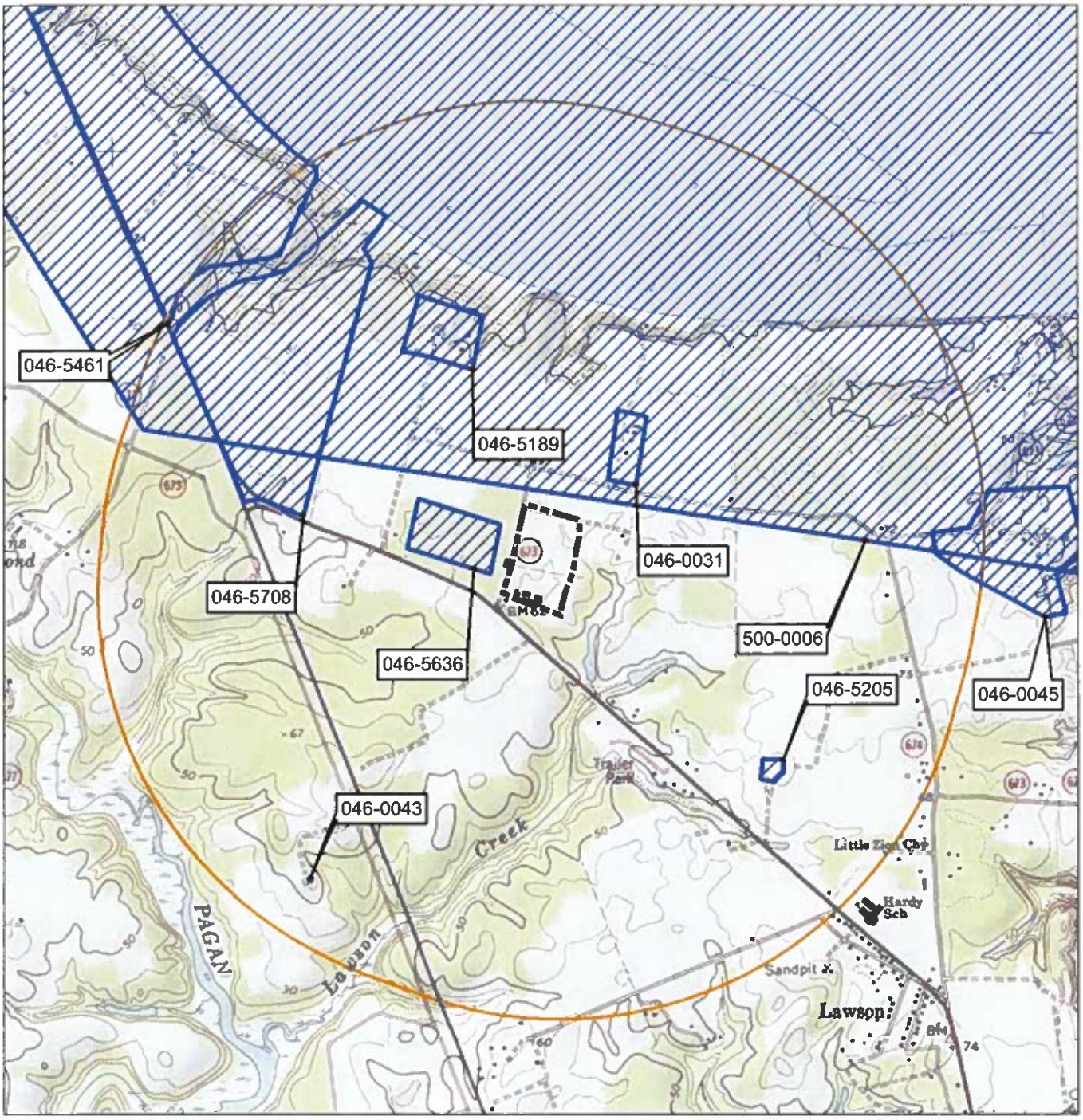
Title
**Previously Identified Archaeological Sites within a 1-Mile Radius of the Project Area**

Page 5.3

***Notes***
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dawood Engineering, Inc., U.S. Census Bureau, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Topographic map © USGS 7.5 Minute Series Topographic Map, Bacons Castle, VA Quadrangle 1992

C:\Users\ejiko\Desktop\ellens_projects\val025\195602607_c_ph_Lapex Revised: 2023-04-04 By: ejiko

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.




**Notes**
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dawood Engineering, Inc., U.S. Census Bureau, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Topographic map © USGS 7.5 Minute Series Topographic Map, Bacons Castle, VA Quadrangle 1992

Stantec

*Project Location*
Isle of Wight County, Virginia

Prepared by ECL on 2023-03-02
TR by JMH on 2023-03-29
IR by BSS on 2023-03-29

*Client/Project*
Dawood Engineering, Inc.
VAL025 Solar Project

195602607

*Figure No*
12

*Title*
**Previously Identified Architectural Resources within a 1-Mile Radius of the Project Area**



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# 6.0 SURVEY METHODOLOGY

## 6.1 ARCHAEOLOGICAL SURVEY

### 6.1.1 Shovel Testing

Stantec field archaeologists conducted systematic pedestrian survey across the entire Project Area in conjunction with systematic shovel testing. Shovel tests were excavated at 50-foot intervals along 17 transects (Transects A–Q) spaced 50 feet apart throughout the Project Area. Shovel testing was not conducted in areas exhibiting 15 percent or greater slope, that were wet or waterlogged, or exhibited obvious disturbances. Radial shovel tests were excavated at 25-foot intervals around each positive shovel test to determine the bounds of newly identified cultural resources.

All shovel tests measured approximately 1.25 feet (15 inches) in diameter and were excavated to sterile subsoil. Soil from all shovel tests was passed through 1/4-inch mesh screen. For each excavated shovel test, the stratigraphic profile was recorded with complete descriptions using Munsell color designators (Munsell Color 1994) and U. S. Department of Agriculture soil texture terminology (Soil Survey Staff 1999).

- A (Topsoil or surface vegetation) – Organic or humus layer consisting of grass, leaf litter, or other surface materials.
- Ap (Plow Zone) – A horizon soils that have been impacted by plowing and agricultural practice; usually an organic layer that has formed through decomposition of A horizon soils mixed with leftover organic matter from agricultural practices.
- E (eluviated) – Leached of clay, minerals, and organic matter, leaving a concentration of sand and silt particles of quartz or other resistant materials – missing in some soils but often found in older soils and forest soils. Often interpreted as a transition layer between A and B horizon soils; often present in intact archaeological site settings and is representative of a living surface.
- B (B Horizon [Subsoil]) – Rich in minerals that leached (moved down) from the A or E horizons and accumulated here. Typically denoted as the culturally sterile B Horizon (Subsoil) as deposits tend to predate human occupation.

All pertinent data including: the site location, the location of features, any permanent landmarks, the topography, the vegetation, any disturbed areas, and the location of surface survey and subsurface tests was digitally collected utilizing ESRI's Collector for ArcGIS installed on Apple iPads enabled with GPS location services and supplemented by a Trimble R1 GPS Receiver. Field survey notes were collected by Stantec's Project Archaeologists and Crew Chief documenting daily progress, conditions, and access issues.

## 6.1.2 Definitions

This field survey used two designations for archaeological resources: the *archaeological site* and the *isolated archaeological find*. An *archaeological site* is regarded as any apparent location of human activity not limited to simple loss, casual or single-episode discard, and having sufficient archaeological evidence to indicate that further testing would produce interpretable archaeological data. Three artifacts related temporally or functionally within a spatially restricted area constitute an archaeological site (DHR 2017: Chapter 6, page 1). In contrast, an *isolated archaeological find* is defined as an area marked by surface indications and little else; containing three or less artifacts of a similar period; and/or representing an area reflecting simple loss, casual, or single-episode discard, all of which retain a low potential for providing additional interpretable archaeological data. By definition, archaeological resources of this type are not eligible for listing in the NRHP because they lack the ability to provide significant information about the prehistoric or historic past.

## 6.1.3 Laboratory Methods

All archaeological data and specimens collected during the archaeological survey were transported to Stantec's laboratory in Richmond, Virginia, for processing and analysis. Prior to washing, artifacts from a given provenience were first emptied into a screened basket and sorted. Next, the provenience information from the field bags was confirmed with the bag catalog and transferred onto bag tags. Stable objects were washed with tap water using a soft brush, with careful attention paid to the edges of ceramics and glass to aid in the identification of body type and to assist in mending. Washed items were then placed by provenience on a drying rack.

Once dry, the artifacts were re-bagged by provenience and material type. Artifacts of a given provenience were placed in clean 2-millimeter-thick re-sealable polyethylene bags that were perforated to allow air exchange. Each grouped material type was placed in a separate plastic bag (i.e., all glass in one bag, all brick fragments in one bag, etc.) and each of these individual type bags were then placed in a larger bag with the bag tag noting the provenience.

After processing and re-bagging, the entire artifact assemblage was then cataloged for analysis. Stylistic attributes were described using current terminology and recorded by count into a database for analysis. Once all the artifacts were cataloged, the ceramics were then pulled from their bags and marked with correct provenience information. Diagnostic ceramics were sorted out and grouped together based on type or ware and/or vessel or function and checked for cross mends.

Analysis of historic artifacts was aided by reference works such as *The Parks Canada Glass Glossary* (Jones and Sullivan 1989), *Telling Time for Archaeologists* (Miller et al. 2000), the *Guide to Artifacts of Colonial America*, (Noel Hume 1969), and the *Colonial Williamsburg Foundation Laboratory Manual* (Pittman et al. 1987).

All materials generated by this project will be curated according to the standards outlined in 36 CFR Part 79 (*Curation of Federally-Owned and Administered Archaeological Collections*) and by DHR. All processed artifact bags were deposited in acid-free Hollinger boxes for permanent storage.

### 6.1.4 Expected Results – Archaeological Site Identification

Native American sites are generally found within 1,000 to 1,500 feet of a significant water source, on moderately well- to well-drained soils on low relief landforms. The Project Area is located across a gently rolling to relatively level landform. Three Native American archaeological sites have been previously identified within a 1-mile radius of the Project Area. One is a small lithic scatter and two are isolated finds. All three resources are of unknown temporal affiliation. The sites were identified west of the Project Area, on level landforms above the head of an unnamed small tributary of the James River. The lack of previously recorded Native American sites in the Project Area vicinity likely reflects the limited number of archaeological surveys that have occurred in the area rather than a lack of Native American activity. The Project Area is also situated near the head of a stream, though Lawson Creek is a tributary of the Pagan River, rather than the James River. There is a moderate probability for the Project Area to contain additional Native American resources.

The Project Area consists of a gently rolling harvested cotton field. As historic map review has shown the vicinity of the Project Area has largely reminded rural and undeveloped. While farmsteads were present in the surrounding area in the nineteenth and twentieth centuries, no maps have indicated that structures once stood in the Project Area. Much of the Project Area comprises relatively level, moderately well-drained land. Eight previously identified archaeological sites within 1 mile of the Project Area are historic. Those previously recorded historic sites with temporal affiliations date generally from the seventeenth to the twentieth century and include a single dwelling, Civil War earthworks, and artifact scatters. The seventeenth century single dwelling site (44IW0184) is located northeast of the Project Area, on the bank of the James River while the earthworks (44IW0356) are situated northwest of the Project Area at the intersection of Routes 677 and 673. Three of the five artifact scatters are situated along the southern edge of a small unnamed tributary of the James River while the remaining two are in a level inland setting between the same tributary and the head of an unnamed branch of the Pagan River. There is a low to moderate probability of identifying additional historic resources within the Project Area.

## 6.2 ARCHITECTURAL SURVEY

The Phase I field survey strategy consisted of systematic identification and recordation of historic architectural resources dating to 50 years or older located on the Project parcel or within a 0.5-mile radius of the Project Area. The documentation efforts consisted of resurveying and re-evaluating previously recorded resources for NRHP eligibility in order to update the DHR's V-CRIS database. Previously recorded resources were updated including revising sketch maps and photographing all visible resources present on the property. Newly recorded resources within the Project Area were also surveyed and the information recorded on a reconnaissance level survey form. Sketch plan maps were drawn for each resource and the buildings/structures photographed as visible. The Phase I architectural survey was

conducted from public right-of-way (ROW) only unless permission was specifically granted by the owner at the time of the field survey. In some cases, the resources were not visible from the public ROW, or the view was partially obscured due to vegetation and/or distance and therefore limited architectural survey was possible.

### 6.2.1 Definitions

Architectural resources include all standing structures or buildings that are 50 years or older. Potential eligibility of architectural resources requires that one or more of the National Register of Historic Places Criteria, such as association with significant events in the broad patterns of national history (Criterion A), association with the lives of persons significant in our past (Criterion B), and/or representative of a type, period, or method of construction, or the work of a master (Criterion C), be met. Where individual structures do not meet these National Register criteria, but constitute a cohesive group of related buildings, a potential NRHP district may be considered.

## 6.3 REPORT PREPARATION

The results of the archival research, fieldwork, and laboratory analysis were synthesized and summarized within this report. The report describes the results of each of these facets of the Phase I survey research and is illustrated by selected maps and drawings. Appendix A presents a descriptive catalog of all artifacts recovered from surface and excavated contexts. Appendix B presents architectural resource survey mapping. Appendix C presents architectural V-CRIS forms. Appendix D presents resumes for key personnel.

# 7.0 ARCHAEOLOGICAL SURVEY RESULTS

## 7.1 INTRODUCTION

The Project Area is located north of Old Stage Highway (Route 10) and northeast from the junction with Morgarts Beach Road (Route 628). The Project is bounded by Morgarts Beach Road to the west, Old Stage Highway to the south, and private dirt farm roads to the north and east. The Project Area comprises a gently rolling harvested cotton field. Light grass is present throughout much of the Project Area, which also exhibits large pockets of sand surface soils. Some of the sand appears to be redeposited fill utilized to level low areas in the field. A small area of standing water was present in the northwest corner of the Project Area (Figures 13–18).

**Figure 13 View from the Southwestern Corner of the Project Area; View to the Northeast.**

**Figure 14 View from Northwestern Corner of the Project Area; View to the South.**

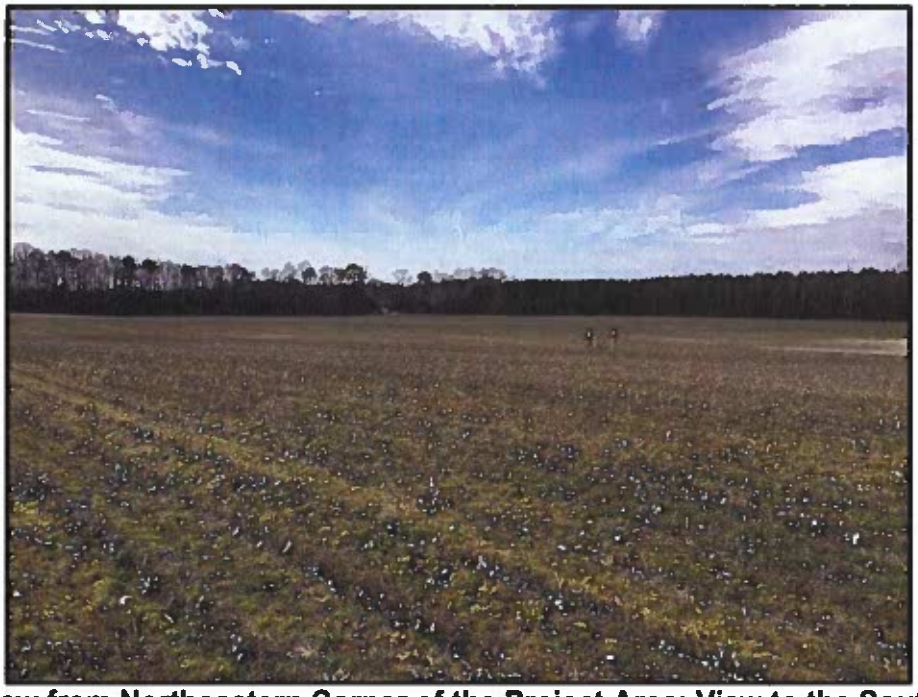


**Figure 15 View from Northeastern Corner of the Project Area; View to the Southwest.**

**Figure 16 View from Central Portion of the Project Area; View to the South.**

**Figure 17 View from Southeastern Corner of the Project Area; View to the North.**

**Figure 18 View of Sand Fill in Northern Portion of the Project Area; View to the South.**

*Figure No.*

**19**

*Title*

## Archaeological Base Map

*Client/Project* 195602607

Dawood Engineering, Inc.
VAL025 Solar Project

*Project Location*

Isle of Wight County, Virginia

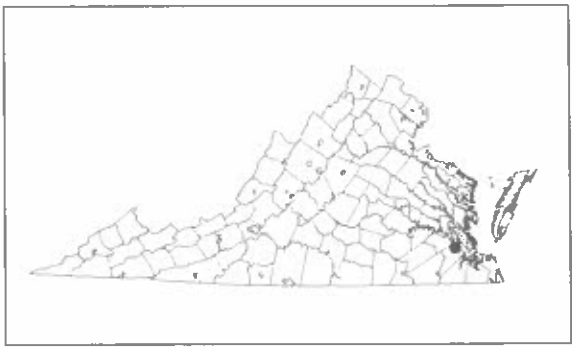
Prepared by ECL on 2023-03-02
TR by JMH on 2023-03-29
IR by BSS on 2023-03-29

N

0 200 400 Feet

(At original document size of 11x17)
1:2,400

- Primary Negative Shovel Test Pit
- Primary Positive Shovel Test Pit
- Radial Negative Shovel Test Pit
- Project Area
- 5-Foot Contour



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dawood Engineering, Inc.; Stantec; U.S. Census Bureau; VDOT
3. Orthoimagery © Virginia Geographic Information Network (VGIN)

Stantec



Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Responsibility for verifying the accuracy and completeness of the data

## 7.2 SHOVEL TESTING

A total of 403 shovel tests were excavated at 50-foot intervals along 17 transects (Transects A–Q) spaced 50 feet apart throughout the Project Area. One shovel test (shovel test pit [STP] A22) was not excavated due to its location within standing water. One shovel test was positive for cultural material. Three radial shovel tests were excavated at 25-foot intervals around the positive test to determine the bounds of the newly identified cultural resource. No radial shovel tests positive for additional cultural material. In addition to the positive shovel test, early twentieth-century artifacts, including small brick fragments, whiteware sherds, and bottle glass were observed within pockets of white sand fill in the northeastern portion of the Project Area. This redeposited soil (see Figure 18) appears to have been utilized to fill low spots in the field and the artifacts contained therein lacked provenience. This material was not collected. Shovel testing resulting in the identification of one new isolated archaeological find (2607-IF1) (see Figure 19).

A representative shovel test profile for the majority of the Project Area consisted of three strata (STP J12). Stratum I was characterized as a layer of 10YR4/2 dark grayish-brown sandy loam (Ap Horizon), which extended in depth from approximately 0 to 0.6 foot below ground surface. Stratum I was underlain by Stratum II, a layer of 10YR5/3 brown sand (Buried Ap Horizon) extending from approximately 0.6 to 1 foot below ground surface. Underlying Stratum II was Stratum III, a layer of 10YR5/4 yellowish-brown sandy clay (Subsoil). Stratum III was excavated from approximately 1 to 1.4 feet below ground surface (Table 6).

**Table 6 STP J12 Soil Profile**

| Stratum | Depth (ft.) | Color | Soil Type/Texture | Interpretation |
|---|---|---|---|---|
| I | 0–0.6 | 10YR4/2 Dark Grayish Brown | Sandy Loam | Ap Horizon |
| II | 0.6–1 | 10YR5/3 Brown | Sand | Buried Ap Horizon |
| III | 1–1.4 | 10YR5/4 Yellowish Brown | Sandy Clay | Subsoil |

## 7.3 ARCHAEOLOGICAL RESULTS

One new Isolated Archaeological Find (2607-IF1) was identified during the Phase I survey. Isolated Archaeological Find 2607-IF1 was identified along the eastern edge of the Project Area. The 1944 *Yorktown, Virginia* USGS topographic map depicts structures to the east of this location (see Figure 9).

### 7.3.1 Isolated Archaeological Finds

Identified in STP Q12 in the eastern portion of the Project Area, Isolated Archaeological Find 2607-IF1 consisted of one whiteware body sherd (1820-) (Appendix A). STP Q12 contained of three strata in profile. Stratum I was characterized as a layer of 10YR4/2 dark grayish-brown sandy loam (Ap Horizon), which extended in depth from approximately 0 to 0.6 foot below ground surface. Stratum I was underlain by Stratum II, a layer of 10YR5/3 brown sand (Buried Ap Horizon) extending from approximately 0.6 to 1 foot below ground surface. Underlying Stratum II was Stratum III, a layer of 10YR5/4 yellowish-brown

sandy clay (Subsoil), which extended in depth from approximately 1 to 1.4 feet below ground surface (Table 7).

### Table 7 STP Q12 Soil Profile

| Stratum | Depth (ft.) | Color | Soil Type/Texture | Interpretation |
|---|---|---|---|---|
| I | 0–0.6 | 10YR5/2 Dark Grayish Brown | Sandy Loam | Ap Horizon |
| II | 0.6–1 | 10YR5/3 Brown | Sand | Buried Ap Horizon |
| III | 1–1.4 | 10YR5/4 Yellowish Brown | Sandy Clay | Subsoil |

Three radial shovel tests were excavated at 25-foot intervals around STP Q12. One radial shovel test was not excavated as it fell outside of the Project Area boundary. No radial shovel tests were positive for additional cultural material. ***By definition, Isolated Archaeological Find 2607-IF1 is not eligible for listing to the NRHP.***

# 8.0 ARCHITECTURE SURVEY RESULTS

The Phase I architectural survey was conducted by Stantec from March 8, 2023. The documentation of these historic resources was conducted pursuant to the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* [United States Department of the Interior {USDI} 1983]) and state (*Guidelines for Conducting Historic Resources Investigations in Virginia* [DHR 2011, revised 2017]) guidelines.

## 8.1 PHASE I ARCHITECTURAL SURVEY

Six newly recorded and four previously recorded individual resources were located within the architectural Study Area. One of the previously recorded resources has been determined eligible and one potentially eligible for listing in the NRHP. The NRHP-eligible resource was not resurveyed as part of the current project. One resource was determined not eligible prior to the current survey but was surveyed more than five years ago and therefore was resurveyed. One resource had not been evaluated for eligibility by DHR (Table 8). Resources which had been determined NRHP eligible as well as one previously unevaluated, but not visible resource were evaluated for visual effects in Section 8.2 below. The surveyed resources consisted of farms and single dwellings with associated outbuildings as well as one late eighteenth to mid-nineteenth century cemetery.

**Table 8 Previously Recorded Architectural Resources within the Survey Area**

| DHR # | Resource Name | Date | NRHP Status/ DHR Recommendation Prior to Survey |
|---|---|---|---|
| 046-0031 | Bourne-Turner House, 16303 Morgarts Beach Road | c. 1790 | Determined Potentially Eligible in 2015 under Criterion C |
| 046-5189 | Farmhouse, 7428 Clifton Lane | c. 1905 | Determined Not Eligible |
| 046-5636 | Old Stage Highway Cemetery, Old Stage Highway | c. 1798 | Not Evaluated |
| 500-0006 | Captain John Smith National Historic Trail, Keystone Segment, Historic District | c. 1550 | Federal Determination of Eligibility |

**Table 9 Newly Recorded Architectural Resources within the Architectural Survey Area**

| DHR # | Resource Name | Date |
|---|---|---|
| 046-5715 | House, 8736 Old Stage Highway | 1950 |
| 046-5716 | House, 8837 Old Stage Highway | 1958 |
| 046-5717 | House, 8821 Old Stage Highway | 1970 |
| 046-5718 | House, 8785 Old Stage Highway | 1956 |
| 046-5719 | House, 8731 Old Stage Highway | 1950 |
| 046-5720 | House, 8699 Old Stage Highway | 1930 |

The architectural style classifications used to categorize the resources surveyed conform to those accepted by the NRHP and in *A Field Guide to American Houses* (McAlester and McAlester 1998). The domestic resources surveyed were mainly vernacular dwellings and Craftsman Bungalow, Minimal Traditional, and Ranch styles.

## 8.1.1 Dwelling Types

### 8.1.1.1 Vernacular

Dwellings historically have been classified as Vernacular when the design of the building does not fit into any particular style category. The oldest, and one of the most architecturally intact dwellings documented during the current survey, is the late nineteenth century Bourne-Turner House (DHR #046-0031). The house is one-and-a-half-stories supported by a brick foundation laid in a three-course American bond pattern although some repairs appear to have been made which have interrupted the coursing. The exterior is sheathed in beaded weatherboard and the roof clad in asphalt shingles with the front slope clad in scalloped wood shingles. Two parged exterior end, presumable brick, chimneys with corbeled caps are located off the western gable end. A shed-roofed closet is located between the two chimneys and a small, brick wing with wood board door and gable roof provides access into the basement. Extending across the rear of the dwelling is a one-story, shed-roofed ell which appears originally to have been supported by brick piers. The dwelling also features a gable-roofed entry porch supported by square wood posts, and a one-story wing off the eastern end of the dwelling. Fenestration comprises three-over-three wood sash windows in the basement, six-over-nine wood sashes flanked by louvered wood shutters on the first floor, and six-over-six wood sashes in the narrow shed-roofed dormers (Figure 20).

**Figure 20 Bourne-Turner House (DHR #046-0031), 16303 Morgarts Beach Road, View Looking Northeast.**

### 8.1.1.2 Craftsman-Style Bungalows

The Craftsman-style, developed in California, is inspired by the designs stemming from the English Arts and Crafts movement of the early twentieth century. The intention of the style is to be in harmony with the natural environment. The characteristics of the style include one-and-a-half stories, horizontal lines, wide projecting eaves with brackets, exposed rafter ends, and tapered square columns on brick, or sometimes stone, bases. Front gable or shed-roofed dormers located on the front roof slope are also characteristic of this style. One of the most well-known architects designing is this style was the team of Charles Sumner Greene and his brother, Henry Mather Greene. The earliest of their designs, constructed c. 1903, is located in Pasadena, California. The style spread from west to east by the popular magazines of the time period including *House Beautiful*, among others. The small scale of the houses, as well as their availability, often through mail order, and affordability for the growing middle class made this style of architecture popular during the early twentieth century (Pennsylvania Historical and Museum Commission 2015). The type was also ideal as a style of architecture that could be sited on the narrow lots of the rapidly expanding planned suburban areas of the time period.

The single example of a Craftsman-style bungalow (DHR #046-5720) within the architecture Study Area was located at 8699 Old Stage Highway. The bungalow is architecturally intact but appears to have been abandoned. The one-and-a-half-story, three-bay dwelling is frame construction and is supported by a brick foundation. Projecting from the front roof slope of the side gable roof are two gable-roofed dormers and visible above the ridge line of the roof is a brick flue with corbelled cap. The exterior walls are clad in

weatherboards and a one-story, hipped-roof, once screened-in porch extends across the façade. The northwestern end of the porch has been incorporated into the narrow, hipped-roof wing off the dwelling's northwest gable end. Additional features include six-over-one wood sash windows and bracketed eaves (Figure 21).

**Figure 21 Craftsman-Style Bungalow (DHR #046-5720), 8699 Old Stage Highway, View Looking North.**

### 8.1.1.3 Minimal Traditional

Minimal Traditional dwellings, popular between c. 1935 and 1950, were a response to the Depression era. The houses were simplified from the early Craftsman style bungalows and mid-twentieth century Tudor Revival style. The dwellings featured no or extremely limited ornamentation. Other characteristics included narrow eaves. Less steep roof lines, as compared to the Tudor Revival style, were also common (McAlester and McAlester 1993:478).

The single example of a Minimal Traditional dwelling within the architecture Study Area was located at 8731 Old Stage Highway (DHR #046-5719). The dwelling, constructed in 1950, incorporates typical characteristics of the style including limited ornamentation and essentially no eaves. The cross-gable form of the dwelling is also common to this mid-twentieth century style. The dwelling has been altered with the replacement of its original siding and windows with vinyl. Additional features include a brick foundation, one-story, shed-roofed and hipped-roof wing, exterior end brick chimney, and shed-roofed hood over the front entry (Figure 22).

**Figure 22 Minimal Traditional Dwelling (DHR #046-5719), 8731 Old Stage Highway, View Looking East.**

### 8.1.1.4 Ranch-Style

The Ranch-style, the popularity of which is evident in the many planned developments of the 1950s and 1960s, originated in 1930s California. The style became dominant in the 1940s with the increased dependence on the automobile. Prior to the 1940s, many urban and suburban dwellers resided in compact houses on small lots and walked to the streetcar lines. The increasing popularity of the automobile allowed people to move further out from the city and indulge in more expansive lots. The Ranch house's design allowed a lateral expansion of dwellings, emphasizing the façade, and could fit on larger residential lots with more open space between houses (McAlester and McAlester 1993:479). Two examples were documented and are detailed below.

The first example is a one-story, L-shaped dwelling with rusticated brick exterior walls and a cross-gable roof clad in asphalt shingles. A one-story, shed-roofed porch with ornate cast metal supports extends along the western and southern elevations. The dwelling also features an exterior end rusticated brick chimney, Chicago-style window, triple single-light entry doors, and one-over-one wood sash windows (Figure 23).

The second example, which is partially obscured by trees, is a one-story, frame dwelling with one-story, gable-roofed wing. The exterior is clad in vinyl with a section of the facade in brick veneer. The cross - gable roof is sheathed in asphalt shingles and a large brick chimney projects through the front roof slope. Other visible features include a two-over-two horizontally divided wood sash window and a Chicago-style window (Figure 24).

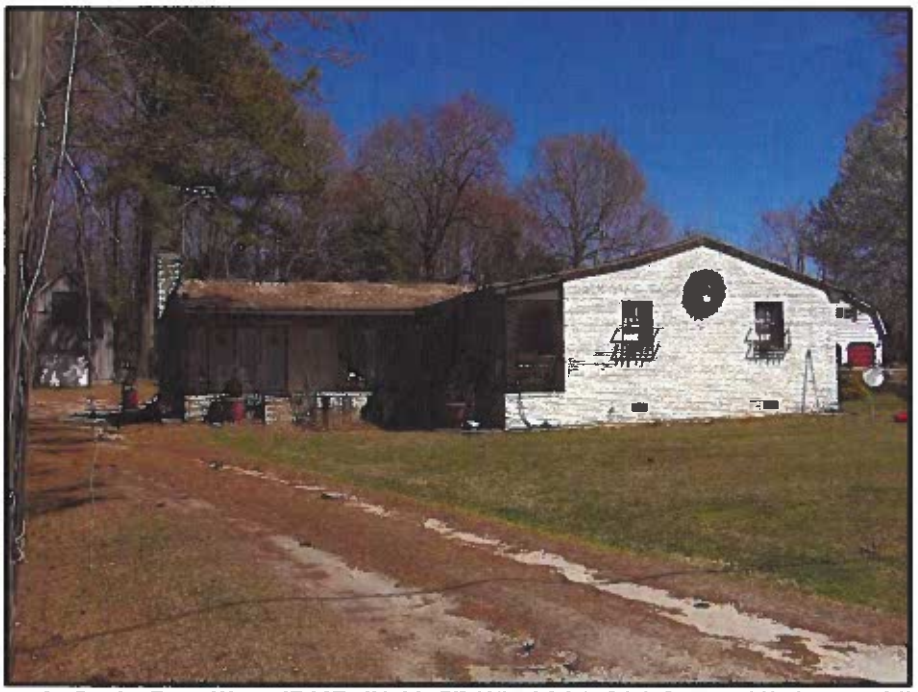


**Figure 23 Ranch-Style Dwelling (DHR #046-5717), 8821 Old Stage Highway, View Looking East.**

**Figure 24 Ranch-Style Dwelling (DHR #046-5718), 8785 Old Stage Highway, View Looking East.**

## 8.2 VISUAL EFFECTS EVALUATION

An effects evaluation, in addition to the Phase I architectural survey, was conducted for NRHP-listed, eligible, and potentially eligible properties which may be affected by the proposed Project. Three resources were assessed for effects and included the potentially eligible Bourne-Turner House (DHR #046-0031) and a portion of the NRHP-eligible Keystone Segment Historic District of the Captain John Smith National Historic Trail (DHR #500-0006). One resource, the Old Stage Cemetery (DHR #046-5636), had not been evaluated for NRHP eligibility prior to the survey but was not visible from the public ROW. Therefore, for the purposes of environmental review, the resource is being considered eligible for listing.

### 8.2.1 Bourne-Turner House (DHR #046-0031)

The c. 1790 Bourne-Turner House, which has been described in Section 8.1.1.1 (see Figure 21), has been determined potentially eligible for listing in the NRHP under Criterion C for its architectural merit. The property also contains a number of secondary resources associated with agriculture, which include several livestock barns and a c. 1790 smokehouse (DHR Site Files).

The dwelling and secondary resources on the property are located back from the road within an open, relatively level landscape (Appendix B; Figure 25). At its closest point, the proposed Project is approximately 620 feet from the southwestern corner of the property. While several large trees are located in the vicinity of the house, the main direction looking towards the proposed Project is relatively unobstructed and will have a direct view of the solar panels on the parcel (Figure 26). Based on the fieldwork, it is anticipated that the proposed Project will have an **Adverse Effect** on the NRHP potentially eligible Bourne-Turner House (DHR #046-0031).

**Figure 25 View of the Bourne-Turner House Property (DHR #046-0031), 16303 Morgarts Beach Road, View Looking Northeast.**

**Figure 26 View from the Bourne-Turner House (DHR #046-0031), Looking Southwest towards Solar Parcel from Viewpoint (VP) 3.**

### 8.2.2 The Captain John Smith Chesapeake National Historic Trail, Keystone Segment, Historic District (DHR #500-0006)

The Captain John Smith Chesapeake National Historic Trail (Trail) encompasses over 3,000 miles of waterway associated with the voyages of John Smith as well as early explorations of the Chesapeake Bay region. The resource was designated by Congress in 2006 through an amendment to Section 5(a) of the National Trails System Act (16 U.S.C. 1244(a)) and is the first nationally designated water trail under the Act. The Trail route extends throughout the Chesapeake Bay and includes tributaries explored by Smith. The Trail was further extended into four additional rivers considered as historic components of the Trail by the Secretary of the Interior in May 2012 (DHR Site Files). Per the National Park Service (NPS) documentation for the Trail: "The purpose of the Captain John Smith Chesapeake National Historic Trail is to commemorate the exploratory voyages of Captain Smith on the Chesapeake Bay and its tributaries in 1607-1609; to share knowledge about the American Indian societies and cultures of the seventeenth century; and to interpret the natural history of the Bay (both historic and contemporary)."

The entirety of the Trail within the Commonwealth of Virginia has not been evaluated for listing on the NRHP. However, in the vicinity of the current Project Area, a portion of the trail has been defined as the Captain John Smith Chesapeake National Historic Trail, Keystone Segment, Historic District comprising 148,426 acres along the shore and including the James River. The historic district extends south from the Jamestown-Scotland Wharf Ferry to the Pagan River and Burwell's Bay for a distance of approximately 13 miles. The land-based portion of the historic district encompasses an area measuring 0.5-mile in width from the east and west shorelines of the James River. The Keystone Segment historic district received a federal determination of eligibility, issued by the Keeper of the National Register under Criterion A for its significance in Exploration and Settlement as well as Ethnic Heritage, under Criterion B for its association with John Smith, under Criterion C for its architectural merit, and under Criterion D for its archaeological potential (DHR Site Files). Overall, the portion of the Trail associated with the eligible historic district and in proximity to the current Project remains mainly rural with intact cultural landscapes reflective of the indigenous and English settlement patterns in the region. According to the district nomination and site files, the historic district retains integrity of setting, association, feeling, and location.

A review of the Trail comprehensive plan indicates that there are no identified evocative landscapes or associated archaeological sites/places contributing to the district's eligibility in the vicinity of the Project or within the portion of the historic district that is within view of the proposed solar project. A high level marsh is noted on the Trail maps to the south of the Project area, but outside the boundaries of the defined Keystone Segment historic district, however, would not be considered when assessing the potential visual effects of the proposed Project to the historic district.

Only a small portion of the Keystone Segment Historic district, approximately 258 acres, is located within the architectural Study Area for the proposed Project. This portion comprises a relatively level, open landscape with agricultural fields and an area of woodlands between the fields and the James River which varies from approximately 252 feet to approximately 1,167 feet in depth (Appendix B). At its closest point, as mapped in VCRIS, the land-based portion of the Keystone Segment historic district is approximately 211 feet to the northwest of the proposed Project and will have a direct view of the solar

panels on the parcel (Figures 27 and 28). Due to the density of trees and vegetation paralleling the James River, it appears unlikely that the proposed Project would be visible from the portion of the historic district coterminous with the James River channel. Based on the fieldwork, it is anticipated that the proposed Project will have an **Adverse Effect** on the portion of the NRHP-eligible Captain John Smith Chesapeake National Historic Trail, Keystone Segment, Historic District (DHR #500-0006) located within the current architectural Study Area. The installation of the solar panels would significantly detract from the historic district's integrity of setting and feeling, two critical elements contributing to the overall significance of the Keystone Segment Historic District.

**Figure 27 View from the Captain John Smith Chesapeake National Historic Trail, Keystone Segment, Historic District (DHR #500-0006), Looking Southeast from VP 1.**

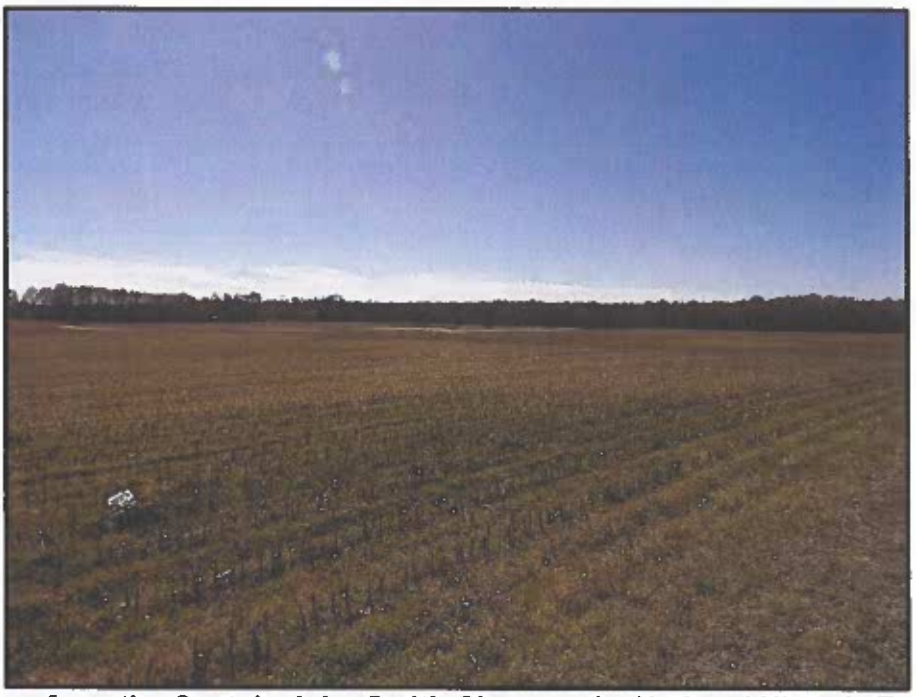


**Figure 28 View from the Captain John Smith Chesapeake National Historic Trail, Keystone Segment, Historic District (DHR #500-0006), Looking Southwest from VP 2.**

### 8.2.3 Old Stage Highway Cemetery (DHR #046-5636)

The Old Stage Highway Cemetery (DHR #046-5636) dates to around 1798. When the resource was first surveyed in 2000, the cemetery contained 15 visible graves with 13 of the 15 graves within a fence, which, according to the previous survey, utilized musket barrels as vertical slates with a wrought iron top and bottom rail. The fence has suffered from vandalism and the cemetery overall has suffered damage from various hurricanes. The cemetery was noted as containing African American graves, mainly with the surname of Wilson and range in date from 1796 to 1873 (DHR Site Files). The cemetery, although currently unevaluated by DHR, was not visible from the public ROW and numerous "No Trespassing" signs were present. It is therefore being considered eligible for the purposes of environmental review for the current proposed Project.

The cemetery is located within a dense area of trees and as currently mapped in VCRIS, is approximately 280 feet west of the proposed Project. All but the road surface between the resource and proposed Project parcel comprises dense tree cover (Figure 29; Appendix B). Based on the fieldwork, it is anticipated that the proposed Project will have **No Effect** on the Old Stage Highway Cemetery (DHR #046-5636).

**Figure 29 Detail of VCRIS Database Map Depicting the Location of the Old Stage Highway Cemetery in Relation to the Proposed Solar Site Project (https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/#GoToMap).**

# 9.0 CONCLUSIONS AND RECOMMENDATIONS

From February 13 to March 8, 2023, Stantec conducted a cultural resources survey of approximately 20 acres associated with the proposed 3 MW VAL-025 Solar Project (Project) in Isle of Wight County, Virginia. The Project is located north of Old Stage Highway (Route 10) and northeast from the junction with Morgarts Beach Road (Route 628). The Project is bounded by Morgarts Beach Road to the west, Old Stage Highway to the south, and private dirt farm roads to the north and east. The Project Area comprises a gently rolling recently harvested cotton field.

The Phase I cultural resources survey was designed to locate and identify cultural resources within the Project Area, defined as the entire approximately 20-acre Project parcel, and to obtain sufficient information to make recommendations regarding their potential eligibility for listing to the NRHP.

## 9.1 ARCHAEOLOGICAL SURVEY RESULTS

During the archaeological survey, Stantec conducted pedestrian survey of the entire Project Area concurrently with systematic subsurface testing. A total of 403 shovel tests were excavated at 50-foot intervals along 17 transects (Transects A–Q) spaced 50 feet apart throughout the Project Area. One shovel test was not excavated due to its location in standing water. One shovel test was positive for cultural material. Three radial shovel tests were excavated at 25-foot intervals around the positive test to determine the bounds of this newly recorded cultural resource. No radial shovel tests positive for additional cultural material. In addition to the positive shovel test, early twentieth-century artifacts, including small brick fragments, whiteware sherds, and bottle glass were observed within pockets of white sand fill in the northeastern portion of the Project Area. This redeposited soil appears to have been utilized to fill low spots in the field and the artifacts contained therein lacked provenience. This material was not collected. One new isolated archaeological site find (2607-IF1) was identified during this investigation (Table 10). ***By definition, Isolated Archaeological Find 2607-IF1 is not eligible for listing to the NRHP. No further archaeological investigation is recommended for the proposed Project Area.***

**Table 10 Recommendations for Archaeological Resources within the Project Area**

| Resource | Resource Type | Association | Stantec Recommendation |
|---|---|---|---|
| 2607-IF1 | Whiteware body sherd | 1820- | Not Eligible; No Further Work |

## 9.2 ARCHITECTURAL SURVEY RESULTS

A total of 10 individual resources were located within the architectural Study Area, defined as the Project Area and a 0.5-mile radius around the Project Area, and included four previously recorded and six newly recorded resources. The Captain John Smith National Historic Trail, Keystone Segment, Historic District

(DHR #500-0006) had a Federal Determination of Eligibility prior to the survey and was therefore not resurveyed. One resource was determined potentially eligible for listing and one resource was determined not eligible prior to the survey but was surveyed more than five years ago and therefore was redocumented during the current investigation. One resource had not been evaluated for eligibility by the DHR. Resources which had been determined NRHP eligible as well as one previously unevaluated, but not visible resource, were evaluated for visual effects.

The Bourne-Turner House (DHR #046-0031) had been determined as potentially eligible for listing in the NRHP by DHR in 2015. Based on the current survey, it is recommended that the resource maintain its NRHP eligibility status as the house and secondary resources retain integrity and appear to have not been significantly altered since the previous survey.

One resource, the Old State Highway Cemetery (DHR #046-5636) was not visible from the public ROW and was therefore not able to be resurveyed. Based on the circumstances, the resource was considered eligible for the purposes of environmental review.

The remaining seven resources surveyed during the current project are generally reflective of the late nineteenth to mid-twentieth century development of Isle of Wight County and lack direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing in the NRHP. As such, it is recommended that the resources are not individually eligible for listing on the NRHP (Table 11). Criterion D, typically associated with archaeological sites, was not considered in evaluating the architectural resources documented during the survey.

The resources, under NRHP Criterion A do not individually express any distinctive themes relating to the development of Isle of Wight County and do not contribute significantly to the county's growth. It is recommended therefore that the resources do not meet the criteria necessary for individual listing on the NRHP under Criterion A as the properties were constructed in response to the general development of the area.

The resources surveyed do not appear to be associated with any known individuals who made significant contributions to the historical development of Isle of Wight County. Although limited information about the owners of the properties is known, it does not appear that the occupants would be considered of transcendent importance to the Nation's history and therefore the resources do not meet the criteria necessary for listing on the NRHP under Criterion B.

The resources do not appear to have significant architectural integrity for listing on the NRHP under Criterion C and are of a common architectural style. In addition, the resources are utilitarian in design and do not embody distinctive characteristics of a type, period, or method of construction nor do the dwellings represent the work of a master. It is therefore recommended that the resources surveyed do not meet the criteria necessary for listing on the NRHP under Criterion C.

***No further work is recommended for resources within the Architectural Study Area as part of the VAL025 Solar Project.***

**Table 11 NRHP Recommendations for Architectural Resources Surveyed within the Architecture Study Area**

| DHR # | Resource Name | Date | NRHP Recommendation as a Result of the Survey |
|---|---|---|---|
| 046-0031 | Bourne-Turner House, 16303 Morgarts Beach Road | c. 1790 | Recommended to Retain its NRHP Potentially Eligible Status under Criterion C |
| 046-5189 | Farmhouse, 7428 Clifton Lane | c. 1905 | Recommended not Eligible for Listing in the NRHP |
| 046-5636 | Old Stage Highway Cemetery, Old Stage Highway | c. 1798 | Not Visible from Public ROW; Considered Eligible for Environmental Review Purposes |
| 046-5715 | House, 8736 Old Stage Highway | 1950 | Recommended not Eligible for Listing in the NRHP |
| 046-5716 | House, 8837 Old Stage Highway | 1958 | Recommended not Eligible for Listing in the NRHP |
| 046-5717 | House, 8821 Old Stage Highway | 1970 | Recommended not Eligible for Listing in the NRHP |
| 046-5718 | House, 8785 Old Stage Highway | 1956 | Recommended not Eligible for Listing in the NRHP |
| 046-5719 | House, 8731 Old Stage Highway | 1950 | Recommended not Eligible for Listing in the NRHP |
| 046-5720 | House, 8699 Old Stage Highway | 1930 | Recommended not Eligible for Listing in the NRHP |

***Resources Highlighted in Gray were Previously Recorded.**

## 9.3 EFFECTS EVALUATION

An effects evaluation, in addition to the Phase I architectural survey, was conducted for NRHP-listed, eligible, and potentially eligible properties which may be affected by the proposed Project. Two resources were assessed for effects and included the potentially eligible Bourne-Turner House (DHR #046-0031) and the portion of the NRHP-eligible Keystone Segment Historic District of the Captain John Smith National Historic Trail (DHR #500-0006) within the current architectural Study Area. One resource, the Old Stage Highway Cemetery (DHR #046-5636), had not been evaluated for NRHP eligibility but was not visible from the public ROW. Therefore, for the purposes of environmental review, this resource is being considered eligible for listing. Based on the current proposed Project Area and the existing landscape it is recommended that the proposed Project would have an **Adverse Effect** on the Bourne-Turner House (DHR #046-0031) and the portion of the Keystone Segment of the Captain John Smith National Historic Trail Historic District (DHR #500-0006) located within the current architectural Study Area. The proposed Project would have **No Effect** on the Old Stage Highway Cemetery (DHR #046-5636). ***Based on the effects evaluation, it is likely DHR will require mitigation for Adverse Effect of the proposed Project. It is suggested that vegetative screening be installed on the north side of the solar parcel to lessen the Adverse Effect*** (Appendix B).

**Table 12 Effects Evaluation of NRHP Eligible and Potentially Eligible Properties**

| DHR # | Resource Name | Date | NRHP Status/ DHR Recommendation Prior to Survey | Effects Assessment |
|---|---|---|---|---|
| 046-0031 | Bourne-Turner House, 16303 Morgarts Beach Road | c. 1790 | Determined Potentially Eligible in 2015 under Criterion C | Adverse Effect |
| 046-5636 | Old Stage Highway Cemetery, Old Stage Highway | c. 1798 | Not Evaluated | No Effect |

| DHR # | Resource Name | Date | NRHP Status/ DHR Recommendation Prior to Survey | Effects Assessment |
|---|---|---|---|---|
| 500-0006 | Captain John Smith National Historic Trail, Keystone Segment, Historic District | c. 1550 | Federal Determination of Eligibility in 2015 | Adverse Effect* |

***Only for Portion of the Resource within the Study Area**

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# APPENDICES

# Appendix A ARTIFACT INVENTORY

*Artifact Inventory*

# *VAL-025 Solar Farm*

| *Context* | **Count and Description** | |
|---|---|---|
| **2607-IF1** | | **TPQ: 1820** |

1 Ceramic fragment, refined earthenware, press molded, (1820-), Whiteware body sherd

# Appendix B ARCHITECTURAL RESOURCE SURVEY MAPS

Figure No.

## Appendix B

Title

## Architectural Resources Map

Client/Project

195602607

Dawood Engineering, Inc.
VAL025 Solar Project

Project Location

Isle of Wight County, Virginia

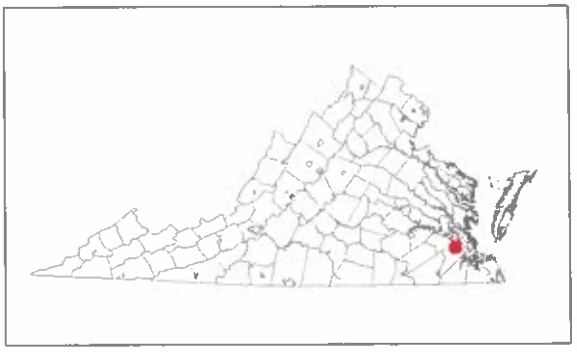
Prepared by ECL on 2023-04-03
TR by JMH on 2023-04-03
IR by SLD on 2023-04-03

N

0 800 1,600 Feet

(At original document size of 11x17)
1:9,600

- View Point
- Project Area
- 0.5- Mile Buffer
- Surveyed Architectural Resource with Viewshed Evaluation Conducted
- Architectural Resource Viewshed Only
- Resource Not Visible; Considered Eligible for Purposes of Environmental Review and Visual Effects Evaluation Conducted
- Surveyed Architectural Resource
- Newly Recorded Architectural Resource



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dawood Engineering, Inc., Stantec, U.S. Census Bureau, VDOT, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Orthoimagery © Virginia Geographic Information Network (VGIN)

Stantec



Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. responsibility for verifying the accuracy and completeness of the data

# Appendix C ARCHITECTURAL V-CRIS FORMS

## Property Information

**Property Names**

| Name Explanation | Name |
|---|---|
| Descriptive | House at Smith's Beach |
| Function/Location | Farm, 16303 Morgarts Beach Rd (Rt 673) |
| Historic/Current | Bourne-Turner House |

**Property Evaluation Status**

DHR Staff: Potentially Eligible

**Property Addresses**

Current - 16303 Morgarts Beach Road Route 673

**County/Independent City(s):** Isle Of Wight (County)
**Incorporated Town(s):** *No Data*
**Zip Code(s):** 23430
**Magisterial District(s):** *No Data*
**Tax Parcel(s):** 13-01-004
**USGS Quad(s):** BACONS CASTLE

## Additional Property Information

**Architecture Setting:** Rural
**Acreage:** *No Data*
**Site Description:**

May 1969: Located on north side of Route 673, in open field screened on the north from Burwell Bay and the James River by a wooded section of the tract. The complex includes several outbuildings. Old kitchen with huge chimney and early smokehouse still stand in yard. Earlier kitchen which stood some distance from west end of house has been torn down.

March 2014: The house is set back from the road, and is accessed by a long driveway. Fields fenced in and used as horse pastures are adjacent to both sides of the property. Wood fencing encloses a small yard area immediately surrounding the house. Shrubs grow adjacent to the foundation, and trees obscure some areas of the house from view from the public access road. A thick tree line is also visible behind the house. Secondary resources include a smokehouse, a shed, and two barns to the north of the dwelling, a shed, a vehicle shed, a livestock shelter, and two barns to the northeast, and a shed to the east.

March 2023: The landscape does not appear to have significantly changed since the previous survey. One of the sheds noted during the previous survey may have been the kitchen noted during the 1969 survey or may have served as a wash house. The shed to the east of the house within the fence line noted during the 2014 survey functions as an equine shelter, and the shed located directly behind the house appears to be a pump or well house.

**Surveyor Assessment:**

May 1969: Most of the land around Burwell's Bay was owned originally by the Burwell's and the Bennett's. Edward Bennett's daughter Silvestra Hill inherited much of this riverfront property & it was gradually sold off into smaller holdings. See survey form for complete chain of title, from 1762 (Jennings Ingram) through ca 1880 (Thomas B. Bournes to James A. Turner). Current owner is noted as James I. Turner.

2007: The Dutch-roofed house near the James River has long been called the Bourne place after Thomas H. Bourne who lived here during the Civil War.

This place is one of two remaining original manors on the James River between Burwell's Bay and Battery Park.

March 2014: The resource, in the opinion of the surveyor, is not recommended as individually eligible for listing on the NRHP under Criterion A, B, C or D. The property does not reflect broad patterns in history, and there is no known association with important people or events. Additionally, the architecture is undistinguished in workmanship and the materials stock.

March 2023: In 2015, the resource was determined potentially eligible for listing in the NRHP under Criterion C for its architectural merit. Based on the current survey, it is recommended that the resource retain its NRHP eligibility status.

**Surveyor Recommendation:** Recommended Potentially Eligible

**Ownership**

| Ownership Category | Ownership Entity |
|---|---|
| Private | *No Data* |

## Primary Resource Information

**Resource Category:** Domestic

| | |
|---|---|
| **Resource Type:** | Single Dwelling |
| **NR Resource Type:** | Building |
| **Date of Construction:** | ca 1790 |
| **Date Source:** | Site Visit |
| **Historic Time Period:** | Early National Period (1790 - 1829) |
| **Historic Context(s):** | Architecture/Landscape, Domestic |
| **Other ID Number:** | *No Data* |
| **Architectural Style:** | No discernible style |
| **Form:** | *No Data* |
| **Number of Stories:** | 1.5 |
| **Condition:** | Good |
| **Interior Plan:** | Side Passage |
| **Threats to Resource:** | Public Utility Expansion |
| **Cultural Affiliations:** | Euro-American |
| **Cultural Affiliation Details:** | *No Data* |

**Architectural Description:**

May 1969: Late 18th century to early 19th century 1.5 story frame dwelling with gambrel roof. Beaded weatherboarding; finished basement; closet between two large outside chimneys on west end of house; hall is about 14 feet wide; runs from front to back with two large rooms to the left, the front door deeper than the back.

Wainscoting and mantels with a reeded design may not be original but have been there a long time. Enclosed stairway - has been changed several times. Until recently there were H & L hinges on all the doors. Original windows in roof (dormers) were only two window panes wide. Floors are wide, pine. Turners built modern kitchen wing on east end.

Undated entry: Two story side passage frame house with two large exterior end brick chimneys, a side gable roof, and two smaller additions on the end opposite the chimneys. Single story single bay entry porch, brick foundation. Good condition.

March 2014: Other than the construction of a one-story, frame side addition off the east elevation, the house appears unaltered since the previous survey. A previously unrecorded feature is the wood shingles present on the second floor of the main elevation.

March 2023: The house is one-and-a-half-stories supported by a brick foundation laid in a three-course American bond pattern, although it **appears some repairs appear to have been made which have interrupted** the coursing. The exterior is sheathed in beaded weatherboard and the **roof clad primarily in asphalt shingles, with the front slope clad in scalloped** wood shingles. Two parged exterior end, presumably brick, **chimneys with corbeled caps are located off the western gable end. A shed-roofed closet is located between the two chimneys and a small, brick wing with wood board door and gable roof provides access into the basement.** Extending across the rear of the dwelling is a one-story, shed-**roofed ell which appears originally to have been supported by brick piers.** The dwelling also features a gable-roofed entry porch supported by **square wood posts, and a one-story wing off the eastern end of the dwelling.** Fenestration comprises three-over-three wood sash windows in the **basement, six-over-nine wood sashes flanked by louvered wood shutters** on the first floor, and six-over-six wood sashes in the narrow shed-roofed dormers.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Windows | Sash, Double-Hung | Wood | 6/6 |
| Chimneys | Exterior End | Brick | Cap, Corbeled |
| Roof | Gable, Side | Wood | Shingle |
| Structural System and Exterior Treatment | Frame | Wood | Weatherboard |
| Porch | 1-story, 1-bay | Wood | Columns |
| Foundation | English | Brick | American/Common Bond |
| Roof | Side Gable | Asphalt | *No Data* |

## Secondary Resource Information

### Secondary Resource #1

| | |
|---|---|
| **Resource Category:** | Agriculture/Subsistence |
| **Resource Type:** | Smoke/Meat House |
| **NR Resource Type:** | Building |
| **Date of Construction:** | ca 1790 |
| **Date Source:** | Site Visit |
| **Historic Time Period:** | Early National Period (1790 - 1829) |
| **Historic Context(s):** | Domestic |
| **Other ID Number:** | *No Data* |

**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Fair
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Euro-American
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2014: The smokehouse is a one-story, frame building supported by a brick foundation. The exterior walls are sheathed in weatherboard siding, and the side gable roof is covered with wood shingles.

March 2023: The smokehouse does not appear to have been significantly altered since the previous survey.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Weatherboard |

## Secondary Resource #2

**Resource Category:** Domestic
**Resource Type:** Shed - Vehicle
**NR Resource Type:** Building
**Date of Construction:** ca 1940
**Date Source:** Site Visit
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Euro-American
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2014: The one-story, frame vehicle shed is mostly obscured from view from the point of survey. Visible features include a shed roof with projecting hood covered with seamed metal, and at least one exterior wall sheathed in weatherboard siding. There is also a shed-roofed side addition.

March 2023: The vehicle shed does not appear to have been significantly altered since the previous survey.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Weatherboard |

## Secondary Resource #3

**Resource Category:** Domestic
**Resource Type:** Shed
**NR Resource Type:** Building
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 1950
**Date Source:** Site Visit
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*

| | |
|---|---|
| **Number of Stories:** | 1.0 |
| **Condition:** | Fair |
| **Threats to Resource:** | Public Utility Expansion |
| **Cultural Affiliations:** | Euro-American |
| **Cultural Affiliation Details:** | *No Data* |

**Architectural Description:**

March 2014: The northern shed is mostly obscured from view from the point of survey. The building appears to be a one-story, frame structure with exterior walls sheathed in vertical board siding, and a gable roof covered with seamed metal.

March 2023: Based on the previous description of the building, the shed was not observed.

## Secondary Resource #4

| | |
|---|---|
| **Resource Category:** | Domestic |
| **Resource Type:** | Shed |
| **NR Resource Type:** | Building |
| **Date of Construction:** | ca 1790 |
| **Date Source:** | Site Visit |
| **Historic Time Period:** | Early National Period (1790 - 1829) |
| **Historic Context(s):** | Domestic |
| **Other ID Number:** | *No Data* |
| **Architectural Style:** | No discernible style |
| **Form:** | *No Data* |
| **Number of Stories:** | 1.0 |
| **Condition:** | Fair |
| **Threats to Resource:** | Public Utility Expansion |
| **Cultural Affiliations:** | Euro-American |
| **Cultural Affiliation Details:** | *No Data* |

**Architectural Description:**

March 2014: The northeastern shed is a one-story, frame structure with a shed roof and exterior walls sheathed in weatherboard siding.

March 2023: The resource thought to be a shed, appears to have functioned as the kitchen noted during the 1969 survey or as a wash house. The shed roof noted in 2014 is the ell of the one-story, gable-roofed building. The building also features a weatherboard exterior, modern metal roof, exterior end brick chimney, six-light wood-framed window and five cross-panel wood entry door.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Weatherboard |

## Secondary Resource #5

| | |
|---|---|
| **Resource Category:** | Domestic |
| **Resource Type:** | Shed |
| **NR Resource Type:** | Building |
| **Date of Construction:** | ca 1950 |
| **Date Source:** | Site Visit |
| **Historic Time Period:** | The New Dominion (1946 - 1991) |
| **Historic Context(s):** | Domestic, Subsistence/Agriculture |
| **Other ID Number:** | *No Data* |
| **Architectural Style:** | No discernible style |
| **Form:** | *No Data* |
| **Number of Stories:** | 1.0 |
| **Condition:** | Fair |
| **Threats to Resource:** | Public Utility Expansion |
| **Cultural Affiliations:** | Euro-American |
| **Cultural Affiliation Details:** | *No Data* |

**Architectural Description:**

March 2014: The eastern shed is a one-story, frame, multi-bay building. The exterior walls are sheathed in vertical board siding, and the side gable roof is covered with seamed metal. One bay is open.

March 2023: The shed currently functions as an equine shelter. Sections of the vertical wood boards appear to have been removed since the previous survey; however, the building remains substantially unchanged otherwise.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Vertical Board |

## Secondary Resource #6

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Animal Shelter/Kennel
**NR Resource Type:** Building
**Date of Construction:** ca 1940
**Date Source:** Site Visit
**Historic Time Period:** World War I to World War II (1917 - 1945)
**Historic Context(s):** Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Euro-American
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2014: The animal shelter is a one-story, metal-framed structure.

March 2023: The building noted above appears to be located to the southeast of Barn #3 and northeast of Barn #4. The building; however, is a one-and-a-half-story, wood-frame building clad in weatherboards with a gable roof. The building was only partially visible from the point of survey.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Weatherboard |

## Secondary Resource #7

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Barn
**NR Resource Type:** Building
**Date of Construction:** ca 1930
**Date Source:** Site Visit
**Historic Time Period:** World War I to World War II (1917 - 1945)
**Historic Context(s):** Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 2.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Euro-American
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2014: The barn is a two-story, single bay building with a front gable roof covered with seamed metal, and exterior walls sheathed in vertical board siding. Two shed-roofed wings extend off each side. Wood doors on sliding metal rails are visible at each entrance.

March 2023: The barn does not appear to have been significantly altered since the previous survey.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Vertical Board |

## Secondary Resource #8

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Barn
**NR Resource Type:** Building
**Date of Construction:** ca 1930
**Date Source:** Site Visit
**Historic Time Period:** World War I to World War II (1917 - 1945)
**Historic Context(s):** Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 2.0
**Condition:** Fair
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Euro-American
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2014: The barn is a two-story, single bay building with a front gable roof covered with seamed metal, and exterior walls sheathed in vertical board siding. Two shed-roofed wings extend off each side. Wood doors on sliding metal rails are visible at each entrance.

March 2023: The barn does not appear to have been significantly altered since the previous survey.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Vertical Board |

## Secondary Resource #9

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Barn
**NR Resource Type:** Building
**Date of Construction:** ca 1930
**Date Source:** Site Visit
**Historic Time Period:** World War I to World War II (1917 - 1945)
**Historic Context(s):** Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Fair
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Euro-American
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2014: The barn is a one-story, frame building with exterior walls sheathed in vertical board siding, and a gable roof covered with seamed metal.

March 2023: The barn does not appear to have been significantly altered since the previous survey.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Vertical Board |

## Secondary Resource #10

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Barn
**NR Resource Type:** Building
**Date of Construction:** ca 1930
**Date Source:** Site Visit
**Historic Time Period:** World War I to World War II (1917 - 1945)
**Historic Context(s):** Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Fair
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Euro-American
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2014: The barn is a one-story, frame building with exterior walls sheathed in vertical board siding, and a gable roof covered with seamed metal.

March 2023: The barn does not appear to have been significantly altered since the previous survey.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Vertical Board |

## Secondary Resource #11

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Pump House
**NR Resource Type:** Structure
**Date of Construction:** ca 1960
**Date Source:** Site Visit
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic, Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** *No Data*
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Euro-American
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2023: The pump house (or possibly well house) is a low, one-story, masonry building with gable roof clad in metal.

## Secondary Resource #12

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Shed
**NR Resource Type:** Building
**Date of Construction:** ca 2015
**Date Source:** Site Visit
**Historic Time Period:** Post Cold War (1992 - Present)

**Historic Context(s):** Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2023. The shed is a one-story, frame building with board-and-batten siding and a metal-clad shed roof with overhang.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Board-and-Batten |

## Historic District Information

**Historic District Name:** *No Data*
**Local Historic District Name:** *No Data*
**Historic District Significance:** *No Data*

## CRM Events

### Event Type: Survey:Phase I/Reconnaissance

**Project Review File Number:** *No Data*
**Investigator:** Sandra DeChard
**Organization/Company:** Stantec 2034
**Photographic Media:** Digital
**Survey Date:** 3/8/2023
**Dhr Library Report Number:** *No Data*
**Project Staff/Notes:**

No Data

**Project Bibliographic Information:**

A Phase I Cultural Resources Survey of Approximately 20 Acres Associated with the VAL-025 Solar Project, Isle of Wight County, Virginia.

**Surveyor's NR Criteria Recommendations:**

C - Distinctive Characteristics of Architecture/Construction

### Event Type: DHR Staff: Potentially Eligible

**DHR ID:** 046-0031
**Staff Name:** Andrea Burke
**Event Date:** 5/1/2015
**Staff Comment**

DHR File No. 2011-2071; Potentially Eligible under Criteria C

### Event Type: Survey:Phase I/Reconnaissance

**Project Review File Number:** 2011-2071
**Investigator:** Emily Lindtveit
**Organization/Company:** Stantec 2034
**Photographic Media:** Digital

**Survey Date:** 3/10/2014
**Dhr Library Report Number:** JC-328
**Project Staff/Notes:**
No Data
**Project Bibliographic Information:**
A Phase I Cultural Resources Survey of Approximately 20 Acres Associated with the VAL-025 Solar Project, Isle of Wight County, Virginia
**Surveyor's NR Criteria Recommendations:**
C - Distinctive Characteristics of Architecture/Construction

## Event Type: Survey:Phase I/Reconnaissance

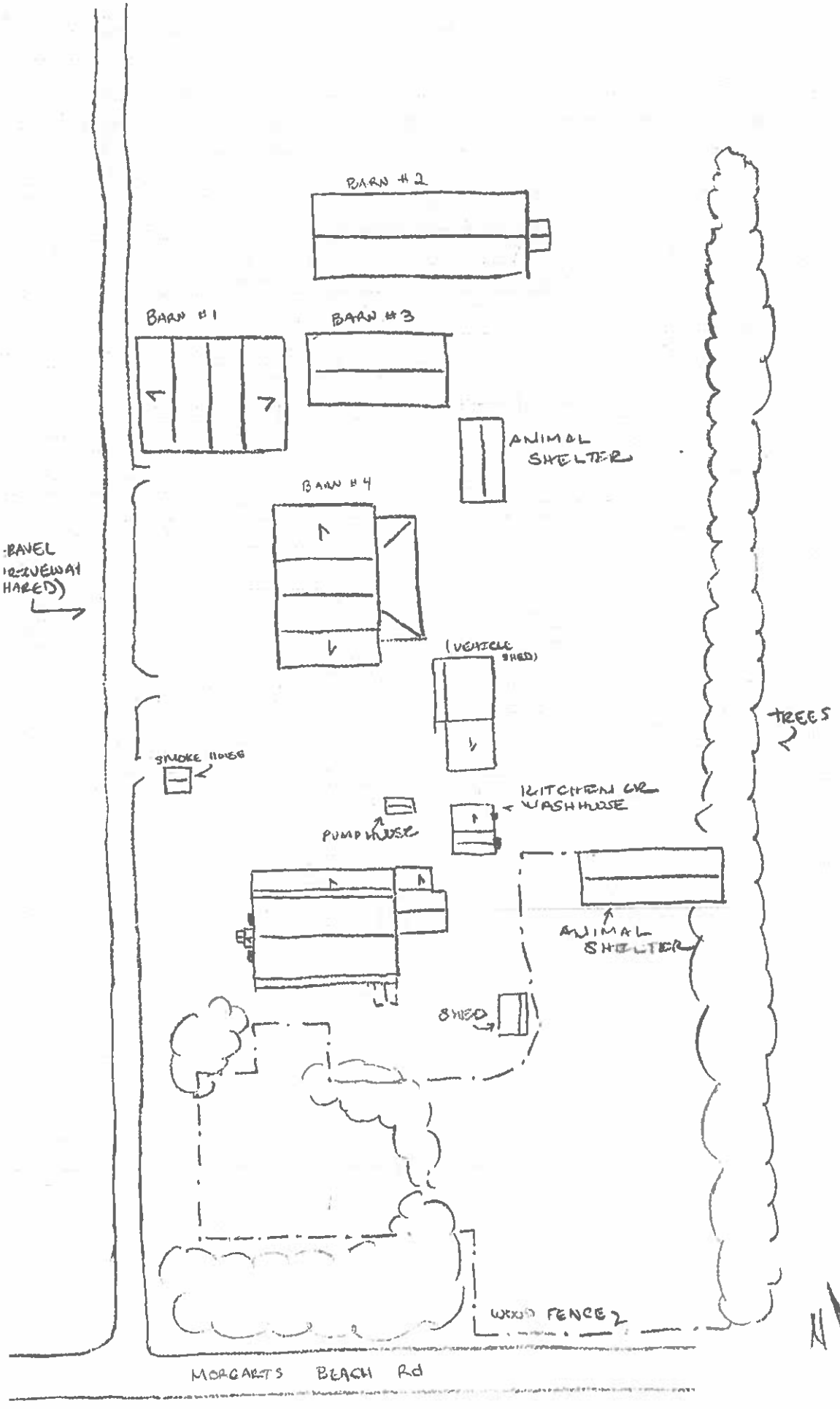
**Project Review File Number:** *No Data*
**Investigator:** Calder C. Loth
**Organization/Company:** VA Dept. of Historic Resources
**Photographic Media:** Film
**Survey Date:** 5/1/1969
**Dhr Library Report Number:** *No Data*
**Project Staff/Notes:**
VHLC staff member - later form filled out by another staff member (unattributed - ca 1970)
**Surveyor's NR Criteria Recommendations:**
C - Distinctive Characteristics of Architecture/Construction

## Bibliographic Information

**Bibliography:**

King, Helen Haverty
"Historic Isle of Wight"
2007 (page 27)

**Property Notes:**
No Data




046-0031
FOXTAIL FARMS
16303 MORGARTS BEACH RD
ISLE OF WIGHT, VA
MARCH 8, 2023
O MCCARTY
N.T.S.

## Property Information

**Property Names**

| | |
|---|---|
| **Name Explanation** | **Name** |
| Function/Location | Farmhouse, 7428 Clifton Lane |

**Property Evaluation Status**

DHR Staff: Not Eligible

**Property Addresses**

Current - 7428 Clifton Lane

| | |
|---|---|
| **County/Independent City(s):** | Isle of Wight (County) |
| **Incorporated Town(s):** | *No Data* |
| **Zip Code(s):** | 23430 |
| **Magisterial District(s):** | *No Data* |
| **Tax Parcel(s):** | 13-01-003 |
| **USGS Quad(s):** | BACONS CASTLE |

## Additional Property Information

**Architecture Setting:** Rural

**Acreage:** 150

**Site Description:**

2005: This farmstead is situated at the north terminus of Clifton Lane. The building faces south. The area is characterized by open agricultural fields and farmsteads.

There is a dairy northeast of the dwelling. There is a barn southwest of the dwelling. There is a crib east of the dairy. There is a tenant house southeast of the dwelling. North of the tenant house is a kitchen foundation. Southeast of the tenant house is shed.

September 2014: The house is situated far back from and facing the road on a level lot surrounded by a manicured lawn edged by tree lines. Expansive agricultural fields lie between the house and the road. A long straight gravel drive, named Clifton Lane, leads from the road to the front of the house. An offshoot of the drive accesses a modern trailer located to the northeast of the house. A coop, a dairy, and a shed are located northeast of the house and west of the trailer. Two sheds are located northeast of the house and trailer. A corn crib is locates to the east of the house and trailer. A tenant house, a standing chimney and a vehicle shed are located southeast of the house. A modern garden shed is located south-southeast of the house. A modern faux privy, a barn, and a ruinous modern greenhouse are located southwest of the house.

March 2023: The landscape surrounding the core buildings has grown significantly with a barn as the only resource now visible from the public ROW.

**Surveyor Assessment:**

2005: This is a Queen Anne-style of house. The Queen Anne style appeared in the United States in 1880 from England and became a predominant architectural style concurrently with the Colonial Revival style. Its origins are derived from Jacobean architecture and early medieval sources. Unlike the Colonial Revival, which **emphasized simplicity** and United **States heritage, the Queen** Anne style was highly ornate with asymmetrical proportions, varying **material treatment and steeply** pitched **roofs. Towers were also** common and exhibited panels, shingling, varying window forms, varying **articulate cornices** and conical, **octagonal** or **pyramidal roofs** crowned by finials. Shingles of varying cuts and windows exhibiting stained glass and panes of varying forms and sizes were common. In addition, rounded and canted bays were common on wall planes allowing for asymmetrical roof forms and additional articulation on wall planes. Aside from the highly ornate exterior, the asymmetry of the style was continued on the interior. The plan of the style was open and the exterior bays figured prominently in the formal spaces of the house. In addition, fireplaces were not regulated to the center of a wall plane but appear in corners, and off-center on wall planes.

The Queen Anne style became a predominant architectural style concurrently with the Colonial Revival style. Its origins are derived from Jacobean architecture and early medieval sources. Unlike the Colonial Revival, which emphasized simplicity and United States heritage, the Queen Anne style was highly ornate with asymmetrical proportions, varying material treatment and steeply pitched roofs. Towers were also common and exhibited panels, shingling, varying window forms, varying articulate cornices and conical, octagonal or pyramidal roofs crowned by finials. Shingles of varying cuts and windows exhibiting stained glass and panes of varying forms and sizes were common. In addition, rounded and canted bays were common on wall planes allowing for asymmetrical roof forms and additional articulation on wall planes. Aside from the highly ornate exterior, the asymmetry of the style was continued on the interior. The plan of the style was open and the exterior bays figured prominently in the formal spaces of the house. In addition, fireplaces were not regulated to the center of a wall plane but appear in corners, and off-center on wall planes.

September 2014: The architectural resource is typical of the late nineteenth century in Isle of Wight County and in the opinion of the surveyor should not be considered individually eligible for the NRHP under Criterion A, B, C or D. There is no known association with important people or events and the resource is a typical example of this time period. In addition, the design is common, the materials stock, and the building has been altered from its original appearance.

March 2023: The resource, though generally reflective of the turn of the twentieth century development of Isle of Wight County, lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it is recommended that the resource is not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered in evaluating the architectural resources documented during the survey.
The resource, under NRHP Criterion A does not individually express any distinctive themes relating to the development of Isle of

Wight County and does not contribute significantly to the county's growth. It is recommended therefore that the resources do not meet the criteria necessary for individual listing on the NRHP under Criterion A as the properties were constructed in response to the general development of the area.
The resource surveyed does not appear to be associated with any known individuals who made significant contributions to the historical development of the Isle of Wight County. Although limited information about the occupants of the property is known, it does not appear that the occupants would be considered of transcendent importance to the Nation's history and therefore the resource does not meet the criteria necessary for listing on the NRHP under Criterion B.
The resource does not appear to have significant architectural integrity for listing on the NRHP under Criterion C. The resource is utilitarian in design and does not embody distinctive characteristics of a type, period, or method of construction nor does the building represent the work of a master. It is therefore recommended that the resource surveyed does not meet the criteria necessary for listing on the NRHP under Criterion C.

**Surveyor Recommendation:** Recommended Not Eligible

**Ownership**

| Ownership Category | Ownership Entity |
|---|---|
| Private | *No Data* |

## Primary Resource Information

| | |
|---|---|
| **Resource Category:** | Domestic |
| **Resource Type:** | Single Dwelling |
| **NR Resource Type:** | Building |
| **Not Observed:** | This resource was not observed during the last survey. |
| **Date of Construction:** | ca 1905 |
| **Date Source:** | Site Visit/Written Data |
| **Historic Time Period:** | Reconstruction and Growth (1866 - 1916) |
| **Historic Context(s):** | Architecture/Community Planning, Domestic, Subsistence/Agriculture |
| **Other ID Number:** | *No Data* |
| **Architectural Style:** | Vernacular |
| **Form:** | *No Data* |
| **Number of Stories:** | 2.0 |
| **Condition:** | Good |
| **Threats to Resource:** | Public Utility Expansion |
| **Cultural Affiliations:** | Indeterminate |
| **Cultural Affiliation Details:** | *No Data* |

**Architectural Description:**

May 2005: This dwelling has a brick foundation and wood frame structural system clad in vinyl siding. The roof is cross-gable clad in asphalt shingles. The roof features a boxed cornice, raking cornices and cornice returns. The façade is symmetrical and dominated by a projecting canted bay topped with a gable roof. The canted bay features a single-bay porch with bracketed turned posts. The roof is clad in asphalt shingles. The canted bay contains the single-leaf entrance door which has three panels and one light. The door is surmounted by a transom. The windows on the dwelling are 2/2 wood double-hung sash. There are interior brick chimneys at the east and west gable ends. A one-story side-gabled roof addition is appended to the dwelling at a slight angle. The addition has a brick foundation and wood frame structural system clad in vinyl siding. There is an exterior brick chimney at the west end which is joined to the interior brick chimney at the east end of the dwelling. The addition was construction in two stages and features a slightly lower roofline on the east end. There is an interior brick chimney at the east end. The windows on the addition are 2/2 wood double-hung sash. There is a one-bay gabled-roof porch on the south façade. A gabled-roof one-story addition is appended at the north end.

September 2014: The house remains largely unchanged since the previous survey. The condition of the vinyl siding has slightly deteriorated. In addition to the previously recorded aspects, several additional features were noted. It was observed that the east addition features a secondary entry accessed by a single bay porch with a front gable roof supported by turned posts, that the rear elevation features two projecting canted bays with pyramidal roofs, that the gable roof ell addition that extends off the rear elevation features a secondary entry and an interior brick flue, and that the hipped roof addition that extends off the rear elevation may be an enclosed porch and sits on a brick pier foundation infilled with brick. Additionally, it was noticed that the screening has been removed from the front porch, although the framing from the screens remains.

March 2023: The dwelling is no longer visible from the public ROW.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Roof | Gable, Side | Asphalt | Shingle |
| Chimneys | Interior | Brick | Bond, American |
| Windows | Sash, Double-Hung | Wood | 2/2 |
| Structural System and Exterior Treatment | Frame | Wood | Siding, Vinyl |
| Foundation | Solid/Continuous | Brick | Bond, American |
| Porch | 1-story | Wood | Screened |

## Secondary Resource Information

### Secondary Resource #1

**Resource Category:** Domestic
**Resource Type:** Secondary Dwelling
**NR Resource Type:** Building
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 1910
**Date Source:** Site Visit
**Historic Time Period:** Reconstruction and Growth (1866 - 1916)
**Historic Context(s):** Architecture/Community Planning, Domestic, Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** Vernacular
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Neglect, Transportation Expansion, Vacant
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

May 2005: There is a tenant house with a wood frame structural system clad in weatherboard. The building has a brick pier foundation and gable roof clad in asphalt shingles. There is a double-leaf entrance at the north end of the west elevation. The windows are 6/6 wood double-hung sash.

September 2014: The condition of the tenant house has deteriorated since the previous survey and is now surrounded by overgrown brush and small trees. The tenant house is currently used for storage. The gable roof addition which previously extended off the north elevation and featured a two-leaf door has been removed. The house is now accessed by a centrally located recessed panel wood door which pierces the north elevation. It was additionally observed that the house roof features exposed rafter ends. A standing brick chimney is located just north of the tenant house with the firebox facing west. Some brickwork at the top of the firebox has collapsed.

March 2023: The dwelling is no longer visible from the public ROW.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Weatherboard |

### Secondary Resource #2

**Resource Category:** Domestic
**Resource Type:** Kitchen
**NR Resource Type:** Building
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 1910
**Date Source:** Site Visit
**Historic Time Period:** Reconstruction and Growth (1866 - 1916)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Deteriorated
**Threats to Resource:** Demolition, Deterioration, Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

May 2005: The kitchen has only a brick foundation and brick chimney remaining.

September 2014: The chimney stack is extant and is located to the north of the tenant house. The building, as evidenced by the chimney, was

one story in height and constructed with a gable roof. The large firebox shows signs of structural collapse. A stove pipe hole is located on the opposite side of the chimney stack from the firebox and suggests the building had at least two rooms.

March 2023: The kitchen is no longer visible from the public ROW.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Unknown | Unknown | Not Visible |

## Secondary Resource #3

**Resource Category:** DSS Legacy
**Resource Type:** Shed
**NR Resource Type:** Building
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 1910
**Date Source:** Site Visit
**Historic Time Period:** Reconstruction and Growth (1866 - 1916)
**Historic Context(s):** Architecture/Community Planning, Domestic, Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** Vernacular
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Neglect, Public Utility Expansion, Structural Failure
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*

**Architectural Description:**

May 2005: The shed features a wood frame structural system and brick pier foundation. It is one story with a 6-light casement window. An open bay is appended to the south elevation.

September 2014: The shed, based on the above description, appears to be unchanged since the previous survey. The condition has deteriorated; however. The shed is a one-story frame structure clad with weatherboard on the west elevation and vertical boards on the others. The side gable roof is covered by asphalt paper and is in near ruinous condition with large holes on the southern slope. The south elevation is pierced by a narrow central door opening. A ruinous and collapsed open shed roof addition extends off the north elevation. The shed is in very poor condition.

March 2023: The shed is no longer visible from the public ROW.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Weatherboard |
| Structural System and Exterior Treatment | Wood Frame | Wood | Vertical Board |

## Secondary Resource #4

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Comcrib
**NR Resource Type:** Structure
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 1910
**Date Source:** Site Visit
**Historic Time Period:** Reconstruction and Growth (1866 - 1916)
**Historic Context(s):** Architecture/Community Planning, Domestic, Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** Vernacular
**Form:** *No Data*
**Number of Stories:** *No Data*
**Condition:** Good

**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

May 2005. The crib feature a wood frame structural system clad in horizontal boards. The building rests on a brick pier foundation. The roof is gable clad in standing-seam metal. The walls taper toward the ground. There is a single-leaf door on the south elevation.

September 2014: The corn crib has been altered since the previous survey. The brick piers have been replaced with concrete block piers and a single-bay one-story frame addition has been appended to the south elevation. The addition is clad with board-and-batten siding and has a side gable roof covered with corrugated metal. The addition sits on slender poured concrete piers. A dutch door pierces the west elevation of the addition which is accessed by wood stairs.

March 2023: The corn crib is no longer visible from the public ROW.

## Secondary Resource #5

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Barn
**NR Resource Type:** Building
**Date of Construction:** ca 1910
**Date Source:** Site Visit/Written Data
**Historic Time Period:** Reconstruction and Growth (1866 - 1916)
**Historic Context(s):** Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** Vernacular
**Form:** *No Data*
**Number of Stories:** 2.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

May 2005. The barn is two-stories with a brick pier foundation and wood structural system clad in weatherboard. The roof is gable clad in standing-seam metal. There are wings appended to the east and west elevation. A shed-roofed shelter is appended to the north elevation.

September 2014: The barn is largely unchanged since the previous survey. The barn is a single-bay two-story frame structure clad in corrugated metal on the south elevation and weatherboard on the side and rear elevations. The front gable roof is covered in seamed metal and the barn rests on a brick pier foundation. The facade is pierced by a central vertical board door with a window opening covered by a sheet metal shutter piercing the second story above the door. One story single-bay shed roof side additions extend off the east and west elevations and feature T-111 siding on the side elevations. An open post-in-ground shed roof addition extends off the rear elevation. The shed roof is supported by log posts. The west end of the rear addition has been enclosed with horizontal boards.

March 2023: The barn does not appear to have been significantly altered since the previous survey.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Weatherboard |
| Structural System and Exterior Treatment | Wood Frame | Metal | Siding |

## Secondary Resource #6

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Dairy
**NR Resource Type:** Building
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 1910
**Date Source:** Site Visit
**Historic Time Period:** Reconstruction and Growth (1866 - 1916)
**Historic Context(s):** Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** Vernacular

**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Neglect, Other, Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

May 2005: The dairy features an elevated brick foundation. A vertical board door pierces the foundation at the west corner of the south elevation. The building is wood frame clad in weatherboard and is topped by a side-gable roof clad in standing-seam metal. There is a centrally-placed single-leaf vertical board door. An open shelter is appended to the east elevation.

September 2014: The dairy is largely unchanged from the previous survey, although is in a slightly deteriorated condition. Several boards are missing from the siding. The elevated brick foundation is degraded. In large sections of the brickwork the mortar has eroded almost entirely from the joints and several brick bats are eroded or spalled. The east elevation brickwork is especially deteriorated. Heavy termite damage was also noticed throughout the framing timbers, and especially in the wood sill of the east elevation. Additionally, it was observed that the side gable roof is covered in corrugated metal.

March 2023: The dairy is no longer visible from the public ROW.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Weatherboard |

## Secondary Resource #7

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Chicken House/Poultry House
**NR Resource Type:** Building
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 2010
**Date Source:** Site Visit
**Historic Time Period:** Post Cold War (1992 - Present)
**Historic Context(s):** Domestic, Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Fair
**Threats to Resource:** Neglect, Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

September 2014: The coop is a small modern frame structure clad in plywood with a shed roof covered in seamed metal. A narrow hinged plywood door pierces the west elevation. A long rectangular hinged panel on the south elevation provides access to the nesting boxes.

March 2023: The chicken coop is no longer visible from the public ROW.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Siding |

## Secondary Resource #8

**Resource Category:** Domestic
**Resource Type:** Shed
**NR Resource Type:** Building
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 2010
**Date Source:** Site Visit
**Historic Time Period:** Post Cold War (1992 - Present)

**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

September 2014: This modern shed located to the northeast of the house is a single-bay one-story frame structure clad in T-111 siding with an overhanging shed roof covered in asphalt shingle. The shed sits on a concrete pad.

March 2023: The shed is no longer visible from the public ROW.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Siding |

## Secondary Resource #9

**Resource Category:** Domestic
**Resource Type:** Mobile Home/Trailer
**NR Resource Type:** Building
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 2010
**Date Source:** Site Visit
**Historic Time Period:** Post Cold War (1992 - Present)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

September 2014: The trailer is a modern one-story six-bay frame structure clad in corrugated metal siding with a side arched roof covered in sheet metal. The raised foundation is not visible. Fenestration consists of one-by-one sliding metal windows. The trailer appears to have replaced the tenant house as the secondary dwelling on the property.

March 2023: The trailer is no longer visible from the public ROW.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Unknown | Metal | Siding |

## Secondary Resource #10

**Resource Category:** Domestic
**Resource Type:** Shed
**NR Resource Type:** Building
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 2010
**Date Source:** Site Visit
**Historic Time Period:** Post Cold War (1992 - Present)
**Historic Context(s):** Domestic

**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

September 2014: This shed is located to the rear of the trailer and is a single-bay modern frame structure clad in weatherboard with an overhanging front gable roof covered in corrugated metal. The shed sits on concrete piers.

March 2023: The shed is no longer visible from the public ROW.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Weatherboard |

## Secondary Resource #11

**Resource Category:** Domestic
**Resource Type:** Shed
**NR Resource Type:** Building
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 2010
**Date Source:** Site Visit
**Historic Time Period:** Post Cold War (1992 - Present)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

September 2014: This small low modern shed is located adjacent to and to the rear of the other trailer associated shed. The shed is a single-bay frame structure clad in plywood with a shallowly pitched shed roof covered in sheet metal.

March 2023: The shed is no longer visible from the public ROW.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Siding |

## Secondary Resource #12

**Resource Category:** Domestic
**Resource Type:** Shed
**NR Resource Type:** Building
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 2010
**Date Source:** Site Visit
**Historic Time Period:** Post Cold War (1992 - Present)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*

**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

September 2014: This garden shed located to the south-southeast of the house is a one-story single-bay frame structure clad in board-and-batten siding with an overhanging front gable roof covered in corrugated metal and features exposed rafter ends. Fenestration consists of a vertical board door and six-light hopper wood windows.

March 2023: The shed is no longer visible from the public ROW.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Board-and-Batten |

## Secondary Resource #13

**Resource Category:** Domestic
**Resource Type:** Shed
**NR Resource Type:** Building
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 2010
**Date Source:** Site Visit
**Historic Time Period:** Post Cold War (1992 - Present)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Poor
**Threats to Resource:** Neglect, Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

September 2014: This shed is styled as a faux privy and may have been constructed to function as a landscape folly. The shed is a small narrow single-bay frame structure clad in rustic weatherboards with a front gable roof. The roof appears to be unfinished with spaced weatherboards on the rafters, but lacking roofing material. The south elevation also appears to be unfinished with missing weatherboard siding. The shed is being subsumed by vines and brush.

March 2023: The shed is no longer visible from the public ROW.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Weatherboard |

## Secondary Resource #14

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Greenhouse/Conservatory
**NR Resource Type:** Building
**Not Observed:** This resource was not observed during the last survey.
**Date of Construction:** ca 2010
**Date Source:** Site Visit
**Historic Time Period:** Post Cold War (1992 - Present)
**Historic Context(s):** Subsistence/Agriculture

**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Ruinous
**Threats to Resource:** Erosion, Neglect, Public Utility Expansion, Vacant
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

September 2014: The ruinous greenhouse is largely subsumed by brush. The greenhouse appears to consist of a lumber frame with a shed roof; however, appears to have not been completed.

March 2023: The greenhouse is no longer visible from the public ROW.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Unknown | Not Visible |

## Historic District Information

**Historic District Name:** *No Data*
**Local Historic District Name:** *No Data*
**Historic District Significance:** *No Data*

## CRM Events

### Event Type: Survey:Phase I/Reconnaissance

**Project Review File Number:** *No Data*
**Investigator:** Sandra DeChard
**Organization/Company:** Stantec 2034
**Photographic Media:** Digital
**Survey Date:** 3/8/2023
**Dhr Library Report Number:** *No Data*
**Project Staff/Notes:**

No Data

**Project Bibliographic Information:**

A Phase I Cultural Resources Survey of Approximately 20 Acres Associated with the VAI-025 Solar Project, Isle of Wight County, Virginia.

### Event Type: DHR Staff: Not Eligible

**DHR ID:** 046-5189
**Staff Name:** Andrea Burke
**Event Date:** 5/1/2015
**Staff Comment**

DHR File No. 2011-2071

### Event Type: Survey:Phase I/Reconnaissance

**Project Review File Number:** 2011-2071
**Investigator:** Sandra DeChard
**Organization/Company:** Stantec 2034
**Photographic Media:** Digital
**Survey Date:** 9/18/2014

**Dhr Library Report Number:** JC-419

**Project Staff/Notes:**

Sandra DeChard, Ellen Brady
Addendum to the Phase I Cultural Resources Survey of the Proposed Dominion Virginia Power Skiffes Creek to Surry 500 kV Transmission Line in James City, Isle of Wight and Surry Counties, Virginia
Stantec Consulting Services, Inc. -- October 24, 2014
DHR Report No. JC-419

## Event Type: Survey:Phase I/Reconnaissance

**Project Review File Number:** *No Data*
**Investigator:** David, Kimble
**Organization/Company:** Unknown (DSS)
**Photographic Media:** *No Data*
**Survey Date:** 5/1/2005
**Dhr Library Report Number:** *No Data*

**Project Staff/Notes:**

No Data

**Project Bibliographic Information:**

A Phase I Cultural Resources Survey of Approximately 20 Acres Associated with the VAL-025 Solar Project, Isle of Wight County, Virginia.

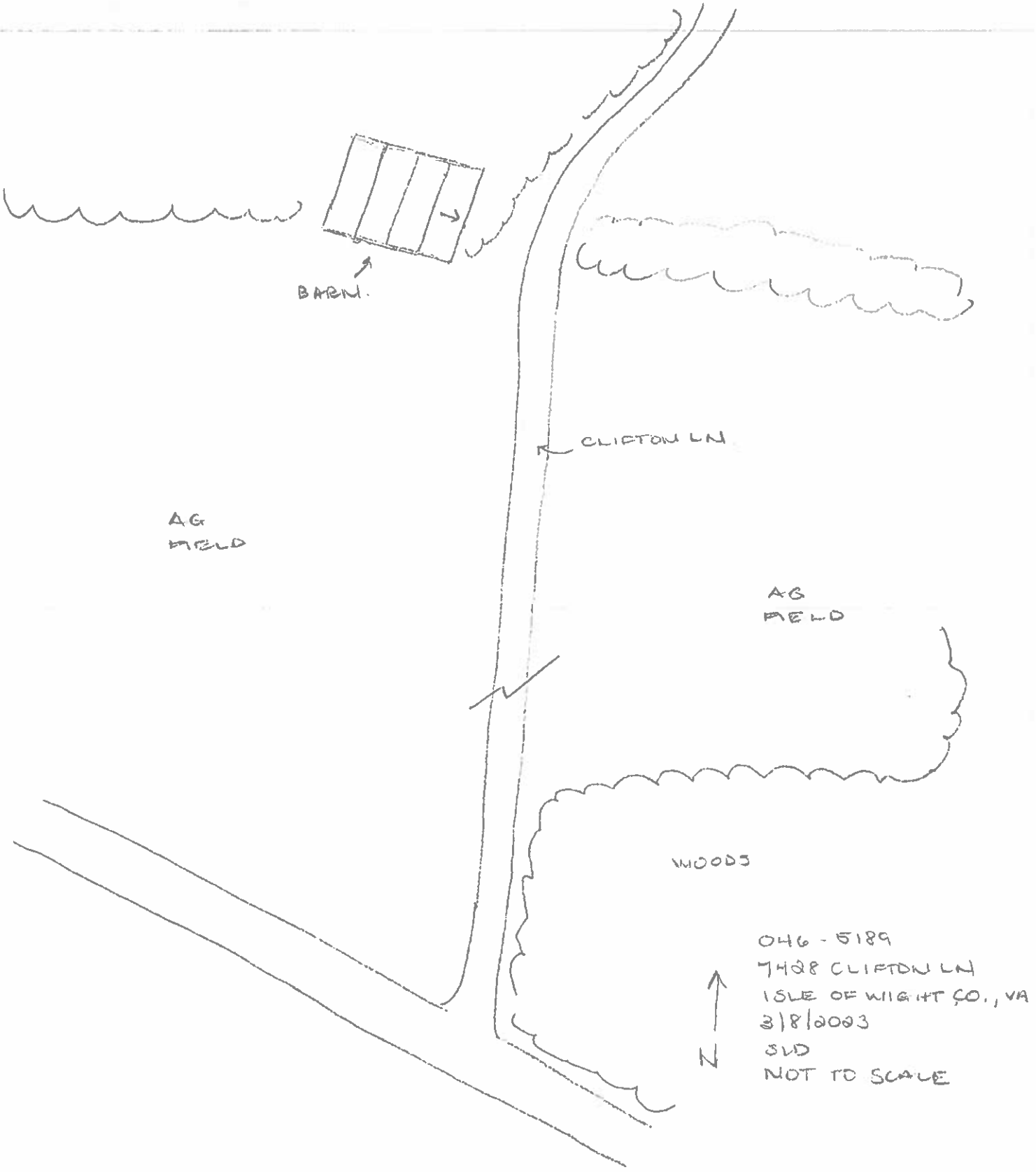
## Bibliographic Information

**Bibliography:**

No Data

**Property Notes:**

Name: Mary Wynne et ux
Address 1: 7428 Clifton Lane
City: Smithfield
State: Virginia
ZIP: 23430
Owner Relationship: Owner of property


BARN
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FIELD
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046 - 5189
7408 CLIFTON LN
ISLE OF WIGHT CO., VA
3/18/2003
SLD
N
NOT TO SCALE

## Property Information

**Property Names**

| Name Explanation | Name |
|---|---|
| Function/Location | House, 8736 Old Stage Highway |

**Property Evaluation Status**

**Property Addresses**

Current - 8736 Old Stage Highway

**County/Independent City(s):** Isle Of Wight (County)
**Incorporated Town(s):** *No Data*
**Zip Code(s):** 23430
**Magisterial District(s):** *No Data*
**Tax Parcel(s):** *No Data*
**USGS Quad(s):** BACONS CASTLE

## Additional Property Information

**Architecture Setting:** Rural
**Acreage:** *No Data*
**Site Description:**

March 2023: The house is located back from the road down a long, dirt driveway within a relatively level landscape. Surrounding the house is a lawn dotted with trees. A fenced in pasture is located in front of the house with wooded areas to the southwest and southeast of the dwelling. Six outbuildings were visible on the property at the time of the survey and include a chicken coop, shed, and what appears to be a vehicle shed located to the southwest of the house, a shed and well house to the north, and a small building which appears to be a pump house to the southeast of the house within a garden area.

**Surveyor Assessment:**

March 2023: The resource, though generally reflective of the mid-twentieth century development of Isle of Wight County, lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it is recommended that the resource is not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered in evaluating the architectural resources documented during the survey.
The resource, under NRHP Criterion A does not individually express any distinctive themes relating to the development of Isle of Wight County and does not contribute significantly to the county's growth. It is recommended therefore that the resources do not meet the criteria necessary for individual listing on the NRHP under Criterion A as the properties were constructed in response to the general development of the area.
The resource surveyed does not appear to be associated with any known individuals who made significant contributions to the historical development of the Isle of Wight County. Although limited information about the occupants of the property is known, it does not appear that the occupants would be considered of transcendent importance to the Nation's history and therefore the resource does not meet the criteria necessary for listing on the NRHP under Criterion B.
The resource does not appear to have significant architectural integrity for listing on the NRHP under Criterion C. The resource is utilitarian in design and does not embody distinctive characteristics of a type, period, or method of construction nor does the building represent the work of a master. It is therefore recommended that the resource surveyed does not meet the criteria necessary for listing on the NRHP under Criterion C.

**Surveyor Recommendation:** Recommended Not Eligible

**Ownership**

| Ownership Category | Ownership Entity |
|---|---|
| Private | *No Data* |

## Primary Resource Information

**Resource Category:** Domestic
**Resource Type:** Single Dwelling
**NR Resource Type:** Building
**Date of Construction:** 1950
**Date Source:** Local Records
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*

**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*

**Architectural Description:**

March 2023: The house is a one-story, four-bay, frame dwelling supported on what appears to be a brick and concrete block foundation. The exterior walls are sided in vinyl with the side gable roof with patterned shingles. The dwelling also features an exterior end brick chimney and brick flue with corbeled caps, a modern entry door, gable-roofed wing, and six-over-six vinyl sash windows.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Chimneys | Exterior End | Brick | Flue |
| Chimneys | Exterior End | Brick | Stretcher Bond |
| Foundation | Solid/Continuous | *No Data* | *No Data* |
| Roof | Side Gable | *No Data* | *No Data* |
| Structural System and Exterior Treatment | Wood Frame | Vinyl | Siding |

## Secondary Resource Information

### Secondary Resource #1

**Resource Category:** Domestic
**Resource Type:** Shed
**NR Resource Type:** Building
**Date of Construction:** ca 2010
**Date Source:** Site Visit
**Historic Time Period:** Post Cold War (1992 - Present)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*

**Architectural Description:**

March 2023: The shed is a modern, frame building with T-111 siding and a side gable roof clad in asphalt shingles. The building also features a narrow, two-bay porch.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Plywood/Particle Board | Siding |

### Secondary Resource #2

**Resource Category:** Domestic
**Resource Type:** Well House
**NR Resource Type:** Building
**Date of Construction:** pre 1990
**Date Source:** Site Visit
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic

**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2023: The well house is a low, concrete block building with gable roof clad in asphalt shingles.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Masonry | Concrete | Block |

## Secondary Resource #3

**Resource Category:** Domestic
**Resource Type:** Shed
**NR Resource Type:** Building
**Date of Construction:** ca 1990
**Date Source:** Site Visit
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Fair
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2023: The shed is a modern, metal building with shed roof.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Unknown | Metal | Siding |

## Secondary Resource #4

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Chicken House/Poultry House
**NR Resource Type:** Building
**Date of Construction:** pre 1990
**Date Source:** Site Visit
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Fair
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate

**Cultural Affiliation Details:** *No Data*

**Architectural Description:**

March 2023: The chicken coop is a one-story, frame, screened-in building with gable roof clad in corrugated metal. The coop is attached to a smaller, board-and-batten shed with metal-clad gable roof.

## Secondary Resource #5

**Resource Category:** Agriculture/Subsistence
**Resource Type:** Pump House
**NR Resource Type:** Structure
**Date of Construction:** ca 2010
**Date Source:** Site Visit
**Historic Time Period:** Post Cold War (1992 - Present)
**Historic Context(s):** Domestic, Subsistence/Agriculture
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** *No Data*
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*

**Architectural Description:**

March 2023: The pump house is a modern, frame building sided in T-111 with a gable roof clad in asphalt shingles.

## Secondary Resource #6

**Resource Category:** Domestic
**Resource Type:** Shed - Vehicle
**NR Resource Type:** Building
**Date of Construction:** pre 1990
**Date Source:** Site Visit
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*

**Architectural Description:**

March 2023: The building is partially obscured from the point of survey by the house but appears to function as a vehicle or equipment shed. The walls are at least partially open and the gable roof is clad in metal.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | *No Data* | *No Data* |

## Historic District Information

**Historic District Name:** *No Data*
**Local Historic District Name:** *No Data*
**Historic District Significance:** *No Data*

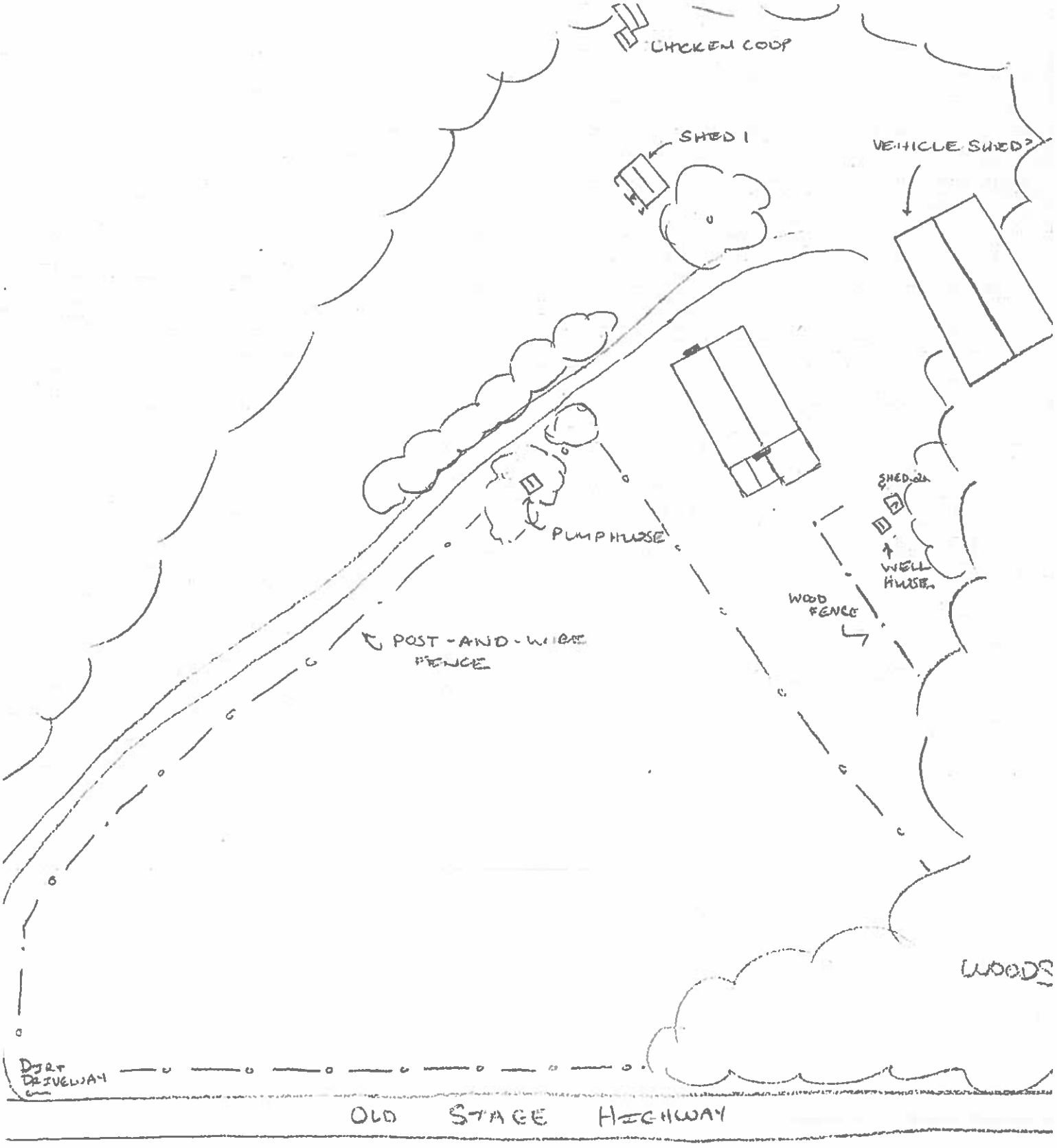
## CRM Events

### Event Type: Survey:Phase I/Reconnaissance

**Project Review File Number:** *No Data*
**Investigator:** Sandra DeChard
**Organization/Company:** Stantec 2034
**Photographic Media:** Digital
**Survey Date:** 3/8/2023
**Dhr Library Report Number:** *No Data*
**Project Staff/Notes:**
No Data
**Project Bibliographic Information:**
A Phase I Cultural Resources Survey of Approximately 20 Acres Associated with the VAL-025 Solar Project, Isle of Wight County, Virginia.

## Bibliographic Information

**Bibliography:**
Isle of Wight County Online Tax Assessment Records.
**Property Notes:**
No Data




046-5715
N
8736 OLD STAGE HIGHWAY
ISLE OF WIGHT, VA
MARCH 8, 2023
O. MCCARTY
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## Property Information

**Property Names**

| Name Explanation | Name |
|---|---|
| Function/Location | House, 8837 Old Stage Highway |

**Property Evaluation Status**

**Property Addresses**

Current - 8837 Old Stage Highway

**County/Independent City(s):** Isle Of Wight (County)
**Incorporated Town(s):** *No Data*
**Zip Code(s):** 23430
**Magisterial District(s):** *No Data*
**Tax Parcel(s):** *No Data*
**USGS Quad(s):** BACONS CASTLE

## Additional Property Information

**Architecture Setting:** Rural
**Acreage:** *No Data*
**Site Description:**

March 2023: The house sits back from the road within a relatively level lot and is surrounded by a lawn dotted with large trees, shrubs and gardens. A tree line is located beyond the yard to the east, northeast, and north as well as along the road. A gravel driveway provides access to the garage to the northeast of the house.

**Surveyor Assessment:**

March 2023: The resource, though generally reflective of the mid-twentieth century development of Isle of Wight County, lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it is recommended that the resource is not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered in evaluating the architectural resources documented during the survey.
The resource, under NRHP Criterion A does not individually express any distinctive themes relating to the development of Isle of Wight County and does not contribute significantly to the county's growth. It is recommended therefore that the resources do not meet the criteria necessary for individual listing on the NRHP under Criterion A as the properties were constructed in response to the general development of the area.
The resource surveyed does not appear to be associated with any known individuals who made significant contributions to the historical development of the Isle of Wight County. Although limited information about the occupants of the property is known, it does not appear that the occupants would be considered of transcendent importance to the Nation's history and therefore the resource does not meet the criteria necessary for listing on the NRHP under Criterion B.
The resource does not appear to have significant architectural integrity for listing on the NRHP under Criterion C. The resource is utilitarian in design and does not embody distinctive characteristics of a type, period, or method of construction nor does the building represent the work of a master. It is therefore recommended that the resource surveyed does not meet the criteria necessary for listing on the NRHP under Criterion C.

**Surveyor Recommendation:** Recommended Not Eligible

**Ownership**

| Ownership Category | Ownership Entity |
|---|---|
| Private | *No Data* |

## Primary Resource Information

**Resource Category:** Domestic
**Resource Type:** Single Dwelling
**NR Resource Type:** Building
**Date of Construction:** 1958
**Date Source:** Local Records
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*

**Number of Stories:** 1.5
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2023: The house is a one-and-a-half-story dwelling with one-story, gable-roofed wing with perpendicular one-story wing. The exterior of the dwelling is brick veneer and the front and side gable roofs are clad in asphalt shingles. The dwelling also features a metal, shed-roofed entry porch with ornate cast metal supports over the front entry with a metal awning over the secondary entrance, interior brick chimney, and one-over-one vinyl and two-over-two wood sash windows.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Foundation | Solid/Continuous | *No Data* | *No Data* |
| Porch | Portico/Entry Porch | *No Data* | Cast Metal Supports |
| Roof | Front Gable | Asphalt | *No Data* |
| Structural System and Exterior Treatment | Wood Frame | Brick | Veneer |
| Windows | Double-hung | Vinyl | *No Data* |
| Chimneys | Interior Slope | Brick | Stretcher Bond |

## Secondary Resource Information

### Secondary Resource #1

**Resource Category:** Domestic
**Resource Type:** Garage
**NR Resource Type:** Building
**Date of Construction:** ca 1980
**Date Source:** Site Visit
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 2.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2023: The garage is a two-story, two-bay, frame building with vinyl siding and an asphalt shingle-clad gambrel roof.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Vinyl | Siding |

## Historic District Information

**Historic District Name:** *No Data*
**Local Historic District Name:** *No Data*
**Historic District Significance:** *No Data*

## CRM Events

### Event Type: Survey:Phase I/Reconnaissance

**Project Review File Number:** *No Data*
**Investigator:** Sandra DeChard
**Organization/Company:** Stantec 2034
**Photographic Media:** Digital
**Survey Date:** 3/8/2023
**Dhr Library Report Number:** *No Data*
**Project Staff/Notes:**
No Data
**Project Bibliographic Information:**
A Phase I Cultural Resources Survey of Approximately 20 Acres Associated with the VAL-025 Solar Project, Isle of Wight County, Virginia.

## Bibliographic Information

**Bibliography:**
Isle of Wight County Online Tax Assessment Records.
**Property Notes:**
No Data

## Property Information

**Property Names**

| Name Explanation | Name |
|---|---|
| Function/Location | House, 8821 Old Stage Highway |

**Property Evaluation Status**

**Property Addresses**

Current - 8821 Old Stage Highway

**County/Independent City(s):** Isle Of Wight (County)
**Incorporated Town(s):** *No Data*
**Zip Code(s):** 23430
**Magisterial District(s):** *No Data*
**Tax Parcel(s):** *No Data*
**USGS Quad(s):** BACONS CASTLE

## Additional Property Information

**Architecture Setting:** Rural
**Acreage:** *No Data*
**Site Description:**

March 2023: The house sits back from the road on an open, level lot with a tree line to the west and north. A dirt and gravel driveway leads from the road, passed the western gable end of the house and provides access to the garage to the north.

**Surveyor Assessment:**

March 2023: The resource, though generally reflective of the mid-twentieth century development of Isle of Wight County, lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it is recommended that the resource is not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered in evaluating the architectural resources documented during the survey.
The resource, under NRHP Criterion A does not individually express any distinctive themes relating to the development of Isle of Wight County and does not contribute significantly to the county's growth. It is recommended therefore that the resources do not meet the criteria necessary for individual listing on the NRHP under Criterion A as the properties were constructed in response to the general development of the area.
The resource surveyed does not appear to be associated with any known individuals who made significant contributions to the historical development of the Isle of Wight County. Although limited information about the occupants of the property is known, it does not appear that the occupants would be considered of transcendent importance to the Nation's history and therefore the resource does not meet the criteria necessary for listing on the NRHP under Criterion B.
The resource does not appear to have significant architectural integrity for listing on the NRHP under Criterion C. The resource is utilitarian in design and does not embody distinctive characteristics of a type, period, or method of construction nor does the building represent the work of a master. It is therefore recommended that the resource surveyed does not meet the criteria necessary for listing on the NRHP under Criterion C.

**Surveyor Recommendation:** Recommended Not Eligible

**Ownership**

| Ownership Category | Ownership Entity |
|---|---|
| Private | *No Data* |

## Primary Resource Information

**Resource Category:** Domestic
**Resource Type:** Single Dwelling
**NR Resource Type:** Building
**Date of Construction:** 1970
**Date Source:** Local Records
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** Ranch
**Form:** *No Data*

**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*

**Architectural Description:**

March 2023: The house is a one-story, L-shaped dwelling with rusticated brick exterior walls and a cross-gable roof clad in asphalt shingles. A one-story, shed-roofed porch with ornate cast metal supports extends along the western and southern elevations. The dwelling also features an exterior end rusticated brick chimney, Chicago-style window, triple single-light entry doors, and one-over-one wood sash windows.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Chimneys | Exterior End | Brick | Stretcher Bond |
| Foundation | Solid/Continuous | *No Data* | *No Data* |
| Porch | Wrap-Around | *No Data* | Cast Metal Supports |
| Roof | Cross Gable | Asphalt | *No Data* |
| Structural System and Exterior Treatment | Unknown | Brick | Rusticated |
| Windows | Double-hung | Wood | *No Data* |

## Secondary Resource Information

### Secondary Resource #1

**Resource Category:** Domestic
**Resource Type:** Garage
**NR Resource Type:** Building
**Date of Construction:** pre 1980
**Date Source:** Site Visit
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.5
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*

**Architectural Description:**

March 2023: The building is currently used as a garage and is a one-and-half-story, single-bay, frame building with board-and-batten siding and front gable roof clad in asphalt shingles. The building is supported by a concrete block foundation and also features a modern retractable garage bay door, one-story, shed-roofed wing with additional garage bay, and a hayloft door.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Board-and-Batten |

## Historic District Information

**Historic District Name:** *No Data*
**Local Historic District Name:** *No Data*
**Historic District Significance:** *No Data*

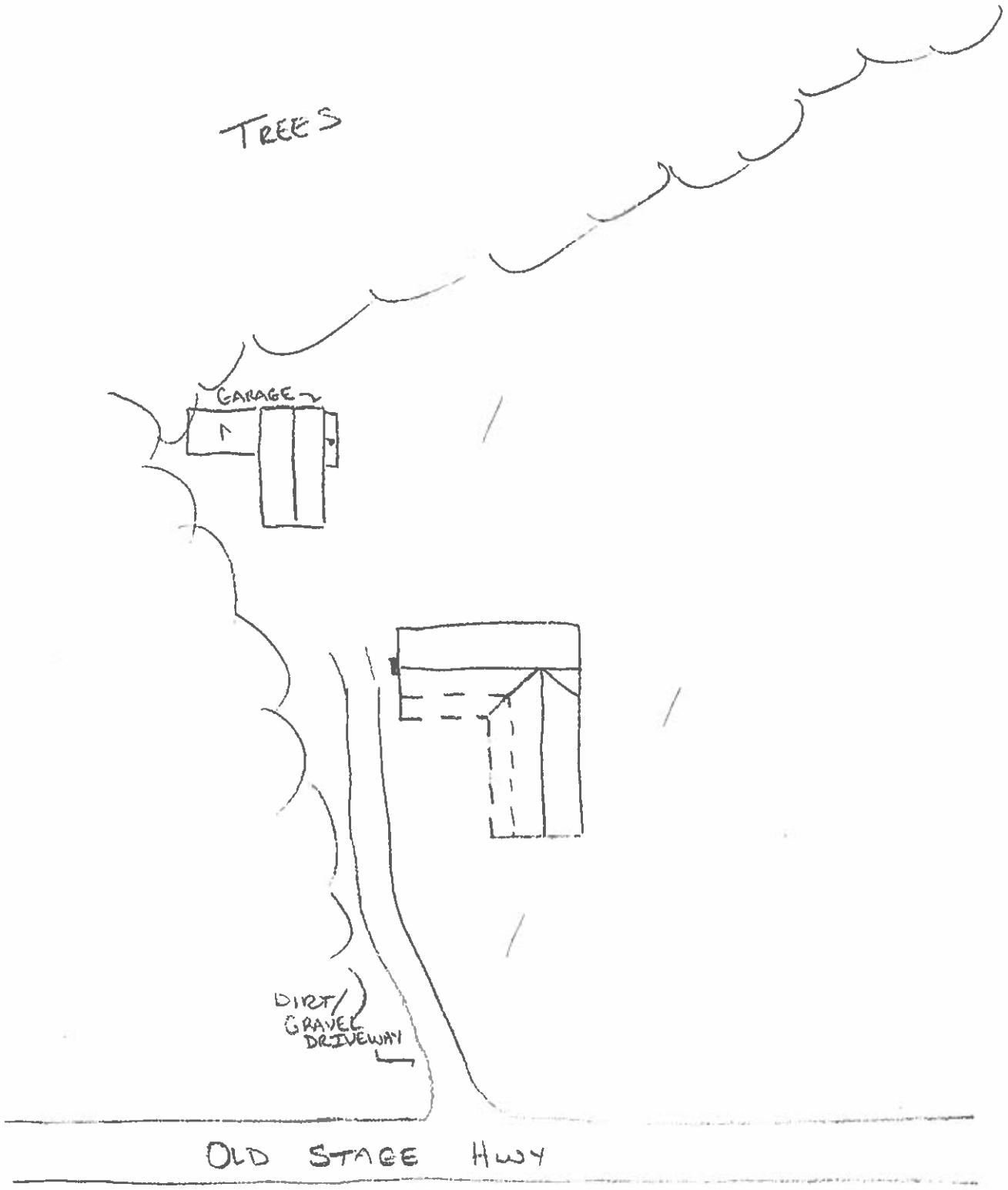
## CRM Events

### Event Type: Survey:Phase I/Reconnaissance

**Project Review File Number:** *No Data*
**Investigator:** Sandra DeChard
**Organization/Company:** Stantec 2034
**Photographic Media:** Digital
**Survey Date:** 3/8/2023
**Dhr Library Report Number:** *No Data*
**Project Staff/Notes:**
No Data
**Project Bibliographic Information:**
A Phase I Cultural Resources Survey of Approximately 20 Acres Associated with the VA1-025 Solar Project, Isle of Wight County, Virginia.

## Bibliographic Information

**Bibliography:**
Isle of Wight County Online Tax Assessment Records.
**Property Notes:**
No Data




N

046-5717
8821 Old Stage Highway
Isle of Wight, Virginia
March , 2023
O. McCarthy
N.T.S.

## Property Information

**Property Names**

| Name Explanation | Name |
|---|---|
| Function/Location | House, 8785 Old Stage Highway |

**Property Evaluation Status**

**Property Addresses**

Current - 8785 Old Stage Highway

**County/Independent City(s):** Isle Of Wight (County)
**Incorporated Town(s):** *No Data*
**Zip Code(s):** 23430
**Magisterial District(s):** *No Data*
**Tax Parcel(s):** *No Data*
**USGS Quad(s):** BACONS CASTLE

## Additional Property Information

**Architecture Setting:** Rural
**Acreage:** *No Data*
**Site Description:**

March 2023: The house sits back from the road on a relatively level lot and is surrounded by a lawn dotted with mature trees with wooded areas beyond to the northeast, north and southeast. A shared gravel driveway leads from the road and provides access to a carport. The driveway continues passed the south side of the house to the adjoining property. Aside from the carport immediately to the west, a shed is located to the southeast of the dwelling.

**Surveyor Assessment:**

March 2023: The resource, though generally reflective of the mid-twentieth century development of Isle of Wight County, lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it is recommended that the resource is not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered in evaluating the architectural resources documented during the survey.
The resource, under NRHP Criterion A does not individually express any distinctive themes relating to the development of Isle of Wight County and does not contribute significantly to the county's growth. It is recommended therefore that the resources do not meet the criteria necessary for individual listing on the NRHP under Criterion A as the properties were constructed in response to the general development of the area.
The resource surveyed does not appear to be associated with any known individuals who made significant contributions to the historical development of the Isle of Wight County. Although limited information about the occupants of the property is known, it does not appear that the occupants would be considered of transcendent importance to the Nation's history and therefore the resource does not meet the criteria necessary for listing on the NRHP under Criterion B.
The resource does not appear to have significant architectural integrity for listing on the NRHP under Criterion C. The resource is utilitarian in design and does not embody distinctive characteristics of a type, period, or method of construction nor does the building represent the work of a master. It is therefore recommended that the resource surveyed does not meet the criteria necessary for listing on the NRHP under Criterion C.

**Surveyor Recommendation:** Recommended Not Eligible

**Ownership**

| Ownership Category | Ownership Entity |
|---|---|
| Private | *No Data* |

## Primary Resource Information

**Resource Category:** Domestic
**Resource Type:** Single Dwelling
**NR Resource Type:** Building
**Date of Construction:** 1956
**Date Source:** Local Records
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** Ranch

| | |
|---|---|
| **Form:** | *No Data* |
| **Number of Stories:** | 1.0 |
| **Condition:** | Good |
| **Threats to Resource:** | Public Utility Expansion |
| **Cultural Affiliations:** | Indeterminate |
| **Cultural Affiliation Details:** | *No Data* |

**Architectural Description:**

March 2023: The house, which is partially obscured from the point of survey by trees, is a one-story, frame dwelling with one-story, gable-roofed wing. The exterior is clad in vinyl with a section of the facade in brick veneer. The cross-gable roof is sheathed in asphalt shingles and a large brick chimney projects through the front roof slope. Other visible features include a two-over-two horizontally divided wood sash window and a Chicago-style window.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Chimneys | Interior Slope | Brick | Stretcher Bond |
| Foundation | Solid/Continuous | *No Data* | *No Data* |
| Roof | Cross Gable | Asphalt | *No Data* |
| Structural System and Exterior Treatment | Wood Frame | Vinyl | Siding |
| Structural System and Exterior Treatment | Wood Frame | Brick | Veneer |
| Windows | Double-hung | Wood | *No Data* |

## Secondary Resource Information

### Secondary Resource #1

| | |
|---|---|
| **Resource Category:** | Domestic |
| **Resource Type:** | Carport |
| **NR Resource Type:** | Structure |
| **Date of Construction:** | ca 1980 |
| **Date Source:** | Site Visit |
| **Historic Time Period:** | The New Dominion (1946 - 1991) |
| **Historic Context(s):** | Domestic |
| **Other ID Number:** | *No Data* |
| **Architectural Style:** | No discernible style |
| **Form:** | *No Data* |
| **Number of Stories:** | *No Data* |
| **Condition:** | Good |
| **Threats to Resource:** | Public Utility Expansion |
| **Cultural Affiliations:** | Indeterminate |
| **Cultural Affiliation Details:** | *No Data* |

**Architectural Description:**

March 2023: The carport is a modern, metal structure.

### Secondary Resource #2

| | |
|---|---|
| **Resource Category:** | Domestic |
| **Resource Type:** | Shed |
| **NR Resource Type:** | Building |
| **Date of Construction:** | ca 1956 |
| **Date Source:** | Site Visit |
| **Historic Time Period:** | The New Dominion (1946 - 1991) |
| **Historic Context(s):** | Domestic |
| **Other ID Number:** | *No Data* |
| **Architectural Style:** | No discernible style |
| **Form:** | *No Data* |

**Number of Stories:** 1.0
**Condition:** Fair
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2023: The shed is a one-story, frame building supported by brick piers with what appears to be concrete block in-fill. The exterior is sheathed in weatherboards with the shed roof clad in corrugated metal. The building also features a one-over-one wood sash window.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Wood | Weatherboard |

## Historic District Information

**Historic District Name:** *No Data*
**Local Historic District Name:** *No Data*
**Historic District Significance:** *No Data*

## CRM Events

### Event Type: Survey:Phase I/Reconnaissance

**Project Review File Number:** *No Data*
**Investigator:** Sandra DeChard
**Organization/Company:** Stantec 2034
**Photographic Media:** Digital
**Survey Date:** 3/8/2023
**Dhr Library Report Number:** *No Data*
**Project Staff/Notes:**

No Data

**Project Bibliographic Information:**

A Phase I Cultural Resources Survey of Approximately 20 Acres Associated with the VAL-025 Solar Project, Isle of Wight County, Virginia

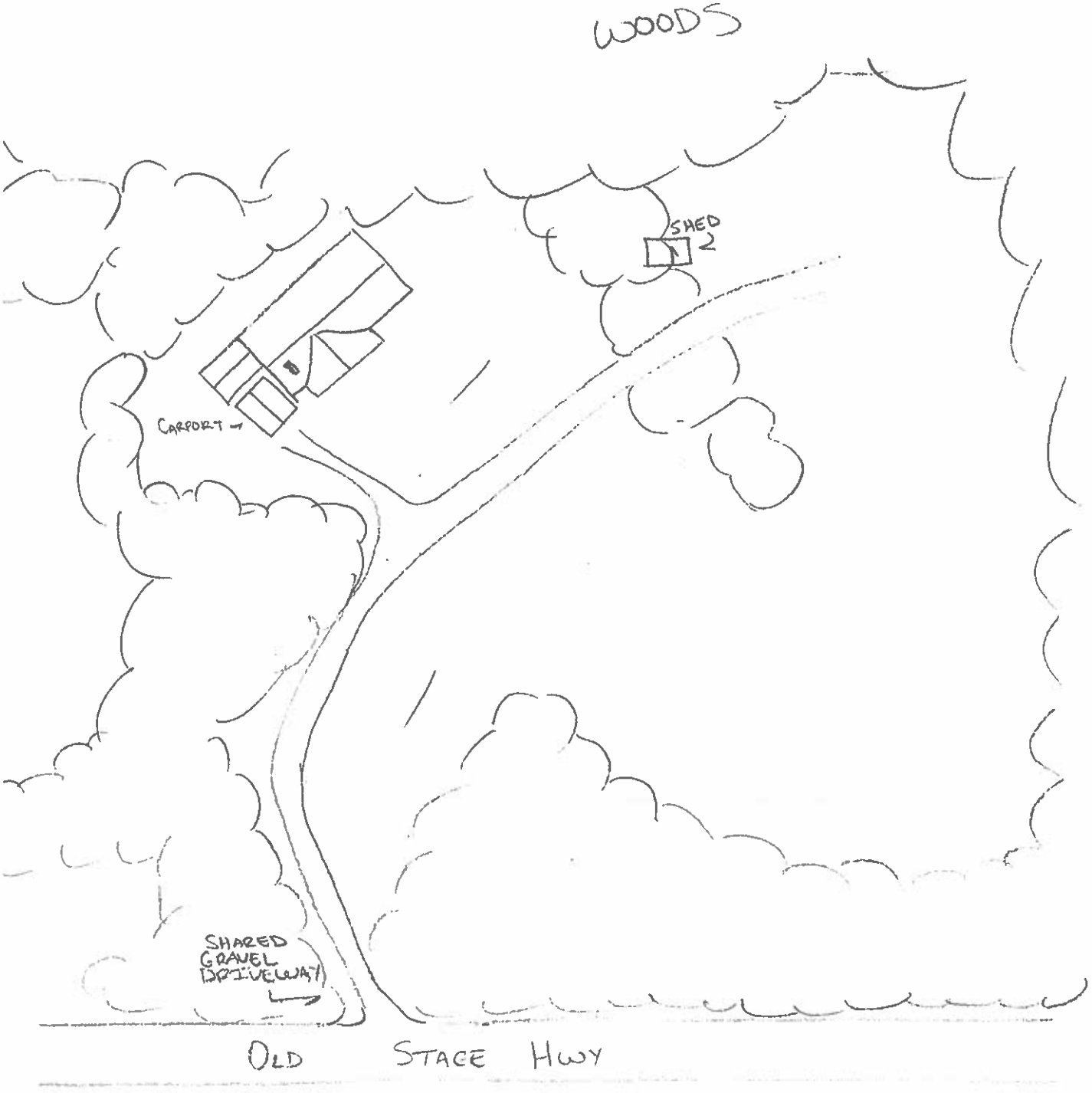
## Bibliographic Information

**Bibliography:**

Isle of Wight County Online Tax Assessment Records.

**Property Notes:**

No Data




N

044-5718
8785 OLD STAGE HIGHWAY
ISLE OF WIGHT, VIRGINIA
MARCH 8, 2023
O. McCARTY
N.T.S.

## Property Information

**Property Names**

| Name Explanation | Name |
|---|---|
| Function/Location | House, 8731 Old Stage Highway |

**Property Evaluation Status**

**Property Addresses**

Current - 8731 Old Stage Highway

| | |
|---|---|
| **County/Independent City(s):** | Isle Of Wight (County) |
| **Incorporated Town(s):** | *No Data* |
| **Zip Code(s):** | 23430 |
| **Magisterial District(s):** | *No Data* |
| **Tax Parcel(s):** | *No Data* |
| **USGS Quad(s):** | BACONS CASTLE |

## Additional Property Information

| | |
|---|---|
| **Architecture Setting:** | Rural |
| **Acreage:** | *No Data* |

**Site Description:**

March 2023: The house sits back from the road on a relatively level lot and is surrounded by areas of lawn dotted with mature trees. A circular gravel driveway is located in front of the house and branches to the northeast and provides access to the garage and carport located to the north of the house. A third outbuilding, a vehicle/equipment shed, is located to the northwest of the dwelling.

**Surveyor Assessment:**

March 2023: The resource, though generally reflective of the mid-twentieth century development of Isle of Wight County, lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it is recommended that the resource is not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered in evaluating the architectural resources documented during the survey.
The resource, under NRHP Criterion A does not individually express any distinctive themes relating to the development of Isle of Wight County and does not contribute significantly to the county's growth. It is recommended therefore that the resources do not meet the criteria necessary for individual listing on the NRHP under Criterion A as the properties were constructed in response to the general development of the area.
The resource surveyed does not appear to be associated with any known individuals who made significant contributions to the historical development of the Isle of Wight County. Although limited information about the occupants of the property is known, it does not appear that the occupants would be considered of transcendent importance to the Nation's history and therefore the resource does not meet the criteria necessary for listing on the NRHP under Criterion B.
The resource does not appear to have significant architectural integrity for listing on the NRHP under Criterion C. The resource is utilitarian in design and does not embody distinctive characteristics of a type, period, or method of construction nor does the building represent the work of a master. It is therefore recommended that the resource surveyed does not meet the criteria necessary for listing on the NRHP under Criterion C.

**Surveyor Recommendation:** Recommended Not Eligible

**Ownership**

| Ownership Category | Ownership Entity |
|---|---|
| Private | *No Data* |

## Primary Resource Information

| | |
|---|---|
| **Resource Category:** | Domestic |
| **Resource Type:** | Single Dwelling |
| **NR Resource Type:** | Building |
| **Date of Construction:** | 1950 |
| **Date Source:** | Local Records |
| **Historic Time Period:** | The New Dominion (1946 - 1991) |
| **Historic Context(s):** | Domestic |
| **Other ID Number:** | *No Data* |
| **Architectural Style:** | Minimal Traditional |
| **Form:** | *No Data* |

**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2023: The dwelling, constructed in 1950, incorporates typical characteristics of the style including limited ornamentation and essentially no eaves. The dwelling also features a cross-gable roof clad in asphalt shingles. The dwelling has been altered with the replacement of its original siding and windows with vinyl. Additional features include a brick foundation, one-story, shed-roofed and hipped-roof wing, exterior end brick chimney, and shed-roofed hood over the front entry.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Chimneys | Exterior End | Brick | Stretcher Bond |
| Foundation | Solid/Continuous | Brick | Stretcher Bond |
| Roof | Cross Gable | Asphalt | *No Data* |
| Structural System and Exterior Treatment | Wood Frame | Vinyl | Siding |
| Windows | Double-hung | Vinyl | *No Data* |

## Secondary Resource Information

### Secondary Resource #1

**Resource Category:** Domestic
**Resource Type:** Garage
**NR Resource Type:** Building
**Date of Construction:** ca 1950
**Date Source:** Site Visit
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2023: The garage is a one-story, frame building supported by a concrete block foundation. The exterior is clad in vinyl. The garage also features a front gable roof and an off-center, retractable garage bay door.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Vinyl | Siding |

### Secondary Resource #2

**Resource Category:** Domestic
**Resource Type:** Carport
**NR Resource Type:** Structure
**Date of Construction:** ca 1990
**Date Source:** Site Visit
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*

**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** *No Data*
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2023: The carport is a modern, open, frame structure with metal-clad shed roof.

## Secondary Resource #3

**Resource Category:** Domestic
**Resource Type:** Shed - Vehicle
**NR Resource Type:** Building
**Date of Construction:** ca 1990
**Date Source:** Site Visit
**Historic Time Period:** The New Dominion (1946 - 1991)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*
**Architectural Style:** No discernible style
**Form:** *No Data*
**Number of Stories:** 1.0
**Condition:** Good
**Threats to Resource:** Public Utility Expansion
**Cultural Affiliations:** Indeterminate
**Cultural Affiliation Details:** *No Data*
**Architectural Description:**

March 2023: The vehicle/equipment shed is a modern, open, frame structure with metal-clad shed roof.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | *No Data* | *No Data* |

## Historic District Information

**Historic District Name:** *No Data*
**Local Historic District Name:** *No Data*
**Historic District Significance:** *No Data*

## CRM Events

### Event Type: Survey:Phase I/Reconnaissance

**Project Review File Number:** *No Data*
**Investigator:** Sandra DeChard
**Organization/Company:** Stantec 2034
**Photographic Media:** Digital
**Survey Date:** 3/8/2023
**Dhr Library Report Number:** *No Data*
**Project Staff/Notes:**

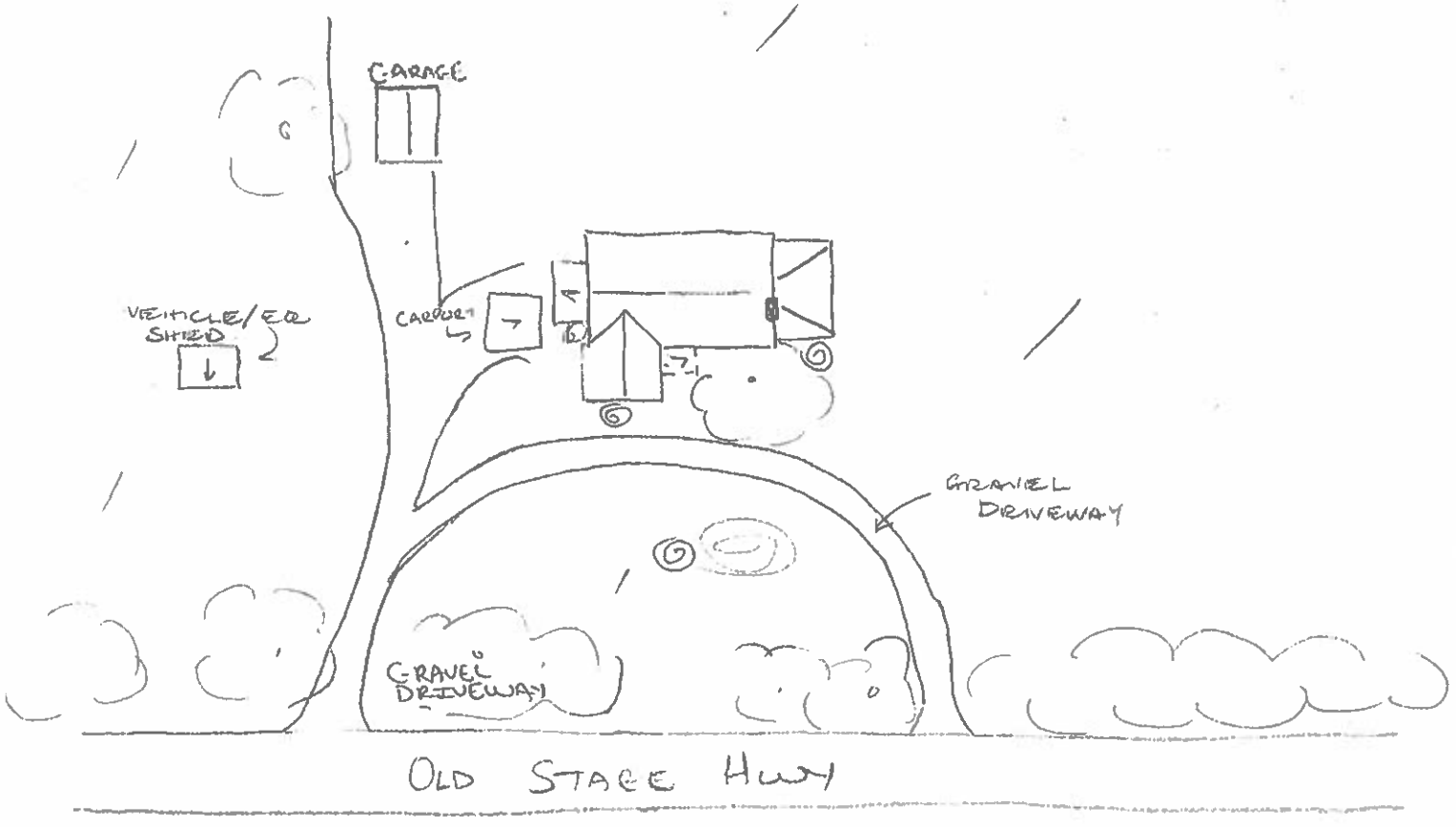
No Data

**Project Bibliographic Information:**
A Phase I Cultural Resources Survey of Approximately 20 Acres Associated with the VAL-025 Solar Project, Isle of Wight County, Virginia.

## Bibliographic Information

**Bibliography:**
Isle of Wight County Online Tax Assessment Records

**Property Notes:**
No Data




N

046-5719
87831 Old Stage Highway
Isle of Wight, Virginia
March 8, 2023
O. McCarty
N.T.S.

## Property Information

**Property Names**

| Name Explanation | Name |
|---|---|
| Function/Location | House, 8699 Old Stage Highway |

**Property Evaluation Status**

**Property Addresses**

Current - 8699 Old Stage Highway

**County/Independent City(s):** Isle Of Wight (County)
**Incorporated Town(s):** *No Data*
**Zip Code(s):** 23430
**Magisterial District(s):** *No Data*
**Tax Parcel(s):** *No Data*
**USGS Quad(s):** BACONS CASTLE

## Additional Property Information

**Architecture Setting:** Rural
**Acreage:** *No Data*

**Site Description:**

March 2023: The house sits back from the road on a relatively level lot and is surrounded by remnants of a lawn which is dotted by mature trees. Remnants of a circular gravel driveway are also visible, which also branches to the northwest and runs passed the southeast gable end of the dwelling. An area of woods is located to the northwest and behind the dwelling. Beyond the wooded area to the northwest is an area which has been clear cut which has also exposed a shed. Two additional secondary resources were visible and include a pump house immediately to the west of the house and a collapsed structure to the north.

**Surveyor Assessment:**

March 2023: The resource, though generally reflective of the early to mid-twentieth century development of Isle of Wight County, lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it is recommended that the resource is not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered in evaluating the architectural resources documented during the survey.
The resource, under NRHP Criterion A does not individually express any distinctive themes relating to the development of Isle of Wight County and does not contribute significantly to the county's growth. It is recommended therefore that the resources do not meet the criteria necessary for individual listing on the NRHP under Criterion A as the properties were constructed in response to the general development of the area.
The resource surveyed does not appear to be associated with any known individuals who made significant contributions to the historical development of the Isle of Wight County. Although limited information about the occupants of the property is known, it does not appear that the occupants would be considered of transcendent importance to the Nation's history and therefore the resource does not meet the criteria necessary for listing on the NRHP under Criterion B.
The resource does not appear to have significant architectural integrity for listing on the NRHP under Criterion C. The resource is utilitarian in design and does not embody distinctive characteristics of a type, period, or method of construction nor does the building represent the work of a master. It is therefore recommended that the resource surveyed does not meet the criteria necessary for listing on the NRHP under Criterion C.

**Surveyor Recommendation:** Recommended Not Eligible

**Ownership**

| Ownership Category | Ownership Entity |
|---|---|
| Private | *No Data* |

## Primary Resource Information

**Resource Category:** Domestic
**Resource Type:** Single Dwelling
**NR Resource Type:** Building
**Date of Construction:** 1930
**Date Source:** Local Records
**Historic Time Period:** World War I to World War II (1917 - 1945)
**Historic Context(s):** Domestic
**Other ID Number:** *No Data*

| | |
|---|---|
| **Architectural Style:** | Craftsman |
| **Form:** | Bungalow |
| **Number of Stories:** | 1.5 |
| **Condition:** | Fair |
| **Threats to Resource:** | Neglect, Public Utility Expansion, Vacant |
| **Cultural Affiliations:** | Indeterminate |
| **Cultural Affiliation Details:** | *No Data* |

**Architectural Description:**

March 2023: The bungalow is architecturally intact but appears to have been abandoned. The one-and-a-half-story, three-bay dwelling is frame construction and is supported by a brick foundation. Projecting from the front roof slope of the side gable roof are two gable-roofed dormers and visible above the ridge line of the roof is a brick flue with corbelled cap. A concrete block flue is located off the wing. The exterior walls are clad in weatherboards and a one-story, hipped-roof, once screened-in porch extends across the façade. The northwestern end of the porch has been incorporated into the narrow, hipped-roof wing off the dwelling's northwest gable end. Additional features include six-over-one wood sash windows and bracketed eaves.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Chimneys | Interior Central | Brick | Flue |
| Foundation | Solid/Continuous | Brick | Stretcher Bond |
| Porch | 1-Story Full-Width | Wood | Posts |
| Roof | Side Gable | Asphalt | *No Data* |
| Chimneys | Exterior End | Concrete | Block |
| Structural System and Exterior Treatment | Wood Frame | Wood | Weatherboard |
| Windows | Double-hung | Wood | *No Data* |
| Dormer | Gable | *No Data* | *No Data* |

## Secondary Resource Information

### Secondary Resource #1

| | |
|---|---|
| **Resource Category:** | Domestic |
| **Resource Type:** | Shed |
| **NR Resource Type:** | Building |
| **Date of Construction:** | pre 1960 |
| **Date Source:** | Site Visit |
| **Historic Time Period:** | The New Dominion (1946 - 1991) |
| **Historic Context(s):** | Domestic |
| **Other ID Number:** | *No Data* |
| **Architectural Style:** | No discernible style |
| **Form:** | *No Data* |
| **Number of Stories:** | 1.0 |
| **Condition:** | Fair |
| **Threats to Resource:** | Public Utility Expansion |
| **Cultural Affiliations:** | Indeterminate |
| **Cultural Affiliation Details:** | *No Data* |

**Architectural Description:**

March 2023: The shed was once located in a wooded area and is a small, one-story, frame building with aluminum siding, front gable roof clad in metal, and a six-light, wood-framed window.

**Exterior Components**

| Component | Component Type | Material | Material Treatment |
|---|---|---|---|
| Structural System and Exterior Treatment | Wood Frame | Aluminum | Siding |

### Secondary Resource #2

| | |
|---|---|
| **Resource Category:** | Agriculture/Subsistence |
| **Resource Type:** | Pump House |
| **NR Resource Type:** | Structure |

| | |
|---|---|
| **Date of Construction:** | ca 1980 |
| **Date Source:** | Site Visit |
| **Historic Time Period:** | The New Dominion (1946 - 1991) |
| **Historic Context(s):** | Domestic |
| **Other ID Number:** | *No Data* |
| **Architectural Style:** | No discernible style |
| **Form:** | *No Data* |
| **Number of Stories:** | *No Data* |
| **Condition:** | Poor |
| **Threats to Resource:** | Neglect, Public Utility Expansion |
| **Cultural Affiliations:** | Indeterminate |
| **Cultural Affiliation Details:** | *No Data* |

**Architectural Description:**

March 2023: The pump house is a one-story, frame building with plywood siding which has partially rotted, and a front gable roof covered in asphalt roll.

### Secondary Resource #3

| | |
|---|---|
| **Resource Category:** | Domestic |
| **Resource Type:** | Shed - Vehicle |
| **NR Resource Type:** | Building |
| **Date of Construction:** | pre 1940 |
| **Date Source:** | Site Visit |
| **Historic Time Period:** | World War I to World War II (1917 - 1945) |
| **Historic Context(s):** | Domestic |
| **Other ID Number:** | *No Data* |
| **Architectural Style:** | No discernible style |
| **Form:** | *No Data* |
| **Number of Stories:** | 1.0 |
| **Condition:** | Ruinous |
| **Threats to Resource:** | Public Utility Expansion, Structural Failure |
| **Cultural Affiliations:** | Indeterminate |
| **Cultural Affiliation Details:** | *No Data* |

**Architectural Description:**

March 2023: The building has collapsed but may have been used as a vehicle shed. Its close proximity to the house would suggest a domestic rather than agricultural function. The building appears to have been partially clad in weatherboards and partially in plywood with what appears to have been a shed roof covered in asphalt roll. The building also appears to have had two open bays.

## Historic District Information

| | |
|---|---|
| **Historic District Name:** | *No Data* |
| **Local Historic District Name:** | *No Data* |
| **Historic District Significance:** | *No Data* |

## CRM Events

### Event Type: Survey:Phase I/Reconnaissance

| | |
|---|---|
| **Project Review File Number:** | *No Data* |
| **Investigator:** | Sandra DeChard |
| **Organization/Company:** | Stantec 2034 |
| **Photographic Media:** | Digital |
| **Survey Date:** | 3/8/2023 |

**Dhr Library Report Number:** *No Data*

**Project Staff/Notes:**

No Data

**Project Bibliographic Information:**

A Phase I Cultural Resources Survey of Approximately 20 Acres Associated with the VAL-025 Solar Project, Isle of Wight County, Virginia.

## Bibliographic Information

**Bibliography:**

Isle of Wight County Online Tax Assessment Records.

**Property Notes:**

No Data

# Donald Sadler, MA

Project Archaeologist

Mr. Sadler has over 23 years of professional experience as an archaeologist. He has excavated on sites across Virginia, including Jamestown, as well as Greece, Bermuda, Georgia and Maryland, on both academic and professional projects. He has over a decade of experience as the primary field archaeologist supervising excavations at the Phase I, II and III levels involving the prehistoric and Euro-American history of the Chesapeake region. His duties at have included Phase I and II evaluations as a field technician and Field Supervisor. He has also assisted Senior Principal Investigators in report writing, management summaries, and historic research. Donnie has experience in historic ceramic analysis, 18th-century material culture analysis, managing archaeological collections, and database management.

## EDUCATION

Master of Arts, Historical Archaeology, College of William and Mary, Williamsburg, Virginia, 2006

Bachelor of Arts, Anthropology with Honors, minor in History, College of William & Mary, Williamsburg, Virginia, 2001

## CERTIFICATIONS & TRAINING

HAZWOPER 40 hour Certificate, Statewide, Virginia, 2018

Confined Space Awareness Training, Statewide, Virginia, 2016

RPA certified course "Metal Detecting for the Archaeologist", Nationwide, US, 2015

## PROJECT EXPERIENCE

### Data Recovery of Site 44JC0664, James City County, Virginia

*Donald oversaw the data recovery effort for Site 44JC0664, a Colonial era domestic site with a Civil War encampment component. Donald managed all field staff, monitored mechanical excavations, participated in feature excavation, and participated in photodocumentation of the site as well as the production of scale drawings. The site was situated within an active construction zone and Donald coordinated with on-site contractors and ensured that all staff followed safety protocol. Donald is currently synthesizing the recovered data and writing a detailed technical report describing the results of the investigation.*

### Documentary Research for the Sammons Cemetery, Albemarle County, Virginia

*Documentary Research for the Sammons Cemetery Report on file at the Virginia Department of Transportation (VDOT) in Richmond, Virginia.*

### City of Fredericksburg - Phase I Archaeological Survey, Phase II Evaluation, and Phase III Data Recovery for the Proposed Courthouse Facility at the Intersection of Princess Anne and Charlotte Streets, (Southeastern Quadrant of Block 42), City of Fredericksburg, Virginia

*Three-stage archaeological investigation of a historic domestic site in the City of Fredericksburg in advance of the construction of a new Courthouse facility. The project resulted in the identification of 18th and 19th century domestic deposits including a Civil War period cellar dating to 1863. Work included archaeological fieldwork, extensive historic research, site interpretation, and final reporting. Also included was the development of an interpretive display featuring the sites to satisfy public participation requirements and highlight the significance of the lot and the site. Responsibilities included field supervision and direction for all fieldwork, field notes, and reporting.*

### Phase IA/Stage I Analysis for the Proposed Dominion Virginia Power Warrenton-Wheeler-Gainesville 230 kV Transmission Line Project, Fauquier and Prince William Counties, Virginia

*Donald managed a cultural resources crew for the completion of a Phase IA/Stage I Cultural Resources Assessment for the proposed ~ 20 mile Warrenton-Wheeler-Gainesville 230 kV Transmission line project.*

### A Phase I Cultural Resources Survey of Approximately 9.4 Miles of the Proposed Dominion Virginia Power Dahlgren 230 kV Transmission Line*, King George County, Virginia

*Donald and crew conducted a Phase I Cultural Resources Survey of a proposed Dominion Power 230kV utility line in King George County, Virginia. The proposed route of the Dahlgren line covers a distance of approximately 9.4 miles. Work included archaeological and architectural survey for the APE defined by the project for the entire corridor.*

# Donald Sadler, MA

Project Archaeologist

Stantec

**A Phase I Cultural Resources Survey of Approximately 39.0 Miles of Proposed Improvements to the Dominion Virginia Power 500 kV Transmission Line from the Lexington Substation to the Dooms Substation, Augusta and Rockbridge Counties, Virginia**

*Donald and crew conducted a Phase I Cultural Resources Survey of a proposed Dominion Power 230kV utility line in August and Rockbridge counties, Virginia. The proposed route of the Lexington to Doom line covers a distance of approximately 39 miles. Work included archaeological and architectural survey for the APE defined by the project for the entire corridor.*

**Benns Church Substation Rebuild Project, Isle of Wight County, Virginia**

*Donald directed the field effort for a Phase I survey of approximately 3.332 acres associated with the Dominion Virginia Power Benns Church Substation Rebuild Project and Phase II evaluation of Site 44IW0275, a Woodland period temporary camp site. Responsibilities included directing field staff in systematic shovel testing and test unit excavation, photodocumentation of the project APE and Site 44IW0275, and the production of scale drawings associated with the Phase II evaluation effort.*

**Dahlgren 230 kV Transmission Line Project, King George County, Virginia**

Mr. Sadler led the field effort for a Phase I survey of approximately 9.4 miles associated with the Dominion Virginia Power Dahlgren 230 kV Transmission line project in King George County, Virginia. Mr. Sadler was responsible for crew management, coordination with local landowners, systematic shovel testing, and recordation.

**VDOT - Archaeological Survey for Proposed Improvements to I-64, Segment 2, James City and York Counties, Virginia**

*Archaeological survey support for proposed improvements to Segment 2 of the I-64 improvement project in James City and York Counties Virginia. The project included archaeological survey of approximately 7 miles of proposed roadway improvements and expansion. The project included traditional archaeological survey as well as metal detecting for military related resources. Responsibilities included field supervision and direction for all fieldwork, field notes, and reporting.*

**US Coast Guard Training Facility, Yorktown – Archaeological Monitoring for Water Line Replacement*, Yorktown, Virginia**

*As subconsultant to TetraTech Tesoro, Donald provided archaeological monitoring for the replacement of a water line supporting the USCG TRACEN facility. The water line crossed the NRHP-listed Yorktown National Battlefield. Services included daily on-site monitoring, recordation of soil profiles and conditions and documentation of archaeological deposits.*

**Fort Monroe – On-call Archaeological Support Services, Fort Monroe, Hampton, Virginia**

*Donald provided on-call archaeological support services to the Fort Monroe Authority, Hampton, Virginia. Fort Monroe is a former Army Base a portion of which was transferred to the Commonwealth of Virginia in 2011. Services provided included emergency response services. Phase I level archaeological survey, archaeological monitoring, and reporting.*

**Cemetery Verification and Delineation Study for Site 44KG0223 along the Proposed Dominion Virginia Power Dahlgren 230 kV Transmission Line, King George County, Virginia**

*Donald led the field effort, monitoring mechanical excavations to identify potential grave shaft features and overseeing the metal detecting effort. The project proved that the site did not extend into the proposed transmission line right-of-way.*

**Cemetery Removal and Reburial at the Abberly at Stafford Development, Stafford County, Virginia**

*Donald assisted with a cemetery documentation and excavation of 29 burial features at Abberly in Stafford County, Virginia. The project included documentation, removal and reburial of the cemetery. Responsibilities included directing the field effort and documenting and removing burial features.*

**Cemetery Recovery for the Abberly at Stafford Development, Stafford County, Virginia**

*Donald led the field effort, monitoring mechanical excavations to identify potential grave shaft features and overseeing and participating in the archaeological recovery of human remains. Donald managed field staff during the recovery effort and assisted with the reburial effort.*

** denotes projects completed with other firms*

# Sandra DeChard

Senior Architectural Historian

Stantec

Ms. Sandra DeChard is an Architectural Historian with over 25 years of experience in cultural resources as an architectural historian and archaeologist working in Virginia, North Carolina, Georgia, Pennsylvania, Delaware, New Jersey, Maryland, Arizona, California, Washington, Oregon, Illinois, Massachusetts, and New Hampshire. Her experience includes large- and small-scale architectural Phase I level surveys for transmission line corridors and transportation infrastructure as well as cost share projects in conjunction with local municipalities, Phase II level survey, stabilization plans, historic structures reports, and National Register of Historic Places nominations. Her range of experience also extends to detailed historical research and archival review, scaled architectural drawings and other technical drawings, signage and heritage tourism brochures, as well as museum displays. Additionally, Sandra was a founding member and Chairperson of the Martinsville, Virginia Architectural Review Board and has lectured on various Art, Art History, and Architectural topics as educator in humanities and as a guest speaker.

Sandra's current responsibilities at Stantec include architectural surveys at the Phase I and II levels, managerial tasks associated with architectural investigations, writing and editing technical reports, consultation with and representation of clients before state and national review agencies, and developing and managing project budgets and scopes of work.

## EDUCATION

M.A. Preservation Studies, Architectural History, Boston University, Boston, Massachusetts, 2000

B.S. Interior Design, University of Delaware, Newark, Delaware, 1989

## CERTIFICATIONS & TRAINING

Section 106 Certification, Richmond, Virginia, 2014

## PROJECT EXPERIENCE

### Transmission & Distribution, Transmission Lines

Dominion Energy Virginia – A Phase I Cultural Resources Survey of Approximately 7.39 Miles Associated with the Fudge Hollow to Low Moor Line #112 138 kV Transmission Line Partial Rebuild, City of Covington, Alleghany County, Virginia

*Ms. DeChard served as Senior Architectural Historian for the project which included the documentation of 124 resources at a Phase I level within the defined APE of the project. The project also included the evaluation of the resources for NRHP eligibility.*

Dominion Energy Virginia – A Phase I Cultural Resources Survey of Approximately 14.5 Miles Associated with the Proposed Valley to Dooms 500 kV Rebuild Project in Augusta County, Virginia

*Ms. DeChard served as Senior Architectural Historian for the project which included the documentation of 306 resources at a Phase I level within the defined APE of the project. The project also included the evaluation of the resources for NRHP eligibility.*

### Roadways

NCDOT – Historic Structures Survey Report T.I.P. No. U-6077, Widening of SR 4315/Kernersville Road from SR 2632/Sedge Garden Road to Harmon Creek Road, Forsyth County, North Carolina

*Ms. DeChard served as Architectural Historian for the project which included an intensive level survey of two resources within the area of potential effect for the proposed road improvements. The project also included a National Register of Historic Places eligibility evaluation for each of the resources surveyed.*

** denotes projects completed with other firms*

NCDOT – Historic Structures Survey Report for T.I.P. No. U-3609B, Widening US 13 (Berkeley Boulevard) from SR 1003 (New Hope Road) to SR 1572 (Saulston Road) in the City of Goldsboro, Wayne County, North Carolina

*Ms. DeChard served as Architectural Historian for the project which included an intensive level survey of two resources within the area of potential effect for the proposed road improvements. The project also included a National Register of Historic Places eligibility evaluation for each of the resources surveyed.*

NCDOT – Building Inventory for TIP# U-5863, Widen NC 133 (Castle Hayne Road) from I-140/US17 (Wilmington Bypass) to SR 1310 (Division Drive, New Hanover County, North Carolina

*Ms. DeChard served as Architectural Historian for the project which included building inventory of 136 resources within the area of potential effect for the proposed road improvements.*

NCDOT – Historic Structure Survey for TIP# R-5743B, Widen US 23/US441 from US 64 to SR 1652 (Wide Horizon Drive)/SR1152 (Belden Circle) to South of SR1649 (Prentiss Bridge Road), Franklin, Macon County, North Carolina

*Ms. DeChard served as Architectural Historian for the project which included an intensive level survey of five resources within the area of potential effect for the proposed road improvements. The project also included a National Register of Historic Places eligibility evaluation for each of the resources surveyed.*

VDOT – A Phase I Architectural Survey for the Proposed Cochran Mill Road Bridge Replacement, Loudoun County, Virginia

*Sandra served as architectural historian for the survey. The survey included the documentation of three resources at a Phase I level including the bridge as well as two resources immediately adjacent to and in view of the Cochran Mill Road Bridge.*

VDOT – An Architectural Survey for the Route 15/29 Bridge Replacement*, Culpeper County, Virginia

*Ms. DeChard served as Architectural Historian for the survey. The survey entailed the recordation of three resources, including the bridge, within the study area. Evaluations of NRHP eligibility for each resource were also conducted.*

**Bridges**

City of Atlanta- Architectural Survey of the Powers Ferry Road Bridge over Nancy Creek, Powers Ferry Road, Atlanta, Georgia

*Ms. DeChard served as Senior Architectural Historian, Principal Investigator for the survey. The survey documented the bridge at a Phase I level and utilized historic background research as well as an architectural evaluation of the resource's integrity in order to make a recommendation of the bridge's NRHP eligibility.*

VDOT – Page County Bridge National Register of Historic Places Nomination Form*, Page County, Virginia

*Ms. DeChard conducted detailed research and authored the National Register of Historic Places (NRHP) nomination form for the Page County Bridge, Page County, Virginia.*

** denotes projects completed with other firms*

# Brynn Stewart, MA

Program Manager/Senior Principal Investigator

Stantec

Brynn is the Program Manager/Senior Principal Investigator for Cultural Resources in Stantec's Williamsburg, Virginia, office. She has over 18 years of experience in cultural resources management. Brynn meets the Secretary of the Interior's standards and guidelines for a professional archaeologist. She has served as a Principal Investigator and Project Archaeologist on numerous transportation and energy-related projects as well as private development projects.

Brynn manages in-house technical staff, supervises technical document preparation, and provides quality control and peer review for cultural resources studies. Her expertise includes all phases of cultural resource management (archaeological assessments and Phase I, II, and III excavations) in compliance with local, state, and federal laws and regulations. Brynn's experience includes managerial tasks associated with all aspects of cultural resource management projects such as consultation with and representation of clients before state and national review agencies, writing and editing technical reports, preparing and managing project budgets, and developing and implementing archaeological research designs.

Brynn also has experience in the processing and analysis of artifact collections with special interest in Colonial-era ceramics and lithic analysis and the development and production of interpretive materials including pamphlets and exhibits.

## EDUCATION

Master of Arts, Anthropology, University of Nevada, Las Vegas, Nevada, 2009

Bachelor of Arts, Anthropology, Washington College, Chestertown, Maryland, 2004

## CERTIFICATIONS & TRAINING

OSHA Excavation Safety: Satisfies 29 CFR 1926.650

OSHA Confined Space Safety: Satisfies 29 CFR 1910.246, 29 CFR 1926.1001, 29 CFR 1915.1001

## PROJECT EXPERIENCE

### Ore Bank Undergrounding Project, Rockingham County, Virginia

*Brynn served as Principal Investigator, developing a proposed scope of work and budget prior to the awarding of the project. Brynn directed pre-fieldwork planning and managed field personnel. She was responsible for coordinating with the Civil War Trust and will author the technical report upon completion of on-going investigations.*

### Abberly at South Campus Development, Stafford County, Virginia (Principal Investigator)

*Brynn served as Principal Investigator, developing a proposed scope of work and budget prior to the awarding of the project. She directed pre-fieldwork planning, managed field personnel, and participated in Phase II evaluation of Site 44ST1141. Brynn synthesized data collected during evaluation and served as the lead author of the resulting technical report.*

### Data Recovery of Sites 44PW1305 and 44PW1306 for the Eagles Pointe Landbay A Section 2 Development Project, Prince William County, Virginia

*Brynn is serving as Principal Investigator for this on-going project. She developed the scope of work and budget prior to the awarding of the project. Brynn coordinated with the client and the County Archaeologist on the Data Recovery Plan she developed. She has managed field personnel and coordinated with the VDHR to procure both an Anticipatory Permit and a Burial Permit for the excavation of a single burial identified within Site 44PW1306. Brynn coordinated the placement of public notice as part of the Burial Permit and gave a presentation concerning the burial feature to the Prince William County Historical Commission, which served as a public meeting as a result of responses received for the said public notice. Brynn is currently coordinating the reburial of the recovered remains with a local cemetery and will author the resulting technical report.*

* *denotes projects completed with other firms*

# Brynn Stewart, MA

Program Manager/Senior Principal Investigator

Stantec

### Data Recovery of Site 44JC0662, James City County, Virginia

*Brynn served as Principal Investigator, directing pre-fieldwork planning and overseeing the field effort. Brynn participated in feature excavation. She coordinated the field effort with the client as well as site inspectors and was responsible for coordinating with local Native American tribal representatives with an interest in the project. Brynn participated in shovel testing and monitoring activities, synthesized the data collected during the project, and served as lead author on the resulting technical report.*

### Poplar Grove National Cemetery Archaeological Investigations and Monitoring, Dinwiddie County, Virginia

*Brynn served as Principal Investigator, coordinating with the NPS and field staff. The NPS conducted rehabilitation at the cemetery, including the replacement of 5,700 headstones, rehabilitation of the Superintendent's lodge, restoration of site furniture and signs, replacement of the flagpole and site utilities, preservation of the cemetery wall, and rehabilitation of the landscape. Brynn participated in shovel testing and monitoring activities, synthesized the data collected during the project, and served as lead author on the resulting technical report.*

### Berkmar Data Recovery, Charlottesville, Virginia

*Brynn served as Principal Investigator, assisting in the development of a scope of work and budget prior to the awarding of the project. Brynn directed pre-fieldwork planning and managed field personnel. She was responsible for coordinating with client representatives, conducting excavations, compiling and interpreting fieldwork results, on-going lithic analysis, and is in the process of co-authoring the resulting technical report.*

### Trowbridge-Pantego Transmission Line Project, Washington and Beaufort Counties, North Carolina

*Brynn served as Principal Investigator, coordinating with Project Managers and field personnel. Brynn directed pre-fieldwork planning and was responsible for compiling and interpreting fieldwork results. She is currently in the process of co-authored the resulting technical report.*

### Fredericksburg Courthouse Project, City of Fredericksburg, Virginia

*Brynn served as Principal Investigator, directing pre-fieldwork planning and managing field personnel during Phase I, Phase II, and Phase III investigations of eighteenth-century through nineteenth-century deposits. She also participated in fieldwork, synthesized data collected during all three phases of work, and served as the lead author of the resulting technical report. She helped develop and produce a public exhibit of artifacts on display in the new Courthouse.*

### Dominion Virginia Power Splice Pit within the Colonial National Historic Park, James City County, Virginia

*Brynn served as Principal Investigator, leading the field effort and interpreting data post-field effort. She also authored the resulting technical report.*

### Mosby Substation (Laydown Yard and Storm Water Management Basin Area) Project, Loudoun County, Virginia

*Brynn served as Principal Investigator, managing the field effort and interpreting data post-field effort. She also authored the resulting technical report.*

### Goose Creek to Loudoun 500kV Transmission Line Improvement Project, Loudoun County, Virginia

*Brynn served as Principal Investigator, developing a proposed scope of work and budget prior to the awarding of the project. Brynn directed pre-fieldwork planning and managed field personnel. She was responsible for coordinating with client representatives, compiling fieldwork results, interpreting sites, entering site data into V-CRIS, and co-authoring the resulting technical report.*

### Warren County Power Station Proposed Auxiliary Parking Lot, Warren County, Virginia

*Brynn served as Principal Investigator, developing a proposed scope of work and budget prior to the awarding of the project. Brynn directed pre-fieldwork planning and managed field personnel. She was responsible for compiling fieldwork results and authoring the resulting technical report.*

** denotes projects completed with other firms*

ISLE of WIGHT COUNTY MUSEUM

March 11, 2024

Virginia Department of Historic Resources
Adrienne Birge-Wilson, Architectural Historian, Review & Compliance Division
2801 Kensington Avenue
Richmond, Virginia 23321

Dear Ms. Birge-Wilson,

This letter acknowledges that Dawood, on behalf of solar projects Pivot Solar Sites VAL025 and VAL035, intends to contribute $15,000 towards the restoration of Isle of Wight County's 1950s Nike-Ajax missile. This is the largest artifact in the collection of the Isle of Wight County Museum. It was accessioned in 2019 after it was donated to us by the City of Hampton, Virginia. Once restored, it will contribute to the historic interpretation of Carrollton-Nike Park, the former site of the U.S. Army's Nike-Ajax Missile Launch Site N-75L and an historic district listed on the National Register of Historic Places.

The Carrollton-Nike Missile Battery was operational by 1954 and was one of eight batteries that made up the Norfolk Defense Area. Each battery consisted of two areas: a launch area and a control area. These two sites were connected by an underground cable system that enabled communication.

In the event of an impending attack on Hampton Roads, all area batteries prepared to fire under the direction of the central command at Fort Monroe. At Carrollton, troops manned their stations ready to deploy their 27 missiles. Once fired, a missile was guided to the target by its radar system.

When the U.S. Army developed nuclear-tipped Nike-Hercules missiles, Carrollton-Nike and four other batteries in the Norfolk Defense Area became obsolete. The U.S. Army operated this location as a radio relay site from 1961 to 1971. In 1972, Isle of Wight County obtained it – and the former control site located at Jones Creek - to develop the facilities in place today.

103 Main Street
Smithfield, VA 23430
(757) 356-1014
(757) 357-0114 FAX

ISLE of WIGHT COUNTY MUSEUM

We are very pleased to receive this generous grant for our restoration project from Dawood/Pivot at the approval and encouragement of the Virginia Department of Historic Resources. With mitigation not feasible as per your requirements, this substitution will positively impact the preservation of Isle of Wight County history.

Our acceptance of this grant does not represent approval or recommended approval of the project, but know that this rare opportunity is greatly valued.

As Dawood moves forward with Pivot Solar Sites VAL025 and VAL035, please do let me know if you visit the area. I would be pleased to offer you a tour of Carrollton-Nike Park and share our progress with the restoration of the Nike-Ajax missile.

Kind regards,

J.L. England
Isle of Wight County Museum Director
Isle of Wight County Historic Resources Manager

103 Main Street
Smithfield, VA 23430
(757) 356-1014
(757) 357-0114 FAX

ISLE of WIGHT COUNTY MUSEUM

**MEMORANDUM**

TO: Jeryl R. Phillips, Assistant Director/Planning & Zoning

FROM: Jennifer England
Director, Isle of Wight County Museum
Historic Resources Manager, Isle of Wight County

RE: Conditional Use Permit Application (CUP-6-23)
VAL025/Elk Development, LLC
8699 Old Stage Highway, Tax Map/Parcel #13-01-005

DATE: May 22, 2023

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After reviewing the **Phase I Cultural Resource Survey of the 20 Acres Associated with the VAL-025 Solar Project** as prepared by Stantec Consulting Services Inc. for Dawood Engineering Inc. on behalf of Pivot Energy with reference to Conditional Use Permit Application (CUP-6-23), the Isle of Wight County Museum/Isle of Wight County Department of Historic Resources agrees with the conclusions of the report.

While the acreage to be developed as a solar energy facility has been plowed and utilized as farmland for many years, the project's location is sited within the viewshed of several historic resources. As such, to mitigate the effects of the proposed project, vegetative screening should be planted to shield the c. 1790 Bourne-Turner House, located at 16303 Morgarts Beach Road, as well as the Keystone Segment of the Captain John Smith National Historic Trail Historic District.

Additionally, should this project proceed, a plan for construction and installation should be evaluated to ensure that no adverse effects will ensue for these sites or the Old Stage Highway Cemetery located immediately to the east of the proposed project.

The potential, however, on the project site for archaeological artifacts is likely. If the landowner is willing, the Isle of Wight County Museum should be considered a repository for discovered artifacts and future finds on this site as they could further the interpretation or discovery of Isle of Wight County history.

103 Main Street
Smithfield, VA 23430
(757) 356-1014
(757) 357-0114 FAX

# COMMONWEALTH of VIRGINIA

## Department of Historic Resources

Travis A. Voyles
*Secretary of Natural and Historic Resources*

2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan
*Director*

Tel: (804) 367-2323
Fax: (804) 367-2391
TDD: (804) 367-2386
www.dhr.virginia.gov

**M E M O R A N D U M**

To: Robert B. Hickox, III M.S.
Pivot Energy

From: Adrienne Birge-Wilson, Architectural Historian (804) 482-6092
Review and Compliance Division

Subject: VAL-025 Solar Project, Isle of Wight (DHR File No. 2023-3719) and VAL-035 Solar Project, Isle of Wight (DHR File No. 2023-3718)

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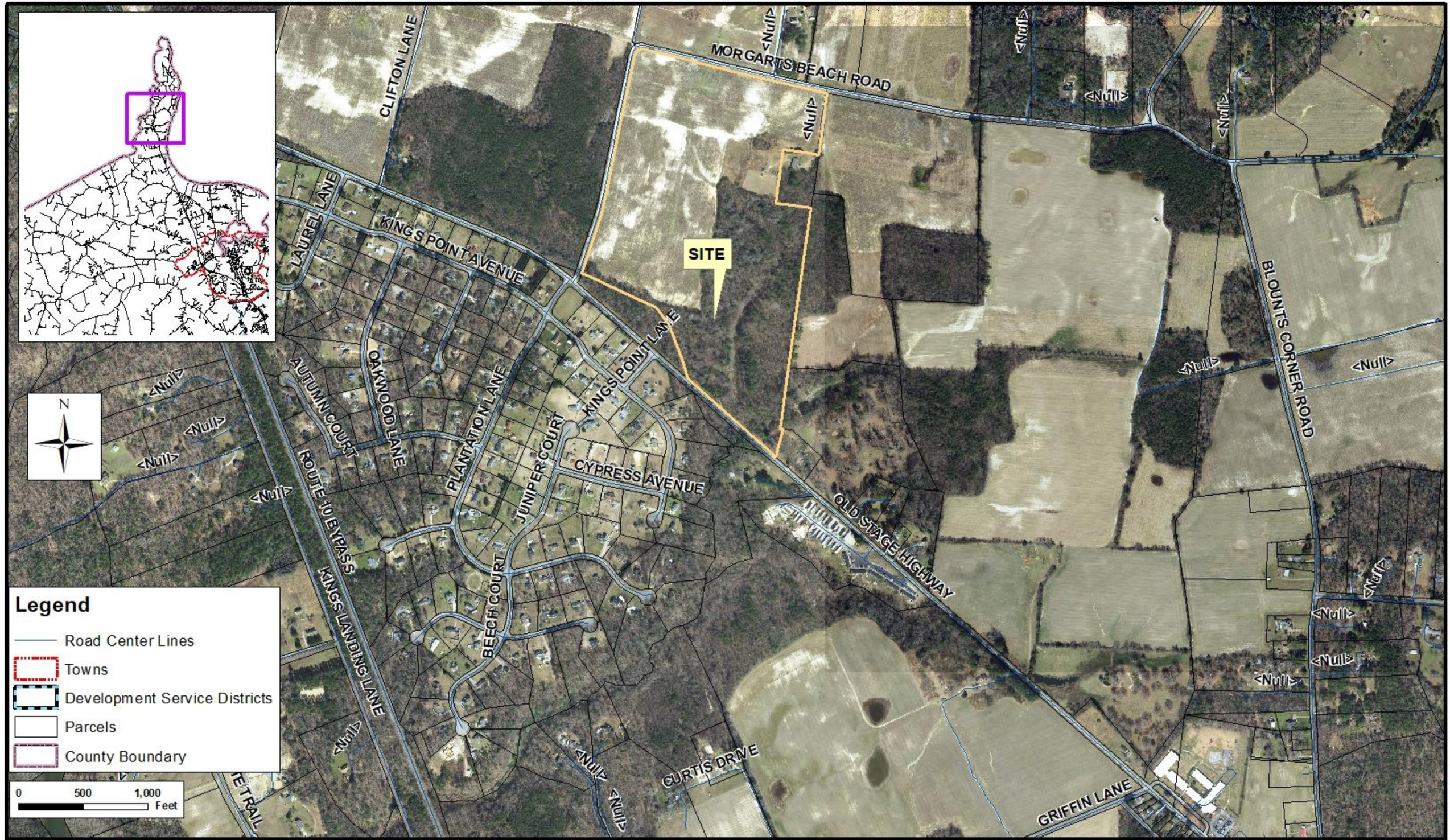
Comments:
We received communication from the Isle of Wight County Museum that your company intends to contribute $15,000 towards the restoration of Isle of Wight County's 1950s Nike-Ajax missile. DHR approves of the mitigation for the above referenced projects. Please provide a receipt or confirmation of payment after the transaction, to close out the mitigation item.

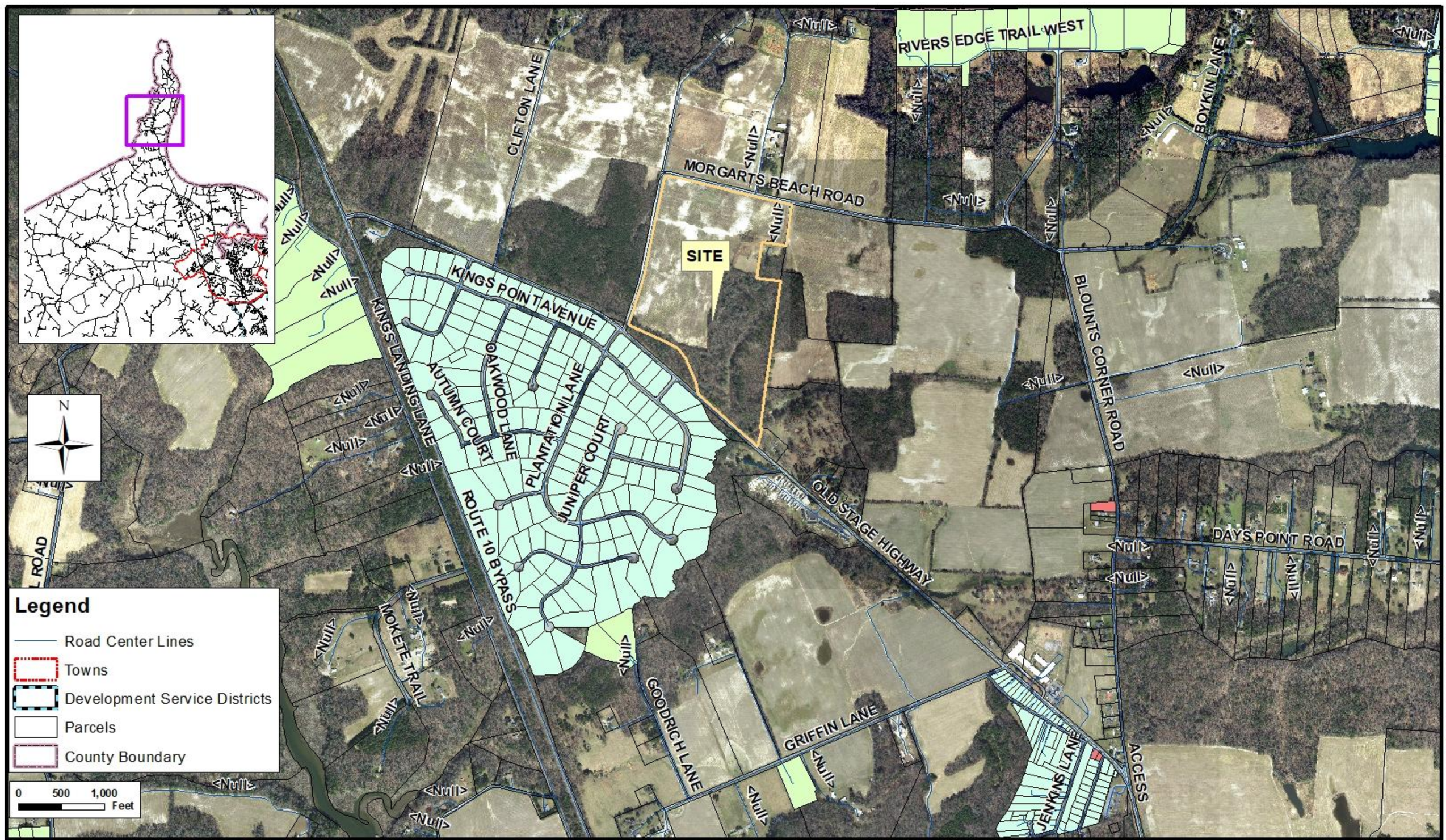
4/30/2024

# CUP-6-23 - Conditional Use Permit- Location Map

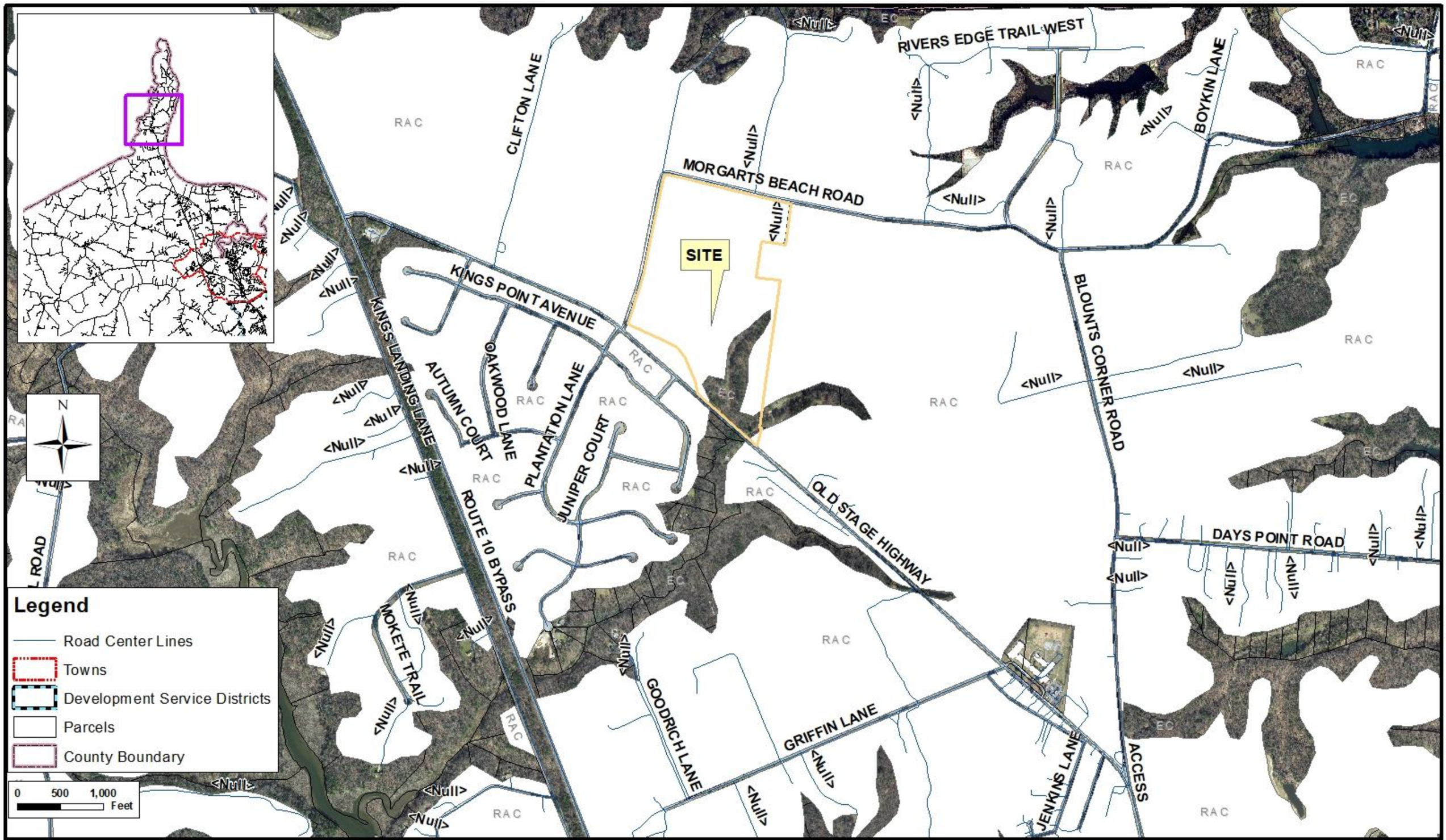
# CUP-6-23 - Conditional Use Permit- Location Closeup Map



# CUP-6-23 - Conditional Use Permit- Zoning Map



# CUP-6-23 - Conditional Use Permit- Land Use Map



# VAL025 - Ecological Core Areas

April 24, 2024

1:18,041

0 0.13 0.25 0.5 mi

0 0.17 0.35 0.7 km

Adjacent States

Ecological Cores

C1: Outstanding

C2: Very High

C3: High

C4: Moderate

C5: General

Esri Community Maps Contributors, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US

**Sycamore Cross A and B Solar Projects with Approved Solar Energy Generation Facilities as of 6/13/24**

| PROJECT | DEVELOPED AREA (PER CUP) | PRIME FARMLAND /SOILS OF STATEWIDE IMPORTANCE* | % OF TOTAL PRIME SOILS (rounded) | LOCATION | % OF TOTAL FARMLAND** | TOTAL MW | APPROVAL DATE |
|---|---|---|---|---|---|---|---|
| Woodland | 180 | 124 | 0.10% | Longview | 0.22% | 20 | 2015 |
| Solidago | 170 | 170 | 0.14% | Redhouse | 0.21% | 20 | 2018 |
| Ho-Fel | 330 | 315 | 0.26% | Lees Mill | 0.41% | 55 | 2019; Amended 2023 |
| Windsor PV1 | 630 | 630 | 0.52% | Windsor | 0.78% | 85 | 2019; Amended in 2021 |
| Cavalier | 500 | 500 | 0.41% | Hardy | 0.62% | 240 | 2021 |
| Nuby Run | 20 | 20 | 0.02% | Orbit | 0.02% | 2 | 2022 |
| Carver | 637 | 297 | 0.24% | Windsor | 0.79% | 71 | Approved 7/23/2023 |
| Prairie Solar | 152 | 152 | 0.12% | Longview | 0.19% | 20 | Approved 8/17/23 |
| Courthouse Solar | 18 | 18 | 0.01% | Route 258 | 0.02% | 3 | Approved February 2024 |
| Old Stage (Proposed) | 27.32 | 27.32 | 0.02% | Burwells Bay/Moonlight | 0.03% | 3 | Under Review |
| | | | | | | | |
| **TOTAL** | **2,664** | **2,253** | **1.84%** | | **3.30%** | **519** | |

***Prime soils include Prime Farmland, Prime, If Drained, and Soils of Statewide Importance – 122,296 total acres in County***

****Total active agricultural lands as of 2017 Census of Agriculture – 80,672 acres***

# PLANNING REPORT

**APPLICATION:**

Application of Elk Development, LLC, applicant, and William Pennie, Jr. and Teresa L. Crocker, property owners, for a conditional use permit for a major utility service, specifically a 3.0 MW utility-scale solar energy generation facility, on approximately 27.32 acres on a 94.21-acre tract located on Old Stage Highway with tax parcel number 13-01-005 in the Rural Agricultural Conservation (RAC) zoning district

**ELECTION DISTRICT:**

District 3

**LOCATION:**

The proposed project is located at 8699 Old Stage Highway (Rte.10). The access road to the site is located on Morgarts Beach Road. To the west of the site is the Keystone Segment of the Captain John Smith National Historic Trail. To the north is the historic resource known as the 1790 Bourne-Turner House located at 16303 Morgarts Beach Road. There is an area of residential development to the northeast. There is additional scattered residential development to the south along Old Stage Highway. A property location map is attached to this staff report.

**BACKGROUND:**

The 27.32-acre project is situated on a parcel consisting of approximately 94.21 acres primarily consisting of agricultural fields. The property is in the RAC zoning district. Not all acreage comprising this parcel is proposed for the solar facility. Based on the project area, 27.32 acres of crops will be removed from production. Approximately 23 acres will be in the fenced area of the solar facility project area. The subject property has never been developed and has been used historically for agriculture. Of the acreage included in the project area, six of the acres are considered prime farmland, with four of those acres included inside the fenced area.

**DESCRIPTION:**

The applicant has proposed a three-megawatt (MW) solar energy generation facility in the west portion of the property. An existing electric line that bisects the project area along Old Stage Highway will serve as the interconnection point. The project will consist of solar panels along with their racking systems and metal posts, inverters, and fencing.

A perimeter fence will encompass the solar panels and ancillary equipment and is required to be harmonious with the rural agricultural and historical character of the County. The site will bolster the existing vegetation to the east with a ten-foot landscape buffer along that same portion of the site. Screening around the remainder of the site will be in accordance with the County's requirements. An internal access drive made from an all-weather aggregate base will provide access to the arrays. The southern boundary of the site is located in the Highway Corridor Overlay District (HCOD).

<u>Public Facility Impacts</u>:

The applicant has proposed to use Morgarts Beach Road via Old Stage Hwy (Rt.10). Approximately 1300 feet of unpaved road on Morgarts Beach is proposed to reach the entrance to the site. Any roadway damage within the right-of-way that occurs after project construction begins will be documented and analyzed by both the applicant and VDOT. All costs for damage repairs will be paid by the applicant. The approved truck route will be monitored and enforced as a condition of approval, with permit revocation an option if violations occur.

In establishing the use, the enjoyment of neighboring properties may also be temporarily impacted by construction traffic and noise generation.

To ensure adequate provision of emergency services, the Fire Rescue Department has reviewed this application and has no concerns at this time. The applicant is required to submit an emergency response plan with the submission of the preliminary site development plan. The plan shall include a training program to be provided, at the discretion of the County, to County emergency responders concerning safety for on-site emergency response. The applicant shall install a Knox Box or other remote access technology at the facility access gates.

Environmental Assessment:

The project lies within the in the County's Chesapeake Bay Preservation Area (CBPA) Overlay District. There are no impacts proposed to any wetlands or watercourse with this proposal. If approved, wetlands are required to be confirmed by USACE during the site plan approval process.

No impacts to threatened or endangered species under the jurisdiction of the Virginia Department of Conservation and Recreation (DCR) are anticipated because of the proposed project. There are no impacts to identified ecological core areas. The applicant states that no tree removal is proposed as part of the project.

Historic Resources:

A Phase 1 Cultural Resources Survey of the project area was conducted by Stantec. This report was sent by the applicant to the Virginia Department of Historic Resources (VDHR) for their review and concurrence with the survey findings and recommendations. A letter from VDHR was provided with the application and is included as an attachment to this staff report. The letter was provided as technical assistance to assess potential impacts on historic properties.

During the archaeological survey, a shovel test was positive for cultural material. Three radial shovel tests were excavated at 25-foot intervals to determine the bounds of the newly identified cultural resource, with no radial shovel tests positive for additional cultural material. One new isolated archaeological site find (2607-IF1) was identified during this investigation. By definition, isolated archaeological find 2607-IF1 is not eligible for listing to the national registry of historic places (NRHP). No further archaeological work Is recommended within the Project Area.

The architectural survey identified a total of ten individual resources located within the architectural study area, defined as the project area and a 0.5-mile radius around the project area. Four of the identified resources included previously recorded resources and six newly recorded resources.

One of these resources, known as the Keystone Segment Historic District of the Captain John Smith National Historic Trail (DHR #500-0006), had a federal determination of eligibility prior to the survey and was therefore not resurveyed. Other surveyed resources consisted of farms and single-family dwellings with associated outbuildings. The Bourne-Turner House (OHR #046-0031) had been determined as potentially eligible for listing in the NRHP by OHR in 2015. Based on the current survey, it is recommended that the resource maintain its NRHP eligibility status as the house and secondary resources retain integrity and appear to have not been significantly altered since the previous survey.

The Old Stage Highway Cemetery (OHR #046-5636), is not visible from the public right of-way and was therefore not able to be resurveyed. Based on the circumstances, the resource was considered eligible for environmental review. The Bourne-Turner house is roughly 1100 feet from the project area. The Old Stage Highway Cemetery is approximately 725 feet. The boundary of the Captain John Smith National Historic Trail is just a few feet from the project area. The study made a determination that the visual impact from the solar facility could negatively impact the Trail resource by changing the historic viewshed from the Trail. Current Ordinance requirements include a minimum 250 foot setback from historic or cultural resources as well as three rows of landscaping of staggered heights to screen the facility. Although the concept plan does not show this required setback, staff would like to state for the record that this will be required at site plan submittal and the concept plan as shown does not currently comply with this requirement.

The remaining resources surveyed during the current project are generally reflective of the late nineteenth to mid-twentieth century development of Isle of Wight County and lack direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing in the NRHP. As such, it is recommended that the resources are not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered in evaluating the architectural resources documented during the survey. Mitigation was proposed in the Phase study. A mitigation memo has been attached to this report from VDHR.

Economic Impact Assessment:

According to the applicant's economic impact study, the proposed facility would generate approximately $226,500 in cumulative county revenue over a 25-year operational life and approximately $325,900 in cumulative county revenue over a 35-year operational life based on both projected real estate and machinery and tax revenues. In contrast, projected real estate tax revenue on the current agricultural land use over a 25 year period is $6,700 and a total of $8,900 over 35 years. The report also includes projected revenues resulting from construction activity on the site, but due to its temporary nature, it is not included in the staff report.

According to the 2022 Census of Agriculture (USDA-NASS), Isle of Wight County has 212 farms totaling 80,316 aces of land. The average farm size is 379 acres. The average annual market value of agricultural products sold per farm is $346,011, or $912.96 per acre. Using the same data to derive market values for crops cultivated on 27.32 acres to be converted for this project, the farmland generates an estimated $24,942.07 in market value.

Currently, agriculture and silviculture are two of the County's top industries. This project would be the tenth solar energy generation facility in the County and represents a subtraction of approximately .03% of the County's cultivated land (USDA-NASS, 2017). A table showing the previously approved and proposed solar energy facilities is attached to the staff report.

Staff also sent the project's fiscal impact analysis to the Commissioner of Revenue for review. The rollback estimate should be updated based on the total lease area rather than just the solar facility acreage. The acreage subject to the Conditional Use Permit would be reassessed for real estate taxes at $15,000 per acre.

Viewshed Analysis:

An effects evaluation, in addition to the Phase I architectural survey, was conducted for NRHP-listed, eligible, and potentially eligible properties that may be affected by the proposed project. Two resources were assessed for effects and included the potentially eligible Bourne-Turner House (OHR #046-0031) and the portion of the NRHP-eligible Keystone Segment Historic District of the Captain John Smith National Historic Trail (DHR #500-0006) within the current architectural study area. One resource, the Old Stage Highway Cemetery (DHR #046-5636), had not been evaluated for NRHP eligibility but was not visible from the public ROW. Based on the current proposed project area and the existing landscape, it is recommended that the proposed project would have an adverse effect on the Bourne-Turner House (OHR #046-0031) and the portion of the Keystone Segment of the Captain John Smith National Historic Trail Historic District (DHR #500-0006) located within the current architectural study area. The proposed project would have no effect on the Old Stage Highway Cemetery (DHR #046-5636). Mitigation in the form of a donation to the Isle of Wight County Museum has been accepted by VDHR.

**COMPREHENSIVE LAND USE PLAN:**

The future recommended land use designation for these properties is Rural Agricultural Conservation (RAC) and Environmental Conservation (EC) under the adopted Comprehensive Plan. Appropriate uses for the RAC land use designation include agriculture, horticulture, forest lands, and scattered low-density residential uses. Other uses such as resource extraction and utility-scale solar facilities are also permitted when appropriately sited with a Conditional Use Permit. Appropriate uses for the EC land use designation include wetlands, farms, forest uses, open space, and limited park facilities.

Solar energy facilities are considered compatible with RAC land use when properly sited and with the application of appropriate development criteria.

The areas designed as EC are outside of the proposed project area and should be preserved due to environmental constraints unless site-specific analysis demonstrates there are no environmental concerns in a specific area. In order to be consistent with the goals of the Comprehensive Plan, the proposed use will require screening landscaping and appropriate fencing to minimize its visual impacts on the surrounding area.

**ORDINANCE REVIEW:**

The zoning district classification for the subject parcels is RAC. The RAC zoning district is intended to preserve and protect areas of the County that are predominantly in agricultural and forestal uses and to maintain the existing land base to support those activities.

The applicant proposes to establish a three MW utility scale solar energy facility which is classified as a major utility service use type in the Zoning Ordinance. These facilities are permitted as conditional uses in the RAC zoning district and may be considered compatible with appropriate conditions to mitigate any potential negative impacts on the surrounding community.

The parcel is located just outside of 500-foot Highway Corridor Overlay District (HCOD) boundary line. Equipment is shown outside of the HCOD boundary line. At a minimum, the project will be required to meet the minimum setbacks of 75 feet from adjacent property lines and 125 feet from residential use parcels as required by the Zoning Ordinance. There is also a 250-foot setback requirement for all inverters and electrical equipment. The Ordinance also requires a minimum setback of 250 feet from any historical or cultural resource.

Following approval of the CUP request, the applicant will be required to submit a site plan application for review and approval that demonstrates compliance with all current plan criteria contained in Section 5-5003.M.4, supplemental use regulations for utility scale solar energy facilities, of the Zoning Ordinance.

Section 1-1017 of the Zoning Ordinance provides standards for review of a conditional use permit application that the Planning Commission and Board of Supervisors shall consider before granting a conditional use permit. They are as follows:

1. That the establishment, maintenance, and operation of the conditional use will not be detrimental to or endanger the public health, safety, and general welfare;
2. That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially impair the use of other property within the immediate proximity;
3. That adequate utilities, water, sewer or septic system, access roads, storm drainage and/or other necessary public facilities and improvements have been or will be provided;
4. That adequate measures have been or will be taken to provide ingress and egress so designated as to minimize traffic congestion on the public streets;
5. That the proposed conditional use is not contrary to the goals and objectives of the Isle of Wight County Comprehensive Plan;
6. That the conditional use shall, in all other respects, conform to the applicable regulations of the zoning district classification in which it is located and to the special requirements established for the specific use; and,
7. That the use(s) at the location proposed will not result in a multiplicity or saturation of similar uses in the same general neighborhood of the proposed use.

In addition to the standards and other guidelines described in the Zoning Ordinance, the Board may impose

conditions or limitations on any approval, including the posting of performance guarantees. Such conditions may include, but are not necessarily limited to:

1. The number of persons living or working in the immediate area and the proposed hours of operation, as may be applicable;
2. Traffic conditions, including facilities for pedestrians, such as sidewalks and parking facilities; the access of vehicles to roads; peak period of traffic; and proposed roads, but only if construction of such roads will commence within the reasonably foreseeable future;
3. The orderly growth of the neighborhood and community and the fiscal impact of the County;
4. The effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise upon the use of surrounding properties;
5. Facilities for police, fire protection, sewerage, water, trash and garbage collection and disposal, and the ability of the County or persons to supply such services;
6. The degree to which the development is consistent with generally accepted engineering and planning principles and practices;
7. The structures in the vicinity such as schools, houses of worship, theatres, hospitals, and similar places of public use;
8. The purposes set forth in this ordinance, the County's Comprehensive Plan, and related studies for land use, roads, parks, schools, sewers, water, population, recreation, and the like;
9. The environmental impacts, the effect on sensitive natural features, and opportunities for recreation and open space; and,
10. The preservation of cultural and historic resources or landmarks.

Following approval of the CUP, the applicant will be required to submit a site plan for review and approval in accordance with the Zoning Ordinance requirements and conditions of approval.

**AGENCY REVIEW:**

The application was forwarded to the following departments for their review:

**Economic Development:** The department stated it had no concerns.
**Environmental Planner**: All concerns addressed with the conditional use permit. Further information will be required at site plan review.
**Commissioner of Revenue**: Rollback estimates should be based on the entire acreage of the entire lease area not just the acreage of the solar facility. The acreage subject to the Conditional Use Permit would be reassessed at $15,000 per acre.
**Emergency Services**: Staff will work with applicant during site plan review on required Emergency Response Plan to include annual training.
**Utility Services:** Staff will review site plan for compliance with State Stormwater regulations.
**Isle of Wight County Museum**: Please see attached memo.
**Virginia Department of Transportation (VDOT)**: No concerns at this time.
Please note that, should the conditional use permit be approved, the project will be subject to site plan review and approval from all necessary agencies.

**STAFF CONCLUSIONS:**

Strengths:
1. The proposed use would generate additional nonresidential tax revenue for future public service and facility needs for the County.

Weaknesses:
1. The proposed use would remove agricultural land from production.

2. Temporary impacts to residential development in the area from construction traffic and noise is expected during the construction phase.
3. There are adverse impacts to several historical resources without appropriate setbacks and screening. The concept plan does not demonstrate the ability to comply with current Ordinance requirements.
4. The facility as proposed is not appropriately sited as recommended for the designated future recommended RAC area in the Comprehensive Plan.

**STAFF RECOMMENDATION:**

Based on the weaknesses listed above, staff recommends denial of the CUP request. However, should the CUP be approved, staff recommends the following conditions: 1) Topsoil shall be stockpiled on the site and shall be stored out of view from adjacent properties and public roads. 2) No improvements shall be located closer than 250 feet from boundary of the Keystone Segment of the Captain John Smith Trail. 3) The applicant shall submit a seed mix for site groundcover that includes native pollinators blooming in spring/summer as recommended by DCR. 4) The applicant will work directly with the Isle of Wight County Chamber of Commerce, Paul D. Camp Community College, and the Economic Development Department to ensure inclusion of local contractors in the bidding process. 5) A laminated Emergency Response Poster will be mounted near the front gate. The poster will include a general site plan, evacuation routes and muster points, emergency response chain of command, directions to the closest hospital, coordinates to the closest life flight landing area, and other pertinent information associated with the facility during an emergency response. 6) The facility perimeter fencing will be equipped with push bar pedestrian gates to permit emergency exits from the facility. 7) Adherence to the proposed transportation plan shall be required for all facility traffic. Truck traffic shall be limited to only to the preferred route as described in in the transportation plan. No other local routes in Isle of Wight County may be used. The applicant shall coordinate deliveries outside of school bus pickup and drop-off times. 8) Excluding the bufferyards, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing. 9) Hours of operation for construction and post-construction operation shall be limited to Monday through Friday, 7:00 a.m. to 6:00 p.m. Saturdays from 7:00 a.m. to 5:00 p.m. No construction is to occur on Sundays by any party involved with the project. 10) As part of the site plan review, the applicant shall provide documentation that the selected panels and all power-generating equipment on-site are “Tier 1” modules, as established by the most recent “PV Module Tier 1 List” issued by Bloomberg NEF or a similar third party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power-generating equipment initially installed and replaced on the site must qualify, for disposal purposes only, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP). 11) The applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil conditions, including depth, density, and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to at least baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results. 12) Any recommendations provided by VDHR during site plan review will be adhered to, in addition to requirements in the zoning ordinance.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Application | Backup Material | 6/14/2024 |
| Concept Plan | Backup Material | 5/20/2024 |
| Narrative | Backup Material | 6/14/2024 |
| Transportation Route | Backup Material | 5/20/2024 |
| Economic Impact Analysis | Backup Material | 6/14/2024 |

| | | |
|---|---|---|
| Visual Impact Analysis | Backup Material | 5/20/2024 |
| Wetland Study | Backup Material | 5/22/2024 |
| Threatened and Endangered Species Assesssment | Backup Material | 5/22/2024 |
| Phase 1 Study | Backup Material | 5/20/2024 |
| Isle of Wight County Musuem Response | Backup Material | 5/20/2024 |
| Mitigation Memo DHR | Backup Material | 5/20/2024 |
| Location Map | Backup Material | 5/20/2024 |
| Location Closeup Map | Backup Material | 5/20/2024 |
| Zoning Map | Backup Material | 5/20/2024 |
| Land Use Map | Backup Material | 5/20/2024 |
| Ecological Core map | Backup Material | 5/22/2024 |
| Solar Facility Table | Backup Material | 6/18/2024 |

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF PLANNING AND ZONING

# APPLICATION FOR CONDITIONAL / SPECIAL USE PERMIT

This application should be used to petition for a permit for certain uses which, because of their unique characteristics or potential impacts on adjacent land uses, are not generally permitted in certain zoning districts as a matter of right, but which may, under the right set of circumstances and conditions be acceptable in certain specific locations. The following application requirements are consistent with the procedures set forth in Section 1-1017, *Conditional Uses,* and Section 1-1018, *Special Use Permits for Uses Not Provided For,* of the Isle of Wight County Zoning Ordinance, as amended.

**A. APPLICATION FOR (CHECK ALL THAT APPLY):**

[x] Conditional Use Permit (Are applicant proposed conditions attached?): x Yes _____ No

The proposed use or activity is listed as a conditional use in the RAC zoning district as per Section 4-2003 in Article IV of the Isle of Wight County Zoning Ordinance.

[ ] Special Use Permit (Are applicant proposed conditions attached?): _____ Yes _____ No

Proposed Use or Activity: _____

_____

**B. PROJECT DESCRIPTION:**

Project Name: VAL025

Property Address (if any): 8699 OLD STAGE HWY, SMITHFIELD, VA 23430

Election District: 3

Comprehensive Plan Designation: RURAL AGRICULTURAL CONSERVATION

The use permit will apply to 22.62 acres out of 94.21 total acres

Tax Parcel Identification # 13-01-005 Number of acres to be effected: 22.62

Tax Parcel Identification # _____ Number of acres to be effected: _____

Tax Parcel Identification # _____ Number of acres to be effected: _____

Proposed Utilities (check all that apply): Public Water _____ Private Well _____

Public Sewer _____ Private Septic _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): ELK DEVELOPMENT, LLC

Address: 6865 DEERPATH ROAD, SUITE 330

City, State, Zip Code: ELKRIDGE, MD, 21075

Phone No.: 570-847-7555 Email: rhickox@pivotenergy.net Fax No.: _____

Property Owner(s) Name(s): CROCKER WILLIAM PENNIE JR & TERESA L

Address: 16338 MORGARTS BEACH RD

City, State, Zip Code: SMITHFIELD, VA 23430

Phone No.: 757-651-9280 Email: fnhrugershooter@gmail.com Fax No.: _____

_____ 5/16/2024

**Applicant Signature** **Date**

_____ 24 MAR 23

**Owner Signature** *if different* **Date**

**NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.**

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

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**FOR OFFICE USE ONLY:**

Complete Application Received On: _____ Fees Paid: _____

Tax Query: [ ] Current [ ] Delinquent Distribution Date: _____

Posted/Date to Post: _____

**AGENCIES REFERRALS:**

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: _____ Date: _____

## SUBMITTAL CHECKLIST FOR CONDITIONAL / SPECIAL USE PERMIT APPLICATIONS

In conjunction with Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Uses Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended, the following information shall be submitted for a Conditional / Special Use Permit Application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for a Conditional / Special Use shall be certified as complete unless the following information is provided. **The required number of copies may be reduced with permission of the Zoning Administrator.**

- ☒ Application: Ten (10) copies of the original, executed application, one (1) digital copy of all application documents, and one (1) original executed application. Both the applicant(s) and the property owner(s) must have their signature(s) notarized on page 3 of the application.
- ☒ The appropriate fees have been submitted with the application. Checks should be made payable to: Treasurer, Isle of Wight County.
- ☒ Ten (10) copies of a statement of the reasons for seeking such permit and if applicable, a statement of conditions.
- ☒ Ten (10) copies of a narrative description of the property which shall include the Tax Parcel Identification
- ☒ Ten (10) copies of a concept plan of the property showing all existing and proposed physical improvements and such other information as is necessary to clearly indicate to the Planning Commission and Board of Supervisors that adequate provisions shall be made for compliance with all standards for that particular use and the extent of the property to be so used on a given parcel or parcels. Such document shall be drawn to scale and shall include the following information:
    - A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
    - Title of drawing
    - Date of drawing
    - Existing wood line
    - North arrow
    - Scale bar
    - Current zoning of parcel(s) to be rezoned, including tax map number(s) and owner(s)
    - Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
    - Street names including route number and width(s) of the right-of-way(s)
    - Ten (10) full size copies, with one (1) reduced 11-inch X 17-inch copy and a digital copy shall be submitted

- Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process to **review the application and prepare the staff reports for the Planning Commission and Board of Supervisors more effectively**.

☒ Ten (10) copies of such supplemental material as may be necessitated by the proposal itself or the district in which located or proposed to be located, and in accordance with Section 5-5000, *Supplementary Use Regulations,* of the Isle of Wight County Zoning Ordinance.

☒ A WQIA (Water Quality Impact Assessment) if located in the Chesapeake Bay Preservation Area.

☒ All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal will be refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete and correct information available. I understand that any section not completed in its entirety may delay processing of this application and the date of the Planning Commission public hearing and that the submittal of a complete application does not guarantee the application will be placed on the next available Planning Commission agenda.

Jon Fitzpatrick

Printed or Typed Name

Signature

16/05/2024

Date

Pivot Energy

# Conditional Use Permit Application for: Elk Development, LLC's

(a holding Company of Pivot energy)

# VAL025- Old Stage Highway Project

Pivot Energy
1601 Wewatta St., # 700
Denver, CO 80202

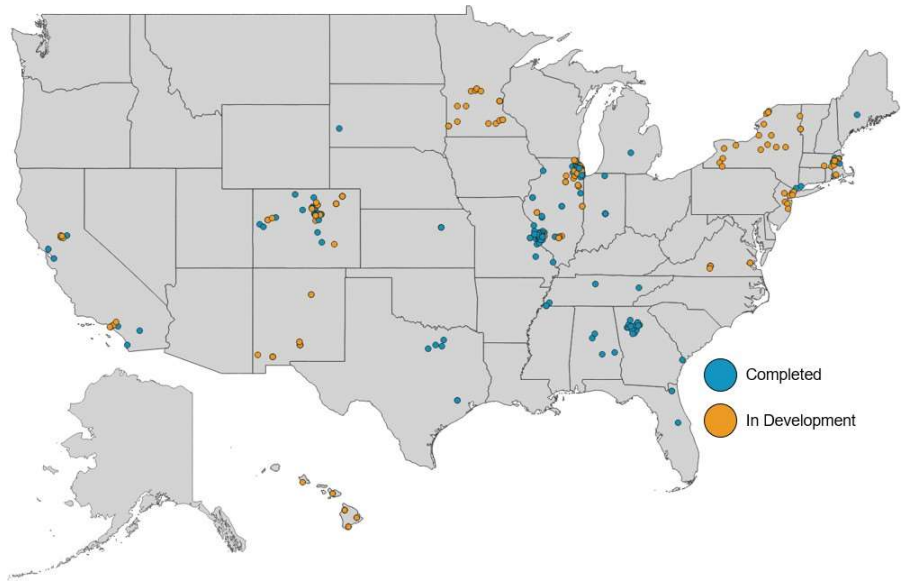
# Executive Summary

Elk Development, LLC, a holding company of, Pivot Energy is pleased to apply for a Conditional Use Permit (CUP) from the County of Isle of Wight for Elk Development, LLC's VAL025- Old Stage Highway Project (aka: Old Stage) (the Project). This Project represents a small, solar photovoltaic (PV) facility totalling three (3) megawatts in capacity as measured in alternating-current (AC). The proposed project is located at 8699 Old Stage Hwy, Smithfield, Virginia. The subject parcel is identified as tax parcel 13-01-005 owned by William Pennie Jr & Teresa L Crocker. The site is accessed off Morgarts Beach Rd (SR 673), approximately 3.5-miles north of Smithfield. The site is in the Rural Agriculture Conservation (RAC) zoning district in Isle of Wight County. Hardy Elementary School is located approximately 0.7 miles southeast of the subject parcel. There are no recreation facilities within 1-mile of the site.

This project will positively impact the local community by employing local labor, decarbonizing the local grid, offering a discount to local subscribing Dominion customers, and providing increased resources to the County over the life of the project. Pivot's lead developer on this project, Robert Hickox, has previous experience permitting similar solar projects in Virginia. With a strong development and customer relationship background in small utility, commercial, and community solar projects, Pivot continues to expand its offerings throughout the solar industry by working with low-income communities, residential renters and homeowners, agricultural customers, local businesses, & local government organizations.

## Prior Solar Development Success:

### Recently Completed and Ongoing Projects



# Community Solar Development Experience

## Background on Pivot Energy

Pivot Energy is a turnkey solar developer of commercial and industrial solar projects founded in 2009 and headquartered in Denver, Colorado. Pivot has become a national leader in commercial and industrial solar projects, with hundreds of successful projects completed for many small, mid-sized and Fortune 500 companies, as well as for nonprofit, government, and military organizations.

Pivot Energy has built or developed the most community solar projects of any developer in Colorado and has expanded to build projects nationwide over the last several years. Our development team works in conjunction with our EPC team to plan a project for success from the beginning and execute in a timely manner. Pivot will provide turnkey development of the community solar garden, from initial site planning and engineering to system design, construction, commissioning, and customer subscriptions.

Pivot Energy is a certified B Corps, using a triple bottom line approach to measure our progress on more than just a financial basis. Our goal is to achieve balance between three, sometimes opposing, ends of People, Planet, and Profit. B Corps, or Benefit Corporations, are redefining success in business to include benefits to workers, society, and the environment. We aim to balance these measures in all aspects of our projects to bring widespread benefit to multiple areas of the community.

Certified B Corporation

## Experience with Developing and Operating Similar Solar Facilities

Pivot Energy has invested heavily in both the Colorado community solar market as well as community and commercial solar nationally. Our company also has community solar projects either under construction or in development in states including Minnesota, Illinois, New York, New Mexico, Virginia, and more totaling well over 150MW.

In Colorado Pivot has become the largest community solar developer having built or in process of developing more than 70 MW of community solar. Pivot Energy is also one of the only developers to never abandon a community solar project with a 100% success rate post-bid. Our team's experience is deeply rooted in development having built many of the early projects at previous companies and then coming together as a team of industry experts to accelerate community solar development, construction, and customer adoption throughout the country.

Pivot Energy's SunCentral team has also become the largest and most all-encompassing subscription manager in Colorado with thousands of residential customers and serving more than 16MW of low-income customer capacity throughout Colorado. We are proud that our SunCentral management platform is so widely used by the market. Our team regularly communicates with MPEI to not only manage customers within the market but also look for ways to improve how utilities and developers can communicate and operate to continuously provide better experiences to the end customer and bring projects to successful completion.

# Pivot Energy Acquisition by ECP

As of June 1, 2021 Pivot Energy is wholly owned by Energy Capital Partners (ECP)[1]. Founded in 2005, ECP is a leading investor across energy transition, electrification and decarbonization infrastructure assets, including power generation, renewables and storage solutions, environmental infrastructure and efficiency & reliability assets facilitating the energy transition. The ECP team, comprised of 53 people with 500 years of collective industry experience, deep expertise and extensive relationships, has consummated more than 60 transactions over the last 10 years, representing more than $45 billion of enterprise value.

More information on the acquisition available at: https://www.prnewswire.com/news-releases/ecp-announces-acquisition-of-pivot-energy-301303505.html

ECP has extensive experience in energy infrastructure with portfolio companies including Sunnova and Calpine. The investment in Pivot Energy by ECP allows for Pivot to not only develop solar assets and manage customers through our SunCentral platform but to maintain ownership of the assets through their full life. Additionally, Pivot Energy is a part of ECP's continued commitment to Environmental, Social, and Governance (ESG) goals and their expansion into renewable energy. Pivot Energy is ECP's first certified B Corporation and, as noted in their 2021 ESG Report highlights ECP's "ability to source attractive investments that have positive benefits from both a social justice and environmental standpoint."[2]

More information on ECP's ESG goals available at:
https://www.ecpgp.com/system/uploads/fae/file/asset/136/ECP_ESG_Report_2021_Web.pdf

In addition to the funding from ECP, Pivot Energy is nearing closing with both our tax equity partner and back leverage partner for our 2024 project portfolio that this project would be placed into. Pivot Energy is in final negotiations with a single tax equity partner that we have chosen as well as a single back leverage partner which are allowing us to get industry leading terms and cost of capital to make these projects very financially efficient.

In August 2022, Pivot Energy acquires SGC Power a Maryland-based community solar developer, who develops, and designs solar projects that produce long-term lease income for property owners while providing affordable clean energy to surrounding communities.

More information on the acquisition available at: Pivot Energy Announces Acquisition of Maryland-Based Community Solar Developer SGC Power (prnewswire.com)

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[1] PR Newswire – ECP Announces Acquisition of Pivot Energy: https://www.prnewswire.com/news-releases/ecp-announces-acquisition-of-pivot-energy-301303505.html

[2] Energy Capital Partners (ECP) – ESG Report: https://www.ecpgp.com/system/uploads/fae/file/asset/136/ECP_ESG_Report_2021_Web.pdf

## Selected Customer List

Our customer list includes small, midsized, and Fortune 500 companies, as well as utilities, nonprofits, governments, and military institutions.

# Project Design

Elk Development, LLC seeks to develop Old Stage with a collective nameplate capacity up to 3MWac. The clean energy generated by the solar array will be delivered to Dominion Energy's grid (the Grid) at 12kV, 3 phase distribution line along Old Stage Hwy. The Project is designed to be a community solar project that would offer a discount to local Dominion customers on their utility bill once operational. The system will be installed at 8699 Old Stage Hwy in Isle of Wight County. The subject parcel is identified as tax parcel 13-01- 005 owned by William Pennie Jr & Teresa L Crocker. The site is accessed off Morgarts Beach Rd (SR 673), approximately 3.5-miles north of Smithfield. The property consists of woodland and agricultural fields. The site is in the Rural Agriculture Conservation (RAC) zoning district.

Old Stage will be comprised of approximately 7,770 solar PV panels from Tier 1 manufacturers. Elk Development and Pivot Energy only uses crystalline solar panel using silicon and inert borophosphosilicate glass on their solar facilities. These panel are recyclable and do not have the potential toxic effects of cadmium-telluride panels (CDTe).

Standard additional equipment includes single axis tracker components, DC to AC inverters, medium-voltage transformers and control cabinets, project switchgear, meters, and the attachment facilities to the current local grid.

These panels will be mounted to a single-axis tracking (SAT) system designed to maximize the panel production by following the rising and setting of the sun. This SAT system includes linked horizontal steel support beams known as torque tubes, with a centrally located drive train system. The rows will be 22 feet apart (center-to-center) and the square footage of the panels will account for approximately 24% of the total Project acreage. The racking system will be affixed to pile-driven metal beams at a depth of approximately 10 feet. At full tilt, the maximum height of any panel will be under fifteen feet (15').

The solar panels in each row will be wired together into a circuit. There will be a DC to AC string inverter for approximately every 3 rows, typically mounted on a piling adjacent to the tracker structure. Once the inverter converts the panels DC power to AC, this power will be transmitted from the string inverters via three-phase direct-buried cables (at a depth of approximately 4.5 feet) and aggregated at the AC collection switch gear before moving to the medium-voltage transformer. This transformer will be mounted on a concrete slab alongside project switchgear and control cabinet. After the transformer steps up the electric power voltage to match the existing Grid, the power is transmitted to the Project's protective recloser and metering equipment before connecting with Dominion's powerlines.

An internal access drive made from all-weather aggregate base will provide access to the array. This Site access will be restricted by a perimeter security fence in compliance with Federal and State regulations. Manual swing gates will be built at the main entrance and other required entry points as determined by maintenance crews and/or safety personnel. National Electric Code Standards for safety and signage will be met or exceeded.

The project will be obscured from view by providing fence and using natural and planted vegetative buffers will meet or exceed the standards outlined by the County of Isle of Wight's ordinance.

# Environmental Impact

## Land Use

The project area is currently open agricultural field. Woodland areas exist on the subject parcel outside the project limits. The site is bounded on three sides by woodland and agricultural fields with a dwelling to the north. A residential neighborhood is located south of the property across Old Stage Hwy. The site fronts on Old Stage Hwy (BUS VA-10) to the south and Morgarts Beach Rd (SR 673) to the west and north.

## Topography

The site topography can be described as fairly flat coastal plain. The site predominately slopes gently eastward with some low spots on the property. There are no steep slopes within the project area. A topographic survey of the project area was performed by Dawood Engineering, Inc. in October and November 2022. The streams and wetlands within the project area were delineated by Dawood Engineering, Inc. in October 2022. The vertical datum used is the North American Vertical Datum 1988 (NAVD 88). The horizontal datum is the North American Datum 1983 (NAD 83), Virginia State Plane Coordinate System.

## Soils

The soil delineation for this project was completed using the United States Department of Agriculture Natural Resource Conservation Service Web Soil Survey. Soil types expected within the subject parcel include Slagle fine sandy loam (18A, 18B), Yemassee fine sandy loam (23), Emporia fine sandy loam (5A, 5B), Chipley sand (4), Nawney loam (10), and Nevarc and Remlik soils (11E). Of these, 11E is a highly erodible soil, 5B and 18B are potentially highly erodible, and 4, 5A, 10, 18A, and 23 are not highly erodible. Soils 5A, 5B, 18A, and 18B are prime farmland. Soils 23 are prime farmland if drained. Soils 4, 10, and 11E are not prime farmland.

As indicated by the Virginia Department of Energy geological mapping, the site is underlain by the Charles City Formation (Qcc). This formation varies from 0-55 feet or more in thickness and consists of light- to medium-gray and light- to dark-yellowish and reddish-brown sand, silt, and clay composing surficial deposits of riverine terraces and coast-parallel plains. This unit is adjacent to, and inset below, the Windsor Formation and older deposits.

## Wetlands & Receiving Waters

Pivot Energy has engaged a qualified environmental professional to conduct a field delineation to confirm that the site is designed away from the few identified, isolated wetlands to ensure no negative environmental impact. A summarized copy of this report is included in our application packet. Runoff from the subject parcel drains to Lawson Creek, or one of its tributaries. Lawson Creek flows through the eastern edge of the property. Lawson Creek is a tributary of Pagan River in the James River basin.

## Wildlife Habitats

Coordination with various state and federal agencies determined no adverse impacts to threatened or endangered species are anticipated as a result of the project. Refer to the Threatened and Endangered Species Assessment prepared by Dawood Engineering, Inc for additional information.

## Cultural and Historical Resources

A Phase I Cultural Resources Survey was completed by Stantec Consulting Services. Inc. in February and March 2023. No previously recorded archaeological nor architectural sites are located within the project area. One new isolated archaeological find, a whiteware body sherd, was identified. The find is not eligible for listing to the NRHP. One new architectural resource was identified on the subject parcel outside the project limits but was determined not eligible for listing in the NRHP. Three resources located within 0.5 miles of the project were considered eligible or potentially eligible for listing in the NRHP. Refer to the Cultural Resource Assessment prepared by Dawood Engineering, Inc for additional information.

## State Agency Diligence

Before solar projects in Virginia can begin construction, they must be vetted by the Virginia Department of Environmental Quality (VADEQ) regulation process in the form of permits by rule (PBR). This state-level oversight ensures that conditions and standards necessary to protect the Commonwealth's natural resources are met by a proposed project. This review, in coordination with the Virginia Department of Historic Resources, the Virginia Department of Wildlife Resources, and the Virginia Department of Conservation and Recreation analyze the proposal for potential impacts on wildlife, historic resources, prime farmland, and environmental impact.

The thorough diligence involved in securing VADEQ's PBR—and any subsequent mitigation measures required—offer strong protection for localities considering a project like ours. The land use decision within our CUP application is only the first of many steps a project must satisfy before submitting for a building permit.

# Construction

Construction of the solar energy system, including access road and interconnection to the electric grid, is to occur in three phases. The first phase of the project is anticipated to take 6 months to complete and will consist of construction of 1 MW of solar panels, electrical switch gear, site preparation, fencing, access road, and vegetative buffers. As Dominion Energy approves the interconnection of the second and third 1MW section of solar panels (both currently in study by the utility) they will be installed.

Construction of first phase is scheduled to start in September 2024. Finish date of the third phase is anticipated to be in April 2025. This schedule is based on the latest available information. Actual dates may vary based on regulatory requirements, weather, and other unforeseen issues. It is anticipated that onsite work will be conducted during the standard workweek (Monday through Friday) when workers will be onsite from 7:00AM to 5:00PM (10 hours). In the event of inclement weather, missed weekdays may be occasion made up on Saturdays to maintain construction schedules.

Construction activities associated with the project include establishing access, material delivery and storage, loading and hauling, construction of racking system with driven posts for foundations, mounting of solar modules, construction of equipment pads, installing equipment, trenching underground cable ductbanks, backfill and compaction, installing utility poles and aerial power lines, installing security fencing, and revegetation.

Construction of the solar energy system and site appurtenances is to occur in sections to limit disturbed area. The following is a general estimation of duration of the activities associated with the project. Some will occur simultaneously as work progresses. Estimated timing of the construction activities are as follows:

- Sediment control devices are to be installed in each area before any upslope earth disturbance commences. It is anticipated installing the sediment control devices will take approximately 1 week.
- Access road construction is anticipated to take roughly 1 week.
- Construction of the racking system and installation of solar modules will take approximately 4 months.
- Construction of the equipment pad and installation of equipment will take approximately 3 weeks.
- Trenching and cable installation will take approximately 6 weeks.
- Installing the poles and overhead power lines, including the interconnection, will take approximately 2 weeks.
- Final restoration, including seeding and mulching, is to be completed immediately as improvements are finished in each area. It is anticipated final restoration will take approximately 2 weeks.
- Sediment control devices are to be removed once the upslope area has been permanently stabilized. This should take less than 1 week.

## Operations and Maintenance

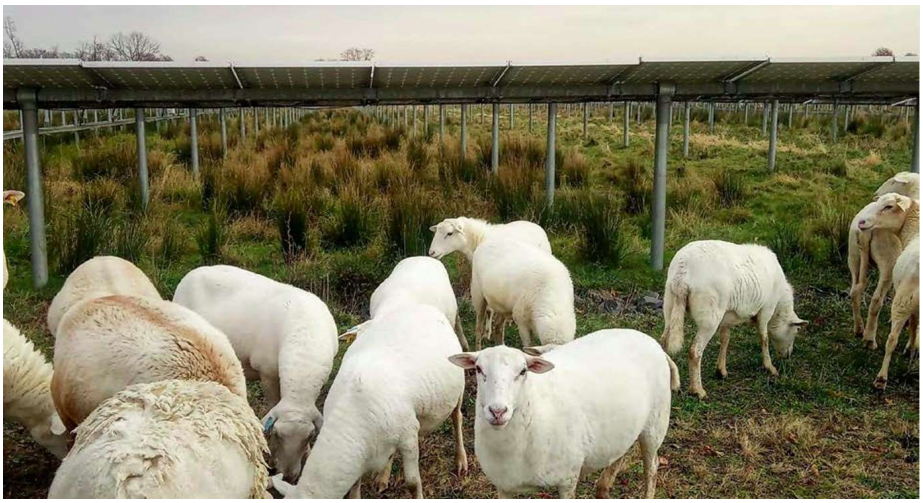
After construction is complete, we anticipate minimal site access requirements for Project maintenance activities. At a minimum, the Project will undergo two annual preventative maintenance checks, once in the spring (~April) and once in the fall (~August). While all products installed on site are of the highest quality per industry standard testing practices & classifications, occasional dispatch to site may be required to correct outages on an as-needed basis. Corrective activities such as this may add two to four site access instances each year.

As the long-term owners & operators of the proposed Project, our team will also actively monitor site performance 24/7 and will address any issues in a timely manner. Based on performance impact, our contracted O&M providers will respond within 24, 48, or 72 hours depending on the outage type. Our sites are unmanned regularly unless maintenance is required, which would occur between Monday – Friday from 8 AM – 5 PM.

Average rainfall in the County of Orbit Rd. anticipated to be adequate for natural cleaning of the panels. Vegetative ground cover will be managed during the growing season in compliance with local requirements, including but not limited to land use permit specifications, water management plans, and site access agreements.

## Solar Grazing – Vegetative Maintenance through Dual Ag Use

**“**Solar Grazing” is a method of vegetation control for solar sites that utilizes livestock. Sheep are best suited due to their size and grazing behavior. Ground cover is established with a “Fuzz and Buzz” mix that is conducive to grazing as well as pollinating. Projects such as the proposed Old Stage. would contract with local sheep farmers to move onto site in the Spring, care for them during grazing season, and move off site in the Winter. Sheep are excellent at grazing under panels where mowing is more labor intensive. The perimeter fence protects sheep from predators and solar panels provide shelter from rain, wind, and direct sun on hot days.



Pivot Energy has established a partnership with United Agrivoltaics to help lead our Solar Grazing initiatives. With a network of sites across the country and partners in Solar Grazing since 2015, United Agrivoltaics will assist Pivot Energy in a vegetative maintenance plan for this dual use.

## Impacts and Mitigations

**Water –** No on-site source of potable water will be required during construction or operations for Old Stage. If any on-site water source is required during construction or operation, it will be supplied by the host Project and sourced off-site. No new well will be dug for this project.

**Sound –** The majority of sound associated with the proposed Project will occur during construction. This is expected to be the result of material deliveries to the Property and support beam installation for the array. Impacts from noise are mitigated from a selected site that has few abutting neighbors and restricted hours of construction operations.

Once operational, Old Stage will be practically inaudible. At a distance of 3ft from the security fence, our inverters and racking equipment create a sound comparable to a home HVAC unit. These sound measurements fall to less than 50dB at only 50ft from the perimeter—equivalent to background noise in the County.

**Glare –** No glare hazard is expected during construction or operations. Our Tier I panels are treated with anti-glare coating and are designed to absorb as much sunlight as possible. The setbacks and robust vegetative screening from neighbors will further obscure any visual impact of the proposed Project.

**Odor –** Our EPC team will store, collect, and dispose of any solid construction material waste to prevent any odors from the Site, mitigating any impact on neighboring properties. No detectable odors are produced from the solar array components during operations.

**Dust –** Possible dust occurrence during operations is most likely to result from delivery or construction trucks on the Site. This will be mitigated by spraying water on dry dirt and enforcing a 5 MPH speed limit within the construction area. Minimal vehicle or foot traffic during operations and vegetative groundcover will naturally mitigate against concerns for dust.

**Security and Access –** The perimeter fence around the array will be no taller than 8 feet in height and contain no barbed wire. This fence will be black or another neutral color with final design approval to be sought from the Planning Director. The gates within the fence will remain locked while access will be coordinated through our operations and maintenance personnel. Our Site will provide a "Knox Box" to provide 24/7 access for local emergency personnel. The Applicant will ensure suitable access from Pocket Road is maintained for fire or other emergency vehicles.

## Removal

At the end of the Project's life, it will be decommissioned and removed from the Property. Formal notice of end of operations will be sent to County via Certified Mail. The Project will then be completely removed from the Property and reasonably restored to previous condition within 365 days of receipt of notice. Old Stage would expect County approval of our decommissioning plan—to include posting of surety funds—prior to building permit issuance. We have included a preliminary decommissioning cost estimate in our submission.

# Economic Development

## Jobs

To the extent possible, Old Stage will source local materials and labor for the construction and maintenance of the project. We estimate that this project will create approximately 30 new construction positions and 1-2 operations positions. Operations jobs will be focused on facility upkeep with responsibilities such as vegetation management, equipment repair, and component maintenance. Typical cadence for site maintenance is every two to three months.

## Increased County Revenue

Additionally, this project's lease revenue would provide direct fiscal benefit to the County. This has been outlined in a report commissioned from MAGNUM ECONOMIC's *"VAL025 - OLD STAGE HIGHWAY ECONOMIC AND FISCAL CONTRIBUTION TO ISLE OF WIGHT COUNTY, VIRGINIA*". This report has been included in our application.

# Regulatory Conformance

Virginia Code § 15.2-2232 requires that the Board of Supervisors makes a determination as to whether or not the general location, character, and extent of a proposed solar energy facility is in substantial accord with the locality's adopted comprehensive plan.

The Project includes construction of an approximately 22.62-acre solar farm (including buffer areas) within the existing field. Existing woodland and buildings are to remain. The proposed development is shown on the concept plan included with the conditional use application. A solar energy system (utility service/major) is a permissible use by conditional use within the RAC district. This statement has been prepared to show the proposed use will conform to the standards of the Zoning Ordinance. We believe the standards of section 1-1017 (Conditional Uses) have been met and respectively request the conditional use be granted. The standards for review and the conditions and guarantees have been addressed as follows:

**Zoning Ordinance Section 1-1017.H – Standards for review of a conditional use application**

1. *That the establishment, maintenance, and operation of the conditional use will not be detrimental to or endanger the public health, safety, and general welfare;*
   The adverse effects of the proposed use on the public health, safety, and general welfare would be minimal. The developer intends to design, construct, operate, inspect, and maintain the proposed development to meet or exceed all applicable federal, state, and local requirements and in general conformance with manufacturer recommendations and industry standards. All proposed equipment is to be readily accessible for fire and police protection. Measures, such as vegetative screening and security fencing, are proposed to mitigate any potential adverse effects and limit access.
2. *That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially impair the use of other property within the immediate proximity;*
   The proposed use is compatible with the other uses in the area providing energy for the neighborhood and will not be injurious nor substantially impair the use of other property in the area. Existing and proposed screening will limit the visual impact from adjacent property and roadways.
3. *That adequate utilities, water, sewer or septic system, access roads, storm drainage and/or other necessary public facilities and improvements have been or will be provided;*
   The proposed use does not require permanent water supply or sewage disposal. With established vegetation beneath and around the solar panels, the existing storm drainage facilities should be adequate and will be supplemented with further management facilities as needed during Site Plan Review. A short gravel access road is to be constructed to provide direct access to the solar energy system. Connection to the existing power lines in the adjacent roadway is to be provided in conformance with the electric company and regulatory standards.
4. *That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion on the public streets;*
   Traffic generated by the use should be negligible consisting of the occasional inspection or maintenance vehicle. A gravel drive from the public roadway is to be constructed to provide access directly to the solar farm.

5. *That the proposed conditional use is not contrary to the goals and objectives of the Isle of Wight County comprehensive Plan;*

The proposed use is consistent with the comprehensive plan. As stated in the plan, a solar farm is an appropriate use for the Rural Agricultural Conservation area. The use is consistent with the priority to protect natural resources and rural lifestyle and the policy to facilitate non-residential development. Converting the area from an agricultural field has the potential to reduce the amount of stormwater runoff, increasing groundwater quantity, by changing the ground cover. This would also potentially improve the quality of surface water and groundwater by reducing the use of fertilizers and pesticides. The combination of natural and supplemental screening and fencing to be maintained around the solar panels will preserve the rural character of the area.

**"Require facilities to be located adjacent or close to existing electric transmission lines."**
The project proposes to interconnect to the Dominion three-phase powerlines that run across the property's road frontage along Old Stage Hwy.

**"Require facilities to be located outside of DSDs."**
The project is sited on a property that is approximately 7.0 miles away from the nearest DSD (Newport).

**"Avoid or minimize impact to prime farmland or farmlands of statewide importance as defined by the USDA and Commonwealth of Virginia, respectively."**
The parcel being used takes up only 22.62. acres of cropland out the 94 acre property, which will continue to be farmed. Given the average farm size of 340 acres and over 80,000 total farm acres in Isle of Wight County, Old Stage presents a negligible impact on farmlands, which it more than offsets by providing homes with clean, locally generated power.

Additionally Pivot Energy promotes as a standard the use of sheep grazing as vegetation control on the site, which will allow the land to continue to function as agricultural lands.

**"Facilities should be located outside of the viewshed of any scenic, cultural, or recreational resources (i.e., solar facilities may not be seen from surrounding points that are in line-of sight with a resource location) or within the Highway Corridor Overlay district."**
The proposed existing, mature vegetative buffer along Old Stage Hwy will provide complete screening of the site from the public.

The Comprehensive Plan also outlines several Policy themes with Action Items associated toward those ends. Below are some of the more applicable selections regarding solar projects and our determination of the project would fit.

**Preserve: Protect water quality from sedimentation and pollutants carried by runoff through the continued enforcement of the local stormwater management program.**
Before final site plan approval, Pivot Energy must secure confirmation from the Virginia Department of Environmental Quality that the designed stormwater management features will meet or exceed the rates of current property use. Verification of this confirmation will safeguard against any degradation of local stormwater management as a result of the project.

**Shape: Protect rural historic landscapes by ensuring development is consistent with existing community character through performance criteria for new development.**

The vegetative screening plans provided offer mature, existing bufferings required by the solar ordinance. Exceeding the vegetative screening standard by this degree shows the specific focus on existing community character.

**Serve: Encourage collaboration with the private sector to provide integrated infrastructure in the most efficient way possible.**

**Serve: Design and develop public facilities, wherever possible, that take advantage of alternative energy sources and conserve energy in operations.**

**Serve: Ensure all major utility service use types mitigate any potential negative impacts to the character and future viability of surrounding land uses.**

The Old Stage project offers alternative energy sourced power generation for the local community, financed by private investment, to the net fiscal benefit for the county. By designing vegetative buffering that exceeds the county requirement for solar projects in its particular location, Old Stage is sited respectfully to local character and land uses while allowing the site landowner to exercise his property rights.

**Educate: Continue to grow programs that enhance job skills of County residents needed by employers.**

Pivot has contacted SHINE to coordinate plans for community colleges and academic institutions across Virginia so we can increase access to solar training programs across the state.

6. *That the conditional use shall, in all other respects, conform to the applicable regulations of the zoning district classification in which it is located and to the special requirements established for the specific use;*

   The developer intends to design, construct, operate, inspect, and maintain the proposed development to meet or exceed all applicable regulations.

7. *That the use(s) at the location proposed will not result in a multiplicity or saturation of similar uses in the same general neighborhood of the proposed use.*

   The proposed use at this location will not result in a saturation of similar uses in the same neighborhood. The only other known solar farms in the county are at Oliver Farms and Bennetts Creek Nursery located approximately 9-miles south of the site off VA-10/VA-32 near the county line with Suffolk. There are two other proposed solar projects approximately 10-miles south of this project. One project is currently under construction on Redhouse Road. Another project is approved but not yet constructed on Orbit Road.

   Proximity to three phase power lines and substations limits the available areas suitable for the installation of solar projects. After this site is constructed the electrical infrastructure supporting these facilities will be built out and not able to support further development.

**Zoning Ordinance Section 1-1017.I – Conditions and guarantees**

1. *The number of persons living or working in the immediate area and the proposed hours of operation, as may applicable.*

   N/A - No persons are to be located on-site. Any necessary maintenance personnel will be stationed elsewhere. Operations will be continuous while the sun is shining though personnel will generally only be onsite during inspections and maintenance.

2. *Traffic conditions, including facilities for pedestrians, such as sidewalks and parking facilities; the access of vehicles to roads; peak periods of traffic; and proposed roads, but only if construction of such roads will commence within the reasonably foreseeable future;*
   The nature of the proposed use, the site layout, and its relation to access streets are such that both pedestrian and vehicular traffic should not conflict with the normal traffic of the neighborhood. Traffic should be minimal utilizing a proposed gravel drive for access. Adequate parking is proposed for the occasional need. Fencing is proposed to restrict access.

3. *The orderly growth of the neighborhood and community and the fiscal impact on the county;*
   The proposed use is of such location, size, and character that, in general, it will be in harmony with the appropriate and orderly growth of the neighborhood and will not be detrimental to the orderly growth of adjacent properties. The proposed use will a provide supplementary energy source for the community. Traffic will be minimal and sufficient landscaping is proposed to screen adjacent properties. The proposed use will not have a significant fiscal impact on the county, other than the increase in tax base due to the change in use.

4. *The effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise upon the use of surrounding properties;*
   The proposed use, under normal operations, is not expected to produce any significant effects that would adversely impact the surrounding properties. Solar panels are designed to absorb light, with any glare to be minimized by the angle and tilt of the panels. Additionally, the proposed screening will further obscure any glare to adjacent roads and properties. All equipment is to be designed and operated in accordance with Federal, State, and local regulations. The solar panels will produce virtually no noise, vibrations, fumes, smoke, gas, dust, or odors. The system equipment is not expected to generate meaningful noise levels, vibrations, fumes, smoke, gas, dust, or odors. The location of the solar panels and equipment within the parcel and the use of vegetative screening will reduce the effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise from the use adversely impacting surrounding properties.

5. *Facilities for police, fire protection, sewerage, water, trash and garbage collection and disposal, and the ability of the county or persons to supply such services;*
   The proposed use would not create undue impacts to police, fire protection, or ambulance services. Fencing is proposed to restrict access and standard fire safety measures are to be utilized to reduce fire hazards. All proposed equipment is to be readily accessible for fire and police protection. Emergency response service to the site is to be facilitated through the construction of a new access road. Connection to the existing power lines in the adjacent roadway is to be provided in conformance with the electric company and regulatory standards. The proposed use does not require sewerage, water, or waste disposal services.

6. *The degree to which the development is consistent with generally accepted engineering and planning principles and practices;*
   The developer intends to design, construct, operate, inspect, and maintain the proposed development to be consistent with generally accepted engineering and planning principles and practices.

7. *The structures in the vicinity such as schools, houses of worship, theaters, hospitals, and similar places of public use;*
   The nearest such public facility is the Hardy Elementary School approximately 0.7-miles southeast of the subject parcel.

8. *The purposes set forth in this ordinance, the county's comprehensive plan, and related studies for land use, roads, parks, schools, sewers, water, population, recreation, and the like;*
   The proposed use does not conflict with the purposes set forth in the ordinance nor comprehensive plan. The proposed use is consistent with the comprehensive plan. Due to the nature of the use, the effect on the roads, parks, schools, sewers, water, population, and recreation should be negligible. The use does not involve the construction of facilities that would directly cause an increase in population or increase the demand for public facilities and services.
9. *The environmental impact, the effect on sensitive natural features, and opportunities for recreation and open space;*
   N/A – Any adverse environmental impact from the proposed use is negligible. The proposed construction area is limited to the existing farm field. The development will not result in the loss or damage of any sensitive feature. Recreation and open space aren't applicable to this development as it will not result in additional residents.
10. *The preservation of cultural and historic resources or landmarks.*
    There are no known cultural or historic resources or landmarks within the project area. The proposed construction area is limited to the existing access and farm field. One new architectural resource, a house, was identified on the subject parcel outside the project limits. Three historical resources are located near the project, a cemetery across Morgarts Beach Road west of the project, a house on the parcel north of the project site, and the Captain John Smith Historic Trail north of the project area. Existing and proposed screening will minimize any adverse impact to these resources. Mitigation for any adverse effect of the proposed project on the resources is being coordinated with the Virginia Department of Historic Resources.

**ORDINANCE NUMBER ___ _____**

**AN ORDINANCE TO ISSUE A CONDITIONAL USE PERMIT, CUP-06-23, TO ESTABLISH A MAJOR UTILITY SERVICE, SPECIFICALLY A THREE MW UTILITY-SCALE SOLAR ENERGY GENERATION FACILITY ON APPROXIMATELY 22 ACRES LOCATED ON OLD STAGE HIGHWAY AND MORGARTS BEACH ROAD ON TAX PARCEL NUMBER 13-01-005 ZONED RURAL AGRICULTURAL CONSERVATION**

WHEREAS, Elk Development, LLC, applicant, and William Pennie, Jr. and Teresa L Crocker, property owners, have requested the issuance of a conditional use permit for a 3 MW utility scale solar energy generation facility on 22 acres with tax parcel number 13-01-005 which land is depicted on Exhibit "A"; and,

WHEREAS, the procedural requirements of Appendix B, Zoning Ordinance, of the Code of Isle of Wight County, Virginia, 2005 (as amended), have been followed; and,

WHEREAS, in acting upon this request, the Planning Commission and Board of Supervisors have considered the matters enunciated in Section 15.2-2284 of the Code of Virginia (1950), as amended, and Section 1-1017 of the Isle of Wight County Zoning Ordinance with respect to the purposes stated in Code of Virginia (1950), as amended, Section 15.2-2200 and 15.2 2283; and,

NOW, THEREFORE, BE IT ORDAINED by the Isle of Wight County Board of Supervisors of Isle of Wight County, Virginia, that:

Section 1. Exhibits.

Exhibit "A", "Property Map" and Exhibit "B," "Conditions of Approval," are attached hereto and are hereby incorporated as part of this ordinance.

Section 2. Findings.

The Board of Supervisors finds that the proposal for a conditional use permit (CUP-06-23) as submitted or modified with conditions herein, the expressed purpose of which is to permit a major utility service, specifically a 3 MW utility-scale solar energy generation facility, is in conformity with the standards of the Isle of Wight County Zoning Ordinance, and that it will have no more adverse effects on the health, safety or comfort of persons living or working in or driving through the neighborhood, and will be no more injurious to property or improvements in the neighborhood than would any other use generally permitted in the same district, taking into consideration the location, type and height of buildings or structures, the type and extent of landscaping and screening on site and whether the use is consistent with any theme, action, policy or map of the Comprehensive Plan with the conditions set forth below.

These findings are based upon the consideration for the existing use and character of the property, the Comprehensive Plan, the suitability of the property for various uses, the trends of growth or change, the current and future requirements of the community as to land for various purposes as determined by population and economic studies and other studies, the transportation requirements of the community, the requirements of airports, housing, schools, parks, playgrounds, recreation areas and other public services, the conservation of natural resources, the preservation floodplains, the preservation of agricultural and forestal land, the conservation of properties and their values, and the encouragement of the most appropriate use of land throughout the County.

These findings are based upon a determination that the most reasonable and limited way of avoiding the adverse impacts of a major utility service is by the imposition of the conditions provided herein.

Section 3. Permit Granted.

The conditional use permit for the property is hereby approved for the property subject to the attached

conditions in Exhibit "B" and the general conditions set forth in Section 4 hereof. The conditional use permit specifically allows for a 3MW utility scale solar energy generation facility on 22 acres in compliance with the County Zoning Ordinance.

Section 4. Severability.

It is the intention of the Board of Supervisors that the provisions, sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable; and if any phrase, clause, sentence, paragraph, section, and provision of this ordinance hereby adopted shall be declared unconstitutional or otherwise invalid by the valid judgement or decree of a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining phrase, clauses, sentences, paragraphs, sections, and provisions of this ordinance, to the extent that they can be enforced notwithstanding such determination.

Section 5. Effective Date

This ordinance shall be effective upon passage and shall not be published or codified. The conditional use authorized by this permit shall be implemented within two (2) years from that date of approval by the Board of Supervisors and shall terminate if not initiated within that time period.

This ordinance shall be effective upon passage and shall not be published or codified.

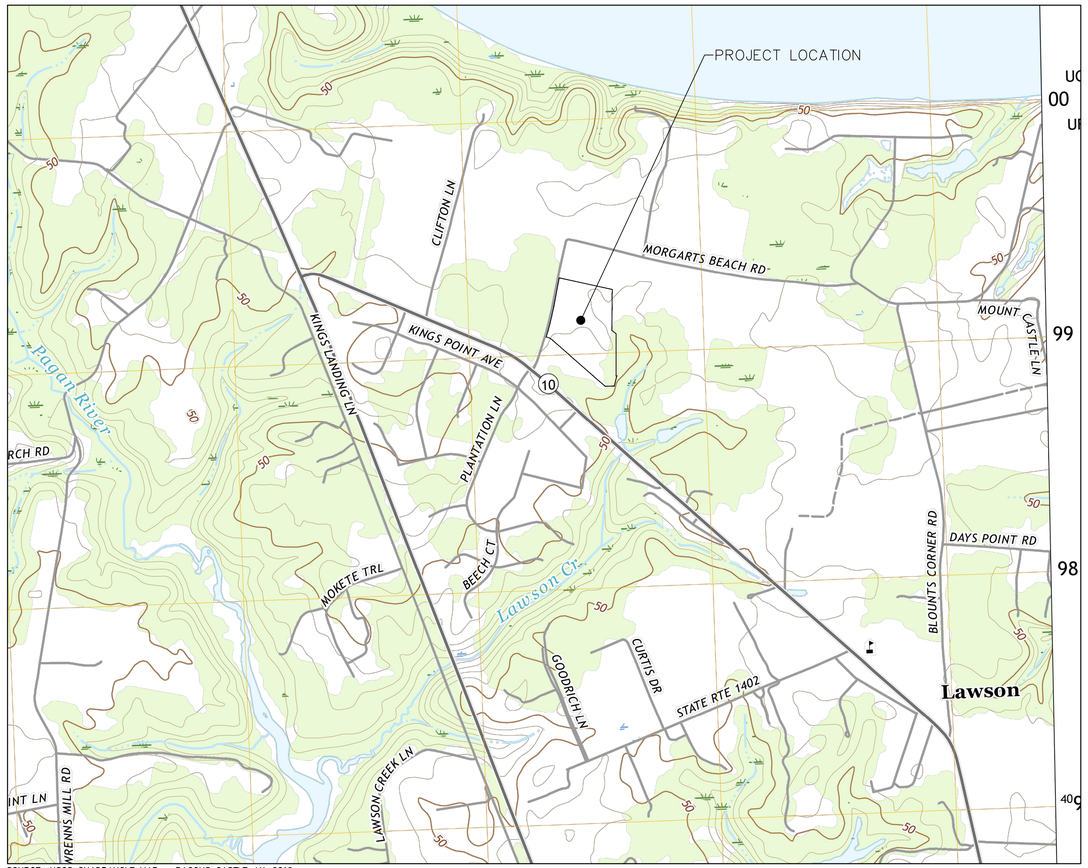
DATE: _____

READ AND PASSED: _____
Chairman, Board of Supervisors

TESTE: _____
Clerk, Board of Supervisors

Approved as to Form:

_____
Robert W. Jones Jr, County Attorney




SOURCE: USGS QUADRANGLE MAP – BACONS CASTLE, VA 2019

## VICINITY MAP

1000 0 1000 2000

SCALE: 1" = 1000'

# CONDITIONAL USE CONCEPT PLAN

# VAL025
# Solar Energy System

8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT
ISLE OF WIGHT COUNTY, VIRGINIA

## GENERAL NOTES

1. SOLAR PANEL AND ELECTRICAL LAYOUT AND DESIGN PROVIDED BY PIVOT ENERGY, 6865 DEERPATH ROAD, STE 330, ELKRIDGE, MD 21075. 410-779-9377
2. SITE PLANS AND DESIGN PERFORMED BY DAWOOD ENGINEERING, INC., 11 GRANDVIEW CIRCLE, SUITE 116, CANONSBURG, PA 15317, 855-432-9663.
3. THE DEVELOPER SHALL COMPLY WITH ALL APPLICABLE COUNTY ORDINANCES IN EFFECT AT TIME OF SUBMISSION OF THE PLAN.
4. SITE DEVELOPMENT PLAN APPROVAL DOES NOT RELIEVE THE OWNER FROM ALL APPLICABLE SIGN REGULATIONS. ALL PROPOSED ON-SITE SIGNAGE SHALL CONFORM TO THE COUNTY ORDINANCES.
5. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING CONSTRUCTION. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SITE CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER IN WRITING.
6. NOTHING SHALL BE PLACED, PLANTED, SET OR PUT WITHIN THE AREA OF ANY EASEMENT THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT OR CONFLICT WITH THE EASEMENT AGREEMENT.
7. ALL EXISTING UTILITIES HAVE BEEN SHOWN IN ACCORDANCE WITH THE AVAILABLE INFORMATION. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. ADDITIONAL UTILITIES MAY BE ENCOUNTERED.
8. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL ABOVE AND BELOW GROUND UTILITIES AND STRUCTURES AND WILL BE RESPONSIBLE FOR THE PROTECTION OF THESE UTILITIES AND STRUCTURES AT ALL TIMES.
9. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED IMMEDIATELY AND COMPLETELY AT HIS EXPENSE.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A COPY OF ALL PERMITS RELATED TO THE CONSTRUCTION SHOWN ON THESE PLANS ON THE JOB SITE AT ALL TIMES.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC SAFETY AS MANDATED BY DOT, OSHA, DEQ AND OTHER AGENCIES.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF CONSTRUCTION AND DEMOLITION WASTE MATERIAL.
13. CONTRACTOR SHALL DEVELOP A PLAN FOR CONSTRUCTION TO AVOID DIRECT IMPACT TO ANY OF THE HISTORICAL RESOURCES IDENTIFIED. IN ADDITION, SHOULD ANY ARCHAEOLOGICAL ARTIFACTS BE DISCOVERED DURING CONSTRUCTION THE LANDOWNER SHALL BE NOTIFIED IMMEDIATELY. THE LANDOWNER SHALL CONSIDER USING THE ISLE OF WIGHT COUNTY MUSEUM AS A REPOSITORY FOR DISCOVERED ARTIFACTS.
14. IN ACCORDANCE WITH ISLE OF WIGHT ZONING ORDINANCE 5-5003, SECTION M.4.h., CONTRACTOR SHALL INSPECT AND VIDEO DOCUMENT ALL SECONDARY ROADS TO BE UTILIZED BY CONSTRUCTION VEHICLES PRIOR TO STARTING CONSTRUCTION AND AGAIN AFTER CONSTRUCTION IS COMPLETE. ALL ROADS DAMAGED BY SOLAR FARM CONSTRUCTION TO BE REPAIRED BY THE CONTRACTOR IN ACCORDANCE WITH VDOT STANDARDS AND SPECIFICATIONS.

## SURVEY NOTES

1. BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED ON FIELD SURVEY PERFORMED BY DAWOOD ENGINEERING, INC. IN OCTOBER AND NOVEMBER 2022.
2. THE LEGAL RIGHT-OF-WAY ON VA-10 IS 50 FEET.
3. THE LEGAL RIGHT-OF-WAY ON SR 673 IS 30 FEET BASED ON INSTRUMENT #040006491
4. VERTICAL CONTROL IS BASED ON NAVD 88 GEOID 18.
5. HORIZONTAL CONTROL IS BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM-SOUTH ZONE, NAD83 (2011) (EPOCH 2010.00).
6. ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY AND ARE BASED UPON SURFACE FEATURES AND RECORD DRAWINGS PROVIDED. LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES MAY VARY FROM LOCATION SHOWN HEREON. ADDITIONAL BURIED UTILITIES AND STRUCTURES MAY BE ENCOUNTERED.
7. THE SITE IS NOT SITUATED WITHIN A FLOOD HAZARD AREA ACCORDING TO FEMA FLOOD INSURANCE RATE MAP PANEL NUMBER 51093C0070E, EFFECTIVE DATE 12/2/2015.
8. A FIELD DELINEATION OF WETLAND HABITATS WAS CONDUCTED BY DAWOOD ENGINEERING, INC. IN OCTOBER 2022. THE WETLANDS AND WATERCOURSES IDENTIFIED HAVE BEEN DELINEATED ON THE SURVEY.

## LAND OWNERS

PARCEL 13-01-005
WILLIAM PENNIE JR & TERESA L CROCKER

## SOURCE OF TITLE

INSTRUMENT #090005573
RECORDED IN ISLE OF WIGHT COUNTY
ON SEPTEMBER 18, 2009
GRANTEE: WILLIAM PENNIE CROCKER, JR
AND TERESA L. CROCKER
GRANTOR: MARY C. CROCKER

## LEGEND
(TYPICAL ALL PLAN SHEETS)

- R/W Right of Way
- ℄ Center Line
- R Record
- F Found
- U Used
- B Book
- P Page
- I.P. Fnd. Iron Pin Found
- Pipe. Fnd. Pipe Found
- Stone Fnd. Stone Monument Found
- IP. Mon. Fnd. Iron Pin Monument Found
- Mon. Fnd. Concrete Monument Found
- Axle Found
- Fence Post Found
- Angle Iron Found
- Mag Nail Found
- Railroad Spike Found
- Benchmark
- Bollard
- Road Sign
- Post Or Pole
- Handicapped Parking
- Electric Vault
- Electric Meter
- Electric Pole
- Guy Wire
- Light Post/Pole
- Telephone Manhole
- Cable Box
- Water Meter
- Water Manhole
- Water Spigot
- Water Valve
- Sanitary Sewer Cleanout
- Sanitary Sewer Manhole
- Gas Meter
- Gas Valve
- Gas Marker
- Gas Test Station
- Storm Sewer Inlet
- Storm Sewer Manhole
- Parcel Boundary Line
- Legal Right-Of-Way Line
- Center Line
- Edge Of Bituminous Paving
- Edge Of Gravel
- Curb
- Fence Line
- Guide Rail
- Building Line
- Tree Line
- Overhead Electric Line
- Underground Electric Line
- Overhead Telephone Line
- Underground Telephone Line
- Overhead Cable TV
- Underground Cable TV
- Water Line
- Sanitary Sewer Line
- Gas Line
- Storm Sewer Line
- Water Edge / Stream
- Wetlands
- Soil Type and Limits (XXX)
- Minor Contour
- Major Contour

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CALL 811 BEFORE YOU DIG
ALLOW REQUIRED TIME FOR MARKING
RESPECT THE MARKS
EXCAVATE CAREFULLY

THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT, AS AMENDED, REQUIRES THREE BUSINESS DAYS NOTICE TO UTILITIES BEFORE YOU DIG, DRILL, OR BLAST. DIAL 8-1-1 OR 1-800-552-7001 NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 15 BUSINESS DAYS PRIOR TO THE EXCAVATION OF A WORK AREA.

VIRGINIA ONE CALL SYSTEM TICKET NUMBER
DESIGN TICKET No.: A230601979-00A DATE: 11/02/22

## LIST OF PUBLIC UTILITIES

COMPANY: AT&T (ATT392)
CONTACT: COLIN PROFITT
804-869-7359
IN EVENT OF DAMAGE CALL: 800-252-1133

COMPANY: COLUMBIA GAS (CGV333)
CONTACT: UTILIQUEST
703-754-2116
IN EVENT OF DAMAGE CALL: 800-544-5606

COMPANY: CHARTER COMMUNICATIONS (CHC191)
CONTACT: JEFF WAGGONER
804-641-3544
IN EVENT OF DAMAGE CALL: 855-272-2862

COMPANY: DOMINION EAST DISTRIBUTIO (DOM409)
CONTACT: UTILIQUEST
804-286-1721
IN EVENT OF DAMAGE CALL: 866-366-4357

COMPANY: MID-ATLANTIC BROADBAND (MBC487)
CONTACT: STAKE CENTER LOCATING
801-364-1063
IN EVENT OF DAMAGE CALL: 866-480-1934

COMPANY: VERIZON (VZN757)
CONTACT: UTILIQUEST
757-315-8119
IN EVENT OF DAMAGE CALL: 888-483-1233

## LISTING OF REQUIRED PERMITS

- ISLE OF WIGHT COUNTY APPROVALS
  CONDITIONAL USE
  SITE DEVELOPMENT PLAN
- VDOT LAND USE PERMIT (LUP-CEI) FOR DRIVEWAY CONSTRUCTION WITHIN MORGARTS BEACH RD RIGHT-OF-WAY
- VDOT LAND USE PERMIT (LUP-UT) FOR UTILITY INSTALLATION WITHIN MORGARTS BEACH RD AND OLD STAGE HWY RIGHT-OF-WAY (BY DOMINION)
- VDEQ VPDES (VAR10) FOR LAND DISTURBANCE EXCEEDING 1-ACRE

## PLAN SHEET INDEX:


C1 ..... COVER SHEET
C2 ..... PROPERTY PLAT / NEARBY RESOURCES MAP
C3 ..... ENVIRONMENTAL SITE ASSESSMENT PLAN
C4 ..... EXISTING CONDITIONS SITE PLAN
C5 ..... SITE DEVELOPMENT PLAN


REVISIONS

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 10/03/23 | PER COUNTY COMMENTS |
| 2 | 12/13/23 | PER COUNTY COMMENTS |
| 3 | 4/10/24 | REVISED SOLAR LAYOUT |
| 4 | 7/02/24 | REVISED SOLAR LAYOUT |
| 5 | 8/22/24 | REVISED LANDSCAPE SCREENING |

DOCUMENT PREPARED BY:

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SCALE:

DOCUMENT PREPARED FOR:
ELK DEVELOPMENT, LLC
6865 DEERPATH ROAD, SUITE 330
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CONDITIONAL USE CONCEPT PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
COVER SHEET

| | |
|---|---|
| DATE | MARCH 28, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | LD-SK-TI |
| DRAWN BY | CWW |
| CHECKED BY | JTP |
| SHEET NO | C1 |

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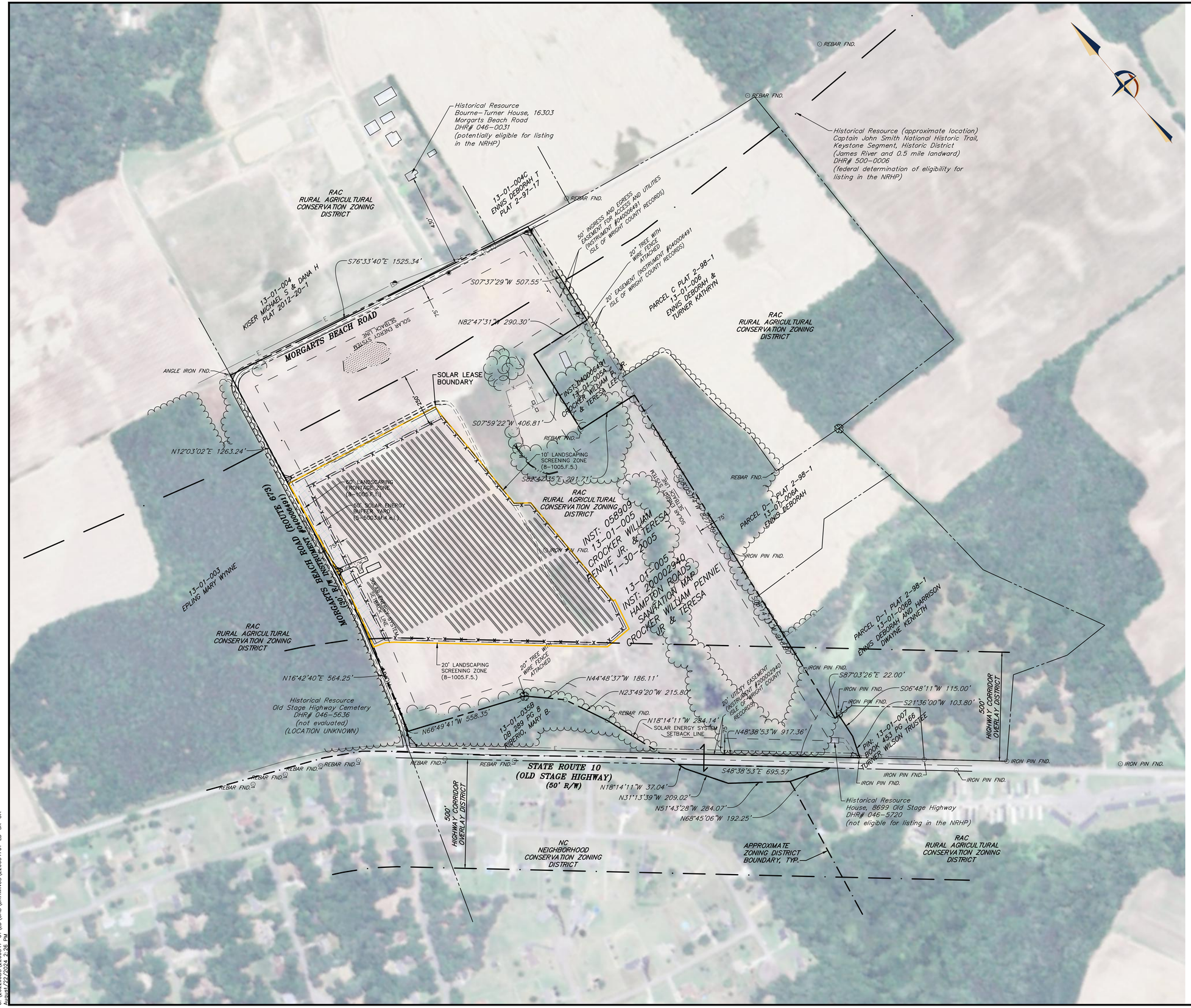


| ZONING REQUIREMENTS / SITE DATA | | |
|---|---|---|
| TAX PARCEL | 13-01-005 | |
| ZONING DISTRICT | RURAL AGRICULTURAL CONSERVATION (RAC) DISTRICT & HIGHWAY CORRIDOR OVERLAY (HCO) DISTRICT | |
| EXISTING LAND USE | AGRICULTURE | |
| PROPOSED LAND USE | AGRICULTURE | SOLAR ENERGY SYSTEM (UTILITY SERVICE/MAJOR) |
| WATER/WASTEWATER | EXISTING TO REMAIN | N/A |
| SITE ACCESS | MORGARTS BEACH ROAD | |
| REQUIRED LOT SIZE | 40,000-SF | |
| ACTUAL LOT SIZE PER USE | 59.40 AC | 22.62 AC |
| TOTAL LOT SIZE | 82.02 AC | |
| REQUIRED LOT WIDTH | 150-FT | |
| ACTUAL LOT WIDTH | 1818 FT | |
| REQUIRED LOT FRONTAGE | 120-FT | |
| ACTUAL LOT FRONTAGE | 917 FT (VA 10) + 3260 FT (SR 673) | |
| MINIMUM FRONT SETBACK | 60-FT | SOLAR ENERGY SYSTEMS: 75-FT ALL PROPERTY LINES (125-FT FROM RESIDENTIAL PARCELS) |
| MINIMUM SIDE SETBACK | 15-FT (ONE SIDE) 35-FT (BOTH SIDES) (15-FT ACCESSORY STRUCTURES) | |
| MINIMUM REAR SETBACK | 35-FT (5-FT ACCESSORY STRUCTURES) | |
| MAXIMUM BUILDING HEIGHT | LESSOR OF 35-FT OR 3-STORIES | |
| ACTUAL BUILDING HEIGHT | < 35 FT | N/A |
| MAXIMUM HEIGHT FOR GROUND-MOUNTED SOLAR PANELS | 15-FT AT MAXIMUM TILT (EXCEPT FOR VEGETATION MANAGEMENT OR FOR INSPECTION, MAINTENANCE, OR REPAIR) | |
| MAXIMUM SOUND FROM SOLAR ENERGY SYSTEM | 60 DbA (A-WEIGHTED DECIBELS) AS MEASURED AT ANY PARCEL LINE | |
| MINIMUM STORMWATER MANAGEMENT FACILITY SETBACK | 20-FT FROM PUBLIC RIGHT-OF-WAY, PROPERTY LINES, EASEMENTS, OR ANY BUILDING | |

| LANDSCAPING AND SCREENING REQUIREMENTS | |
|---|---|
| **TOTAL SITE REQUIREMENTS** | |
| 8-1003.B. | MINIMUM 25% EVERGREEN SPECIES<br>MINIMUM 50% NATIVE SPECIES<br>MINIMUM 15% LANDSCAPE SURFACE RATIO |
| **LANDSCAPING ZONE REQUIREMENTS** | |
| 8-1005.F.1. | 60' WIDE FRONTAGE ZONE<br>1.75 POINTS / LF<br>MINIMUM 60% NON-ORNAMENTAL<br>MAXIMUM 50% EVERGREEN |
| 8-1005.F.2. | 10' WIDE BUFFER ZONE<br>0.9 POINTS / LF (ADJ. TO RES. STRUCTURE)<br>0.45 POINTS / LF (NOT ADJ.)<br>ONE PEDESTRIAN BREAK PER 50 LF (MIN. 6' WIDE) |
| 8-1005.F.5. | 10' WIDE SCREENING ZONE<br>0.8 POINTS / LF<br>NOT INCLUDING FENCES/BERMS/WALLS |
| **SOLAR ENERGY REQUIREMENTS** | |
| 5-5003.M.4.e.i. | PUBLIC ROAD<br>50' WIDE BUFFERYARD<br>THREE STAGGERED ROWS OF TREES AND SHRUBS AT MAXIMUM 8-FT ON CENTER |
| 5-5003.M.4.e.ii. | ABUTTING RESIDENTIAL PARCEL<br>50' WIDE BUFFERYARD<br>THREE STAGGERED ROWS OF LARGE AND SMALL CANOPY TREES AND MEDIUM SHRUBS AT MAXIMUM 8-FT ON CENTER |

| SITE AREA TABULATION | | |
|---|---|---|
| NET (LESS R/W) PARCEL SIZE | 3,572,717 SF | 82.02 AC |
| PROJECT AREA LIMITS OF CONSTRUCTION | 1,177,098 SF | 27.02 AC |
| PROPOSED LAND DISTURBANCE | TBD | TBD |
| PROPOSED TREE CLEARING | 2700 SF | 0.06 AC |
| **PROJECT AREA ACREAGE:** | **EXISTING** | **PROPOSED** |
| SOLAR FARM (FENCED AREA) | 0 | 19.88 AC (88%) |
| OPEN SPACE | 22.62 AC (100%) | 2.74 AC (12%) |
| BUILDING AREA | 0 | 0 |
| IMPERVIOUS COVERAGE | 0 | 0.13 AC |
| MOUNTED SOLAR PANELS | n/a | 5.04 AC |
| FENCING | 0 | 0.18 AC |
| LANDSCAPING | n/a | 2.65 AC |
| POINT OF INTERCONNECTION | n/a | 0.08 AC |
| CROPS (TYPE VARIES) | 22.62 AC | 0 |
| PASTURE | 0 | 0 |
| WOODLAND | 0 | 0 |
| **PARCEL AREA ACREAGE:** | **EXISTING** | **PROPOSED** |
| CROPS (TYPE VARIES) | 45 AC | 24 AC |
| PASTURE | 0 | 0 |
| WOODLAND | 11 AC | 11 AC |

| NET DEVELOPABLE ACREAGE * | | |
|---|---|---|
| GROSS SOLAR LEASE AREA | 22.93 Acres | |
| TIDAL WETLANDS | 0 | AT 100% |
| 100-YEAR FLOODPLAINS | 0 | AT 100% |
| RESOURCE PROTECTION AREAS (INCLUDING 100-FT BUFFER) | 0 | AT 100% |
| NON-TIDAL WETLANDS | 0 | AT 50% |
| SLOPES >15% BUT <30% | 0.03 | AT 50% |
| SLOPES >30% | 0.01 | AT 100% |
| POWER TRANSMISSION LINE EASEMENTS | 0 | AT 100% |
| GAS TRANSMISSION LINE EASEMENTS | 0 | AT 100% |
| STREET RIGHT-OF-WAY, EXISTING OR PLANNED, PUBLIC OR PRIVATE | 22.93 | AT 20% |
| SOLAR LEASE AREA NET DEVELOPABLE AREA * | 18.07 Acres | |

* NDA CALCULATIONS FOR SOLAR LEASE AREA ONLY. NDA OUTSIDE THE SOLAR LEASE AREA HAS NOT BEEN DETERMINED

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| 5 | 8/22/24 | REVISED LANDSCAPE SCREENING |

DOCUMENT PREPARED BY:

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SCALE: 1" = 200'

DOCUMENT PREPARED FOR:

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CONDITIONAL USE CONCEPT PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
PROPERTY PLAT / NEARBY RESOURCES MAP

| | |
|---|---|
| DATE | MARCH 28, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | LD-SK-OA |
| DRAWN BY | CWW |
| CHECKED BY | JTP |
| SHEET NO | C2 |

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MORGARTS BEACH ROAD

SOLAR LEASE BOUNDARY

WETLAND AND WATERCOURSE DELINEATION STUDY AREA BOUNDARY

Wetland W01 (PEM)

Watercourse R01 (EPH)

1 STORY BUILDING

MORGARTS BEACH ROAD (ROUTE 673) (50' R/W DEDICATED TO PUBLIC USE)

STATE ROUTE 10 (OLD STAGE HIGHWAY) (50' R/W)

*Historical Resource (approximate location)*
*Captain John Smith National Historic Trail, Keystone Segment, Historic District*
*(James River and 0.5 mile landward)*
*DHR# 500-0006*
*(federal determination of eligibility for listing in the NRHP)*

*Historical Resource*
*Old Stage Highway Cemetery*
*DHR# 046-5636*
*(not evaluated)*
*(LOCATION UNKNOWN)*

| SOILS LIST | | | | | |
|---|---|---|---|---|---|
| MAP SYMBOL | MAP UNIT NAME | PROJECT ACREAGE | PARCEL ACREAGE | FARMLAND | ERODIBLE LAND |
| 5A | EMPORIA FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES | 0 | 0.1 | PRIME FARMLAND | NOT HIGHLY ERODIBLE |
| 11E | NEVARC AND REMLIK SOILS, 15 TO 35 PERCENT SLOPES | 0 | 4.4 | NOT PRIME FARMLAND | HIGHLY ERODIBLE |
| 14B | PEAWICK-SLAGLE COMPLEX, 2 TO 6 PERCENT SLOPES | 10.4 | 21.1 | FARMLAND OF STATEWIDE IMPORTANCE | POTENTIALLY HIGHLY ERODIBLE |
| 18A | SLAGLE FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES | 0 | 3.3 | PRIME FARMLAND | NOT HIGHLY ERODIBLE |
| 18B | SLAGLE FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES | 6.5 | 15.1 | PRIME FARMLAND | POTENTIALLY HIGHLY ERODIBLE |
| 19A | UCHEE LOAMY SAND, 0 TO 2 PERCENT SLOPES | 3.5 | 16.0 | NOT PRIME FARMLAND | NOT HIGHLY ERODIBLE |
| 19B | UCHEE LOAMY SAND, 2 TO 6 PERCENT SLOPES | 2.3 | 20.1 | NOT PRIME FARMLAND | POTENTIALLY HIGHLY ERODIBLE |
| W | WATER | 0 | 2.1 | NOT PRIME FARMLAND | – |

LEGEND

- Water Edge / Stream
- Wetlands
- Soil Type and Limits (XXX)
- Minor Contour
- Major Contour
- SLOPES >15% <30%
- SLOPES >30%

| Slopes Table | | | | |
|---|---|---|---|---|
| Area ID | Minimum Slope | Maximum Slope | Area (Acres) | Color |
| 1 | 0% | 15% | 20.70 | |
| 2 | 15% | 30% | 0.03 | |
| 3 | 30% | 9999% | 0.01 | |

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SCALE: 1" = 100'

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CONDITIONAL USE CONCEPT PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
ENVIRONMENTAL SITE ASSESSMENT PLAN

| | |
|---|---|
| DATE | MARCH 28, 2023 |
| JOB NO. | 2200547.01 |
| FILE NAME | LD-SK-EN |
| DRAWN BY | CWW |
| CHECKED BY | JTP |
| SHEET NO | C3 |

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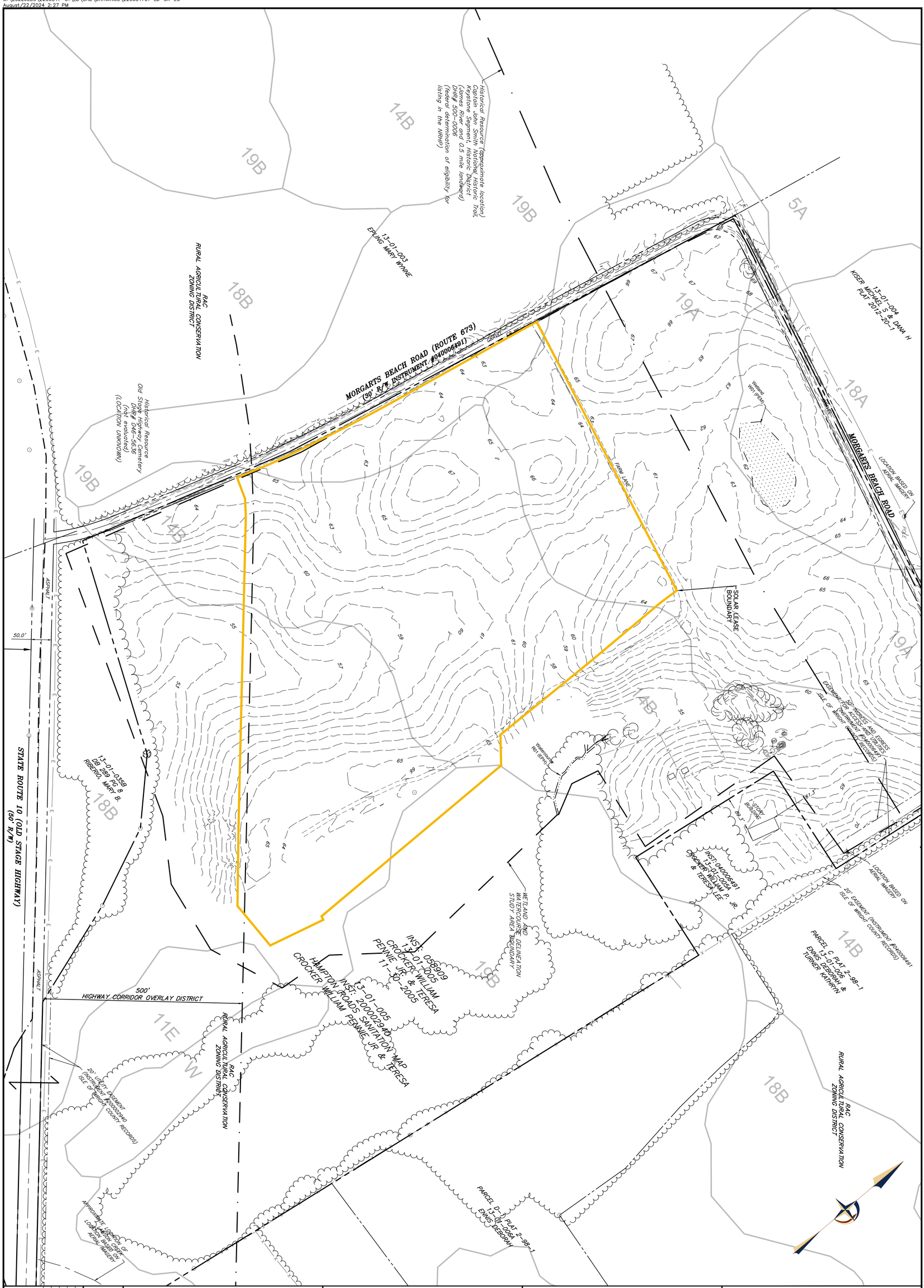


| | |
|---|---|
| DRAWING TITLE | EXISTING CONDITIONS SITE PLAN |
| DATE | MARCH 28, 2023 |
| JOB NO. | 220054701 |
| FILE NAME | LD-SK-EC |
| DRAWN BY | CWW |
| CHECKED BY | JTP |
| SHEET NO | C4 |

CONDITIONAL USE CONCEPT PLAN
FOR
VAL025 Solar Energy System
8699 OLD STAGE HWY, SMITHFIELD
HARDY MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

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SCALE: 100 0 100 200
SCALE: 1" = 100'

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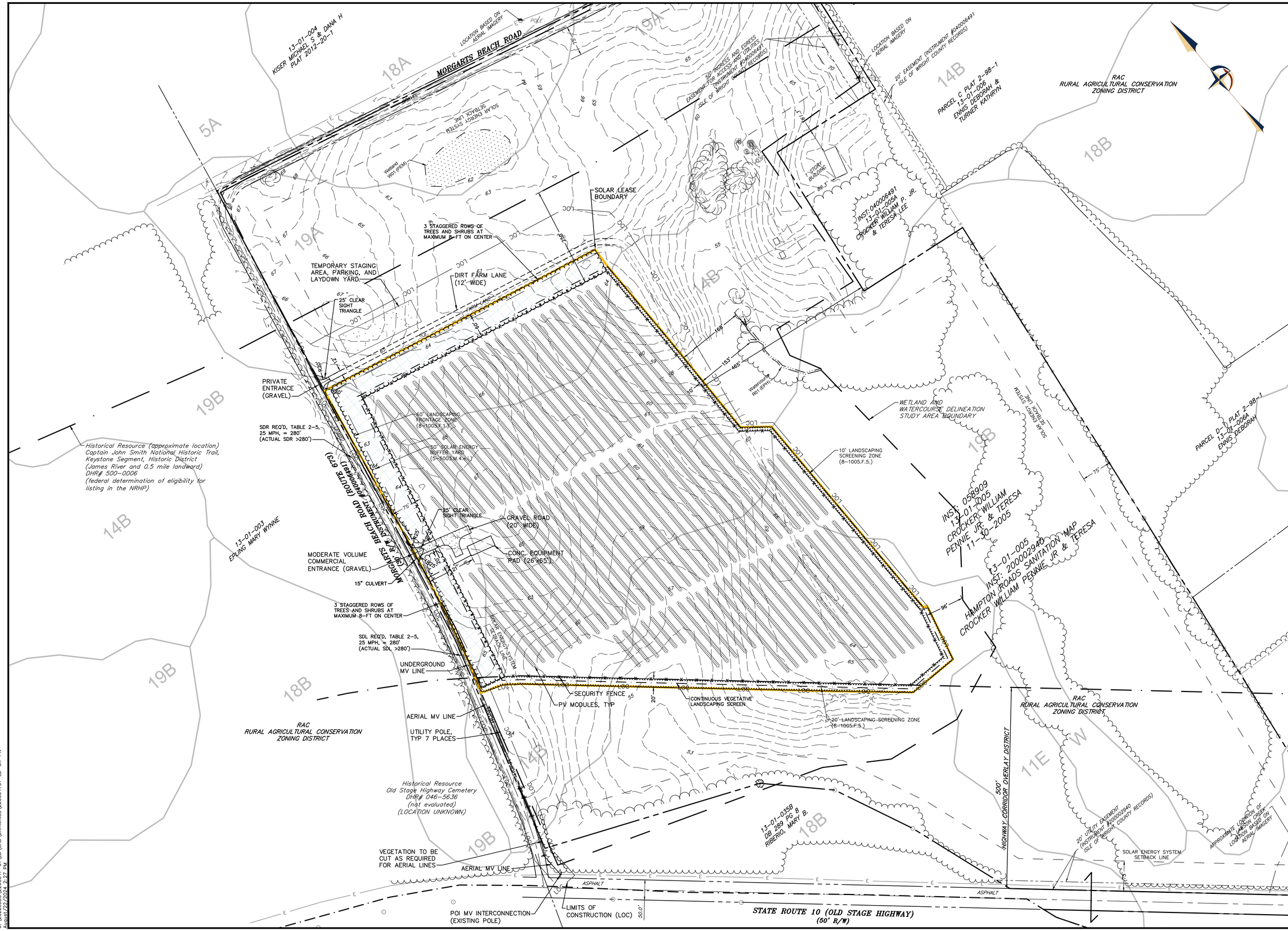


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DRAWING TITLE
SITE DEVELOPMENT PLAN

| | |
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| DRAWN BY | CWW |
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| SHEET NO | C5 |

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**ISSUE:**

Application (CUP-8-23) of Sycamore Cross Solar, LLC, Applicant, for a Conditional Use Permit for a Major Utility Service, Specifically a 214 MW Utility-Scale Solar Energy Generation Facility and a Medium Voltage Line Known as Sycamore Cross A, on Approximately 1,795 Acres Located on Mill Swamp Road (Rte. 621) in the Rural Agricultural Conservation Zoning District as well as an Associated Application to Withdraw Approximately 860 Acres from the Moonlight Agricultural and Forestal District

**BACKGROUND:**

Sycamore Cross Solar, LLC has submitted an application for a Conditional Use Permit for a major utility service, specifically a 214 MW utility-scale solar energy generation facility and a medium voltage line known as Sycamore Cross A, on approximately 1,795 acres located on Mill Swamp (Rte. 621) on tax map numbers 09-01-001, 16-01-002, 16-01-002A, 16-01-003, 16-01-005. 16-01-008, 16-01-009, 17-01-003, 17-01-003C, 17-01-001, 17-01-002, 17-01-011, 27-01-003, and 27-01-004 in the Rural Agricultural Conservation zoning district as well as an associated application to withdraw approximately 860 acres that are part of tax map numbers 09-01-001, 16-01-003, 16-01-008, 16-01-009, 17-01-003C, 27-01-003 and 17-01-011 from the Moonlight Agricultural and Forestal District.

There are fourteen different parcels that are part of the proposed Sycamore Cross A utility scale solar energy generation facility project area which is adjacent to both Surry County on the north and Southampton County on the west. The project area is generally bounded by Surry County to the north, the Blackwater River and Southampton County to the west, White Hill Trail, Ramsey Road, and Mill Swamp Road on the east, and Rattlesnake Trail on the south. The project will have frontage on Mill Swamp Road (Rte. 621), Sycamore Cross Drive (Rte. 622), Ramsey Road (Rte. 622), Proctors Bridge Road (Rte. 621), White Hill Trail (Rte. 623), and Rattlesnake Trail (Rte. 646). The project area is adjacent to agricultural and forestal lands and single-family residences. The project lies approximately 2.5 miles west of the existing Cavalier Solar Project and the associated proposed Sycamore Cross B solar facility project area. Property location and proximity maps are attached to this staff report.

The proposed Sycamore Cross A solar project will consist of a 214 MW solar energy generation facility on 1,795 acres across thirteen parcels with one medium voltage easement-only parcel. The project will consist of solar photovoltaic

modules on a single axis tracker system and associated electrical equipment. The Project will utilize an existing substation location shared with the Cavalier Solar facility.

New 34.5kV feeder lines will interconnect the various solar generation equipment comprising Sycamore Cross A to the project's collector substation. The Sycamore Cross project is using the same utility corridor as Cavalier Solar. The project will use an existing 500 kV gen-tie line that was constructed for the Cavalier Solar facility and that will interconnect the project's substation with the VEPCO Septa 500 kV Substation. The applicant states that no improvements will be required to the VEPCO substation or the 500 kV gen-tie. These improvements are being completed as part of the Cavalier facility. As part of the site construction activities, one house is proposed for demolition at 14195 Rattlesnake Trail which was built in 1950. The applicant states that other structures may be considered for demolition to accommodate the final design of the solar facility, although none have been specifically identified in this application.

The project will serve the PJM (Pennsylvania-Jersey-Maryland) wholesale market. The final interconnection service agreement identifying the transmission capacity was executed on April 3, 2023. The maximum facility output for both projects is 240 MW, which is also referred to as the "installed capacity", and the total project has rights to inject the full 240 MW into the grid. A redacted version of the interconnection service agreement is attached to the staff report.

The application anticipates construction of the project to begin in Spring 2025 and completed by the end of 2026. Construction activity is proposed between the hours of 7 a.m. and 7 p.m., Monday through Saturday.

This application accompanies the Sycamore Cross B solar energy generation facility CUP application, therefore the supporting studies cover both applications. Staff assessed the application for its consistency with the County's plans and ordinances as well as potential impacts to natural and cultural resources, public facilities and services. Unless otherwise noted, the following summary of the projected benefits, potential impacts and any mitigation measures proposed by the applicant cover both applications.

**Public Facility Impacts:**

The impacts of the proposed facility on public roads will occur primarily during construction and will be minimal once the use is established. In establishing the use, the enjoyment of neighboring properties may also be temporarily impacted by

construction traffic and noise generation.

The applicant has provided a proposed construction transportation route which has been reviewed by the Virginia Department of Transportation (VDOT), and they stated they had no concerns. The construction traffic route alternative plan is attached to the staff report.

The applicant has submitted three options for proposed construction traffic routes, each of which includes escorted heavy haul routes, a delivery route, and anticipated employee commuter routes. Sycamore Cross has suggested a preferred delivery route using Proctor's Bridge (Rte. 616) from Route 460 in Southampton County to Proctor's Bridge (Rte. 621) in Isle of Wight to a main staging area within the project site. From the staging area, deliveries will be escorted to various project areas on the local road network and back to the staging area. Factors used to determine Sycamore Cross Solar's preferred routing includes traffic counts, road characterizations as defined by VDOT, bridge capacities, road widths, current road conditions, challenges based on superelevation, and proximity to residences. The applicant states that construction activities and associated construction traffic for the Cavalier Solar project are expected to be completed and end before construction starts for the Sycamore Cross Project.

Staff expressed concerns to the applicant in regard to the narrowness of all three proposed routes as well as bridge capacity, lack of shoulders or passing areas, and proximity to residences. The roads surrounding the project site are not well suited to construction traffic. In addition, staff recommends that no construction should occur on Sundays by any party involved with the project, to include the solar developer, its contractors, and Dominion Energy contractors and that deliveries and hauling activities should occur outside of school bus traffic times.

**Environmental Assessment:**

The project lies within the Blackwater River watershed area and contains several types of sensitive environmental features, including wetlands, streams, and floodplains. According to the information the Department of Conservation and Recreation (DCR), the Pouches Creek Stream Conservation Unit is located within the project site. Stream Conservation Units (SCUs) identify stream reaches that contain aquatic natural heritage resources, including 2 miles upstream and 1 mile downstream of documented occurrences, and all tributaries within this reach. SCUs are also given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain. The Pouches Creek SCU has been given a biodiversity ranking of 83, which represents a site of high

significance.

A wetland delineation performed by the applicant shows 2,281 linear feet of streams, 36 acres of wetlands, and 0.39 acres of open water features located within the fenced area of the project. The applicant states they will continue to avoid and minimize impacts to these features through the site plan design phase of the project.

Review comments from DCR reveal there is a potential for rare and threatened species such as the Barking treefrog and the Eastern Big Eared Bat to occur in the project area. The proposed project will impact one or more ecological cores with very high (C2) to outstanding (Cl) ecological integrity.

Ecological core areas are classified into five categories of ecological integrity: C1 – Outstanding; C2 – Very High; C3 – High; C4 – Moderate; and C5 – General. Scores are enhanced if the core or habitat fragment is part of a larger complex of natural lands. Scores also increase for those cores and habitat fragments that contribute to water quality enhancement. In general, larger, more biologically diverse areas are given higher scores. DCR recommends avoidance of impacts to cores. However, when avoidance cannot be achieved, DCR recommends minimizing the area of impacts overall and concentrating the impacted area at the edges of cores, so that the most interior remains intact.

According to the applicant, approximately 77 acres of very high value ecological cores, 32 acres of high value ecological cores, 3.3 acres of moderate value ecological cores, and 423.7 acres of general value ecological cores may be impacted by the Project. The Project does not intersect any outstanding value ecological cores. The applicant states that they have made a concerted effort to minimize impacts wherever possible.
Further investigation of these impacts is recommended and DCR-ONH can conduct a formal impact analysis upon request. This analysis would estimate impacts to cores and habitat fragments, providing an estimate of the total acreage of direct and indirect impacts of the project. A copy of DCR's review comments are attached to this letter.

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values range from average to outstanding, indicating the value of forestlands for conservation (DCR 2021). The DCR FCV model indicated that approximately 1,254 acres of the Project study area were mapped as forest with approximately 213 acres categorized as outstanding priority for conservation, 293 acres as very high, and 384 acres categorized as high priority forestland for conservation.

Based on the current design of the project, approximately 32 acres of outstanding priority forestland will be impacted, approximately 63 acres of very high priority, and approximately 139 acres of high priority forestland may be impacted. The applicant states they will consult with DCR in connection with the potential impact of outstanding, very high, and high value forestland.

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Based on the current design of the project, approximately 614 acres of prime farmland (26% of the Project study area), 236 acres (10%) of prime farmland if drained, and 35 acres (1.5%) of farmland of statewide importance may be impacted.

Staff has concerns with regard to the potential impacts to highly important environmental resources such as the Pouches Swamp stream conservation unit area and ecological core areas. Staff would recommend that no impacts be permitted to the stream conservation unit area, the C1-C3 ecological core areas, or the priority forest areas. In addition, staff would recommend that the applicant be required to conduct a formal impact analysis within the project area with DCR as recommended. A copy of the environmental impact assessment is attached to this report.

**Historical Resources Assessment**:

The applicant conducted a Phase IA archeological assessment of the project area, and it is attached to this report. Review comments from both the County's historic resources staff at the Isle of Wight County Museum as well as the Virginia Department of Historic Resources (VDHR) are also attached. Both agencies recommend that additional investigation is needed for the project site due to the high probability of archeological resources in the vicinity and known archeological

and architectural resources in the area.

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**Economic Impact Assessment:**

According to the applicant's economic impact analysis, both Sycamore Cross A and Sycamore Cross B together encompass approximately 1,030 acres of active project area. The economic impact assessment states the projects will generate seven direct and indirect jobs in both Isle of Wight and Surry Counties, however, the report does not state whether they are permanent or full time jobs.

The report states that the project would involve an investment of $402.5 million in capital equipment and improvements to the existing property within Isle of Wight County. Both Sycamore Cross Solar projects would generate approximately $15.2 million (from taxation on capital investments) or $20.1 million with the siting agreement in cumulative county revenue over the facility's anticipated 35-year operational life, as compared to approximately $520,000 in cumulative county revenue in the property's current use, representing a 29- to 39-fold increase over current use revenues. This is assuming the actively used, fenced-in acreage in Isle of Wight County would be removed from the land use program and reassessed at $15,000 per acre.

The applicant states that the 891 acres, or 35.8% of the project site, is currently used for crop production. This includes 221 acres of corn, 40 acres of cotton, 433 acres for soybeans, and 197 acres for peanuts.

According to the 2022 Census of Agriculture (USDA-NASS), Isle of Wight County has 212 farms totaling 80,316 aces of land. The average farm size is 379 acres. The average annual market value of agricultural products sold per farm is $346,011. Using the same data to derive market values for crops cultivated on 891 acres within the fenced area of this project, the farmland generates an estimated

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The applicant provided several viewshed renderings comparing how the existing site looks currently to what it would look immediately after the landscaping buffers are planted and again at the time of maturity. The analysis includes perspectives from each of the project's road frontages. Current ordinance requirements include three rows of staggered landscaping along all street frontages and adjacent to residential properties and properties with historical and cultural significance. The viewshed perspective renderings are included as an attachment to the staff report.

According to County records, the fourteen properties associated with the project have historically been used for agricultural and forestal district. The general vicinity of the project is rural in nature with a few single family homes located on larger agricultural parcels. According the applicant, 891 acres of the project site area is currently used for crop production. While none of the properties are being used for livestock, the easement only parcel belongs to Carrolls Food of Virginia, LLC which is engaged in livestock production.

Several of the properties are within the Moonlight Agricultural and Forestal District. The Agricultural and Forestal Advisory Committee met on April 3, 2024, to consider the requests by the property owners of tax map numbers 09-01-001, 16-01-003, 16-01-008, 16-01-009, 17-01-003C, 27-01-003 and 17-01-011 to withdraw 860 acres from the Moonlight Agricultural and Forestal District. The Committee voted to recommend denial of the request by a vote of four members in favor of the motion and zero voting against (4-0).

A full analysis of the application's consistency with the County's Plans and Ordinances is included in the attached staff report. Staff identified the following strengths and weaknesses of the application:

Strengths:

1. The proposed use will generate additional nonresidential tax revenue for

needed public services and facilities.

Weaknesses:

1. The proposed use would remove agricultural land from production.
2. Temporary impact to residential development in the area from construction traffic and noise is expected during the construction phase.
3. The project may create impacts to archeological and architectural resources pending final study.
4. The project will impact identified ecological core areas, priority forest land, and prime farm soils.
5. Approval of the project would result in a multiplicity and saturation of similar uses other solar energy generation facilities nearby.
6. With no to minimal shoulders and deep ditches at several points along the proposed transportation route there may be safety issues that arise as construction vehicles meet along the route.
7. Due to poor transportation route alternatives and impacts to environmentally sensitive areas, the project's proposed location is not well suited and therefore is not consistent with the recommendations of the Comprehensive Plan.

**Project Update as of August 5, 2024**:

Following the July 11, 2024, regular meeting, the Board of Supervisors continued their discussion of the application until the next available regular meeting in order to obtain additional information on the ongoing noise study results, feedback from the Smithfield Volunteer Fire Department, proposed restrictions on construction traffic during school pick up and drop off times, and the component materials of the solar panels to be used onsite. The applicant will provide this information at the August 15, 2024, Board meeting.

The Board also requested that both staff's recommended conditions as well as the suggested changes from the applicant be combined in one document. The revised conditions dated August 7, 2024, are attached to this staff report.

The applicant submitted a Phase I archeological and architectural study on July 26, 2024. The new study is attached to this staff report.

Of the surveyed architectural resources, four are considered potentially eligible for listing in the NRHP. This includes two Antebellum homes that represent the earliest extant development within the survey area and an important reflection of the architectural evolution of rural Isle of Wight County during that period. The other two resources are a late-nineteenth century post office and associated

dwelling that remain as an example of a historically significant aspect of the crossroads community of Sycamore Cross at the turn-of-the-twentieth century.

Of the surveyed archeological resources, two sites warrant further investigation: Site 44IW0424 consists of the ruin of a circa 1825 dwelling; and Site 44IW0407 contains surface features and artifacts and is also associated with an early-nineteenth-century house ruin. These two sites have the potential to provide new data about the early nineteenth century history of the area

The study recommends screening and buffering to minimize visual impacts and disturbance for these resources. The report has been submitted to VDHR for review and concurrence. Any components of the proposed solar facility will require a 250 foot setback from any architectural and archeological resources that are potentially eligible for listing or require additional investigation. VDHR will make the final determination of which resources are eligible for listing or are recommended for additional investigation.

**Project Update as of September 11, 2024**

The applicant submitted new conditions imposing monetary penalties for violations of the approved transportation plan. A copy of the revised conditions is attached to this staff report.

**BUDGETARY IMPACT:**

TBD

**RECOMMENDATION:**

The Planning Commission voted to recommend denial of the application by a vote of eight in favor of the recommendation and two voting against the motion (8-2).

Based on the identified weaknesses, staff also recommends denial of the Conditional Use Permit and the Moonlight AFD withdrawal request. However, should the CUP and withdrawal be approved staff recommends the following conditions:

1) Topsoil shall be stockpiled on the site and shall be stored out of view from adjacent properties and public roads.
2) The applicant shall submit an invasive species management plan as

recommended by DCR with the submission of the final site plan.
3) No impacts shall be permitted to the Pouches Swamp stream conservation unit area, the C1-C3 ecological core areas, or the priority forestland areas. The applicant shall submit a formal ecological core impact assessment with DCR as recommended.
4) The applicant shall submit a seed mix for site groundcover that includes native pollinators blooming in spring/summer as recommended by DCR.
5) The applicant will work directly with the Isle of Wight County Chamber of Commerce, Paul D. Camp Community College, and the Economic Development Department to ensure inclusion of local contractors in the bidding process.
6) A laminated Emergency Response Poster will be mounted near the front gate. The poster will include a general site plan, evacuation routes and muster points, emergency response chain of command, directions to the closest hospital, coordinates to the closest life flight landing area, and other pertinent information associated with the facility during an emergency response.
7) The facility perimeter fencing will be equipped with push bar pedestrian gates to permit emergency exits from the facility.
8) Adherence to the proposed transportation plan shall be required for all facility traffic. Truck traffic shall be limited to only to the preferred route as described in in the transportation plan. No other local routes in Isle of Wight County may be used. The applicant shall coordinate deliveries outside of school bus pickup and drop-off times.
9) Excluding the bufferyards, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing.
10) Hours of operation for construction and post-construction operation shall be limited to Monday through Friday, 7:00 a.m. to 6:00 p.m. Saturdays from 7:00 a.m. to 5:00 p.m. No construction is to occur on Sundays by any party involved with the project.
11) As part of the site plan review, the applicant shall provide documentation that the selected panels and all power-generating equipment on-site are “Tier 1” modules, as established by the most recent “PV Module Tier 1 List” issued by Bloomberg NEF or a similar third party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power-generating equipment initially installed and replaced on the site must qualify, for disposal purposes only, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP).
12) The applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the project area. The program shall establish the

relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil conditions, including depth, density, and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to at least baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results.

13) Any recommendations provided by VDHR during site plan review will be adhered to, in addition to requirements in the zoning ordinance.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Planning Commission Staff Report | Backup Material | 7/1/2024 |
| Sycamore Cross A Application | Backup Material | 5/17/2024 |
| Project Narrative | Backup Material | 5/17/2024 |
| Sycamore Cross A Concept Plan | Backup Material | 5/17/2024 |
| Proximity Map to Cavalier | Backup Material | 5/17/2024 |
| Interconnect Agreement | Backup Material | 5/17/2024 |
| Construction traffic route alternative map | Backup Material | 5/17/2024 |
| DCR Review Letter | Cover Memo | 5/19/2024 |
| Environmental Assessment | Backup Material | 5/20/2024 |
| Phase IA Historical Resources Survey | Backup Material | 5/20/2024 |
| VDHR Comments | Backup Material | 5/20/2024 |
| Isle of Wight Museum Comments | Backup Material | 5/20/2024 |
| Economic Analysis | Backup Material | 5/20/2024 |
| Commissioner of Revenue Comments | Cover Memo | 5/20/2024 |
| Sycamore Cross A&B Farmland Table | Backup Material | 5/20/2024 |
| Viewshed Impact Analysis | Backup Material | 5/20/2024 |
| Ordinance | Ordinance | 7/1/2024 |
| Phase I historic resource study | Backup Material | 8/5/2024 |
| Conditions of Approval Redline rev 9/11/24 | Backup Material | 9/11/2024 |
| Conditions of Approval Final rev 9/11/24 | Backup Material | 9/11/2024 |

# PLANNING REPORT

**APPLICATION:**

Application (CUP-8-23) of Sycamore Cross Solar, LLC, applicant, for a Conditional Use Permit for a major utility service, specifically a 214 MW utility-scale solar energy generation facility and a medium voltage line known as Sycamore Cross A, on approximately 1,795 acres located on Mill Swamp (Rte. 621) on tax map numbers 09-01-001, 16-01-002, 16-01-002A, 16-01-003, 16-01-005. 16-01-008, 16-01-009, 17-01-003, 17-01-003C, 17-01-001, 17-01-002, 17-01-011, 27-01-003, and 27-01-004 in the Rural Agricultural Conservation zoning district as well as an associated application to withdraw approximately 860 acres that are part of tax map numbers 09-01-001, 16-01-003, 16-01-008, 16-01-009, 17-01-003C, 27-01-003 and 17-01-011 from the Moonlight Agricultural and Forestal District.

**ELECTION DISTRICT:**

D5

**LOCATION:**

There are fourteen different parcels that are part of the proposed Sycamore Cross A utility scale solar energy generation facility project area which is adjacent to both Surry County on the north and Southampton County on the west. The project area is generally bounded by Surry County to the north, the Blackwater River and Southampton County to the west, White Hill Trail, Ramsey Road, and Mill Swamp Road on the east, and Rattlesnake Trail on the south. The project will have frontage on Mill Swamp Road (Rte. 621), Sycamore Cross Drive (Rte. 622), Ramsey Road (Rte. 622), Proctors Bridge Road (Rte. 621), White Hill Trail (Rte. 623), and Rattlesnake Trail (Rte. 646). The project area is adjacent to agricultural and forestal lands and single-family residences. The project lies approximately 2.5 miles west of the existing Cavalier Solar Project and the associated proposed Sycamore Cross B solar facility project area. Property location and proximity maps are attached to this staff report.

**BACKGROUND:**

According to County records, the fourteen properties associated with the project have historically been used for agricultural and forestal district. The general vicinity of the project is rural in nature with a few single family homes located on larger agricultural parcels. According the applicant, 891 acres of the project site area is currently used for crop production. While none of the properties are being used for livestock, the easement only parcel belongs to Carrolls Food of Virginia, LLC which is engaged in livestock production.

Several of the properties are within the Moonlight Agricultural and Forestal District. The Agricultural and Forestal Advisory Committee met on April 3, 2024, to consider the requests by the property owners of tax map numbers 09-01-001, 16-01-003, 16-01-008, 16-01-009, 17-01-003C, 27-01-003 and 17-01-011 to withdraw 860

acres from the Moonlight Agricultural and Forestal District. The Committee voted to recommend denial of the request by a vote of four members in favor of the motion and zero voting against (4-0).

**DESCRIPTION:**

The proposed Sycamore Cross A solar project will consist of a 214 MW solar energy generation facility on 1,795 acres across thirteen parcels with one medium voltage easement-only parcel. The project will consist of solar photovoltaic modules on a single axis tracker system and associated electrical equipment. The Project will utilize an existing substation location shared with the Cavalier Solar facility.

New 34.5kV feeder lines will interconnect the various solar generation equipment comprising Sycamore Cross A to the project's collector substation. The Sycamore Cross project is using the same utility corridor as Cavalier Solar. The project will use an existing 500 kV gen-tie line that was constructed for the Cavalier Solar facility and that will interconnect the project's substation with the VEPCO Septa 500 kV Substation. The applicant states that no improvements will be required to the VEPCO substation or the 500 kV gen-tie. These improvements are being

completed as part of the Cavalier facility. As part of the site construction activities, one house is proposed for demolition at 14195 Rattlesnake Trail which was built in 1950. The applicant states that other structures may be considered for demolition to accommodate the final design of the solar facility, although none have been specifically identified in this application.

The project will serve the PJM (Pennsylvania-Jersey-Maryland) wholesale market. The final interconnection service agreement identifying the transmission capacity was executed on April 3, 2023. The maximum facility output for both projects is 240 MW, which is also referred to as the "installed capacity", and the total project has rights to inject the full 240 MW into the grid. A redacted version of the interconnection service agreement is attached to the staff report.

The application anticipates construction of the project to begin in Spring 2025 and completed by the end of 2026. Construction activity is proposed between the hours of 7 a.m. and 7 p.m., Monday through Saturday.

This application accompanies the Sycamore Cross B solar energy generation facility CUP application, therefore the supporting studies cover both applications. Staff assessed the application for its consistency with the County's plans and ordinances as well as potential impacts to natural and cultural resources, public facilities and services. Unless otherwise noted, the following summary of the projected benefits, potential impacts and any mitigation measures proposed by the applicant cover both applications.

**Public Facility Impacts:**

The impacts of the proposed facility on public roads will occur primarily during construction and will be minimal once the use is established. In establishing the use, the enjoyment of neighboring properties may also be temporarily impacted by construction traffic and noise generation.

The applicant has provided a proposed construction transportation route which has been reviewed by the Virginia Department of Transportation (VDOT), and they stated they had no concerns. The construction traffic route alternative plan is attached to the staff report.

The applicant has submitted three options for proposed construction traffic routes, each of which includes escorted heavy haul routes, a delivery route, and anticipated employee commuter routes. Sycamore Cross has suggested a preferred delivery route using Proctor's Bridge (Rte. 616) from Route 460 in Southampton County to Proctor's Bridge (Rte. 621) in Isle of Wight to a main staging area within the project site. From the staging area, deliveries will be escorted to various project areas on the local road network and back to the staging area. Factors used to determine Sycamore Cross Solar's preferred routing includes traffic counts, road characterizations as defined by VDOT, bridge capacities, road widths, current road conditions, challenges based on superelevation, and proximity to residences. The applicant states that construction activities and associated construction traffic for the Cavalier Solar project are expected to be completed and end before construction starts for the Sycamore Cross Project.

Staff expressed concerns to the applicant in regard to the narrowness of all three proposed routes as well as bridge capacity, lack of shoulders or passing areas, and proximity to residences. The roads surrounding the project site are not well suited to construction traffic. In addition, staff recommends that no construction should occur on Sundays by any party involved with the project, to include the solar developer, its contractors, and Dominion Energy contractors and that deliveries and hauling activities should occur outside of school bus traffic times.

**Environmental Assessment:**

The project lies within the Blackwater River watershed area and contains several types of sensitive environmental features, including wetlands, streams, and floodplains. According to the information the Department of Conservation and Recreation (DCR), the Pouches Creek Stream Conservation Unit is located within the project site. Stream Conservation Units (SCUs) identify stream reaches that contain aquatic natural heritage resources, including 2 miles upstream and 1 mile downstream of documented occurrences, and all tributaries within this reach. SCUs are also given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain. The Pouches Creek SCU has been given a biodiversity ranking of B3, which represents

occurrences they contain. The Pouches Creek SCU has been given a biodiversity ranking of B3, which represents a site of high significance.

A wetland delineation performed by the applicant shows 2,281 linear feet of streams, 36 acres of wetlands, and 0.39 acres of open water features located within the fenced area of the project. The applicant states they will continue to avoid and minimize impacts to these features through the site plan design phase of the project.

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**COMPREHENSIVE LAND USE PLAN:**

The future recommended land use designation for these properties is Rural Agricultural Conservation (RAC) and Environmental Conservation (EC) under the adopted Comprehensive Plan. Appropriate uses for the RAC land use designation include agriculture, horticulture, forest lands, and scattered low-density residential uses. Other uses such as resource extraction and utility-scale solar facilities are also permitted when appropriately sited. Appropriate uses for the EC land use designation include wetlands, farms, forest uses, open space, and limited park facilities.

Solar Energy facilities are considered compatible with the RAC land use when properly sited and with the application of appropriate development criteria. The area designated as EC should be preserved due to environmental constraints unless site-specific analysis demonstrates there are no environmental concerns in a specific area.

Staff has concerns about the appropriate siting of this facility due to the lack of suitable roads for construction traffic as well as impacts to agricultural land and sensitive environmental features.

**ORDINANCE REVIEW:**

The zoning district classification for the subject properties is Rural Agricultural Conservation (RAC). The RAC zoning district is intended to preserve an protect areas of the County that are predominantly in agricultural and forestall use and to maintain the existing land base to support those activities.

The applicant proposes to establish a 240 MW solar energy facility with both projects, which is classified as a major utility serve use type in the Zoning Ordinance. These facilities are permitted as conditional uses in the RAC, RR, and GC zoning districts and may be considered compatible with appropriate conditions to mitigate any potential negative impacts on the surrounding community.

Section 1-1017 of the Zoning Ordinance provides standards for review of a conditional use application that the Planning Commission and Board of Supervisors shall consider before granting a conditional use permit. They are as follows:

1. That the establishment, maintenance, and operation of the conditional use will not be detrimental to or endanger the public health, safety, and general welfare;
2. That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially impair the use of other property within the immediate proximity;
3. That adequate utilities, water, sewer or septic system, access roads, storm drainage and/or other necessary public facilities and improvements have been or will be provided;
4. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion on the public streets;
5. That the proposed conditional use is not contrary to the goals and objectives of the Isle of Wight County Comprehensive Plan;
6. That the conditional use shall, in all other respects, conform to the applicable regulations of the zoning district classification in which it is located and to the special requirements established for the specific use; and
7. That the use(s) at the location proposed will not result in a multiplicity or saturation of similar uses in the same general neighborhood of the proposed use

In addition to the standards and other guidelines described in the Zoning Ordinance, the Board may impose conditions or limitations on any approval, including the posting of performance guarantees. Such conditions may include, but are not necessarily limited to:

1. The number of persons living or working in the immediate area and the proposed hours of operation, as may applicable;
2. Traffic conditions, including facilities for pedestrians, such as sidewalks and parking facilities; the access of vehicles to roads; peak periods of traffic; and proposed roads, but only if construction of such roads will commence within the reasonable foreseeable future

commence within the reasonably foreseeable future;
3. The orderly growth of the neighborhood and community and the fiscal impact on the County;
4. The effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise upon the use of surrounding properties;
5. Facilities for police, fire protection, sewerage, water, trash and garbage collection and disposal, and the ability of the County or persons to supply such services;
6. The degree to which the development is consistent with generally accepted engineering and planning principles and practices;
7. The structures in the vicinity such as schools, houses of worship, theaters, hospitals, and similar places of public use;
8. The purposes set forth in this ordinance, the County's Comprehensive Plan, and related studies for land use, roads, parks, schools, sewers, water, population, recreation, and the like;
9. The environmental impact, the effect on sensitive natural features, and opportunities for recreation and open space; and
10. The preservation of cultural and historic resources of landmarks.

Should the CUP be approved, the applicant will be required to submit a site plan for review and approval in accordance with Zoning Ordinance requirements and conditions of approval.

**AGENCY REVIEW:**

The application was forwarded to the following departments for their review:

- Fire Rescue: All concerns have been addressed in the application.
- Commissioner of the Revenue: Comments are attached separately.
- Sheriff's Department: Similar to the Moonlight project, there will be an increase in patrol during the construction phase and the traffic impacts on proposed transportation routes. These are primarily secondary roads with no to minimal shoulders and are also shared with farm vehicles. During the construction phase they will be bringing in heavy equipment and large vehicles which will require escorts or even road closures. Also, there being multiple sites there is a concern of the operation of heavy equipment on the roads from one parcel to another.
- County Attorney: Only include conditions that go above what is now required under the zoning ordinance.
- VDOT: All concerns have been addressed in the application.
- Isle of Wight County Museum: Comments are attached separately.

Please note that, should this CUP be approved, it will be subject to review and approval from all associated agencies during site plan review. The project will be required to comply with all Zoning Ordinance requirements in effect at the time of site plan submittal.

**STAFF CONCLUSIONS:**

Strengths:

1. The proposed use will generate additional nonresidential tax revenue for needed public services and facilities.

Weaknesses:

1. The proposed use would remove agricultural land from production.
2. Temporary impact to residential development in the area from construction traffic and noise is expected during the construction phase.
3. The project may create impacts to archeological and architectural resources pending final study.
4. The project will impact identified ecological core areas, priority forest land, and prime farm soils.
5. Approval of the project would result in a multiplicity and saturation of similar uses other solar energy generation facilities nearby.
6. With no to minimal shoulders and deep ditches at several points along the proposed transportation route there

may be safety issues that arise as construction vehicles meet along the route.

7. Due to poor transportation route alternatives and impacts to environmentally sensitive areas, the project's proposed location is not well suited and therefore is not consistent with the recommendations of the Comprehensive Plan.

**STAFF RECOMMENDATION:**

Based on the identified weaknesses, staff recommends denial of the Conditional Use Permit and the Moonlight AFD withdrawal request. However, should the CUP and withdrawal be approved staff recommends the following conditions: 1) Topsoil shall be stockpiled on the site and shall be stored out of view from adjacent properties and public roads. 2) The applicant shall submit an invasive species management plan as recommended by DCR with the submission of the final site plan. 3) No impacts shall be permitted to the Pouches Swamp stream conservation unit area, the C1-C3 ecological core areas, or the priority forestland areas. The applicant shall submit a formal ecological core impact assessment with DCR as recommended. 4) The applicant shall submit a seed mix for site groundcover that includes native pollinators blooming in spring/summer as recommended by DCR. 5) The applicant will work directly with the Isle of Wight County Chamber of Commerce, Paul D. Camp Community College, and the Economic Development Department to ensure inclusion of local contractors in the bidding process. 6) A laminated Emergency Response Poster will be mounted near the front gate. The poster will include a general site plan, evacuation routes and muster points, emergency response chain of command, directions to the closest hospital, coordinates to the closest life flight landing area, and other pertinent information associated with the facility during an emergency response. 7) The facility perimeter fencing will be equipped with push bar pedestrian gates to permit emergency exits from the facility. 8) Adherence to the proposed transportation plan shall be required for all facility traffic. Truck traffic shall be limited to only to the preferred route as described in in the transportation plan. No other local routes in Isle of Wight County may be used. The applicant shall coordinate deliveries outside of school bus pickup and drop-off times. 9) Excluding the bufferyards, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing. 10) Hours of operation for construction and post-construction operation shall be limited to Monday through Friday, 7:00 a.m. to 6:00 p.m. Saturdays from 7:00 a.m. to 5:00 p.m. No construction is to occur on Sundays by any party involved with the project. 11) As part of the site plan review, the applicant shall provide documentation that the selected panels and all power-generating equipment on-site are “Tier 1” modules, as established by the most recent “PV Module Tier 1 List” issued by Bloomberg NEF or a similar third party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power-generating equipment initially installed and replaced on the site must qualify, for disposal purposes only, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP). 12) The applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil conditions, including depth, density, and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to at least baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results. 13) Any recommendations provided by VDHR during site plan review will be adhered to, in addition to requirements in the zoning ordinance.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Sycamore Cross A Application | Backup Material | 5/17/2024 |
| Project Narrative | Backup Material | 5/17/2024 |
| Sycamore Cross A Concept Plan | Backup Material | 5/17/2024 |
| Proximity Map to Cavalier | Backup Material | 5/17/2024 |
| Interconnect Agreement | Backup Material | 5/17/2024 |

| | | |
|---|---|---|
| Construction traffic route alternative map | Backup Material | 5/17/2024 |
| DCR Review Letter | Cover Memo | 5/19/2024 |
| Environmental Assessment | Backup Material | 5/20/2024 |
| Phase IA Historical Resources Survey | Backup Material | 5/20/2024 |
| VDHR Comments | Backup Material | 5/20/2024 |
| Isle of Wight Museum Comments | Backup Material | 5/20/2024 |
| Economic Analysis | Backup Material | 5/20/2024 |
| Commissioner of Revenue Comments | Cover Memo | 5/20/2024 |
| Sycamore Cross A&B Farmland Table | Backup Material | 5/20/2024 |
| Viewshed Impact Analysis | Backup Material | 5/20/2024 |

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF PLANNING AND ZONING

# APPLICATION FOR CONDITIONAL / SPECIAL USE PERMIT

This application should be used to petition for a permit for certain uses which, because of their unique characteristics or potential impacts on adjacent land uses, are not generally permitted in certain zoning districts as a matter of right, but which may, under the right set of circumstances and conditions be acceptable in certain specific locations. The following application requirements are consistent with the procedures set forth in Section 1-1017*, Conditional Uses,* and Section 1-1018, *Special Use Permits for Uses Not Provided For,* of the Isle of Wight County Zoning Ordinance*,* as amended*.*

## A. APPLICATION FOR (CHECK ALL THAT APPLY):

[X] Conditional Use Permit (Are applicant proposed conditions attached?): X Yes _____ No

The proposed use or activity is listed as a conditional use in the RAC zoning district as per Section 4-2003 in Article IV of the Isle of Wight County Zoning Ordinance.

[ ] Special Use Permit (Are applicant proposed conditions attached?):_____Yes _____ No

Proposed Use or Activity: Civic Use (Utility/Major) Solar Farm

## B. PROJECT DESCRIPTION:

Project Name: Sycamore Cross A

Property Address (if any): See Exhibit F

Election District: D5 (formerly Carrsville)

Comprehensive Plan Designation: Environmental Conservation and RAC

The use permit will apply to 1795 acres out of 2036 total acres

Tax Parcel Identification #See Attached Number of acres to be effected: _____

Tax Parcel Identification #_____ Number of acres to be effected: _____

Tax Parcel Identification #_____ Number of acres to be effected: _____

Proposed Utilities (check all that apply): Public Water_____ Private Well _____

Public Sewer_____ Private Septic _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): Sycamore Cross Solar, LLC

Address: 2180 South 1300 East, Suite 600

City, State, Zip Code: Salt Lake City, Utah 84106

Phone No.: 804-334-9882 Email: gregory.creswell@aes.com Fax No.: _____

Property Owner(s) Name(s): See Exhibit E

Address: _____

City, State, Zip Code: _____

Phone No.: _____ Email: _____ Fax No.: _____

_____ 4/29/24

**Applicant Signature** **Date**

See Exhibit G

**Owner Signature *if different*** **Date**

**NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.**

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

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**FOR OFFICE USE ONLY:**

Complete Application Received On: 5/2/2024 Fees Paid: *Revised

Tax Query: [ ] Current [ ] Delinquent Distribution Date: 5/2/2024

Posted/Date to Post: 5/15/2024

**AGENCIES REFERRALS:**

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: _____ Date: 5/2/2024

## Sycamore Cross Part A, Parcels Within Project Boundaries

| Tax Parcel Identification Number | Calculated Parcel Acres | Property Owner Name | Property Owner Address |
|---|---|---|---|
| 09-01-001 | 82 | WELLS CHRISTINE LORENZO | 10106 WHITE HILL TRAILIVOR VA 23866 |
| 16-01-002 | 56 | EVERETS PROPERTIES | 6001 EVERETS ROAD, SUFFOLK, VA 23434 |
| 16-01-002A | 83 | SEWARD JEFFREY A & MELANIE D | 435 BELLEVUE ROADELBERON VA 23846 |
| 16-01-003 | 382 | BLUE SKY ENDEAVORS LLC | 11356 SYCAMORE CROSS DR, IVOR |
| 16-01-008 | 106 | BLUE SKY ENDEAVORS LLC | 2180 SOUTH 1300 EAST STE 500SALT LAKE CITY UT 84106 |
| 16-01-009 | 88 | BLUE SKY ENDEAVORS LLC | 2180 SOUTH 1300 EAST STE 500SALT LAKE CITY UT 84106 |
| 17-01-001 | 223 | GORDON KATHLEEN H | 1949 PINE LOG RDSKIPPERS VA 23879 |
| 17-01-002 | 3 | GORDON KATHLEEN H | 1949 PINE LOG RDSKIPPERS VA 23879 |
| 17-01-003 | 250 | BLUE SKY ENDEAVORS LLC | 2180 SOUTH 1300 EAST STE 500SALT LAKE CITY UT 84106 |
| 17-01-003C | 226 | BLUE SKY ENDEAVORS LLC | 2180 SOUTH 1300 EAST STE 500SALT LAKE CITY UT 84106 |
| 17-01-011 | 72 | HOLLEMAN WILLIAM JOSEPH | 118 BARCROFT DR SMITHFIELD VA 23430 |
| 27-01-003 | 98 | BLUE SKY ENDEAVORS LLC | 2180 SOUTH 1300 EAST STE 500 SALT LAKE CITY UT 84106 |
| 27-01-004 | 126 | GORDON KATHLEEN H | 1949 PINE LOG RDSKIPPERS VA 23879 |

## Anticipated Medium Voltage Easement Only Parcels, Isle of Wight Only

| Tax Parcel Identification Number | Calculated Parcel Acres | Property Owner Name | Property Owner Address |
|---|---|---|---|
| 16-01-005 | 176 | CARROLLS FOODS OF VIRGINIA LLC ATT JORDAN HEATH | PO BOX 856 WARSAW NC 28398 |

## SUBMITTAL CHECKLIST FOR CONDITIONAL / SPECIAL USE PERMIT APPLICATIONS

In conjunction with Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Uses Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended, the following information shall be submitted for a Conditional / Special Use Permit Application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for a Conditional / Special Use shall be certified as complete unless the following information is provided. **The required number of copies may be reduced with permission of the Zoning Administrator.**

- ☑ Application: Ten (10) copies of the original, executed application, one (1) digital copy of all application documents, and one (1) original executed application. Both the applicant(s) and the property owner(s) must have their signature(s) notarized on page 3 of the application.
- ☑ The appropriate fees have been submitted with the application. Checks should be made payable to: Treasurer, Isle of Wight County.
- ☑ Ten (10) copies of a statement of the reasons for seeking such permit and if applicable, a statement of conditions.
- ☑ Ten (10) copies of a narrative description of the property which shall include the Tax Parcel Identification
- ☑ Ten (10) copies of a concept plan of the property showing all existing and proposed physical improvements and such other information as is necessary to clearly indicate to the Planning Commission and Board of Supervisors that adequate provisions shall be made for compliance with all standards for that particular use and the extent of the property to be so used on a given parcel or parcels. Such document shall be drawn to scale and shall include the following information:
    - A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
    - Title of drawing
    - Date of drawing
    - Existing wood line
    - North arrow
    - Scale bar
    - Current zoning of parcel(s) to be rezoned, including tax map number(s) and owner(s)
    - Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
    - Street names including route number and width(s) of the right-of-way(s)
    - Ten (10) full size copies, with one (1) reduced 11-inch X 17-inch copy and a digital copy shall be submitted

- Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process to **review the application and prepare the staff reports for the Planning Commission and Board of Supervisors more effectively**.

✓ Ten (10) copies of such supplemental material as may be necessitated by the proposal itself or the district in which located or proposed to be located, and in accordance with Section 5-5000, *Supplementary Use Regulations,* of the Isle of Wight County Zoning Ordinance.

N/A A WQIA (Water Quality Impact Assessment) if located in the Chesapeake Bay Preservation Area.

✓ All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal will be refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete and correct information available. I understand that any section not completed in its entirety may delay processing of this application and the date of the Planning Commission public hearing and that the submittal of a complete application does not guarantee the application will be placed on the next available Planning Commission agenda.

Ben Saunders

Printed or Typed Name

Signature

4/29/24

Date

April 30, 2024

Central Permitting Office
c/o Amy Ring, AICP
Director, Planning and Zoning
Department of Community Development, Isle of Wight County
17140 Monument Circle, Suite 101
Isle of Wight, VA 23397

Re: Conditional Use Permit Application for the Sycamore Cross Solar Project, Fourth Submittal for Sycamore Cross A, Creation of and First Submittal for Sycamore Cross B

Dear Ms. Ring,

At your request, the Sycamore Cross Solar Project has been split into separate project areas, each requiring its own Conditional Use Permit (CUP). These two areas are referenced as Sycamore Cross A and Sycamore Cross B, and together are the entirety of Sycamore Cross Solar, the "Project."

Please find enclosed Sycamore Cross Solar, LLC's fourth submittal for a CUP application which has been amended to represent Sycamore Cross A and the first submittal for a CUP application for Sycamore Cross B, which together comprise a photovoltaic solar generation facility of up to 240 megawatts located in Isle of Wight and Surry Counties. All documentation for Sycamore Cross A and Sycamore Cross B can be found in previous Sycamore Cross A application submittals with the exception of the documentation in this submittal.

The following list of documents have been updated and supplied with this submittal to support previously submitted CUP application components and to create the required CUP application for Sycamore Cross B:

- Project Narrative (updated to reflect 2 project areas and 2 CUPs)
- Attachment A: Conditional Use Permit Application Packages
  - Amended CUP Application Package For Sycamore Cross A: Fourth Submittal
  - CUP Application Package For Sycamore Cross B: First Submittal
- Attachment C: Revised Proposed Conditions (to reflect two project areas and to add a condition to address Unanticipated Discoveries)
- Attachment D: Updated Conceptual Plan of Development (to delineate Sycamore Cross A from Sycamore Cross B)
- Attachment J: Visual Impact Assessment: Visual Simulations

Thank you for your guidance and assistance in bringing the project to this point. We look forward to working with you and your staff further to answer questions and offer any needed clarity as you complete your review. The AES team is available to meet or talk at your convenience. I can be reached using the contact information provided in the signature below.

Sincerely,

*Gregory S. Creswell*

Greg Creswell
Senior Project Development Manager
804-334-9882
Gregory.Creswell@aes.com

# Project Narrative

## PROJECT OVERVIEW

Sycamore Cross Solar, LLC, a subsidiary of AES Clean Energy (AES), is proposing to build a photovoltaic solar generation facility of up to 240 megawatts to be located in Isle of Wight and Surry Counties, Virginia (the "Project").

The total Project study area is approximately 2,488 acres across all or portions of 18 parcels in Isle of Wight and Surry Counties. The Project study area is shown on the orthoimagery and U.S. Geological Survey Project Location Maps (Figures 1 and 2). Within Isle of Wight County, the Project study area comprises portions of 15 project parcels totaling approximately 2,036 acres of predominantly undeveloped and agricultural land zoned RAC: Rural Agricultural Conservation. The RAC zoning district allows utility-scale solar facilities with approval of a Conditional Use Permit. The adjacent and adjoining properties represent similar land use to the Project study area, including agriculture, forested, historically managed area for silviculture use and residential use. The proposed Project satisfies the goals and objectives of the Isle of Wight County Comprehensive Plan. This is further discussed in Section 3 of this application.

At the request of Isle of Wight County, the project portions located in Isle of Wight have been split into two separate applications: Sycamore Cross A and Sycamore Cross B. Sycamore Cross A consists of 13 project parcels parcel totaling 1,795 acres, includes one medium voltage easement only parcel and will account for approximately 214 MWac. Sycamore Cross B consists of two project parcels totaling 240 acres, includes six medium voltage easement only parcels and will account for approximately 6 MWac. Tables showing which parcels are included with Sycamore Cross A and Sycamore Cross B are included with each application package (Attachment A). These two applications comprise the Isle of Wight portions of the Project.

The Conditional Use Permit application packages (Attachment A) and associated fees (Attachment B) are being submitted to Isle of Wight County in accordance with Section 1-1017, Conditional Uses and Section 5-5003, Supplementary use regulations for civic use types. Additionally, a list of proposed Conditional Use Permit conditions for the Project are included in Attachment C and further detailed throughout this document.

## PROJECT APPLICANT

Sycamore Cross Solar, LLC is wholly owned by AES Clean Energy (AES). Since 1981, AES has been headquartered in the Commonwealth of Virginia. Our commitment is to provide clean and reliable energy in a way that benefits every Virginian. Currently, we operate 660 megawatts (MW) of renewable energy in Virginia, with an additional 240 MW of renewable energy permitted and in a phase of construction. These projects bring extensive economic benefits to their respective communities through the creation of hundreds of construction jobs at each site, stimulus of the local economy when we provide employment and buy from area businesses, and substantial tax

revenue generation that helps fund county services such as emergency response, public education, and the deployment of broadband.

Within Virginia, renewable energy development is critical to fulfill the promise of the Virginia Clean Economy Act of 2020 to transition the Commonwealth's electric grid to 100% clean energy by 2050. AES remains committed to working with our stakeholders to co-create and deliver the smarter, greener energy solutions that meet their needs, benefiting the local community and economy.

## DESIGN

The Project will consist of solar photovoltaic modules on a single axis tracker system and associated electrical equipment and materials necessary to collect the energy produced. The system will be comprised of UL-listed components and installed according to the National Electric Code. The maximum panel height will be less than 15 feet above grade at maximum tilt in accordance with Article V Sec. 5-5003 of the Isle of Wight zoning ordinance. The facility will be secured by a 6-foot-tall chain link fence with 1-foot of barbed wire. Sound from the solar panels will not exceed 60 dBA in normal circumstances in accordance with Sec. 5-5003. Setback lines will comply with Sec. 5-5003. Due to setbacks, sound at property lines will likely be much lower than 60 dBA. Areas under the panels will be planted with local grasses and forbs, non-panel areas will be planted with wildlife- and pollinator-friendly vegetation to the extent practicable, and wildlife corridors will be maintained as shown in the Conceptual Plan of Development (Attachment D).

The Project will utilize an existing substation location shared with the Cavalier Solar project, which location is identified on Attachment D. The existing substation location pad has been built as part of the Cavalier Solar project. Additional civil work is not expected to complete the project substation for the Sycamore Cross project. Further, the interconnect with the Dominion Septa substation has been approved and will also be built as part of the Cavalier Solar project.

As of this submittal of the CUP applications, no operations or maintenance buildings are contemplated in the design. If included prior to a final design, all operations and maintenance buildings and related structures will incorporate materials, colors, textures, screening, and landscaping that will blend the facilities to the natural setting and surrounding structures. No signage of any type will be placed on the facility other than notices, warnings, and identification information required by law or as approved by the Zoning Administrator. Construction parking and staging signs will be clearly placed at ingress and egress points to direct traffic to the proper location. Appropriate warning signage will be placed on all towers, electrical equipment, and Project site ingress and egress points. Signs will be clearly marked at the Project site for emergency vehicle ingress and egress.

Consideration is being made for the potential demolition of structures to accommodate the design of Sycamore Cross Solar and to use the land most efficiently within the project area. As of this submittal of the CUP applications, the only improvement anticipated to be demolished is at the address 14195 Rattlesnake Trail on parcel 27-01-003. A photo of the structure can be found in Figure 6-46 of the Cultural Resource Assessment dated August 2023. In the event additional

structures are considered for demolition, a thorough review will be completed, and the required information submitted to Isle of Wight updating this list of properties for consideration. Additionally, prior to any demolition, Sycamore Cross Solar, LLC will elicit concurrence from VDHR on our architectural survey findings. Should any buildings be found to be of significance, avoidance and mitigation measures will be taken.

## INTERCONNECTION

The Project will serve the PJM wholesale market. The final interconnection service agreement identifying the transmission capacity was executed on April 3, 2023. Our maximum facility output is 240 MW, which is also referred to as the "installed capacity", and the Project has rights to inject the full 240 MW into the grid. A redacted version of the interconnection service agreement is included in Attachment E.

New 34.5kV feeder lines will interconnect the various solar generation equipment comprising the Project to the Project's collector substation. Siting of the Sycamore Cross project is using the same utility corridor as Cavalier Solar to limit any additional impact to view sheds. The project will use an existing 500 kV gen-tie line that was constructed for the Cavalier Solar Project and that will interconnect the Project's substation with the VEPCO Septa 500 kV Substation. It should be noted that no improvements will be required to the VEPCO substation or the 500 kV gen-tie. Said improvements are being completed and certificated as part of the Cavalier project.

## LAND USE AND ZONING

The Project is located off Mill Swamp Road (State Rte. 621) on approximately 2,488 acres of 18 parcels in Isle of Wight and Surry Counties. Within Isle of Wight County, the Project study area comprises portions of 15 parcels totaling approximately 2,036 acres of predominantly undeveloped and agricultural land zoned RAC: Rural Agricultural Conservation. The fenced Project area will consist of 1,030 acres of the total Project study area acreage. The adjacent and adjoining properties are also zoned as RAC: Rural Agricultural Conservation and represent similar land use to the Project study area, including agriculture, forested, and land historically managed for silvicultural use (Attachment D).

The RAC zoning district allows utility-scale solar facilities with approval of a Conditional Use Permit. Furthermore, the proposed use fulfills the intent of the RAC district by preserving land which may be used in the future for additional agricultural and silvicultural activities. While in use by the proposed solar facility, the land cannot be sold for development of residential or commercial use, and the quality of the soil will likely be improved over the projected 35-year life of the Project as the land lays fallow.

Landowners for each participating parcel, as described in Attachment F, within the Project Site have provided Owner's Authority Letters (Attachment G). The Applicant has fulfilled the requirements of Section 1-1017 and 4-2003 of the Isle of Wight Zoning Ordinance by providing a copy of the property deeds for participating parcels (Attachment H) and a copy of the county tax records for the participating parcels (Attachment I).

## VISUAL IMPACT

A Visual Impact Analysis was performed by Tetra Tech and is provided in Attachment J. This analysis determined that based on the proposed mitigating measures including landscaping and screening, the Project will have little to no impact on the existing viewshed. To ensure minimal viewshed impacts, the Project has implemented setbacks from adjoining parcels and residences in accordance with the County Ordinance; furthermore, the Conceptual Plan of Development (Attachment D) includes proposed landscaping and screening to be established and maintained within these buffers, as shown in the visual simulations included in Attachment I. This screening will be maintained and supplemented as necessary throughout the life of the Project.

## TRAFFIC IMPACT

The Project anticipates construction of the Project to begin in Q2 2025 and is forecasted to be completed by Q4 2026. Construction will take place between the hours of 7 a.m. and 7 p.m., Monday through Saturday. Construction and decommissioning of the Project may cause temporary impacts to traffic flow in the direct vicinity of the Project site but will not adversely impact traffic during the normal operation phase of the Project.

Sycamore Cross Solar has been working in conjunction with Isle of Wight Planning and Zoning, Isle of Wight Transportation, and the VDOT Franklin Residency to develop a Construction Traffic Management Plan. Sycamore Cross has submitted three options for proposed construction traffic routes, each of which includes escorted heavy haul routes, a delivery route, and anticipated employee commuter routes. Mapping is included in Attachment K. Sycamore Cross has suggested a preferred delivery route using Route 616 to Route 621 from Ivor to a main staging area within the project site. From the staging area, deliveries will be escorted to various project areas and back to the staging area. Factors used to determine Sycamore Cross Solar's preferred routing includes traffic counts, road characterizations as defined by VDOT, bridge capacities, road widths, current road conditions, challenges based on superelevation, and proximity to residences.

Sycamore Cross Solar will refine and finalize the details of the Construction Traffic Management Plan in coordination with both the Virginia Department of Transportation (VDOT) Franklin residency and the County Transportation Department prior to Site Plan Approval. Construction activities and associated construction traffic for the Cavalier Solar project are expected to be completed and end before construction starts for the Sycamore Cross Project.

## ECONOMIC IMPACT

The current zoning of the Project is RAC and the use is generally agricultural or timber. According to information obtained from participating landowners, 891 acres or 35.8% of the project site is currently used for crop production. This includes 221 acres (8.9%) that are being used for corn production, 40 acres (1.6%) used for cotton production, 433 acres (17.4%) used for soy

production, and 197 acres (7.9%) used for peanut production. No parcels are currently being used for livestock.

The Project will generate tax revenue for the County without increasing demand for public utilities or services, allowing increased investment in services and infrastructure. An Economic Impact Assessment was completed in September 2023 by Mangum Economics using the IMPLAN model. This assessment provides fiscal impacts based on taxation of capital investment and on the potential use of a Revenue Share Ordinance. Depending on the tax revenue stream the County chooses to pursue, the Project may provide between approximately $15.2 million and $20.1 million in tax revenue for Isle of Wight County. This is a 29 to 39 fold increase to County revenue versus current use revenue. Additionally, construction of the Project will create approximately 197 direct, indirect, and induced jobs during construction and 7 direct, indirect, and induced jobs during the operational phase. The Economic Impact Analysis assumes a commercial operation date of Q4 2026. A full Economic Impact Analysis is included in Attachment L.

## ENVIRONMENTAL RESOURCES

The Project will avoid and mitigate any potential impacts to natural and cultural resources to the greatest extent possible. A summary of potential Project interactions with environmental resources is provided below. A full Environmental Resource Impact Analysis with further details is included in Attachment M.

### Water Resources

Tetra Tech performed a wetland delineation of the Project site through several field surveys in October 2022 through June 2023. The project will minimize impacts to wetlands and floodplain to the extent reasonably possible. A 50-foot buffer area around water resources will be implemented, to the extent practicable, as shown for the majority of resources in the current Conceptual Plan of Development, Attachment B. In the event development is to occur within any wetland or floodplain, these areas will be designed and permitted to be compliant with all local, state, and federal requirements. AES acknowledges several project areas shown in the conceptual plan of development are within the FEMA 100-year floodplain. This design is conceptual and will be refined as additional studies are completed and regulatory coordination is finalized. All resources will be delineated and clearly flagged for avoidance during construction in areas where avoidance is possible.

Construction of the Project may cause temporary water quality impacts in the form of increased sediment runoff during land disturbing activities; however, best management practices will be implemented to avoid and minimize impacts to surface water features. Ultimately, the Project will likely lead to improved water quality in the area because runoff of pesticides and other inputs to or byproducts of farming will be reduced or eliminated. Soil testing will be performed prior to construction, after completion of construction, and every five years thereafter; results will be provided to the County Planning Department per Article V, Sec. 5-5003.M.4.f.

### Threatened and Endangered Species

An initial desktop assessment performed by Tetra Tech identified several protected species as having the potential to occur within the Project study area. Field surveys of the Project study area were conducted in October 2022 through April 2023. These surveys identified potential presence of six protected species – the bald eagle *(Haliaeetus leucocephalus),* red-cockaded woodpecker *(Picoides borealis),* northern long-eared bat *(Myotis septentrionalis),* Rafinesque's eastern big-eared bat *(Corynorhinus rafinesquii macrotis)*, tri-color bat *(Perimyotis subflavus)*, and the yellow lance *(Elliptio lanceolata)*. Both the bald eagle and red-cockaded woodpecker were determined to be unlikely to be adversely affected by the Project. Suitable habitat was found on site for the other four species, and agency consultation was recommended. Additional presence/absence surveys have been conducted and coordination with federal and state agencies is ongoing to determine best avoidance, minimization, and mitigation measures.

### Ecological Cores

Based on the current design, approximately 77 acres of very high value ecological cores, 32 acres of high value ecological cores, 3.3 acres of moderate value ecological cores, and 423.7 acres of general value ecological cores may be impacted by the Project. The Project does not intersect any outstanding value ecological cores. Ecological core data with the classification of high, very high, and outstanding have the greatest value of ecological biodiversity. Per the recommendations of the Department of Conservation and Recreation, potential impacts to ecological cores have been avoided and minimized to the extent practicable. Where unavoidable, potential impacts were limited to the edges of identified ecological cores.

## HISTORICAL AND CULTURAL RESOURCES

A Phase 1A Cultural Resource Assessment and early coordination was completed by Dutton + Associates, LLC in August 2023. This analysis indicated that no National Register of Historic Places (NRHP) listed resources are present within the fenced Project area. There are three desktop mapped potential resources that are located within the fenced Project area. The Historical and Cultural Resources Report is included in Attachment N.

This report was submitted to Virginia Department of Historic Resources (VDHR) for concurrence on the predictive modeling and the proposed Phase 1b survey methodology on August 2, 2023. The VDHR provided comments regarding the proposed survey methodology August 14, 2023; to which the report was revised, finalized, and resubmitted on August 24, 2023, and the VDHR concurrence letter dated August 28, 2023 is included in Attachment Q.

The Phase 1B fieldwork, in accordance with the guidance provided by VDHR and outlined methodology in the Phase 1A assessment, was initiated in December 2023 and is ongoing at the time of this submittal of the CUP applications. The final Phase 1B will be provided to VDHR for concurrence on findings and recommendations.

AES will create an Unanticipated Discovery Plan which will be used during construction of the project to address any unexpected cultural discoveries on site. This plan will include emergency protections protocols, curation processing of cultural materials, disposition of cultural materials,

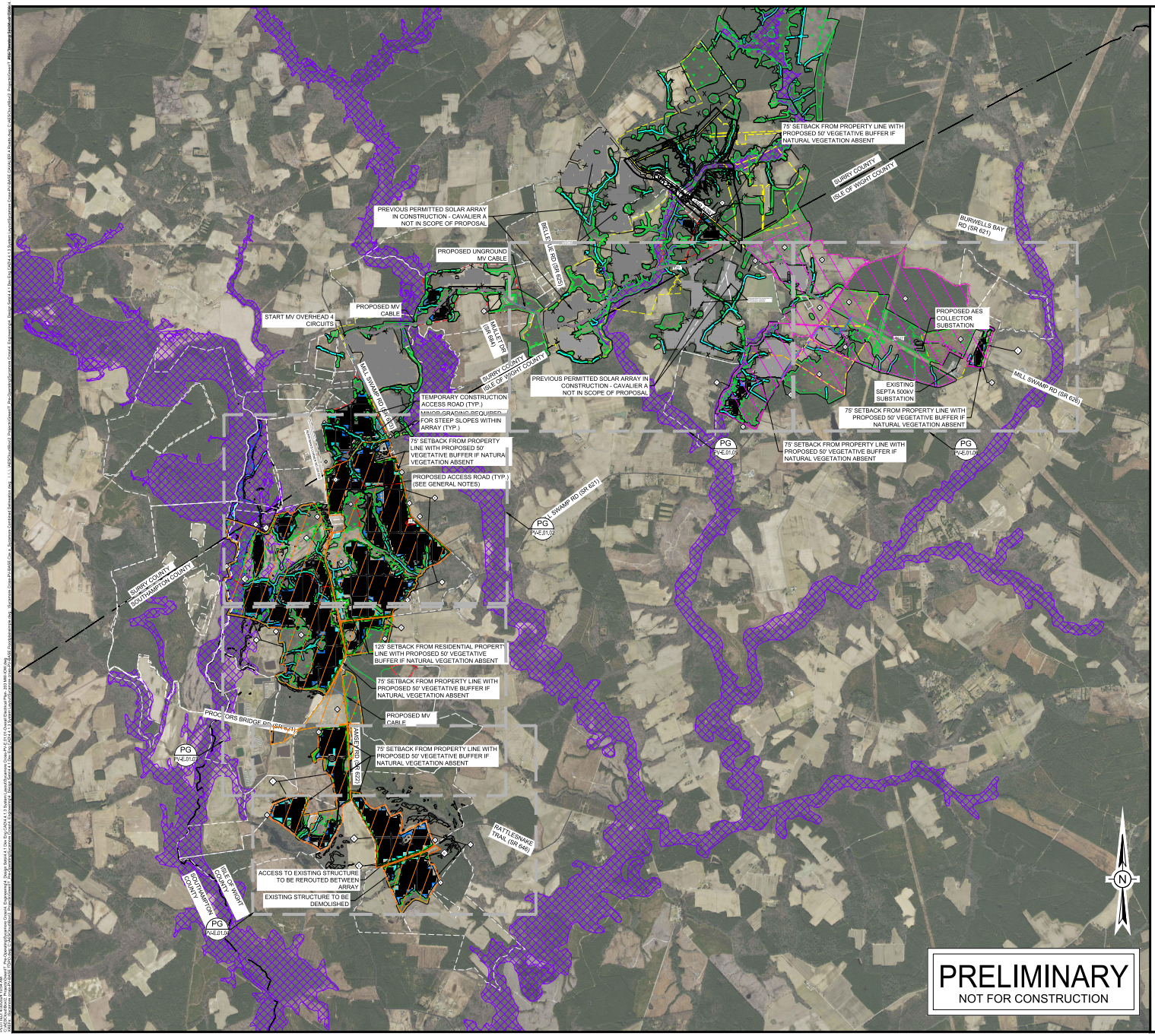
and a contact list including an on-call archaeologist, project contacts, and state/regional contacts.

## LANDSCAPE STANDARDS

According to Isle of Wight County Code of Ordinances Appendix B Zoning Article VIII. Landscape and Screening Standards Section 8-1005-Landscaping Zones, there is a certain minimum number of required landscape points that vary based on the landscape zone assigned to an area, which include the: frontage zone, buffer zone, parking zone, foundation zone, and screening zone. The zone use type for the areas surveyed for this Project are likely categorized as a buffer zone, which requires the installation of a minimum of 45 points of landscaping per 500 square feet of buffer zone for civic use types. A tree canopy assessment was conducted to identify mature tree stands that would meet the requirements for tree preservation point credits. The project will provide approximately 2.8 million landscape points. The full Tree Canopy Survey Assessment is included in Attachment O.

## DECOMMISSIONING

The operating period of the Project is anticipated to be approximately 35 years. At the end of the useful life of the Project, Sycamore Cross Solar, LLC, will be responsible for decommissioning the Project. Prior to final site plan approval, Sycamore Cross Solar, LLC will finalize and submit to the County a decommissioning plan and associated written agreement to decommission the Project equipment, facilities, and devices. The decommissioning security amount will be determined and posted based on an estimate provided in operational year 1 by a qualified third-party engineering firm. The decommissioning plan and associated security will not include a deduction for salvage value.




## GENERAL NOTES

1. THIS DRAWING IS PRELIMINARY AND FOR ESTIMATING PURPOSES ONLY. IT IS NOT FOR CONSTRUCTION.
2. LOCATION OF ALL EXISTING ITEMS IS APPROXIMATE AND MUST BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION.
3. ALL SPECIFIED EQUIPMENT IS PRELIMINARY. FINAL EQUIPMENT SELECTION SHALL BE APPROVED BY OWNER.
4. 75' EQUIPMENT SETBACK FROM ALL PROPERTY LINES
5. 125' EQUIPMENT SETBACK FROM ALL RESIDENTIAL PARCELS
6. EXISTING WOOD LINE, EASEMENTS, ROW'S TO BE PROVIDED ONCE ALTA SURVEY COMPLETED.
7. ALL SITE ENTRANCES SHALL BE 20' WIDE AND TAPER TO 16' INTERNAL ACCESS ROADS

## SHEET NOTES

- E — SITE ENTRANCE
- I — ISLE OF WIGHT COUNTY PARCELS
- C — WILDLIFE CORRIDOR
- # — PARCEL ID

## LEGEND

### EXISTING

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT PROPERTY LINE
- MAJOR PUBLIC ROAD
- ROAD RIGHT-OF-WAY
- APPROXIMATE WETLAND
- WASH / DRAINAGE
- 100 YEAR FLOOD PLAIN
- SLOPE KEEPOUT AREAS
- CAVALIER SITE FENCE
- CAVALIER SITE PV PANELS

### PROPOSED

- MERGED SETBACK
- FENCE
- PROVISIONS FOR 2' DEEP WATER QUALITY MANAGEMENT
- OH-500 / OH-500 — EXISTING 500kV GEN-TIE
- OH-MV / OH-MV — 34.5kV OVERHEAD MV COLLECTION LINE
- LAYDOWN/ PARKING AREA
- PROPOSED VEGETATIVE BUFFER
- SYCAMORE CROSS SOLAR A
- SYCAMORE CROSS SOLAR B
- MV / MV / MV — MV UNDERGROUND LINE
- 60' MV LINE EASEMENT
- SYCAMORE CROSS PV PANELS

**PARCELS WITHIN PROJECT BOUNDARIES**

| SHEET NOTE NUMBER | PARCEL TYPE | APPLICATION AREA | PARCEL ID | OWNER NAME |
|---|---|---|---|---|
| **SYCAMORE CROSS SOLAR - A** | | | | |
| 1 | PROJECT | A | 16-01-003 | BLUE SKY ENDEAVORS LLC |
| 2 | PROJECT | A | 27-01-003 | BLUE SKY ENDEAVORS LLC |
| 3 | PROJECT | A | 27-01-004 | GORDON KATHLEEN H |
| 4 | PROJECT | A | 16-01-009 | BLUE SKY ENDEAVORS LLC |
| 5 | PROJECT | A | 16-01-008 | BLUE SKY ENDEAVORS LLC |
| 6 | PROJECT | A | 16-01-002 | EVERETS PROPERTIES INC |
| 7 | PROJECT | A | 17-01-001 | GORDON KATHLEEN H |
| 8 | PROJECT | A | 17-01-011 | HOLLEMAN WILLIAM JOSEPH |
| 9 | PROJECT | A | 16-01-002A | SEWARD JEFFREY A & MELANIE D |
| 10 | PROJECT | A | 09-01-001 | WELLS CHRISTINE LORENZO |
| 11 | PROJECT | A | 17-01-003 | BLUE SKY ENDEAVORS LLC |
| 12 | PROJECT | A | 17-01-003C | BLUE SKY ENDEAVORS LLC |
| 13 | EASEMENT ONLY | A | 16-01-005 | CARROLLS FOOD OF VIRGINIA LLC |
| 14 | PROJECT | A | 17-01-002 | GORDON KATHLEEN H |
| **SYCAMORE CROSS SOLAR - B** | | | | |
| 15 | PROJECT | B | 10-01-017 | MILL SWAMP ROAD HOLDINGS LLC |
| 16 | PROJECT | B | 11-01-015 | BATTEN MITCHELL DELK |
| 17 | EASEMENT ONLY | B | 11-01-005 | 476 LLC |
| 18 | EASEMENT ONLY | B | 10-01-025 | BARCROFT JEAN E SOLE TRUSTEE JEAN E BARCROFT LIVING TRUST |
| 19 | EASEMENT ONLY | B | 10-01-030 | MILL SWAMP ROAD HOLDINGS LLC |
| 20 | EASEMENT ONLY | B | 10-01-028A | THACKER SHELTON L & ANN |
| 21 | EASEMENT ONLY | B | 10-01-027 | SEWARD MICHAEL A |
| 22 | EASEMENT ONLY | B | 10-01-023 | SEWARD MICHAEL A & EMILY B |

aes
2180 South 1300 East, Suite 600
Salt Lake City, UT 84106-2749
(801) 679 - 3500

PE STAMP:

KEY PLAN:

REVISIONS:

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 0 | 12/28/2022 | INITIAL 5% LAYOUT |
| 8 | 07/24/2023 | REVISED 5% LAYOUT |
| 9 | 12/12/2023 | REVISED 5% LAYOUT |
| 10 | 4/6/2023 | REVISED 5% LAYOUT |
| 4 | 4/17/2023 | REVISED 5% LAYOUT |
| 5 | 4/28/2023 | REVISED 5% LAYOUT |
| 6 | 5/25/2023 | REVISED DC:AC RATIO |
| 7 | 6/23/2023 | ADDITIONAL PARCEL INVESTIGATION |

PROJECT TITLE:

SYCAMORE CROSS

PROJECT LOCATION:

MILL SWAMP ROAD,
SMITHFIELD, VA 23430
37.0180,-76.7358

SHEET TITLE & DESCRIPTION:

OVERALL ELECTRICAL PLAN

UP TO 240 MWAC

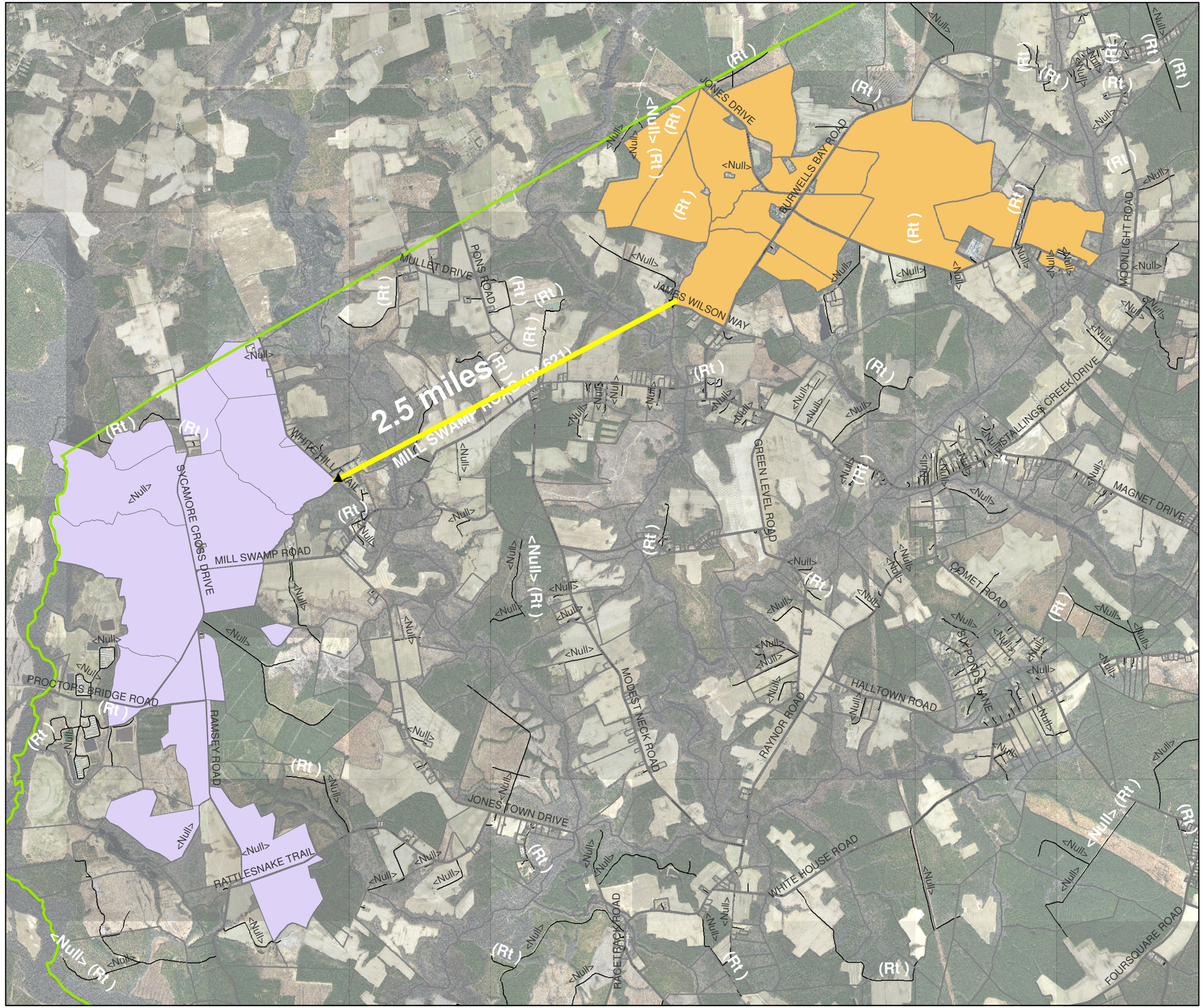
| | |
|---|---|
| PROJ NUM: | |
| DES: | A. PEÑAS |
| DWN: | F. MIRANDA |
| CHK: | C. SANCHEZ |
| APV: | |
| DATE: | 12/28/2022 |

SCALE AT 24" x 36":
0 1.000' 2.000' 3.000' 4.000'
1" = 2,000'

SHEET NO: PV-E.01.01
REV: 10

## Legend

- Sycamore Cross A
- Parcels
- Cavalier




N

Service Agreement No. [ ]

(PJM Queue #AC2-141)

**INTERCONNECTION SERVICE AGREEMENT**
**Among**
**PJM INTERCONNECTION, L.L.C.**
**And**
**ACE DEVELOPMENT COMPANY II, L.L.C.**
**And**
**VIRGINIA ELECTRIC AND POWER COMPANY**

*Pages 1 - 8 have been redacted*

IN WITNESS WHEREOF, Transmission Provider, Interconnection Customer and Interconnected Transmission Owner have caused this ISA to be executed by their respective authorized officials.

(PJM Queue Position #AC2-141)

Transmission Provider: PJM Interconnection, L.L.C.

By: Jason Shoemaker | Manager, Interconnection Projects | 4/3/2023
Name | Title | Date

Printed name of signer: Jason Shoemaker

Interconnection Customer: ACE Development Company II, L.L.C.

By: Sean McBride | Authorized Person | 3/10/2023
Name | Title | Date

Printed name of signer: Sean McBride

Interconnected Transmission Owner: Virginia Electric and Power Company

By: Kevin Fields | Authorized Representative | 3/30/2023
Name | Title | Date

Printed name of signer: Kevin Fields

**SPECIFICATIONS FOR**
**INTERCONNECTION SERVICE AGREEMENT**
**By and Among**
**PJM INTERCONNECTION, L.L.C.**
**And**
**ACE DEVELOPMENT COMPANY II, L.L.C.**
**And**
**VIRGINIA LECTRIC AND POWER COMPANY**
**(PJM Queue Position # AC2-141)**

1.0 Description of generating unit(s)(the Customer Facility) to be interconnected with the Transmission System in the PJM Region:

a. Name of Customer Facility:

Sycamore Cross Solar

b. Location of Customer Facility:

Isle of Wight and Surry Counties, VA
37.0177790, -76.7441940

c. Size in megawatts of Customer Facility:

For Generation Interconnection Customer:

Maximum Facility Output of 240 MW

d. Description of the equipment configuration:

A ground-mounted, inverter-based, solar photovoltaic generating facility consisting of solar arrays, a collector system, and a 500/34.5/13.8 kV wye ground/wye ground/delta main power transformer with a rating of 213/240/267 MVA.

2.0 Rights

2.1 Capacity Interconnection Rights:

Pursuant to and subject to the applicable terms of the Tariff, the Interconnection Customer shall have Capacity Interconnection Rights at the Point(s) of Interconnection specified in this Interconnection Service Agreement in the amount of 168.2 MW.

2.1a To the extent that any portion of the Customer Facility described in section 1.0 is not a Capacity Resource with Capacity Interconnection Rights, such portion of the Customer Facility shall be an Energy Resource. PJM reserves the right to limit

total injections to the Maximum Facility Output in the event reliability would be affected by output greater than such quantity.

2.3 Incremental Deliverability Rights:

Pursuant to Section 235 of the Tariff, Interconnection Customer shall have Incremental Deliverability Rights at each indicated Point of Interconnection in the following quantity(ies): None

2.4 Incremental Available Transfer Capability Revenue Rights:

Pursuant to Section 233 of the Tariff, Interconnection Customer shall have Incremental Available Transfer Capability Revenue Rights at each indicated Point of Interconnection in the following quantities: None

2.5 Incremental Auction Revenue Rights:

Pursuant to Section 231 of the Tariff, Interconnection Customer shall have Incremental Auction Revenue Rights in the following quantities: None

2.6 Incremental Capacity Transfer Rights:

Pursuant to Section 234 of the Tariff, Interconnection Customer shall have Incremental Capacity Transfer Rights between the following associated source(s) and sink(s) in the indicated quantities: None

3.0 Construction Responsibility and Ownership of Interconnection Facilities

a. Interconnection Customer.

(1) Interconnection Customer shall construct and, unless otherwise indicated, shall own the following Interconnection Facilities:

Upon achieving Milestone 6.7, a pro rata share of:

(a) One (1) 500 kV circuit breaker;
(b) 500 kV line extending from the high side of the main power transformer to the point of change of ownership with VEPCO; and
(c) Communication equipment to the Interconnected Transmission Owner bidirectional metering equipment.

(2) In the event that, in accordance with the Interconnection Construction Service Agreement, Interconnection Customer has exercised the Option to Build, it is hereby permitted to build in accordance with and subject to the conditions and limitations set forth in that Section, the following portions of the Transmission

Owner Interconnection Facilities which constitute or are part of the Customer Facility:

None

Ownership of the facilities built by Interconnection Customer pursuant to the Option to Build shall be as provided in the Interconnection Construction Service Agreement.

b. Interconnected Transmission Owner

Interconnected Transmission Owner shall construct and, unless otherwise indicated, shall own, the following:

Attachment Facilities pursuant to PJM Service Agreement No. 5757 (ISA for Queue Position No. AC1-161) and PJM Service Agreement No. 5810 (Construction Service Agreement for Queue Position No. AC1-161).

c. Additional Contingent Facilities which must be completed prior to Commercial Operation of the Generating Facility

PJM Network Upgrade N5483: Replace wave traps at both Ladysmith and Elmont Substations for the Ladysmith – Elmont 500kV line #574 to increase ratings to 2913 MVA (normal), 2913 MVA (emergency), and 3351 MVA (load dump).

PJM Network Upgrade N6647: Expand Septa 500 kV Substation by adding a 500 kV circuit breaker in the ring bus to create a new line position.

4.0 Subject to modification pursuant to the Negotiated Contract Option and/or the Option to Build under the Interconnection Construction Service Agreement, Interconnection Customer shall be subject to the estimated charges detailed below, which shall be billed and paid in accordance with Appendix 2, Section 11 of this ISA and the applicable Interconnection Construction Service Agreement.

4.1 Attachment Facilities Charge: $0

4.2 Network Upgrades Charge: $0

4.3 Local Upgrades Charge: $0

4.4 Other Charges: $0

4.5 Cost breakdown:

| | |
|---|---|
| $0 | Direct Labor |
| $0 | Direct Material |

$0 Indirect Labor
$0 Indirect Material

$ 0 Total

4.6 Security Amount Breakdown:

$0 Estimated Cost of Non-Direct Connection Local Upgrades and/or Non-Direct Connection Network Upgrades

plus $0 Estimated cost of the work (for the first three months after construction commences in earnest) on the required Attachment Facilities, Direct Connection Local Upgrades, and Direct Connection Network Upgrades

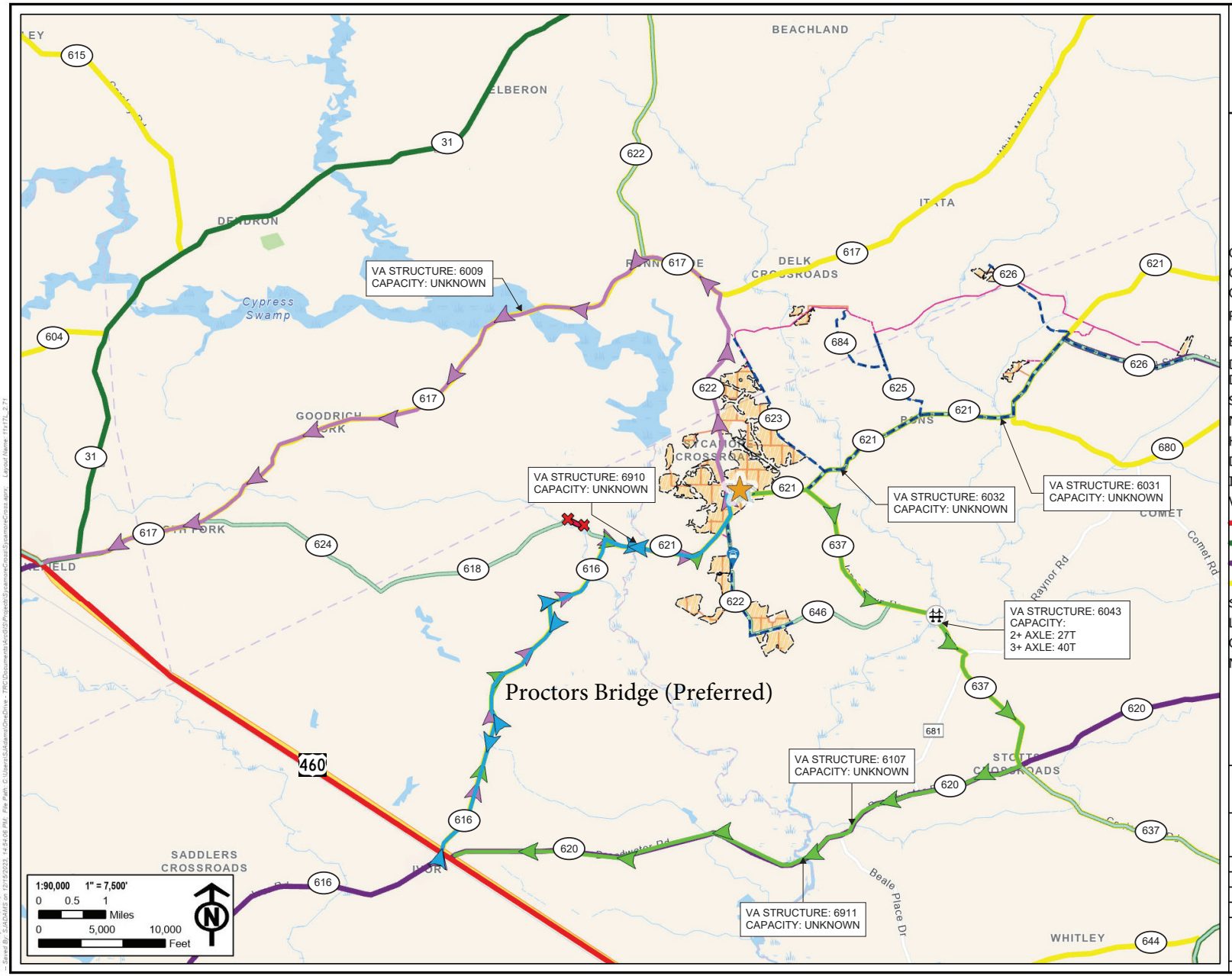
plus $0 Option to Build Security for Transmission Owner Attachment Facilities and Direct Connection Network Upgrades (including Cancellation Costs)

$0 Total Security required with ISA

less $0 Costs already paid by Interconnection Customer

$0 Total Security required with ISA

*Pages 8 - 94 have been redacted*




## Legend

- Option One - Staging Delivery Route
- Option Two - Staging Delivery Route
- Option Three - Staging Delivery Route
- Primary Staging & Office Area
- Bridge on Route 637
- Daily Employee Parking & Shuttle Pick Up/ Drop Off
- Steep Superelevation
- No Delivery Truck Traffic
- Heavy Haul - Escorted Routes
- Daily Employee Traffic & Shuttle Routes
- Interior Array Roads
- VDOT Functional Classification
  - Other Principal Arterial
  - Minor Arterial
  - Major Collector
  - Minor Collector
- Solar Panel Arrays
- LOD
- Overhead Medium Voltage Lines
- Medium Voltage Lines (Underground)

PROJECT: AES CLEAN ENERGY
SYCAMORE CROSS SOLAR
TRAFFIC MANAGEMENT PLAN
ISLE OF WIGHT COUNTY, VA.

TITLE: **SITE OVERVIEW**

| | | | |
|---|---|---|---|
| DRAWN BY: | S. ADAMS | PROJ. NO.: | 576420.0000.0000 |
| CHECKED BY: | D. PEETS | | **FIGURE # 1** |
| APPROVED BY: | J. HENEGAR | | |
| DATE: | DECEMBER 2023 | | |

TRC
2200 S. MAIN ST.
SUITE A
BLACKSBURG, VA 24060

FILE: SycamoreCross.aprx

Coordinate System: Map Rotation:
Saved By: SJADAMS on 12/15/2023 14:54:06 PM File Path: C:\Users\SJAdams\OneDrive - TRC\Documents\ArcGIS\Projects\SycamoreCross\SycamoreCross.aprx Layout Name: 11x17L_2.71

Travis A. Voyles
*Secretary of Natural and Historic Resources*

Matthew S. Wells
*Director*

Andrew W. Smith
*Chief Deputy Director*

Frank N. Stovall
*Deputy Director for Operations*

Darryl Glover
*Deputy Director for Dam Safety, Floodplain Management and Soil and Water Conservation*

Laura Ellis
*Deputy Director for Administration and Finance*

# *COMMONWEALTH of VIRGINIA*

## DEPARTMENT OF CONSERVATION AND RECREATION

July 20, 2023

Justin Ahn
Tetra Tech, Inc.
4101 Cox Road
Glen Allen, VA 23060

Re: Sycamore Cross Solar Project

Dear Mr. Ahn:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in our files, the Pouches Creek Stream Conservation Unit is located within the project site. Stream Conservation Units (SCUs) identify stream reaches that contain aquatic natural heritage resources, including 2 miles upstream and 1 mile downstream of documented occurrences, and all tributaries within this reach. SCUs are also given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain. The Pouches Creek SCU has been given a biodiversity ranking of B3, which represents a site of high significance. The natural heritage resource associated with this site is:

Aquatic Natural Community (SC-Blackwater Second Order Stream) G2?/S2?/NL/NL

The documented Aquatic Natural Community is based on Virginia Commonwealth University's **INSTAR** (*Interactive Stream Assessment Resource*) database which includes over 2,000 aquatic (stream and river) collections statewide for fish and macroinvertebrate. These data represent fish and macroinvertebrate assemblages, instream habitat, and stream health assessments. The associated Aquatic Natural Community is significant on multiple levels. First, this stream is a grade B, as per the VCU-Center for Environmental Sciences (CES), indicating its relative regional significance, considering its aquatic community composition and the present-day conditions of other streams in the region. This stream reach also holds as a "Healthy" stream designation as per the INSTAR Virtual Stream Assessment (VSS) score. This score assesses the similarity of this stream to ideal stream conditions of biology and habitat for this region. Lastly, this stream contributes to high Biological Integrity at the watershed level (6$^{th}$ order) based on number of native/non-native, pollution-tolerant/intolerant and rare, threatened or endangered fish and macroinvertebrate species present.

Threats to the significant Aquatic Natural Community and the surrounding watershed include water quality degradation related to point and non-point pollution, water withdrawal and introduction of non-native species. To minimize adverse impacts to the aquatic ecosystem as a result of the proposed activities, DCR recommends the

implementation of and strict adherence to applicable state and local erosion and sediment control/storm water management laws and regulations, establishment/enhancement of riparian buffers with native plant species and maintaining natural stream flow.

In addition, according to a DCR biologist and predicted suitable habitat modeling, there is a potential for Barking treefrog (*Hyla gratiosa*, G5/S2S3/NL/NL) to occur in the project area if suitable habitat exists on site. The Barking treefrog ranges through the coastal plain from North Carolina to Florida and west to Mississippi and eastern Louisiana (NatureServe, 2009). There are disjunct populations in Delaware, Maryland, Kentucky and Tennessee, and southeastern Virginia (NatureServe, 2009). Across its range, it inhabits areas near shallow ponds in pine savannas and in low wet woods and swamps (Martof et al., 1980). In Virginia, this species breeds in fish-free vernal ponds (Pague & Young, 1991). When inactive during cold or dry seasons, they burrow under tree roots, vegetation, or in the soil; otherwise, this species is mostly arboreal and thus dependent on trees near the water (Pague & Young, 1991). Adult frogs feed on insects and other invertebrates; tadpoles consume primarily algae (VDGIF, 1993). Major threats to the Barking treefrog include continued logging of native pine, destruction of breeding ponds, and over collecting (Pague & Young, 1991).

Due to the potential for this site to support populations of Barking treefrog, DCR recommends an inventory for the resource in the study area. With the survey results we can more accurately evaluate potential impacts to natural heritage resources and offer specific protection recommendations for minimizing impacts to the documented resources.

DCR-Division of Natural Heritage biologists are qualified to conduct inventories for rare, threatened, and endangered species. Please contact Anne Chazal, Natural Heritage Chief Biologist, at anne.chazal@dcr.virginia.gov or 804-786-9014 to discuss availability and rates for field work.

Furthermore, according to predicted suitable habitat modeling, there is potential for Eastern big-eared bat (*Corynorhinus rafinesquii macrotis*, G3G4T3/S2/NL/LE) to occur in the project area if suitable habitat exists on site. The Eastern big-eared bat is named for its enormous ears twice the length of its head, is extremely rare in Virginia and is currently known only from the southeastern portion of the state. Although widespread throughout the southeast, they are never found in large numbers. These bats roost singly or in small groups in hollow trees or abandoned buildings. They forage only after dark primarily in mature forests of both upland and lowland areas along permanent bodies of water (NatureServe, 2009). The details of this bat's feeding behavior and much of its natural history remain a mystery. Lack of information regarding the ecology of the Eastern big-eared bat, and their sensitivity to disturbance, make them particularly vulnerable to destruction of roost sites and feeding areas where their presence goes undetected (Handley and Schwab 1991, Harvey 1992).

Threats to this species include forest destruction, particularly hollow tree removal, decreasing availability of abandoned buildings, and possibly, insecticides. Please note that this species is currently classified as endangered by the Virginia Department of Wildlife Resources (VDWR).

DCR recommends avoiding tree removal in bottomland habitats and assessing any large potential roost trees and/or abandoned structures on the property for bat presence/absence. DCR also recommends coordination with DWR if removal of potential roost habitat for the Eastern big-eared bat becomes necessary to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570).

DCR recommends the development of an invasive species management plan for the project and the planting of Virginia native pollinator plant species that bloom throughout the spring and summer, to maximize benefits to native pollinators. DCR recommends planting these species in at least the buffer areas of the planned facility, and optimally including other areas within the project site. For screening zones outside the perimeter fencing, DCR

recommends native species appropriate for the region be used. Guidance on plant species can be found here: http://www.dcr.virginia.gov/natural-heritage/solar-site-native-plants-finder. In addition, Virginia native species alternatives to the non-native species listed in the Virginia Erosion and Sediment Control Handbook (Third Edition 1992), can be found in the 2017 addendum titled "Native versus Invasive Plant Species", here: https://www.deq.virginia.gov/home/showpublisheddocument?id=2466. Page 3 of the addendum provides a list of native alternatives for non-natives commonly used for site stabilization including native cover crop species (i.e. Virginia wildrye).

In addition, the proposed project will impact Ecological Cores **(C2, C3, C5)** as identified in the Virginia Natural Landscape Assessment (https://www.dcr.virginia.gov/natural-heritage/vaconvisvnla). Mapped cores in the project area can be viewed via the Virginia Natural Heritage Data Explorer, available here: http://vanhde.org/content/map.

Ecological Cores are areas of at least 100 acres of continuous interior, natural cover that provide habitat for a wide range of species, from interior-dependent forest species to habitat generalists, as well as species that utilize marsh, dune, and beach habitats. Interior core areas begin 100 meters inside core edges and continue to the deepest parts of cores. Cores also provide the natural, economic, and quality of life benefits of open space, recreation, thermal moderation, water quality (including drinking water recharge and protection, and erosion prevention), and air quality (including sequestration of carbon, absorption of gaseous pollutants, and production of oxygen). Cores are ranked from C1 to C5 (C5 being the least significant) using nine prioritization criteria, including the habitats of natural heritage resources they contain.

Impacts to cores occur when their natural cover is partially or completely converted permanently to developed land uses. Habitat conversion to development causes reductions in ecosystem processes, native biodiversity, and habitat quality due to habitat loss; less viable plant and animal populations; increased predation; and increased introduction and establishment of invasive species.

DCR recommends avoidance of impacts to cores. When avoidance cannot be achieved, DCR recommends minimizing the area of impacts overall and concentrating the impacted area at the edges of cores, so that the most interior remains intact.

The proposed project will impact one or more cores with very high (C2) to outstanding (C1) ecological integrity. Further investigation of these impacts is recommended and DCR-DNH can conduct a formal impact analysis upon request. This analysis would estimate impacts to cores and habitat fragments, providing an estimate of the total acreage of direct and indirect impacts of the project. For more information about the analysis and service charges, please contact Joe Weber, DCR Chief of Biodiversity Information and Conservation Tools at Joseph.Weber@dcr.virginia.gov.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

New and updated information is continually added to Biotics. Please re-submit a completed order form and project map for an update on this natural heritage information if the scope of the project changes and/or six months (January 20, 2023) has passed before it is utilized.

A fee of $625.00 has been assessed for the service of providing this information. Please find attached an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, DCR Finance, 600 East Main Street, 24th Floor, Richmond, VA 23219. Payment is due within thirty days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The Virginia Department of Wildlife Resources (VDWR) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from http://vafwis.org/fwis/ or contact Amy Martin at (804-367-2211) or amy.martin@dwr.virginia.gov.

Should you have any questions or concerns, please contact me at 804-225-2429. Thank you for the opportunity to comment on this project.

Sincerely,

Tyler Meader

Tyler Meader
Natural Heritage Locality Liaison

Cc: Amy Martin, VDWR
Susan Tripp, DEQ
Randy R. Keaton, Isle of Wight County Administrator
Melissa Rollins, Surry County Administrator

# Environmental Resource Impact Analysis

## Sycamore Cross Solar Project
## Isle of Wight and Surry Counties, Virginia

**April 2023**

**Prepared for**

AES Clean Energy Development, LLC
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Glen Allen, Virginia 23060

**Prepared by**

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# Acronyms and Abbreviations

| | |
|---|---|
| AMSL | Above Mean Sea Level |
| AES | AES Clean Energy Development, LLC |
| AJD | Approved Jurisdictional Determination |
| AMSL | Above Mean Sea Level |
| BECA | Bald Eagle Concentration Area |
| BGEPA | Bald and Golden Eagle Protection Act |
| CBPA | Chesapeake Bay Protection Area |
| CCB | Center for Conservation Biology |
| FEMA | Federal Emergency Management Act |
| FCV | Forest Conservation Value |
| FIRM | Flood Insurance Rate Map |
| IPaC | Information for Planning and Consultation |
| NHD | National Hydrography Dataset |
| NHDE | Natural Heritage Data Explorer |
| NLEB | northern long-eared bat |
| NRCS | Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| NWI | National Wetland Inventory |
| PJD | Preliminary Jurisdictional Determination |
| Project | Sycamore Cross Solar Project |
| RPA | Resource Protection Area |
| T&E | threatened and endangered |
| USACE | U.S. Army Corps of Engineers |
| USDA | United States Department of Agriculture |
| USEPA | U.S. Environmental Protection Agency |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| SSURGO | Soil Survey Geographic Database |
| Tetra Tech | Tetra Tech, Inc |
| VaFWIS | Virginia Fish and Wildlife Information Services |
| VDCR | Virginia Department of Conservation and Recreation |

| | |
|---|---|
| VDEQ | Virginia Department of Environmental Quality |
| VDWR | Virginia Department of Wildlife Resources |
| VMRC | Virginia Marine Resource Commission |

# 1.0 PROJECT DESCRIPTION

Sycamore Cross Solar, LLC, a subsidiary of AES Clean Energy (AES), is conducting due diligence for a proposed commercial solar energy project, the Sycamore Cross Solar Project (Project), on approximately 2,226 acres of agricultural and undeveloped forested land (Project study area). Sycamore Cross Solar, LLC is proposing to utilize approximately 1,195 acres of the Project study area in connection with the Project (Fenceline Area) to generate up to 240 megawatts (MWac) of solar energy. The Project is located in Isle of Wight and Surry Counties, Virginia, as shown on the orthoimagery and topographic Project location maps (Figures 1 and 2, respectively). The Project is in the Blackwater Watershed (Hydrologic Unit Code 03010202; USGS 2022).

Sycamore Cross Solar, LLC, is pursuing a Conditional Use Permit (CUP) from Isle of Wight and Surry Counties in accordance with Section 5-5003.M.4 of the Isle of Wight County, Virginia, and Section 10-122 of the Surry County, VA, Code of Ordinances. A desktop Environmental Resource Impact Analysis was conducted to identify potential impacts to environmental and wildlife resources within the Project Area and applicable buffers from the Project study area to comply with Section 5-5003.M.4.vi of the Isle of Wight County Zoning Ordinance and to help support the Surry County CUP application.

Resources considered include watershed preservation areas, forest conservation, ecological cores, floodplains, wetlands, surface water, and federal and state listed threatened and endangered species. This impact assessment was based on preliminary site plans and avoidance and minimization measures that are anticipated to be implemented.

# 2.0 ENVIRONMENTAL RESOURCES

## 2.1 Terrestrial and Aquatic Resources

### 2.1.1 Federal and State Protected Lands

Based on a desktop review of data provided by Virginia Department of Conservation and Recreation (VDCR), no federal or state protected lands, including national or state forests or parks, wildlife management areas or recreational areas, are located within the Fenceline Area of the Project study area. Two conservation easements are mapped within a one-mile radius of the Project study area, including one Virginia Department of Forestry/VDCR managed easement located approximately 350 feet southwest of the southwestern portion of the Project study area and one National Resources Conservation Service (NRCS) managed easement located approximately 0.20 miles north of the eastern portion of the Project study area (VDCR 2023a). Additionally two designated conservation areas were identified approximately 0.65 miles southwest of the southwestern portion of the Project study area, including one conservation area managed by The Nature Conservancy, named Blackwater River and one conservation area managed by VDCR, named Blackwater Sandhills (VDCR 2023a). No additional conservation easements or areas were identified within a one-mile radius of the Project study area.

### 2.1.2 Chesapeake Bay Preservation Area

**Existing Conditions**

The Project is located within Isle of Wight and Surry Counties, which are both considered one of Virginia's 29 coastal counties and independent cities deemed "Tidewater Virginia" as outlined in 9VAC25-830-80; however, based on Appendix B-1, Article 3 of the Isle of Wight County Code of Ordinances, the Isle of Wight County Chesapeake Bay Preservation Area (CPBA) Mapper, Section 3-1400 of the Surry County Code of Ordinances, preliminary correspondence with the Surry County Planning and Community Development Department and preliminary correspondence with the Isle of Wight Planning and Zoning department, the Project study area is located within the Albemarle-Chowan watershed. Therefore, the Project is not subject to CBPA Resource Protection Areas.

**Potential Impacts**

The Project is not located within the Chesapeake Bay watershed and therefore, not subject to CBPA regulations.

### 2.1.3 Forest Conservation Value

**Existing Conditions**

The Forest Conservation Value (FCV) model was designed by the Virginia Department of Forestry to identify forestland with the highest priority for conservation within Virginia with the intent to maximize the conservation efforts to the highest quality, most productive, and most vulnerable forestland within Virginia (VDCR 2021). The classifications of the values range from average to outstanding, indicating the value of forestlands for conservation (VDCR 2021). The VDCR FCV model indicated that approximately 1,254 acres of the Project study area were mapped as forest with approximately 213 acres categorized as outstanding priority for conservation, 293 acres as very high, and 384 acres categorized as high priority forestland for conservation. VDCR FCV located within the Project study area are depicted as Figure 4

**Potential Impacts**

Based on the current design of the Project and the Fenceline Area, approximately 32 acres of outstanding priority forestland will be impacted, approximately 63 acres of very high priority, and approximately 139 acres of high priority forestland may be impacted. A map depicting the FCV model within the Project study area is represented as Figure 4. Consultation with VDCR will be undertaken in connection with the potential impact of outstanding, very high, and high value forestland.

### 2.1.4 Ecological Cores

**Existing Conditions**

The VDCR developed ecological cores that classify lands based on environmental and species diversity, patch characteristics and context, and water quality benefits (VDCR 2018). The classifications of ecological cores range from general to outstanding based on a determination of ecological importance and characteristics (VCDR 2018). Ecological core data with the classification of high, very high, and outstanding have the greatest value of ecological biodiversity (VDCR 2018). VCDR ecological cores data indicates that approximately 357 acres of the Project study area are classified as very high, and approximately 162 acres are classified as high. No portion of the Project study area is classified as outstanding. The remaining portions of the Project study area are classified as either

general or is unclassified. Ecological cores located within the Project study area are depicted as Figure 5

**Potential Impacts**

Based on the current design of the Project and the Fenceline Area, approximately 94 acres of ecological cores classified as very high value will be impacted, and approximately 32 acres of high value ecological cores may be impacted. Wildlife corridors will be implemented in Project site design in order to reduce adverse impacts to these ecological cores. A map depicting the ecological core classifications within the Project study area is represented as Figure 5. Consultation with VDCR will be undertaken in connection with the potential impact of very high and high value ecological cores.

### 2.1.5 Floodplains

**Existing Conditions**

The floodplain data for the Project were obtained from Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Number 51093C00653, effective December 2, 2015; 51093C0125E, effective December 2, 2015; 51093C0050E, effective December 2, 2015 and 51181C0225E, effective April 6, 2022 (FEMA 2015a, b, c, 2022). According to the FEMA FIRMs, Blackwater River, located on the western portion of the Project study area, is mapped as Zone A, with a one-percent annual chance flood hazard. The Project is in the Blackwater River – Terrapin Swamp (12-digit Hydrologic Unit Code [HUC] 030102020301), and Rattlesnake Swamp (HUC 030102020303) watershed. FEMA floodplain data is depicted on Figure 6.

**Potential Impacts**

There are no anticipated impacts to floodplains based on the current design of the Project. These areas will be included in Project design considerations as design evolves and will continue to be avoided to the greatest extent practicable. Additionally, any potential impacts will be permitted through the appropriate authorities having jurisdiction.

### 2.1.6 Topography and Soils

**Existing Conditions**

The topography within the Project study area is relatively flat, ranging from 50 feet above mean sea level (amsl) to 95 feet amsl (Figure 2). Very minimal steep slopes were identified, with slopes exceeding 25 percent mapped in small areas throughout the Project study area (Figure 7).

A review of the U.S. Department of Agriculture (USDA) NRCS Web Soil Survey was conducted to determine the erosivity of soils within the Project study area. The K factor is an index which quantifies the relative susceptibility of the soil to sheet and rill erosion. Values range from 0.02 for the least erodible soils to 0.64 for the most erodible, with any K factor value equal to or greater than 0.32 being considered moderately erodible. The USDA NRCS soil survey data indicates that approximately 23.7 percent of the Project study area is composed of moderate to highly erodible soils (Appendix A). A figure depicting the USDA NRCS soil series classification within the Project study area is attached as Figure 10.

The USDA NRCS Web Soils Survey was also queried to identify soils classified as prime farmland within the Project study area. Approximately 895 acres of prime farmland soils were identified, an additional 433 acres are classified as prime farmland if drained, and approximately 109 acres of farmland of statewide importance were identified within the Project study area. The remaining portions of the Project study area were not classified as prime farmland or farmland of statewide importance (Figure 9).

**Potential Impacts**

Construction of the Project may result in impacts on soil resources within the facility footprint. Ground-disturbing activities would include vegetation clearing and grubbing; excavating for foundations and footings; pile driving; stockpiling excavated material for backfilling; drilling rock to set foundations and footings; drilling and installing groundwater supply wells; grading for roads and staging and laydown areas; and installing stormwater best management practices (BMPs). The construction of other facilities, such as electrical substations and storage of equipment and parts, also would have the potential to result in adverse impacts on soil resources, because they involve some degree of ground disturbance. Soil contamination could also result from the release of contaminants related to the use of trucks and mechanical equipment, from improper storage and handling, and from the application of chemical stabilizers to control fugitive dust emissions. The extent of impact would depend on the size and design of the project and on site-specific factors, such as soil properties, slope (e.g., along gullies and on alluvial fan surfaces), vegetation, weather, and distance to surface water. The implementation of erosion and sediment control BMPs would minimize soil erosion and impacts to on-site and off-site resources.

Based on the current design of the Project and the Fenceline Area, approximately 614 acres of prime farmland (26% of the Project study area), 236 acres (10%) of prime farmland if drained, and 35 acres (1.5%) of farmland of statewide importance may be impacted.

Impacts to prime farmland soils are expected from the Project, as the areas of Prime Farmland soil on the site are centrally located where development activities will be concentrated. However, these impacts will be temporary in nature and beneficial to the quality of the soil. Over the life of the Project these soils will lay fallow, allowing reaccumulation of vital nutrients and organic matter; after the Project is decommissioned, the land may be converted into cropland that would benefit from this soil resting period. However, since the Project is not being completed by a Federal agency or with assistance from a Federal agency and will not irreversibly convert farmland to a nonagricultural use, the Project will not be subject to the Farmland Protection Policy Act (FPPA). Therefore, no form AD-1006 Farmland Conversion Impact Rating will be required.

### 2.1.7 Wetlands, Surface Waters, and Open Waters

**Existing Conditions**

A field wetland delineation was performed for the Project study area in January and April 2020, October 27, 2022, November 2-4, 2022, December 2, 9, 14-15, 20-21, 27-29, 2022, January 9-13, March 22-24 and 28-30, 2023 for wetland, stream, and open water features. 30,281 linear feet of streams features, 415 acres of wetlands, and 1.08 acres of open water features, including ponds, were identified within the Project study area. A portion of the delineated features in the northwestern

portion of the Project study area were confirmed for jurisdiction in the form of a USACE Preliminary Jurisdictional Determination (PJD) and an Approved Jurisdictional Determination (AJD) (NAO-2019-01204) in 2022 The remaining delineated water features identified within the Project study area were not confirmed for jurisdiction with the U. S. Army Corps of Engineers (USACE) and the Virginia department of the Environmental Quality (VDEQ), and/or Virginia Marine Resources Commission (VMRC) at the time of submittal of this analysis report. The Project plans to confirm all delineated features within the Project study area in the form of a USACE PJD and/or AJD. A figure depicting the delineated features within the Project study area is attached as Figure 8.

**Potential Impacts**

A utility-scale solar project can affect surface water and groundwater in several ways, including the use of water resources, modification of the natural surface water and groundwater flow systems, alteration of the interactions between groundwater and surface waters, contamination of aquifers, wastewater treatment either on- or off-site, and water quality degradation by runoff or excessive withdrawals, as well as from leaks and spills of chemicals used for the project. While some impacts on water resources (e.g., water use) are dependent upon the solar technologies themselves, impacts on water resources associated with land disturbance and construction activities would be expected to occur regardless of the type of solar technology used.

There are 2,281 linear feet of streams, 36 acres of wetlands, and 0.39 acres of open water features located within the Fenceline Area. Through continued engineering and site design, the Project will avoid and minimize impacts to wetlands, surface waters, and open waters to the greatest extent practicable. Any impacts to wetlands, surface waters, and open waters will be permitted through the appropriate authorities having jurisdiction.

The Project has been designed to avoid and minimize impacts to wetlands and streams as they are currently mapped within the Fenceline Area and Project study area to the greatest extent practicable. A portion of the Project study area's delineated water resources delineation results have been confirmed by the USACE and VDEQ in the northeastern portion of the Project study area in the form of a Preliminary Jurisdictional Determination and an Approved Jurisdictional Determination (NAO-2019-01204) in 2022. The remaining water resources delineated within the Project study area have not yet been confirmed by the USACE, VDEQ, and/or the VMRC and are subject to change. Federal and state confirmation of the remaining unconfirmed water resources within the Project will be planned in the form of a USACE jurisdictional determination. Pending any changes to mapped features, impacts to jurisdictional features will be permitted through the USACE, VDEQ, and/or VMRC, and any requisite mitigation measures will be incorporated into the project.

Through the use of stormwater BMPs and erosion and sedimentation controls during construction, as well as routine stormwater inspections, no impacts to adjacent water resources are expected from the Project.

## 2.2 Wildlife Resources

Field visits at the Project study area were conducted on October 27, 2022; November 2–4, 2022; December 2, 9, 14–15, 20-21, 27–29, 2022; January 9–13, 2023; March 22–24, 28–30, 2023; and April 3, 2023. The results of this evaluation identified the potential presence of the following:

- One species protected by BGEPA and a listed bird species: bald eagle (*Haliaeetus leucocephalus*) and red-cockaded woodpecker (*Picoides borealis)*;
- Three species of bats: NLEB, Rafinesque's eastern big-eared bat *(Corynorhinus rafinesquii macrotis),* and tri-colored bat *(Perimyotis subflavus)*; and
- One mollusk species: yellow lance *(Elliptio lanceolata)*.

Potential impacts to these species as a result of implementation of the Project are discussed below.

### 2.2.1 Bald Eagle

**Existing Conditions**

The bald eagle is protected under the Bald and Golden Eagle Protection Act (BGEPA). Bald eagles prefer to nest in mature or old growth trees, snags, or cliffs near rivers, coastlines, lakes, and streams large enough to serve as a substantial food supply (USFWS 2007).

Several large bodies of water were identified on the USGS topographic map, specifically in the USFWS NWI and USGS NHD layers in the surrounding areas of the Project study area, and were noted during the site visit within the surrounding areas of the Project study area. Areas noted included Blackwater River, Mill Swamp, and an unnamed pond located in the western, eastern, and center portions of the Project study area, respectively (Figures 2 and 3).

Based on a review of the CCB Bald Eagle Nest Locator, the closest known bald eagle nest is approximately 7.1 miles south of the Project study area A, and 3.03 miles away from Project study area B. The USFWS BECA map did not indicate a bald eagle concentration area within the Project study area. During the January 2023 field survey, two adult bald eagles and one juvenile were observed feeding on carrion adjacent to the pond located in the northwestern portion of the Project study area.

**Potential Impacts**

Based on the observation of bald eagles, a "may effect-not likely to adversely affect" status was determined for the bald eagle in connection with the Project study area. Consultation with USFWS and VDEQ will be initiated; a subsequent bald eagle nest survey will be conducted if construction is anticipated to be conducted during the breeding season (October 1 through May 15). The appropriate buffers will be provided per the USFWS 2007 National Bald Eagle Management Guidelines (USFWS 2007).

### 2.2.2 Red-Cockaded Woodpecker

**Existing Conditions**

IPaC indicates that the red-cockaded woodpecker, which is a federally endangered and state endangered species, has the potential to occur within the Project study area (USFWS 2023a). The red-

cockaded woodpecker commonly inhabits mature pine trees that are generally 80 years old or older and are devoid of underbrush (USFWS 2023d).

Upon a review of aerial orthoimagery presented in Figure 1 and field verification of habitat, forested communities within the Project study area consist of mostly silviculture with pine plantations that are younger than 80 years old, as well as deciduous hardwood forests in riparian areas. During the January and March field surveys, pine trees were observed within the Project study area, however, the trees were observed to be less than 80 years of age.

**Potential Impacts**

Given the lack of suitable habitat, red-cockaded woodpecker constitutes a "no effect" status in connection with the Project study area.

### 2.2.3 Northern Long Eared Bat

**Existing Conditions**

The IPaC database (USFWS 2023a) indicated that the NLEB, a federally endangered and state-threatened species, has the potential to occur within the Project study area. The NLEB spend winters hibernating in caves and mines; during the summer, they roost singly or in colonies underneath bark, in cavities, or in crevices of trees both live and dead (USFWS 2023e). Foraging occurs on forested hillsides and ridges, occasionally over forest clearings, over water, and along tree-lined corridors. Mature forests may be an important habitat type for foraging. The VDWR NLEB mapping application shows that there are no known NLEB winter hibernacula or roost trees in the vicinity of the Project study area (VDWR 2023a). The nearest winter hibernacula and roosting habitat is located approximately 43.7 miles southeast of the Project study area and 40.1 miles southeast of Project study area B (VDWR 2023a). However, forested areas within the Project study area, especially along riparian corridors, provide potential suitable roosting and foraging habitat for the NLEB. Suitable trees were identified within forested areas in the Project study area during the field survey.

**Potential Impacts**

Given the suitable habitat on site, consultation with USFWS and VDWR will be initiated, and additional bat presence/absence surveys will be conducted (i.e., acoustic or mist netting) prior to tree clearing for construction activities if deemed necessary by agencies.

### 2.2.4 Rafinesque's Eastern Big-eared Bat

**Existing Conditions**

The VDWR VaFWIS indicated that there are confirmed occurrences of the Rafinesque's eastern big-eared bat, which is a state endangered species, within the Project study area and a ±2-mile radius from the Project study area boundary (VDWR 2023c). The Rafinesque's eastern big-eared bat is known to roost in hollow trees and old buildings in the southeastern United States along the coast and in caves and mines within the Appalachian Mountains (VDWR 2022a) Additionally, the VDCR NHDE identified this species as possibly occurring within the following Project study area watersheds:

Blackwater River – Terrapin Swamp (12-digit Hydrologic Unit Code [HUC] 030102020301), and Rattlesnake Swamp (HUC 030102020303) (VDCR 2023b).

**Potential Impacts**

Given the suitable habitat on site, consultation with VDWR and VDCR will be initiated, and additional bat presence/absence surveys will be conducted (i.e., acoustic or mist netting) prior to tree clearing for construction activities if deemed necessary by agencies.

### 2.2.5 Tri-colored Bat

**Existing Conditions**

The VDWR VaFWIS indicated that there are confirmed occurrences of the state endangered tri-colored bat within the Project study area and a ±2-mile radius from the Project study area boundary (VDWR 2023b). It should be noted that the tri-colored bat was proposed on September 14, 2022 by the USFWS to be federally reclassified as endangered however, the rule has yet to be finalized at the completion of this report (87 FR 56381)(USFWS 2023f). The tri-colored bat is known to inhabit caves but is also known to inhabit hollow trees during the summer (VDWR 2022b). VDWR mapping shows that the nearest winter hibernacula and roosting habitat are located approximately 133.1 miles northwest of the western Project study area and 136.4 miles northwest of eastern Project study area. The wooded areas located within the Project study area, however, could provide suitable foraging and roosting habitat for the tri-colored bat between summer and fall.

**Potential Impacts**

Given the suitable habitat on site, consultation with VDWR and VDCR will be initiated, and additional bat presence/absence surveys will be conducted (i.e., acoustic or mist netting) prior to tree clearing for construction activities if deemed necessary by agencies.

### 2.2.6 Yellow Lance

**Existing Conditions**

The VDWR VaFWIS indicated confirmed occurrences of the yellow lance, which is a state threatened species, within the Project study area and a ±2-mile radius from the Project study area boundary (VDWR 2023c). The yellow lance is known to inhabit clean, coarse to medium-sized sandy substrate but can occasionally be located within gravel substrate; can be found in waters from main channels down to small streams (North Carolina Wildlife Resources Commission 2022). Based on a review of NHD and NWI data, depicted in Figure 3, Terrapin Swamp, Blackwater River, Mill Swamp, Stallings Creek, Pouches Swamp, and several unnamed tributaries were identified within the Project study area, which could be potential habitat for yellow lance.

**Potential Impacts**

Given the suitable habitat on site, consultation with VDWR and VDCR will be initiated, and additional species presence/absence surveys will be conducted prior to construction activities if deemed necessary by agencies.

### 2.2.7 Candidate Listed Species

**Existing Conditions**

The IPaC system identified the monarch butterfly (*Danaus plexippus*), a candidate species at the federal level, as having the potential to occur within the Project study area. Monarch butterflies migrate to temperate climates in eastern and western North America during the fall and breed at overwintering sites in February to March. Additionally, VaFWIS identified the Spotted Turtle (*Clemmys guttata*), a federal candidate species, as having the potential to occur within the Project study area. Spotted Turtles are found in shallow aquatic areas with vegetation (USFWS 2023d). Suitable habitat was observed on site, and a spotted turtle was observed in the Project study area- photos of which are included in the photolog (Attachment C).

**Potential Impacts**

At time of this analysis, both species above are listed as candidate species. As candidate species are not subject to review under the Endangered Species Act, presence of these species is not anticipated to be a constraint to the Project. Impacts to potential habitat, such as streams and riparian corridors, will be avoided to the greatest practicable extent. Should the two species be listed as state or federally threatened or endangered in the future, further measures to avoid or mitigate potential impacts to the two species will be enacted.

No federally listed critical habitat was documented on the USFWS Critical Habitat for Threatened and Endangered Species Mapper as occurring within the proposed Project study area or the vicinity. The western Project study area is approximately 44.5 miles southeast of the closest mapped critical habitat. The eastern Project study area is approximately 50.4 miles southeast of the closest mapped critical habitat.

## 2.3 Cultural and Aesthetic Resources

### 2.3.1 Cultural and Historic Resources

**Existing Conditions**

Dutton + Associates, LLC (Dutton) prepared a Phase IA Cultural Resource Assessment report dated March 2023 and a Phase I Cultural Resources Survey dated September 2019 for and area which includes the Project study area and Fenceline Area in which Dutton utilized desktop resources and limited field reconnaissance to identify potential resources and areas of historic and cultural potential within the Project study area and the adjacent properties. One previously identified archaeological site is present on a southwestern parcel within the Project study area, and seven dilapidated buildings and complexes remain extant in the Project study area but have not been assessed for eligibility for listing on the National Register of Historic Places (NRHP) or on the Virginia Landmark Register. Based on the information from the desktop assessment and field reconnaissance conducted by Dutton, areas of historic resource potential were identified within the Project study area. Approximately 123 acres were determined to be areas with high potential for historic resources; an additional 272 acres were identified as areas with moderate potential.

Additional information on cultural resources is included in the Desktop Cultural Resources Report.

**Potential Impacts**

Based on the preliminary review of cultural resources, coordination with VDHR will be conducted prior to Project construction activities (e.g. ground clearing or leveling) to determine the significance of dilapidated buildings and sensitive archaeological areas within the Project study area. Implementation of the Project would not have an adverse impact on any archaeological or architectural resources that are eligible or potentially eligible for listing on the NRHP; and no further work is expected to be necessary within the Project area. Many of the extant buildings and building complexes are excluded from the Project area with carve-out parcels, and the previously identified archaeological site will be avoided in Project design and construction. Consultation with the VDHR will be conducted to confirm that no additional archaeological or historic investigation are required for the Project.

### 2.3.2 Aesthetic Resources

**Existing Conditions**

The landscape surrounding the Project site is characterized by broad plains of terraces, sandy ridges, and broad but shallow valleys. The elevation within the Project site averages around 80 feet, and local relief is less than 30 feet. Mixed forest vegetation covers most undeveloped or non-agricultural areas, often limiting views to the immediate foreground (i.e., within half a mile of the viewer). Land use is primarily small agricultural fields and rural residences interspersed with large, forested areas. Views surrounding the Project area are dominated by cultivated open agricultural fields, dense woodlands, and scattered residences and agricultural buildings.

Additional detail is provided in the Conditional Use Permit application as Attachment J.

**Potential Impacts**

The Project would introduce low vertical, geometric elements that are gray in color (e.g., solar panels, fencing) into a rolling terrain landscape dominated by green vegetation and large patches of dense trees. Visual impacts would vary depending on several factors, such as the distance of the viewer from the Project and whether views toward the Project are unobstructed or screened by vegetation, terrain, or development. The views can be vastly different from one location to another, even in proximity, because of the rolling terrain and dense vegetation. Viewers in proximity to the Project may have unobstructed or partially screened views (primarily along Sycamore Cross Drive, Mill Swamp Road, and Beechland Road). The solar arrays and fencing would be installed in both existing cultivated and open fields, as well as within areas currently covered by pine timber lands which would be cleared for the Project. Therefore, tree removal would be a noticeable effect of the Project, in addition to direct views of Project components. Large-scale silviculture harvest is assumed to be a frequent occurrence in the area, and viewers are assumed to be familiar with the changes to views resulting from a timber stand being cleared.

No visual impacts would occur to identified designated scenic resources, and although the Sycamore Cross Solar facility would introduce new views of solar infrastructure from public roadways and a small number of private residents immediately adjacent to the Project site, visual effects are not expected to occur from viewpoints away from the immediate Project area. Additionally, the Project

will install landscape buffers consisting of trees and shrubs along rights of way and abutting residential parcels, per the Isle of Wight zoning code Section B. Article V. § 5-5003 Part 4e.

## 3.0 CONCLUSIONS

This Environmental Resource Impact Assessment identified the following environmental resources and associated potential impacts:

- 2,281 linear feet of streams, 36 acres of wetlands, and 0.39 acres of open water features may be impacted by the are located within the Fenceline Area, however, no impacts to wetlands, streams or waterbodies are anticipated with the current Project design. These features will be included in the Project site plan and will be avoided to the greatest extent practicable. Any unavoidable impacts will be permitted through the proper regulators prior to construction.
- The western portion of the Project study area, along Blackwater River, is located within a FEMA flood zone with a one percent chance annual flood hazard. No impacts to floodplains are anticipated based on current Project design.
- Based on the current design of the Project and the Fenceline Area, approximately 32 acres of outstanding priority forestland will be impacted, approximately 63 acres of very high priority, and approximately 139 acres of high priority forestland may be impacted.
- Based on the current design of the Project and the Fenceline Area, approximately 94 acres of ecological cores classified as very high value will be impacted, and approximately 32 acres of high value ecological cores will be impacted. Wildlife corridors will be implemented in Project design to mitigate potential habitat fragmentation.
- Based on the current design of the Project and the Fenceline Area, approximately 614 acres (26%) of prime farmland, 236 acres (10%) of prime farmland if drained, and 35 acres (1.5%) of farmland of statewide importance may be temporarily impacted. However, following decommissioning of the Project, the land may be returned to agricultural use with improved soil quality due to the resting of these soils over the life of the Project.
- Bald eagles were identified as potentially present within the Project study area and were observed during site visits; however, no recorded nests were identified within the Project study area or direct vicinity. Additional nest surveys will be conducted if construction is anticipated to occur within the breeding season, and appropriate buffers will be implemented as necessary.
- No suitable habitat is present within the Project study area for the red cockaded woodpecker, and no impacts to this species are anticipated.
- Suitable habitat is present within the Project study area for three listed bat species- NLEB, Rufinesque's bat, and tricolor bat. Agency coordination will be conducted; additional species presence surveys, such as acoustic surveys or mist-net surveys, will be conducted if deemed necessary prior to any tree-clearing activities.
- The yellow lance mussel is potentially present within the Project study area and direct vicinity in stream channels. Avoidance of streams will be implemented to the greatest extent

practicable; if any impacts to streams are unavoidable, agency coordination will be initiated and additional species presence surveys will be conducted prior to construction activities.

- Approximately 23.7 percent of the Project study area contains moderate to highly erodible soils. The implementation of erosion and sediment control BMPs would minimize soil erosion and impacts to on-site and off-site resources.

Additionally, the Environmental Resources Impact Analysis identified NLEB as federally-listed endangered and state-listed threatened, red-cockaded woodpecker as federally-listed endangered, eastern big-eared as state-listed endangered, tri-colored bat as state-listed endangered and federally proposed endangered, and yellow lance as federally-listed threatened and state-listed threatened species that have the potential to occur within and in the vicinity of the Project study area.

Potential impacts to threatened and endangered species and their habitats will be reduced by avoiding and minimizing Project impacts, including but not limited to excavation, tree removal, and fill activities, to potential habitat areas including wetlands, forested areas, streams, and riparian corridors. The Project plans to avoid these resources to the maximum extent possible and coordinate with USFWS, VDWR, and VDCR to determine the potential for further site-specific surveys.

The Project plans to avoid and minimize impacts to aquatic features to the greatest practicable extent. Coordination and permitting with the U.S. Army Corps of Engineers, Virginia Department of Environmental Quality, and the Virginia Marine Resources Commission will be undertaken for planned potential impacts to aquatic features. Methods including utilizing temporary matting, staging of equipment in upland areas, and using best management practices during construction will be planned to avoid and minimize potential impacts to aquatic features.

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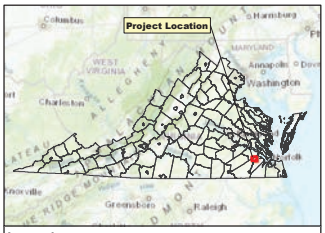
# FIGURES




**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary

N
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0 0.25 0.5 1 Miles

**Figure 1**
Orthoimagery Project Location Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/12/2023

Source: Esri, et. al., 2022; AES, 2022; Virginia Open Data Portal, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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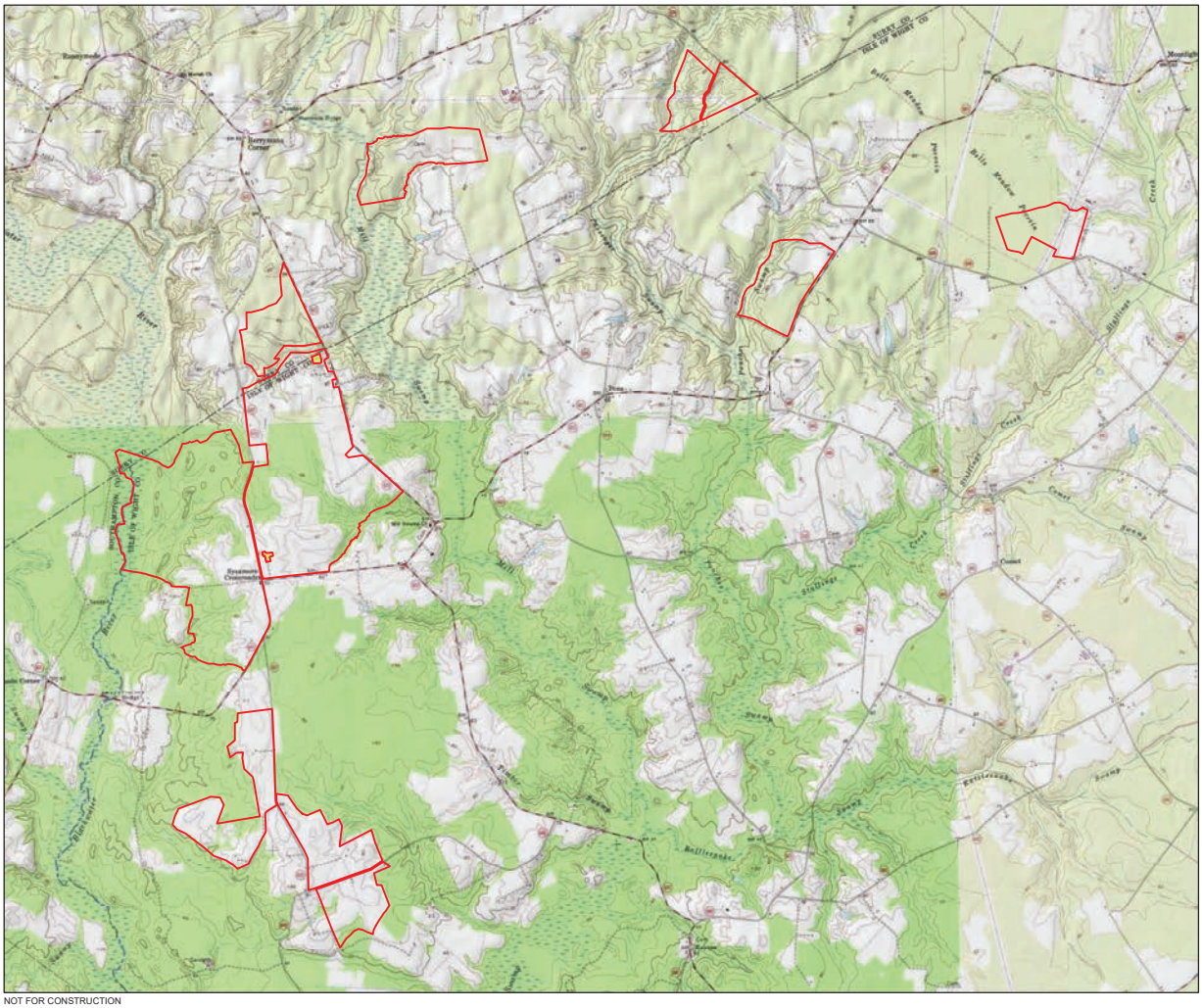

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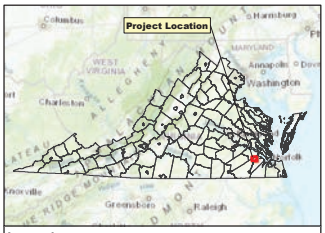


**Legend**

- Project Study Area
- Outside Project Study Area

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0 0.25 0.5 1 Miles

**Figure 2**
Topographic Project Location Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/12/2023

Source: Esri, et. al., 2022; AES, 2022; Virginia Open Data Portal, 2022; USGS Topo Quads - Dendron, Runnymede, Ivor, Raynor, 2023.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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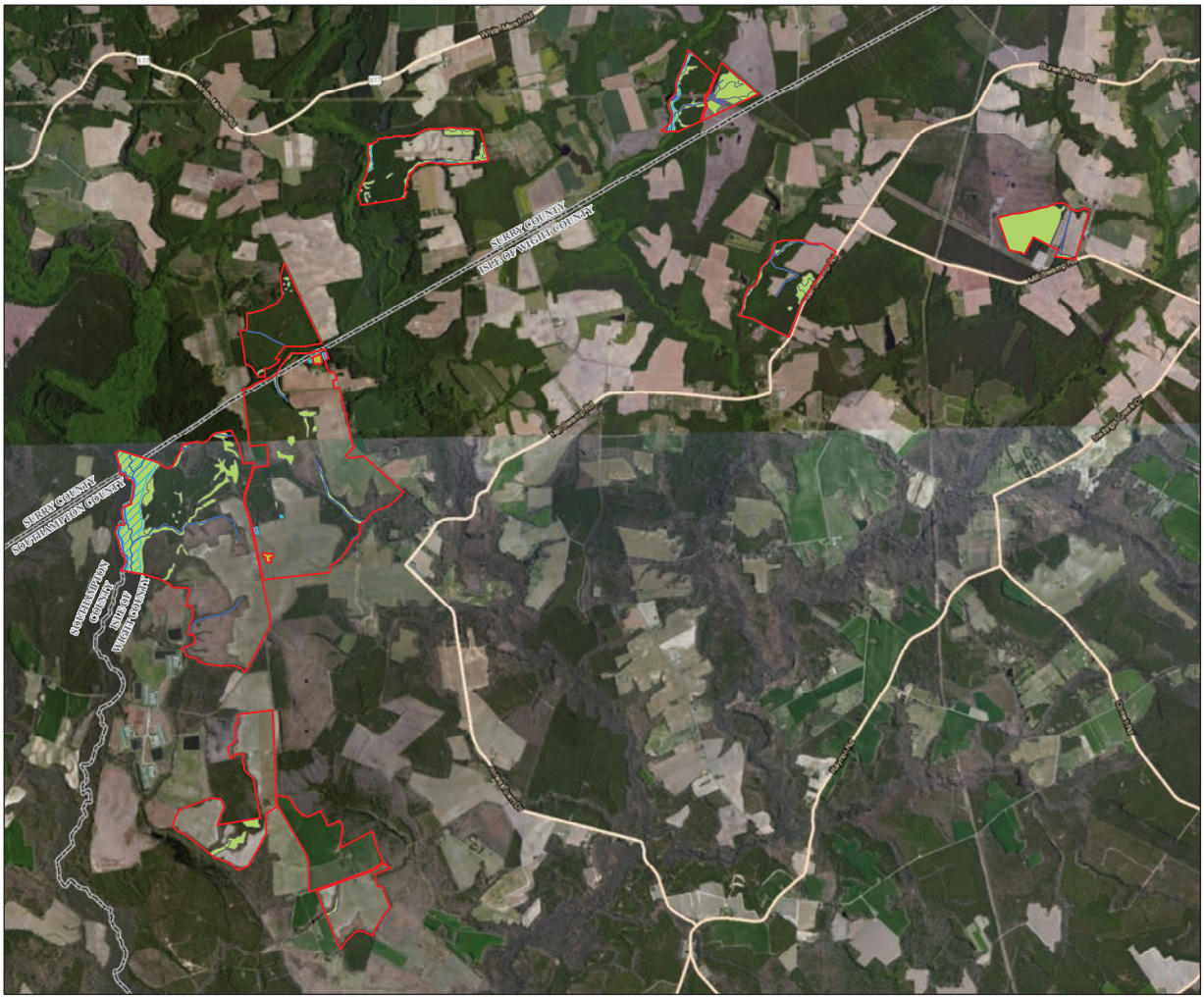


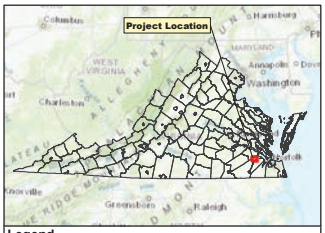


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- NHD Flowlines
- NHD Waterbodies

**NWI Wetland Type**

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

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0 0.25 0.5 1 Miles

**Figure 3**
NHD and NWI Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/12/2023

Source: Esri, et. al., 2022; AES, 2022; NHD, 2022; NWI; 2022; Virginia Open Data Portal, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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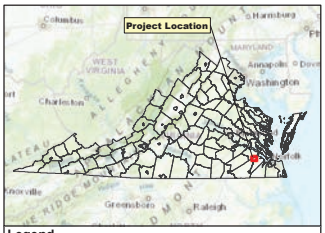


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary

**Forest Conservation Value**

- 1: Average
- 2: Moderate
- 3: High
- 4: Very High
- 5: Outstanding

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**Figure 4**
VDCR Forest Conservation Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH | Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; VDCR, 2020.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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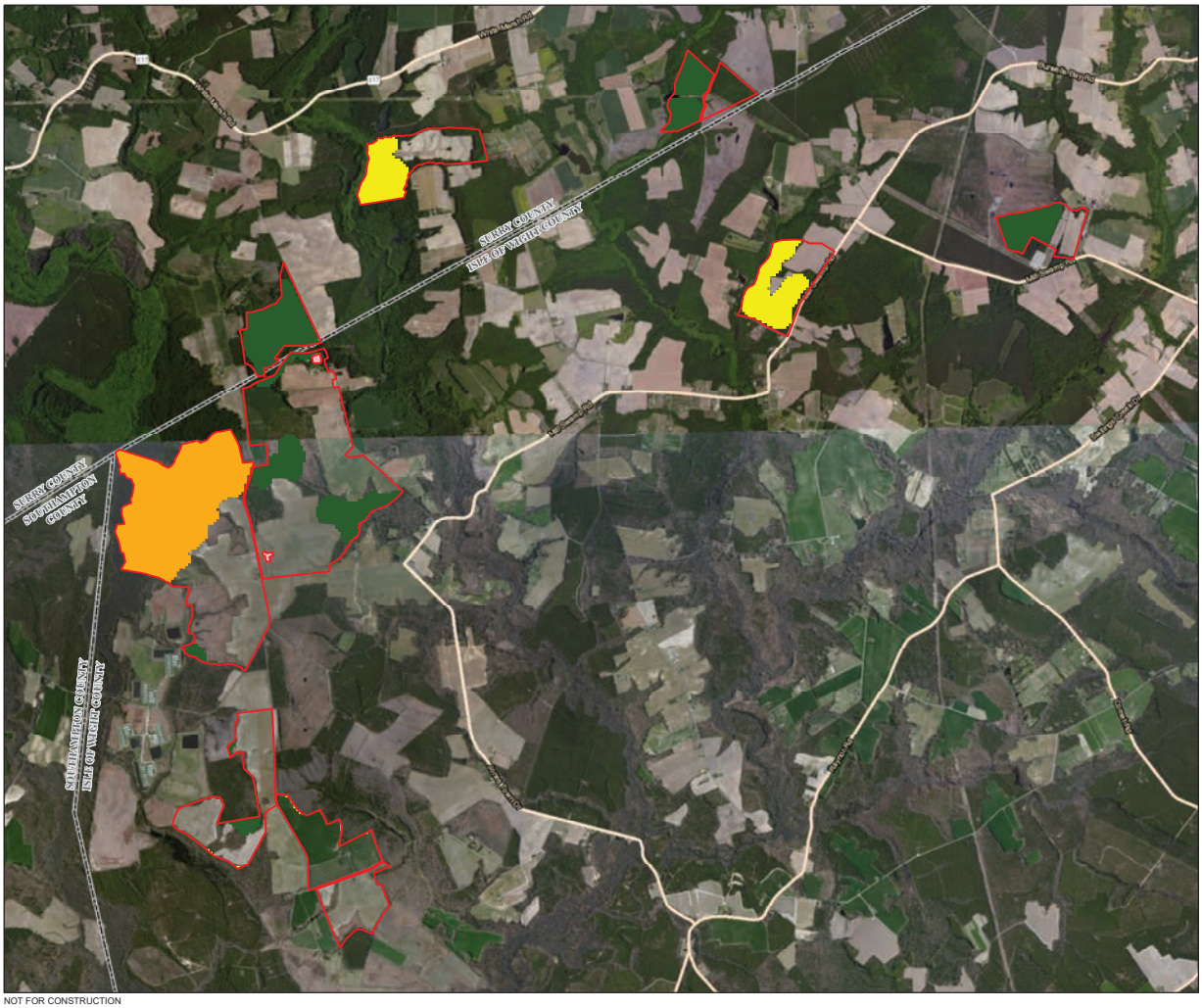


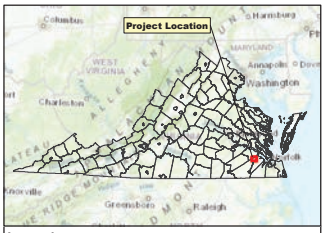


**Legend**

- Project Study
- Outside Project Study
- County Boundary

**Core Rank**

- C2: Very High
- C3: High
- C5: General

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0 0.25 0.5 1 Miles

**Figure 5**
VDCR Ecological Cores Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

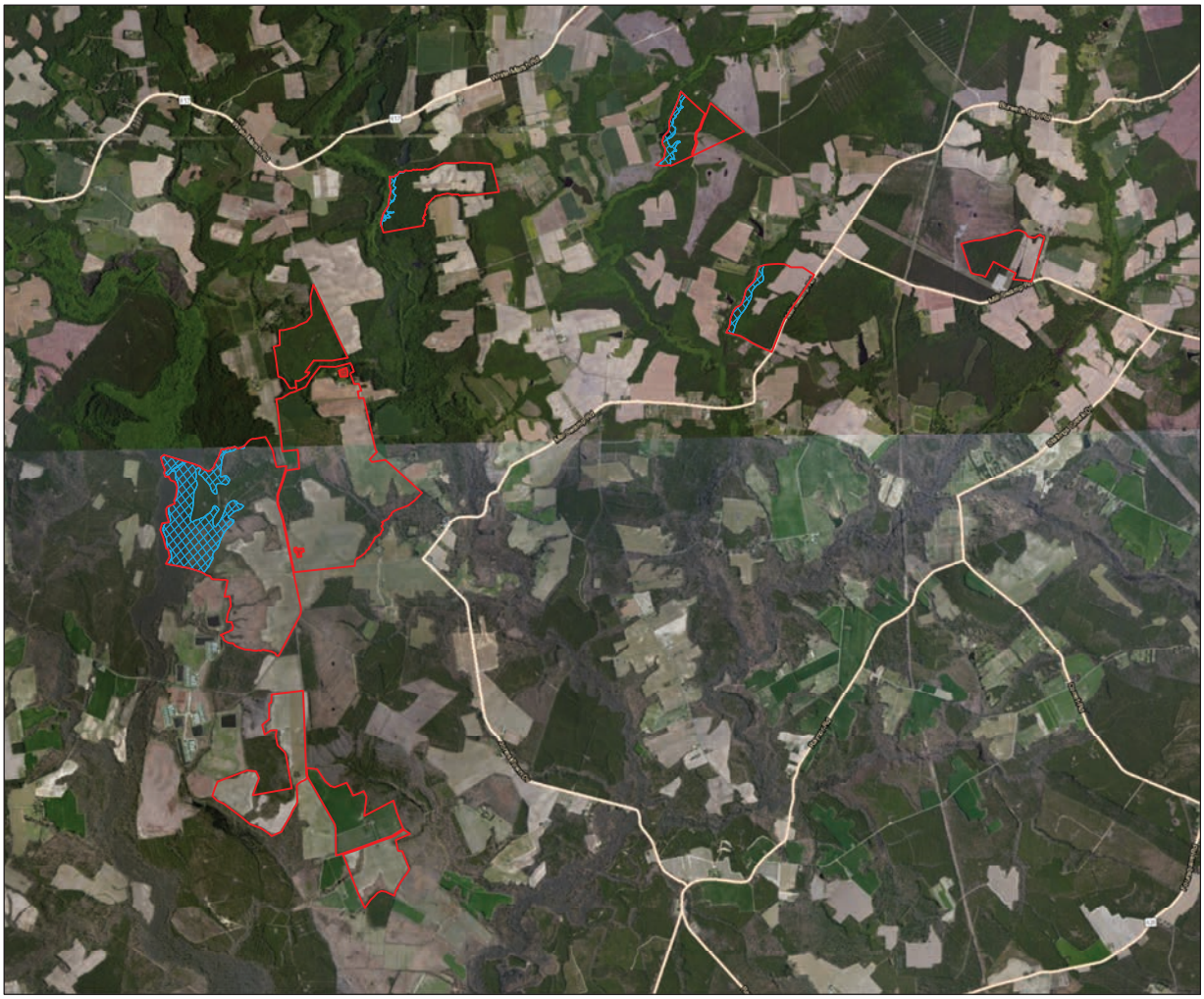
Date: 4/13/2023

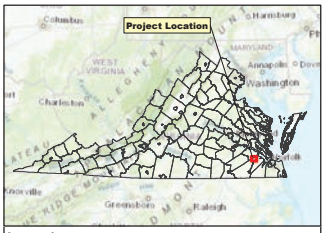
Source: Esri, et. al., 2022; AES, 2022; VDCR, 2017.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

AES\Sycamore_Cross_Solar\GIS\Spatial\MXD\2023\04\12_Env_Resource_Invest_Report\Figure_5_Sycamore_Cross_Solar_Ecological_Cores.mxd






**Legend**

- Project Study Area
- Outside Project Study Area

**FEMA Flood Risk**

- 100-year Floodplain, 1% annual chance of flooding

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0 0.25 0.5 1 Miles

**Figure 6**
FEMA Flood Hazard Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/14/2023

Source: Esri, et. al., 2022; AES, 2022; FEMA, 2022; FEMA FIRM number (FEMA FIRM Number 51093C0125E, effective December 2, 2015; 51093C0050E, effective December 1, 2015; and 51181C0225E, effective April 5, 2022); Virginia Open Data Portal, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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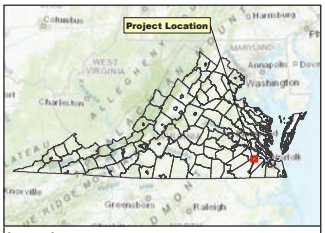


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Steep Slope (>25%)

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0 0.25 0.5 1 Miles

**Figure 7**
Steep Slopes Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Virginia Open Data Portal, 2022, USGS, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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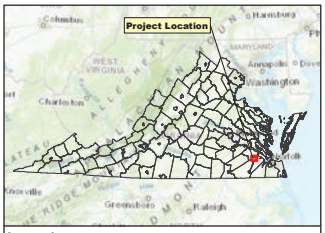


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Detail Map Page

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0 0.25 0.5 1 Miles

**Figure 8**

Delineated Aquatic Resources Features Map Overview Map

Sycamore Cross Solar Project

Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia Open Data Portal, 2022; Virginia GIS Clearinghouse, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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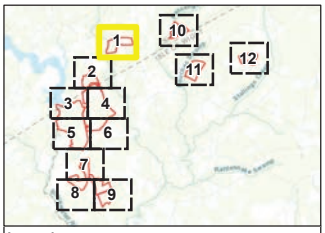


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N W E S

0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 1 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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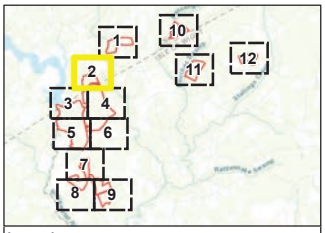


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N W E S

0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 2 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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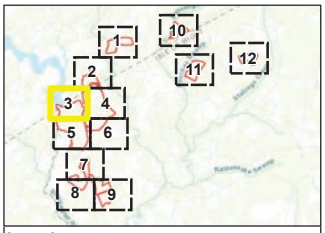


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N
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0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 3 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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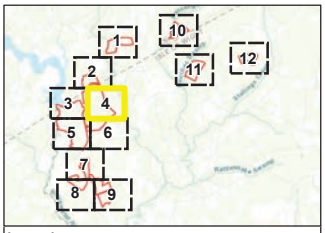


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

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**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA



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Prepared By: TETRA TECH

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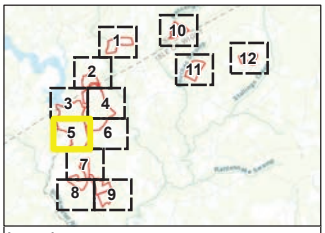


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Page 5 of 12

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Prepared By: TETRA TECH

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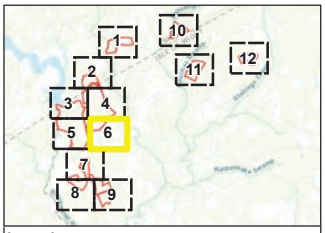


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Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 6 of 12

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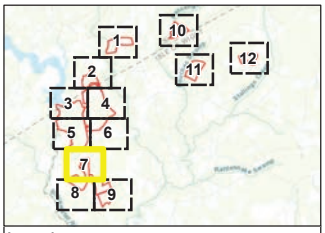


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Surry and Isle of Wight Counties, VA



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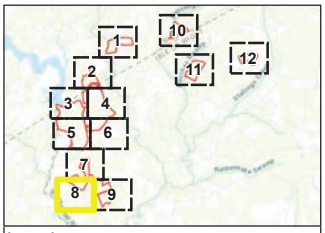


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- County Boundary
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N W E S

0 250 500 1,000 Feet

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Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA



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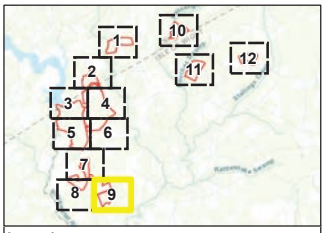


**Legend**

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- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

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**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 9 of 12

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Prepared By: TETRA TECH

Date: 4/13/2023

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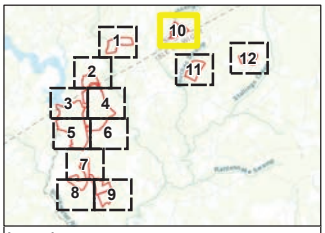


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

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0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 10 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

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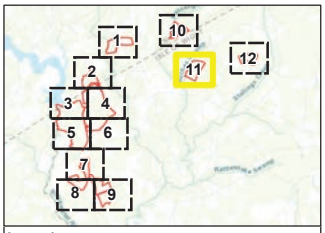


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

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**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA



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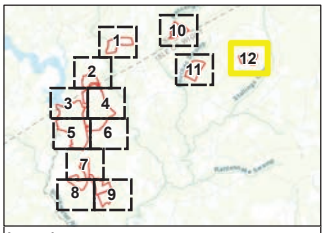


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

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**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

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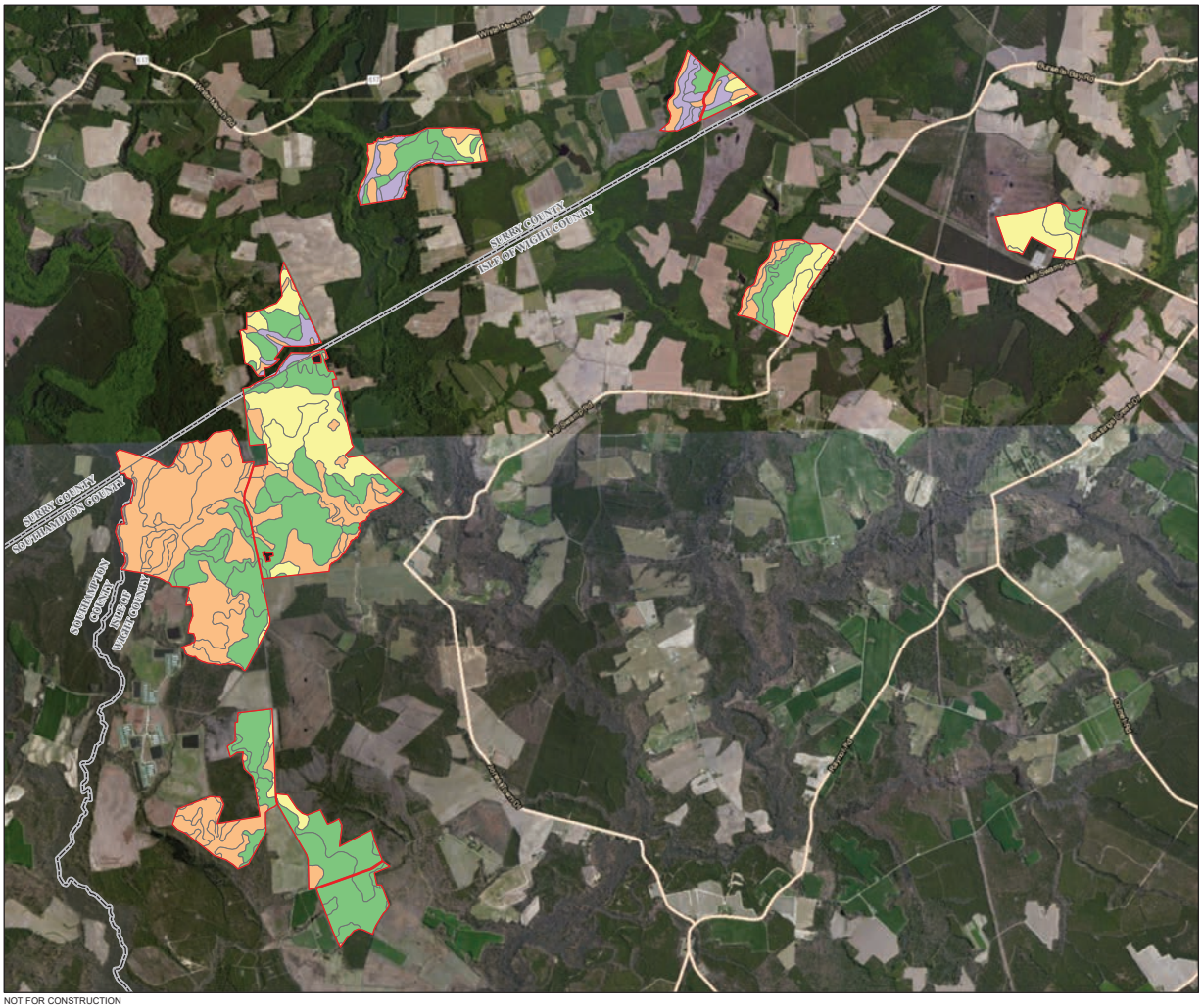


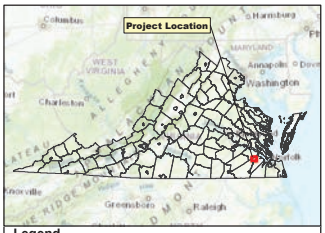


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary

**Farmland Class**

- All areas are prime farmland
- Farmland of statewide importance
- Not prime farmland
- Prime farmland if drained

N
W E
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0 0.25 0.5 1 Miles

**Figure 9**
Prime Farmland Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; NHD, 2022; NWI; 2022; USDA, 2022; NRCS, 2022; SSURGO, 2022; Virginia Open Data Portal, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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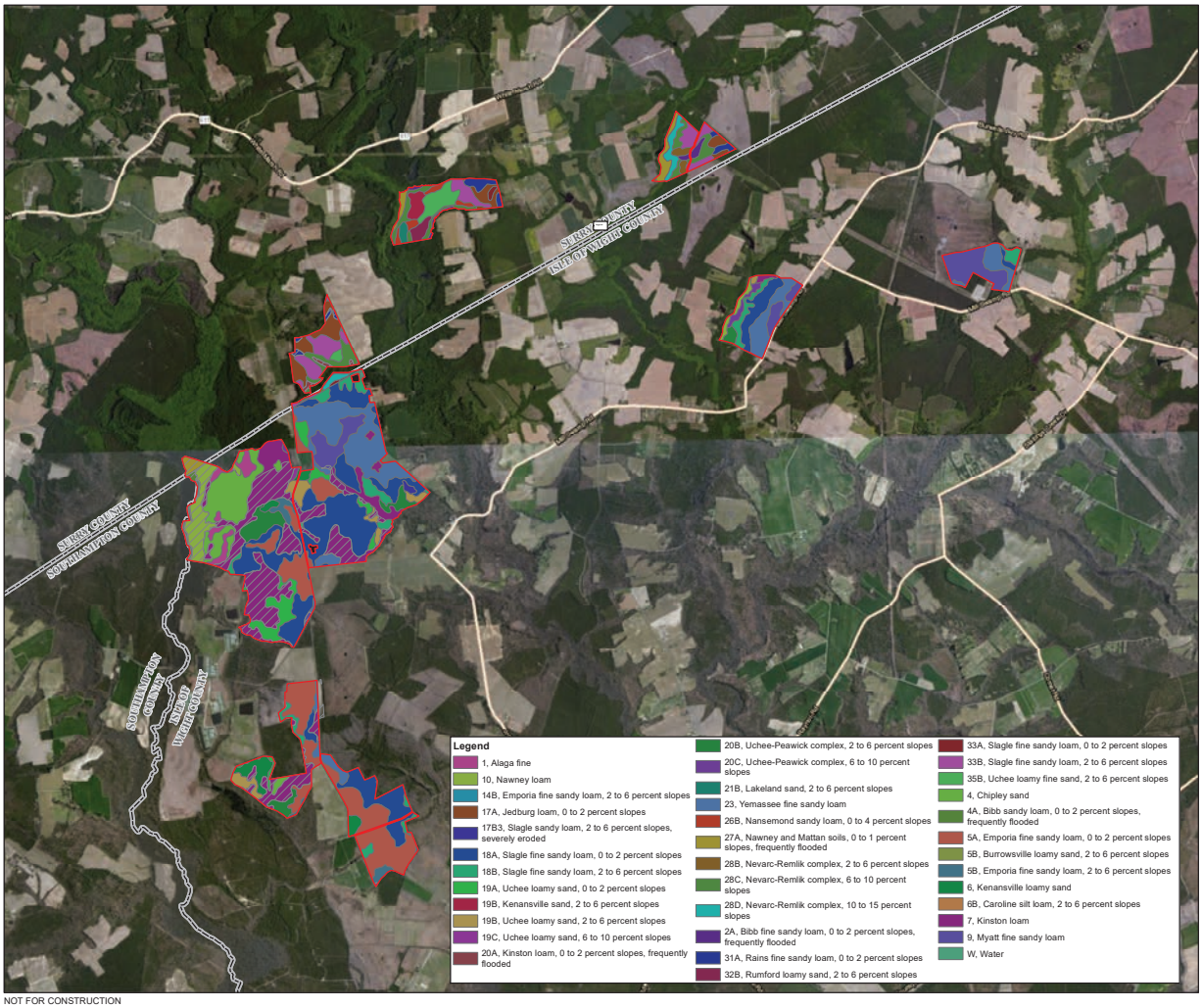


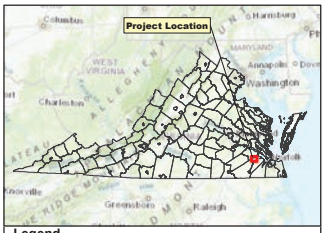


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Hydric Soil

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0 0.25 0.5 1 Miles

**Figure 10**
USDA-NRCS Soil Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; NHD, 2022; NWI; 2022; USDA, 2022; NRCS, 2022; SSURGO, 2022; Virginia Open Data Portal, 2022.

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# APPENDIX A: USDA-NRCS SOIL REPORT

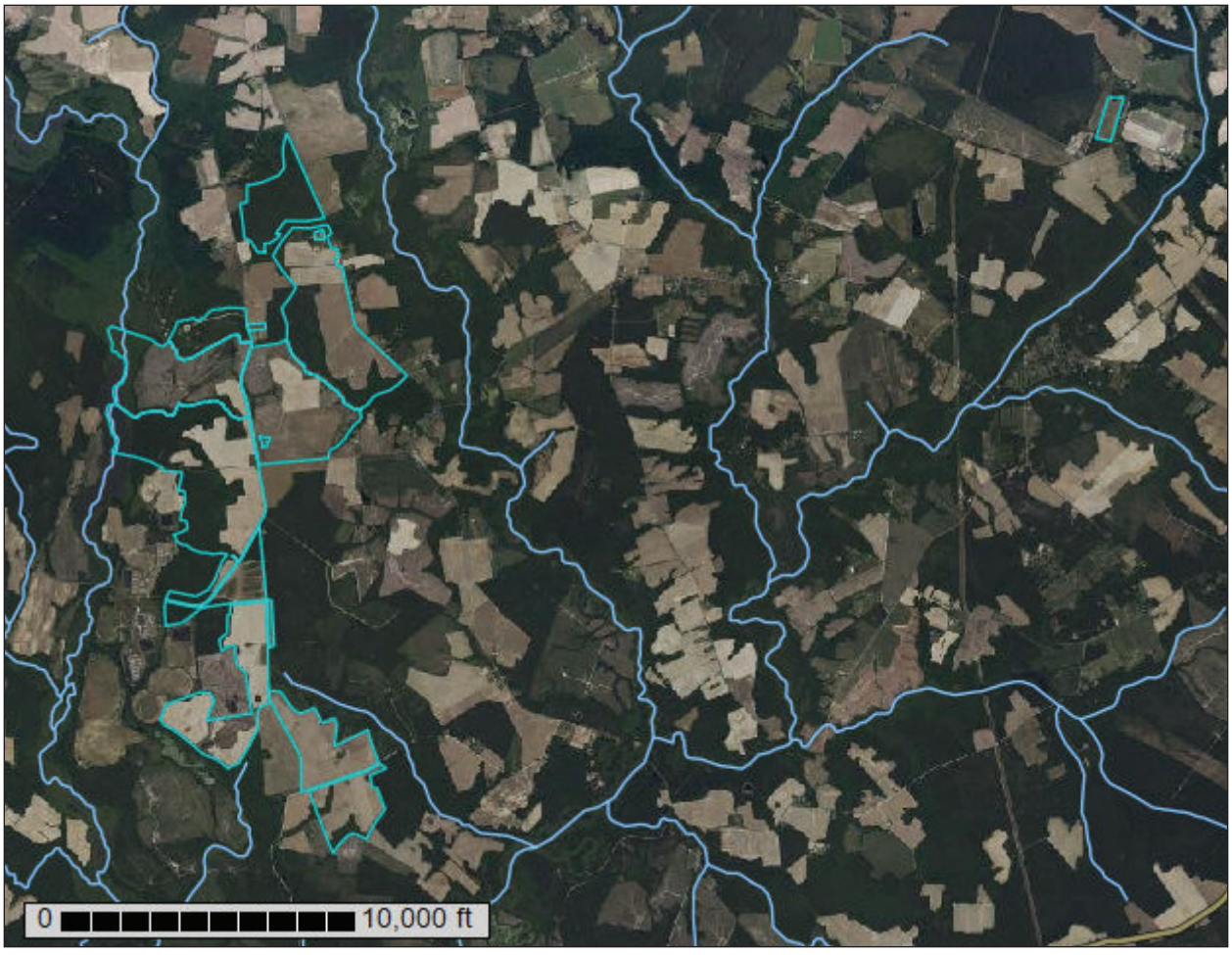
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Isle of Wight County, Virginia, Southampton County, Virginia, and Surry County, Virginia




March 31, 2023

# Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

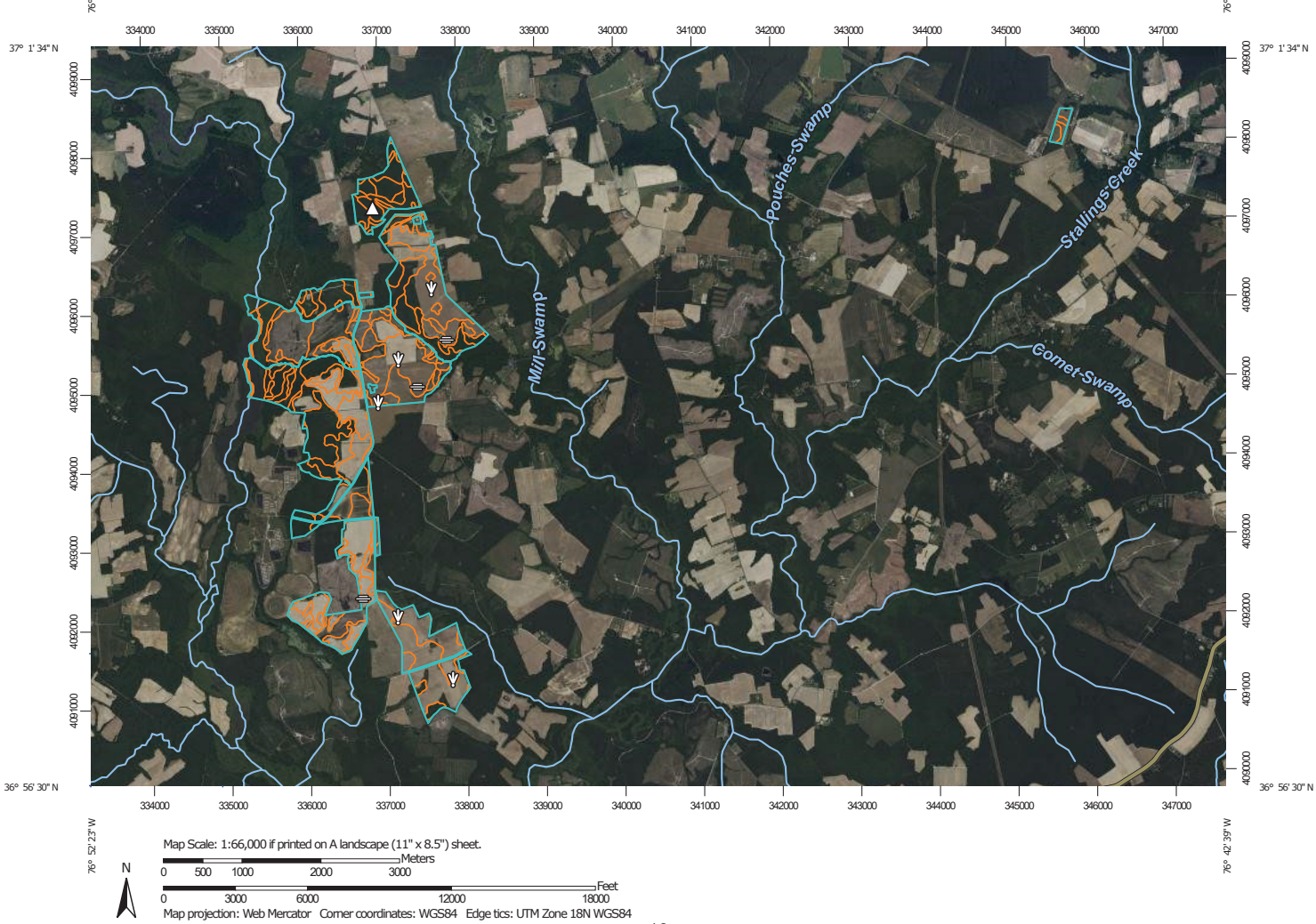
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

**Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

**Water Features**
- Streams and Canals

**Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**
- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:15,800 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Isle of Wight County, Virginia
Survey Area Data: Version 18, Aug 29, 2022

Soil Survey Area: Southampton County, Virginia
Survey Area Data: Version 21, Aug 22, 2022

Soil Survey Area: Surry County, Virginia
Survey Area Data: Version 19, Aug 22, 2022

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 18, 2022—Jul 13, 2022

## MAP LEGEND

## MAP INFORMATION

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 1 | Alaga fine sand | 29.3 | 1.6% |
| 4 | Chipley sand | 116.0 | 6.2% |
| 5A | Emporia fine sandy loam, 0 to 2 percent slopes | 274.8 | 14.6% |
| 5B | Emporia fine sandy loam, 2 to 6 percent slopes | 21.0 | 1.1% |
| 6 | Kenansville loamy sand | 41.6 | 2.2% |
| 7 | Kinston loam | 367.5 | 19.5% |
| 9 | Myatt fine sandy loam | 38.4 | 2.0% |
| 10 | Nawney loam | 55.9 | 3.0% |
| 17B3 | Slagle sandy loam, 2 to 6 percent slopes, severely eroded | 3.7 | 0.2% |
| 18A | Slagle fine sandy loam, 0 to 2 percent slopes | 401.3 | 21.3% |
| 18B | Slagle fine sandy loam, 2 to 6 percent slopes | 58.5 | 3.1% |
| 19A | Uchee loamy sand, 0 to 2 percent slopes | 61.1 | 3.2% |
| 19B | Uchee loamy sand, 2 to 6 percent slopes | 40.0 | 2.1% |
| 19C | Uchee loamy sand, 6 to 10 percent slopes | 2.1 | 0.1% |
| 20B | Uchee-Peawick complex, 2 to 6 percent slopes | 57.2 | 3.0% |
| 20C | Uchee-Peawick complex, 6 to 10 percent slopes | 9.3 | 0.5% |
| 23 | Yemassee fine sandy loam | 155.4 | 8.3% |
| W | Water | 4.1 | 0.2% |
| **Subtotals for Soil Survey Area** | | **1,737.1** | **92.3%** |
| **Totals for Area of Interest** | | **1,881.1** | **100.0%** |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 4A | Bibb sandy loam, 0 to 2 percent slopes, frequently flooded | 3.9 | 0.2% |
| W | Water | 3.4 | 0.2% |
| **Subtotals for Soil Survey Area** | | **7.3** | **0.4%** |
| **Totals for Area of Interest** | | **1,881.1** | **100.0%** |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 5B | Burrowsville loamy sand, 2 to 6 percent slopes | 0.1 | 0.0% |
| 6B | Caroline silt loam, 2 to 6 percent slopes | 0.0 | 0.0% |
| 14B | Emporia fine sandy loam, 2 to 6 percent slopes | 0.5 | 0.0% |
| 17A | Jedburg loam, 0 to 2 percent slopes | 40.2 | 2.1% |
| 20A | Kinston loam, 0 to 2 percent slopes, frequently flooded | 6.9 | 0.4% |
| 21B | Lakeland sand, 2 to 6 percent slopes | 1.7 | 0.1% |
| 27A | Nawney and Mattan soils, 0 to 1 percent slopes, frequently flooded | 9.4 | 0.5% |
| 28B | Nevarc-Remlik complex, 2 to 6 percent slopes | 0.2 | 0.0% |
| 28C | Nevarc-Remlik complex, 6 to 10 percent slopes | 23.9 | 1.3% |
| 28D | Nevarc-Remlik complex, 10 to 15 percent slopes | 5.7 | 0.3% |
| 31A | Rains fine sandy loam, 0 to 2 percent slopes | 5.3 | 0.3% |
| 33A | Slagle fine sandy loam, 0 to 2 percent slopes | 1.1 | 0.1% |
| 33B | Slagle fine sandy loam, 2 to 6 percent slopes | 37.3 | 2.0% |
| 35B | Uchee loamy fine sand, 2 to 6 percent slopes | 4.2 | 0.2% |
| **Subtotals for Soil Survey Area** | | **136.5** | **7.3%** |
| **Totals for Area of Interest** | | **1,881.1** | **100.0%** |

# Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made

up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# Isle of Wight County, Virginia

## 1—Alaga fine sand

### Map Unit Setting

*National map unit symbol:* 404h
*Elevation:* 10 to 350 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Alaga and similar soils:* 85 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Alaga

#### Setting

*Landform:* Stream terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 3 inches:* fine sand
*H2 - 3 to 60 inches:* loamy fine sand

#### Properties and qualities

*Slope:* 0 to 4 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Somewhat excessively drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Very high (19.98 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 4.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

### Minor Components

#### Leon

*Percent of map unit:* 5 percent
*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Hydric soil rating:* Yes

**Nawney**

*Percent of map unit:* 5 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 4—Chipley sand

**Map Unit Setting**

*National map unit symbol:* 4058
*Elevation:* 10 to 300 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Chipley and similar soils:* 85 percent
*Minor components:* 14 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Chipley**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Sandy marine deposits

**Typical profile**

*H1 - 0 to 6 inches:* sand
*H2 - 6 to 60 inches:* sand

**Properties and qualities**

*Slope:* 0 to 4 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)
*Depth to water table:* About 24 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 3.7 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

**Minor Components**

**Kinston**
*Percent of map unit:* 5 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Nawney**
*Percent of map unit:* 5 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Leon**
*Percent of map unit:* 4 percent
*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Hydric soil rating:* Yes

## 5A—Emporia fine sandy loam, 0 to 2 percent slopes

**Map Unit Setting**
*National map unit symbol:* 4059
*Elevation:* 20 to 150 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* All areas are prime farmland

**Map Unit Composition**
*Emporia and similar soils:* 85 percent
*Minor components:* 2 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Emporia**

**Setting**
*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex

*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

**Typical profile**

*H1 - 0 to 15 inches:* fine sandy loam
*H2 - 15 to 33 inches:* sandy clay loam
*H3 - 33 to 60 inches:* sandy loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 1.98 in/hr)
*Depth to water table:* About 36 to 54 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.9 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 1
*Hydrologic Soil Group:* B
*Hydric soil rating:* No

**Minor Components**

**Nawney**

*Percent of map unit:* 2 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 5B—Emporia fine sandy loam, 2 to 6 percent slopes

**Map Unit Setting**

*National map unit symbol:* 405b
*Elevation:* 20 to 150 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* All areas are prime farmland

**Map Unit Composition**

*Emporia and similar soils:* 85 percent
*Minor components:* 2 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Emporia

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 15 inches:* fine sandy loam
*H2 - 15 to 33 inches:* sandy clay loam
*H3 - 33 to 60 inches:* sandy loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 1.98 in/hr)
*Depth to water table:* About 36 to 54 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.9 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* B
*Hydric soil rating:* No

### Minor Components

#### Nawney

*Percent of map unit:* 2 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 6—Kenansville loamy sand

### Map Unit Setting

*National map unit symbol:* 405c
*Elevation:* 0 to 300 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days

*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Kenansville and similar soils:* 80 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Kenansville**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

**Typical profile**

*H1 - 0 to 28 inches:* loamy sand
*H2 - 28 to 41 inches:* sandy loam
*H3 - 41 to 60 inches:* sand

**Properties and qualities**

*Slope:* 0 to 4 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 5.95 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 4.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

**Minor Components**

**Kinston**

*Percent of map unit:* 8 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Nawney**

*Percent of map unit:* 2 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 7—Kinston loam

### Map Unit Setting

*National map unit symbol:* 405d
*Elevation:* 50 to 300 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Kinston and similar soils:* 85 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Kinston

#### Setting

*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loamy fluviomarine deposits

#### Typical profile

*H1 - 0 to 9 inches:* loam
*H2 - 9 to 60 inches:* sandy clay loam

#### Properties and qualities

*Slope:* 0 to 4 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 to 12 inches
*Frequency of flooding:* FrequentNone
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* High (about 9.7 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 6w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

## 9—Myatt fine sandy loam

### Map Unit Setting

*National map unit symbol:* 405g
*Elevation:* 0 to 100 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Prime farmland if drained

### Map Unit Composition

*Myatt and similar soils:* 90 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Myatt

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 15 inches:* fine sandy loam
*H2 - 15 to 51 inches:* sandy clay loam
*H3 - 51 to 60 inches:* sandy clay loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 1.98 in/hr)
*Depth to water table:* About 0 to 12 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* High (about 9.5 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

## 10—Nawney loam

### Map Unit Setting

*National map unit symbol:* 404j
*Elevation:* 0 to 80 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Nawney and similar soils:* 90 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Nawney

#### Setting

*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loamy fluviomarine deposits

#### Typical profile

*H1 - 0 to 10 inches:* loam
*H2 - 10 to 44 inches:* loam
*H3 - 44 to 60 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Very poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 to 6 inches
*Frequency of flooding:* Frequent
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* High (about 9.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

## 17B3—Slagle sandy loam, 2 to 6 percent slopes, severely eroded

### Map Unit Setting

*National map unit symbol:* 404t
*Elevation:* 50 to 350 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Slagle and similar soils:* 85 percent
*Minor components:* 9 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Slagle

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 4 inches:* sandy loam
*H2 - 4 to 25 inches:* sandy clay loam
*H3 - 25 to 60 inches:* sandy clay loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.57 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 8.7 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

### Minor Components

#### Kinston

*Percent of map unit:* 7 percent
*Landform:* Flood plains

*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Nawney**

*Percent of map unit:* 2 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 18A—Slagle fine sandy loam, 0 to 2 percent slopes

**Map Unit Setting**

*National map unit symbol:* 404v
*Elevation:* 50 to 350 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* All areas are prime farmland

**Map Unit Composition**

*Slagle and similar soils:* 85 percent
*Minor components:* 9 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Slagle**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

**Typical profile**

*H1 - 0 to 13 inches:* fine sandy loam
*H2 - 13 to 25 inches:* sandy clay loam
*H3 - 25 to 60 inches:* sandy clay loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.57 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None

*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 8.5 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2w
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Kinston**

*Percent of map unit:* 7 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Nawney**

*Percent of map unit:* 2 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 18B—Slagle fine sandy loam, 2 to 6 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2sgy1
*Elevation:* 70 to 330 feet
*Mean annual precipitation:* 32 to 51 inches
*Mean annual air temperature:* 47 to 70 degrees F
*Frost-free period:* 158 to 206 days
*Farmland classification:* All areas are prime farmland

**Map Unit Composition**

*Slagle and similar soils:* 83 percent
*Minor components:* 3 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Slagle**

**Setting**

*Landform:* Marine terraces
*Landform position (two-dimensional):* Summit, shoulder
*Landform position (three-dimensional):* Riser, tread, rise
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

**Typical profile**

*Ap - 0 to 8 inches:* fine sandy loam
*Bt - 8 to 51 inches:* sandy clay loam
*C - 51 to 70 inches:* sandy loam

**Properties and qualities**

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.57 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 9.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Myatt**

*Percent of map unit:* 3 percent
*Landform:* Depressions
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Dip
*Down-slope shape:* Concave
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 19A—Uchee loamy sand, 0 to 2 percent slopes

**Map Unit Setting**

*National map unit symbol:* 404y
*Elevation:* 50 to 700 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Uchee and similar soils:* 85 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Uchee

### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

### Typical profile

*H1 - 0 to 28 inches:* loamy sand
*H2 - 28 to 52 inches:* sandy clay loam
*H3 - 52 to 60 inches:* sandy loam

### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

## Minor Components

### Kinston

*Percent of map unit:* 7 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

### Nawney

*Percent of map unit:* 3 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 19B—Uchee loamy sand, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 404z
*Elevation:* 50 to 700 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Uchee and similar soils:* 85 percent
*Minor components:* 8 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Uchee

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 28 inches:* loamy sand
*H2 - 28 to 52 inches:* sandy clay loam
*H3 - 52 to 60 inches:* sandy loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.4 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Nawney**

*Percent of map unit:* 5 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Kinston**

*Percent of map unit:* 3 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 19C—Uchee loamy sand, 6 to 10 percent slopes

**Map Unit Setting**

*National map unit symbol:* 4050
*Elevation:* 50 to 700 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Uchee and similar soils:* 85 percent
*Minor components:* 7 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Uchee**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

**Typical profile**

*H1 - 0 to 28 inches:* loamy sand
*H2 - 28 to 52 inches:* sandy clay loam
*H3 - 52 to 60 inches:* sandy loam

**Properties and qualities**

*Slope:* 6 to 10 percent
*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained
*Runoff class:* Medium
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Kinston**

*Percent of map unit:* 4 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Nawney**

*Percent of map unit:* 3 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 20B—Uchee-Peawick complex, 2 to 6 percent slopes

**Map Unit Setting**

*National map unit symbol:* 4052
*Elevation:* 20 to 700 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Uchee and similar soils:* 45 percent
*Peawick and similar soils:* 35 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Uchee

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 28 inches:* loamy sand
*H2 - 28 to 52 inches:* sandy clay loam
*H3 - 52 to 60 inches:* sandy loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.4 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

### Description of Peawick

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 4 inches:* silt loam
*H2 - 4 to 70 inches:* clay loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Medium
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 8.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

**Minor Components**

**Kinston**

*Percent of map unit:* 10 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 20C—Uchee-Peawick complex, 6 to 10 percent slopes

**Map Unit Setting**

*National map unit symbol:* 4053
*Elevation:* 20 to 700 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Uchee and similar soils:* 45 percent
*Peawick and similar soils:* 35 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Uchee**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

**Typical profile**

*H1 - 0 to 28 inches:* loamy sand
*H2 - 28 to 52 inches:* sandy clay loam
*H3 - 52 to 60 inches:* sandy loam

**Properties and qualities**

*Slope:* 6 to 10 percent
*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained
*Runoff class:* Medium
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

## Description of Peawick

### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

### Typical profile

*H1 - 0 to 4 inches:* silt loam
*H2 - 4 to 70 inches:* clay loam

### Properties and qualities

*Slope:* 6 to 10 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* High
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 8.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3e
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

## Minor Components

### Kinston

*Percent of map unit:* 10 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 23—Yemassee fine sandy loam

### Map Unit Setting

*National map unit symbol:* 4056
*Elevation:* 0 to 40 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Prime farmland if drained

### Map Unit Composition

*Yemassee and similar soils:* 85 percent
*Minor components:* 7 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Yemassee

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 10 inches:* fine sandy loam
*H2 - 10 to 52 inches:* sandy clay loam
*H3 - 52 to 60 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Somewhat poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 12 to 18 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 8.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* No

**Minor Components**

**Myatt**

*Percent of map unit:* 7 percent
*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Hydric soil rating:* Yes

## W—Water

**Map Unit Setting**

*National map unit symbol:* 405h
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Water:* 100 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

# Southampton County, Virginia

## 4A—Bibb sandy loam, 0 to 2 percent slopes, frequently flooded

### Map Unit Setting

*National map unit symbol:* rnwb
*Elevation:* 0 to 110 feet
*Mean annual precipitation:* 42 to 54 inches
*Frost-free period:* 180 to 208 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Bibb and similar soils:* 95 percent
*Minor components:* 3 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Bibb

#### Setting

*Landform:* Flood plains, drainageways
*Landform position (three-dimensional):* Base slope, tread
*Down-slope shape:* Concave
*Across-slope shape:* Linear
*Parent material:* Sandy and/or loamy alluvium

#### Typical profile

*H1 - 0 to 8 inches:* sandy loam
*H2 - 8 to 50 inches:* sandy loam
*H3 - 50 to 84 inches:* loamy sand

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 to 12 inches
*Frequency of flooding:* NoneFrequent
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.5 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 6w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

### Minor Components

#### Chastain, frequently flooded

*Percent of map unit:* 2 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Riser, tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear

*Hydric soil rating:* Yes

**Myatt**

*Percent of map unit:* 1 percent
*Landform:* Depressions on marine terraces, drainageways on marine terraces
*Landform position (three-dimensional):* Riser, tread, dip
*Down-slope shape:* Concave, linear
*Across-slope shape:* Linear, concave
*Hydric soil rating:* Yes

## W—Water

**Map Unit Setting**

*National map unit symbol:* rnxs
*Mean annual precipitation:* 42 to 54 inches
*Frost-free period:* 180 to 208 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Water:* 100 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Water**

**Setting**

*Landform:* Swamps, lakes, perenial streams

# Surry County, Virginia

## 5B—Burrowsville loamy sand, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 43fs
*Elevation:* 60 to 100 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Burrowsville and similar soils:* 80 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Burrowsville

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine sediments

#### Typical profile

*H1 - 0 to 11 inches:* loamy sand
*H2 - 11 to 32 inches:* fine sandy loam
*H3 - 32 to 59 inches:* fine sandy loam
*H4 - 59 to 70 inches:* sandy loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* 18 to 36 inches to fragipan
*Drainage class:* Moderately well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 3.9 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* B
*Hydric soil rating:* No

## 6B—Caroline silt loam, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 43ft
*Elevation:* 90 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Caroline and similar soils:* 80 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Caroline

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Clayey marine sediments

#### Typical profile

*H1 - 0 to 10 inches:* silt loam
*H2 - 10 to 14 inches:* silt loam
*H3 - 14 to 70 inches:* clay
*H4 - 70 to 80 inches:* clay

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Medium
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.14 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 8.5 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

## 14B—Emporia fine sandy loam, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 43gz
*Elevation:* 60 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Emporia and similar soils:* 80 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Emporia

#### Setting

*Landform:* Marine terraces
*Landform position (two-dimensional):* Summit
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine sediments

#### Typical profile

*H1 - 0 to 6 inches:* fine sandy loam
*H2 - 6 to 14 inches:* loamy fine sand
*H3 - 14 to 18 inches:* fine sandy loam
*H4 - 18 to 41 inches:* sandy clay loam
*H5 - 41 to 54 inches:* sandy clay
*H6 - 54 to 72 inches:* stratified sandy loam to sandy clay loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Medium
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 1.98 in/hr)
*Depth to water table:* About 36 to 54 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.6 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* B
*Hydric soil rating:* No

## 17A—Jedburg loam, 0 to 2 percent slopes

### Map Unit Setting

*National map unit symbol:* 43h4
*Elevation:* 60 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Prime farmland if drained

### Map Unit Composition

*Jedburg and similar soils:* 85 percent
*Minor components:* 6 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Jedburg

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Linear
*Parent material:* Loamy marine sediments

#### Typical profile

*H1 - 0 to 5 inches:* loam
*H2 - 5 to 57 inches:* loam
*H3 - 57 to 72 inches:* sandy clay loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Somewhat poorly drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 6 to 18 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* High (about 10.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* C/D
*Hydric soil rating:* No

### Minor Components

#### Rains

*Percent of map unit:* 6 percent
*Landform:* Marine terraces

*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 20A—Kinston loam, 0 to 2 percent slopes, frequently flooded

### Map Unit Setting

*National map unit symbol:* 43h9
*Elevation:* 0 to 130 feet
*Mean annual precipitation:* 25 to 59 inches
*Mean annual air temperature:* 46 to 70 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Kinston and similar soils:* 75 percent
*Minor components:* 21 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Kinston

#### Setting

*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loamy alluvial sediments

#### Typical profile

*H1 - 0 to 9 inches:* loam
*H2 - 9 to 52 inches:* sandy clay loam
*H3 - 52 to 74 inches:* sand

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 to 12 inches
*Frequency of flooding:* NoneFrequent
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 6w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

### Minor Components

#### Bibb

*Percent of map unit:* 8 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

#### Nawney

*Percent of map unit:* 3 percent
*Landform:* Swamps
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

#### Rains

*Percent of map unit:* 3 percent
*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

#### Bohicket

*Percent of map unit:* 2 percent
*Landform:* Salt marshes
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

#### Levy

*Percent of map unit:* 2 percent
*Landform:* Salt marshes
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

#### Lawnes

*Percent of map unit:* 2 percent
*Landform:* Salt marshes
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

#### Mattan

*Percent of map unit:* 1 percent
*Landform:* Swamps
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 21B—Lakeland sand, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 43hd
*Elevation:* 10 to 70 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Lakeland and similar soils:* 80 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Lakeland

#### Setting

*Landform:* Stream terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Sandy eolian sediments

#### Typical profile

*H1 - 0 to 5 inches:* sand
*H2 - 5 to 74 inches:* sand

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Excessively drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 3.6 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

## 27A—Nawney and Mattan soils, 0 to 1 percent slopes, frequently flooded

### Map Unit Setting

*National map unit symbol:* 43hm
*Elevation:* 0 to 130 feet
*Mean annual precipitation:* 25 to 59 inches
*Mean annual air temperature:* 46 to 70 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Nawney and similar soils:* 50 percent
*Mattan and similar soils:* 40 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Nawney

#### Setting

*Landform:* Swamps
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loamy alluvial sediments

#### Typical profile

*H1 - 0 to 10 inches:* loam
*H2 - 10 to 44 inches:* loam
*H3 - 44 to 70 inches:* loamy sand

#### Properties and qualities

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 to 6 inches
*Frequency of flooding:* Frequent
*Frequency of ponding:* Frequent
*Available water supply, 0 to 60 inches:* High (about 9.8 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

## Description of Mattan

### Setting

*Landform:* Swamps
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Organic and loamy alluvial sediments

### Typical profile

*Oa1 - 0 to 14 inches:* muck
*Oa2 - 14 to 40 inches:* muck
*H3 - 40 to 48 inches:* loamy sand
*H4 - 48 to 60 inches:* sandy clay loam

### Properties and qualities

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Very poorly drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 inches
*Frequency of flooding:* Frequent
*Frequency of ponding:* Frequent
*Maximum salinity:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* High (about 11.9 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

## Minor Components

### Bibb

*Percent of map unit:* 4 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

### Kinston

*Percent of map unit:* 3 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

### Bohicket

*Percent of map unit:* 1 percent
*Landform:* Salt marshes
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear

*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Lawnes**

*Percent of map unit:* 1 percent
*Landform:* Salt marshes
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Levy**

*Percent of map unit:* 1 percent
*Landform:* Salt marshes
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 28B—Nevarc-Remlik complex, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 43hx
*Elevation:* 50 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Nevarc and similar soils:* 36 percent
*Remlik and similar soils:* 34 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Nevarc

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Clayey alluvial and marine sediments

#### Typical profile

*H1 - 0 to 4 inches:* loam
*H2 - 4 to 50 inches:* clay loam
*H3 - 50 to 74 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 2 to 6 percent

*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* High
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

## Description of Remlik

### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy and sandy alluvial and marine sediments

### Typical profile

*H1 - 0 to 22 inches:* loamy fine sand
*H2 - 22 to 39 inches:* fine sandy loam
*H3 - 39 to 74 inches:* sand

### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 5.95 in/hr)
*Depth to water table:* About 48 to 79 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 5.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

## 28C—Nevarc-Remlik complex, 6 to 10 percent slopes

### Map Unit Setting

*National map unit symbol:* 43j0
*Elevation:* 50 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Nevarc and similar soils:* 36 percent
*Remlik and similar soils:* 34 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Nevarc

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Riser
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Clayey alluvial and marine sediments

#### Typical profile

*H1 - 0 to 4 inches:* loam
*H2 - 4 to 50 inches:* clay loam
*H3 - 50 to 74 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 6 to 10 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.1 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3e
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

### Description of Remlik

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Riser
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy and sandy alluvial and marine sediments

#### Typical profile

*H1 - 0 to 22 inches:* loamy fine sand
*H2 - 22 to 39 inches:* fine sandy loam
*H3 - 39 to 74 inches:* sand

#### Properties and qualities

*Slope:* 6 to 10 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 5.95 in/hr)
*Depth to water table:* About 48 to 79 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 5.6 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

## 28D—Nevarc-Remlik complex, 10 to 15 percent slopes

### Map Unit Setting

*National map unit symbol:* 43j1
*Elevation:* 10 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Nevarc and similar soils:* 40 percent
*Remlik and similar soils:* 35 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Nevarc

### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Riser
*Down-slope shape:* Linear
*Across-slope shape:* Convex
*Parent material:* Clayey alluvial and marine sediments

### Typical profile

*H1 - 0 to 4 inches:* loam
*H2 - 4 to 50 inches:* clay loam
*H3 - 50 to 74 inches:* fine sandy loam

### Properties and qualities

*Slope:* 10 to 15 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.1 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4e
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

## Description of Remlik

### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Riser
*Down-slope shape:* Linear
*Across-slope shape:* Convex
*Parent material:* Loamy and sandy alluvial and marine sediments

### Typical profile

*H1 - 0 to 22 inches:* loamy fine sand
*H2 - 22 to 39 inches:* fine sandy loam
*H3 - 39 to 74 inches:* sand

### Properties and qualities

*Slope:* 10 to 15 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 5.95 in/hr)
*Depth to water table:* About 48 to 79 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 5.6 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4e
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

## 31A—Rains fine sandy loam, 0 to 2 percent slopes

**Map Unit Setting**

*National map unit symbol:* 43j8
*Elevation:* 70 to 110 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Rains and similar soils:* 85 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Rains**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loamy marine sediments

**Typical profile**

*H1 - 0 to 12 inches:* fine sandy loam
*H2 - 12 to 72 inches:* sandy clay loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 to 12 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* High (about 9.5 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

## 33A—Slagle fine sandy loam, 0 to 2 percent slopes

### Map Unit Setting

*National map unit symbol:* 43jg
*Elevation:* 60 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Slagle and similar soils:* 80 percent
*Minor components:* 2 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Slagle

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Linear
*Parent material:* Loamy marine sediments

#### Typical profile

*H1 - 0 to 8 inches:* fine sandy loam
*H2 - 8 to 41 inches:* sandy clay loam
*H3 - 41 to 70 inches:* sandy loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.57 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 9.0 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2w
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

### Minor Components

#### Rains

*Percent of map unit:* 2 percent
*Landform:* Marine terraces

*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 33B—Slagle fine sandy loam, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 2sgy1
*Elevation:* 70 to 330 feet
*Mean annual precipitation:* 32 to 51 inches
*Mean annual air temperature:* 47 to 70 degrees F
*Frost-free period:* 158 to 206 days
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Slagle and similar soils:* 83 percent
*Minor components:* 3 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Slagle

#### Setting

*Landform:* Marine terraces
*Landform position (two-dimensional):* Summit, shoulder
*Landform position (three-dimensional):* Riser, tread, rise
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*Ap - 0 to 8 inches:* fine sandy loam
*Bt - 8 to 51 inches:* sandy clay loam
*C - 51 to 70 inches:* sandy loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.57 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 9.0 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* C

*Hydric soil rating:* No

**Minor Components**

**Myatt**

*Percent of map unit:* 3 percent
*Landform:* Depressions
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Dip
*Down-slope shape:* Concave
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 35B—Uchee loamy fine sand, 2 to 6 percent slopes

**Map Unit Setting**

*National map unit symbol:* 43jp
*Elevation:* 50 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* All areas are prime farmland

**Map Unit Composition**

*Uchee and similar soils:* 85 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Uchee**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine sediments

**Typical profile**

*H1 - 0 to 34 inches:* loamy fine sand
*H2 - 34 to 72 inches:* sandy clay loam

**Properties and qualities**

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

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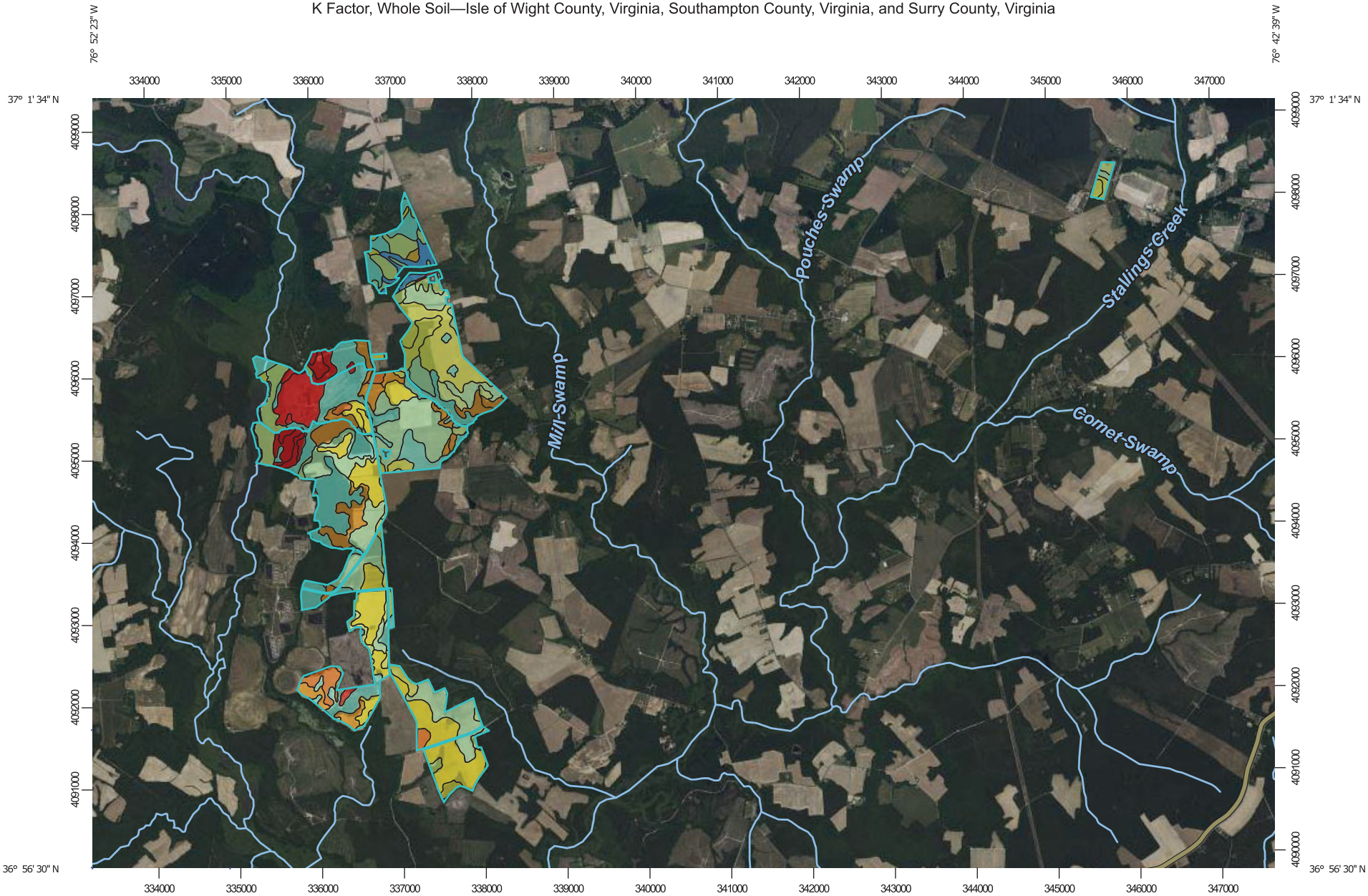



Map Scale: 1:66,000 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 500 1000 2000 3000

Feet
0 3000 6000 12000 18000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

## MAP LEGEND

**Area of Interest (AOI)**

Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

.02
.05
.10
.15
.17
.20
.24
.28
.32
.37
.43
.49
.55
.64
Not rated or not available

**Soil Rating Lines**

.02
.05
.10
.15
.17
.20
.24
.28
.32
.37
.43
.49
.55
.64
Not rated or not available

**Soil Rating Points**

.02
.05
.10
.15
.17
.20
.24
.28
.32
.37
.43
.49
.55
.64
Not rated or not available

**Water Features**

Streams and Canals

**Transportation**

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

**Background**

Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:15,800 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Isle of Wight County, Virginia
Survey Area Data: Version 18, Aug 29, 2022

Soil Survey Area: Southampton County, Virginia
Survey Area Data: Version 21, Aug 22, 2022

Soil Survey Area: Surry County, Virginia
Survey Area Data: Version 19, Aug 22, 2022

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 18, 2022—Jul 13, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# K Factor, Whole Soil

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 1 | Alaga fine sand | .02 | 29.3 | 1.6% |
| 4 | Chipley sand | .02 | 116.0 | 6.2% |
| 5A | Emporia fine sandy loam, 0 to 2 percent slopes | .17 | 274.8 | 14.6% |
| 5B | Emporia fine sandy loam, 2 to 6 percent slopes | .17 | 21.0 | 1.1% |
| 6 | Kenansville loamy sand | .05 | 41.6 | 2.2% |
| 7 | Kinston loam | .32 | 367.5 | 19.5% |
| 9 | Myatt fine sandy loam | .20 | 38.4 | 2.0% |
| 10 | Nawney loam | .24 | 55.9 | 3.0% |
| 17B3 | Slagle sandy loam, 2 to 6 percent slopes, severely eroded | .24 | 3.7 | 0.2% |
| 18A | Slagle fine sandy loam, 0 to 2 percent slopes | .28 | 401.3 | 21.3% |
| 18B | Slagle fine sandy loam, 2 to 6 percent slopes | .24 | 58.5 | 3.1% |
| 19A | Uchee loamy sand, 0 to 2 percent slopes | .10 | 61.1 | 3.2% |
| 19B | Uchee loamy sand, 2 to 6 percent slopes | .10 | 40.0 | 2.1% |
| 19C | Uchee loamy sand, 6 to 10 percent slopes | .10 | 2.1 | 0.1% |
| 20B | Uchee-Peawick complex, 2 to 6 percent slopes | .10 | 57.2 | 3.0% |
| 20C | Uchee-Peawick complex, 6 to 10 percent slopes | .10 | 9.3 | 0.5% |
| 23 | Yemassee fine sandy loam | .20 | 155.4 | 8.3% |
| W | Water | | 4.1 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **1,737.1** | **92.3%** |
| **Totals for Area of Interest** | | | **1,881.1** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 4A | Bibb sandy loam, 0 to 2 percent slopes, frequently flooded | .20 | 3.9 | 0.2% |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| W | Water | | 3.4 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **7.3** | **0.4%** |
| **Totals for Area of Interest** | | | **1,881.1** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 5B | Burrowsville loamy sand, 2 to 6 percent slopes | .10 | 0.1 | 0.0% |
| 6B | Caroline silt loam, 2 to 6 percent slopes | .43 | 0.0 | 0.0% |
| 14B | Emporia fine sandy loam, 2 to 6 percent slopes | .24 | 0.5 | 0.0% |
| 17A | Jedburg loam, 0 to 2 percent slopes | .32 | 40.2 | 2.1% |
| 20A | Kinston loam, 0 to 2 percent slopes, frequently flooded | .28 | 6.9 | 0.4% |
| 21B | Lakeland sand, 2 to 6 percent slopes | .02 | 1.7 | 0.1% |
| 27A | Nawney and Mattan soils, 0 to 1 percent slopes, frequently flooded | .32 | 9.4 | 0.5% |
| 28B | Nevarc-Remlik complex, 2 to 6 percent slopes | .43 | 0.2 | 0.0% |
| 28C | Nevarc-Remlik complex, 6 to 10 percent slopes | .43 | 23.9 | 1.3% |
| 28D | Nevarc-Remlik complex, 10 to 15 percent slopes | .43 | 5.7 | 0.3% |
| 31A | Rains fine sandy loam, 0 to 2 percent slopes | .17 | 5.3 | 0.3% |
| 33A | Slagle fine sandy loam, 0 to 2 percent slopes | .24 | 1.1 | 0.1% |
| 33B | Slagle fine sandy loam, 2 to 6 percent slopes | .24 | 37.3 | 2.0% |
| 35B | Uchee loamy fine sand, 2 to 6 percent slopes | .15 | 4.2 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **136.5** | **7.3%** |
| **Totals for Area of Interest** | | | **1,881.1** | **100.0%** |

## Description

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

"Erosion factor Kw (whole soil)" indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Factor K does not apply to organic horizons and is not reported for those layers.

## Rating Options

*Aggregation Method:* Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

*Component Percent Cutoff: None Specified*

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

*Tie-break Rule:* Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

*Layer Options (Horizon Aggregation Method):* Surface Layer (Not applicable)

For an attribute of a soil horizon, a depth qualification must be specified. In most cases it is probably most appropriate to specify a fixed depth range, either in centimeters or inches. The Bottom Depth must be greater than the Top Depth, and the Top Depth can be greater than zero. The choice of "inches" or "centimeters" only applies to the depth of soil to be evaluated. It has no influence on the units of measure the data are presented in.

When "Surface Layer" is specified as the depth qualifier, only the surface layer or horizon is considered when deriving a value for a component, but keep in mind that the thickness of the surface layer varies from component to component.

When "All Layers" is specified as the depth qualifier, all layers recorded for a component are considered when deriving the value for that component.

Whenever more than one layer or horizon is considered when deriving a value for a component, and the attribute being aggregated is a numeric attribute, a weighted average value is returned, where the weighting factor is the layer or horizon thickness.

# APPENDIX B: USFWS IPAC AND FEDERAL-LISTED SPECIES INFORMAL REVIEW

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694 Fax: (804) 693-9032

In Reply Refer To:
Project Code: 2023-0061833
Project Name: Sycamore Cross

March 29, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

**Migratory Birds**: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Project Code in the header of this

letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds

# OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

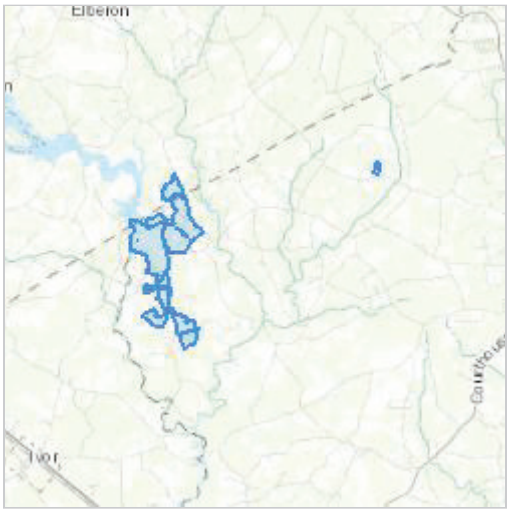
This species list is provided by:

**Virginia Ecological Services Field Office**
6669 Short Lane
Gloucester, VA 23061-4410
(804) 693-6694

# PROJECT SUMMARY

Project Code: 2023-0061833
Project Name: Sycamore Cross
Project Type: Power Gen - Solar
Project Description: Sycamore Cross
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.985725,-76.84112557757788,14z



Counties: Isle of Wight , Southampton , and Surry counties, Virginia

# ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

| NAME | STATUS |
|---|---|
| Northern Long-eared Bat *Myotis septentrionalis*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/9045 | Threatened |

## BIRDS

| NAME | STATUS |
|---|---|
| Red-cockaded Woodpecker *Picoides borealis*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/7614 | Endangered |

## INSECTS

| NAME | STATUS |
|---|---|
| Monarch Butterfly *Danaus plexippus*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/9743 | Candidate |

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

# USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

# MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|---|---|
| Bald Eagle *Haliaeetus leucocephalus*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Sep 1 to Jul 31 |
| Brown-headed Nuthatch *Sitta pusilla*<br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds Mar 1 to Jul 15 |
| Chimney Swift *Chaetura pelagica*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Mar 15 to Aug 25 |

| NAME | BREEDING SEASON |
|---|---|
| Eastern Whip-poor-will *Antrostomus vociferus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 1 to Aug 20 |
| Prairie Warbler *Dendroica discolor*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 1 to Jul 31 |
| Prothonotary Warbler *Protonotaria citrea*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Apr 1 to Jul 31 |
| Red-headed Woodpecker *Melanerpes erythrocephalus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 10 to Sep 10 |
| Wood Thrush *Hylocichla mustelina*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 10 to Aug 31 |

# PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

**Probability of Presence (■)**

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12

(0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

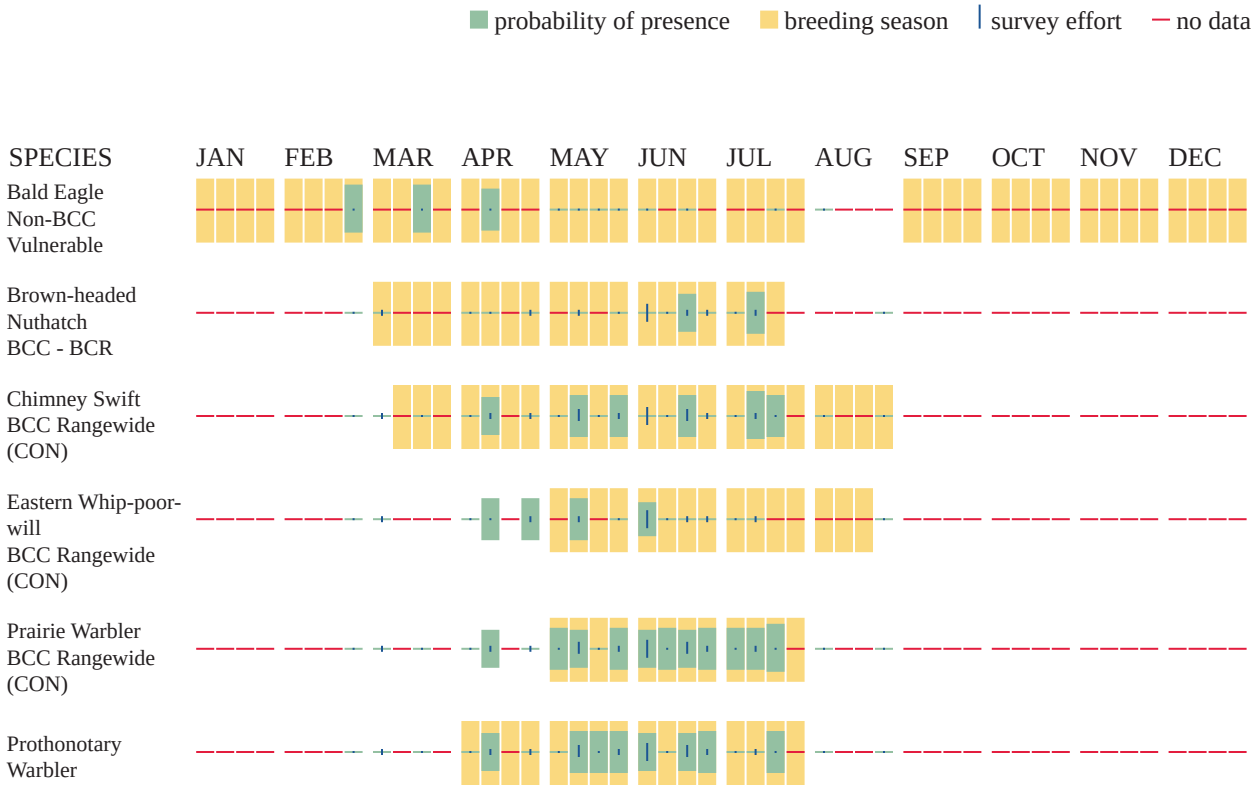
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

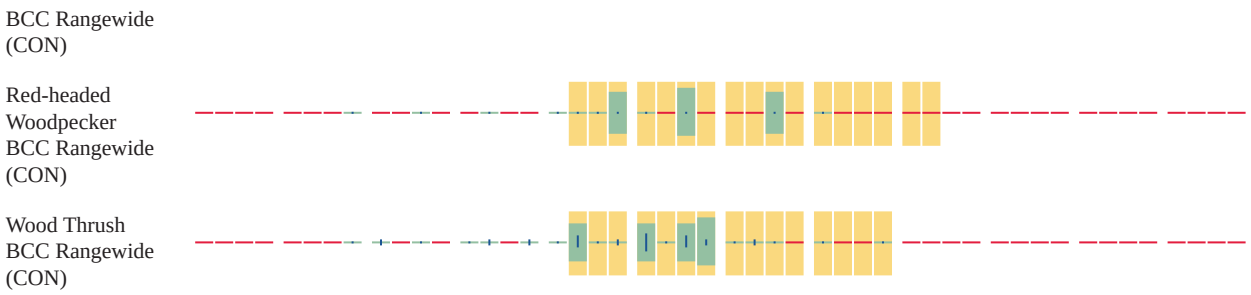
**Breeding Season** (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

**Survey Effort** (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

**No Data** (–)
A week is marked as having no data if there were no survey events for that week.

**Survey Timeframe**
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.






Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

## MIGRATORY BIRDS FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list

of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering or migrating in my area?**
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

**What are the levels of concern for migratory birds?**
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

**Details about birds that are potentially affected by offshore projects**
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical

Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

**What if I have eagles on my list?**
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

**Proper Interpretation and Use of Your Migratory Bird Report**
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

# IPAC USER CONTACT INFORMATION


| | |
|---|---|
| Agency: | Tetra Tech |
| Name: | Justin Ahn |
| Address: | 4101 Cox Road |
| Address Line 2: | Suite 120 |
| City: | Glen Allen |
| State: | VA |
| Zip: | 23060 |
| Email | justin.ahn@tetratech.com |
| Phone: | 6105730764 |

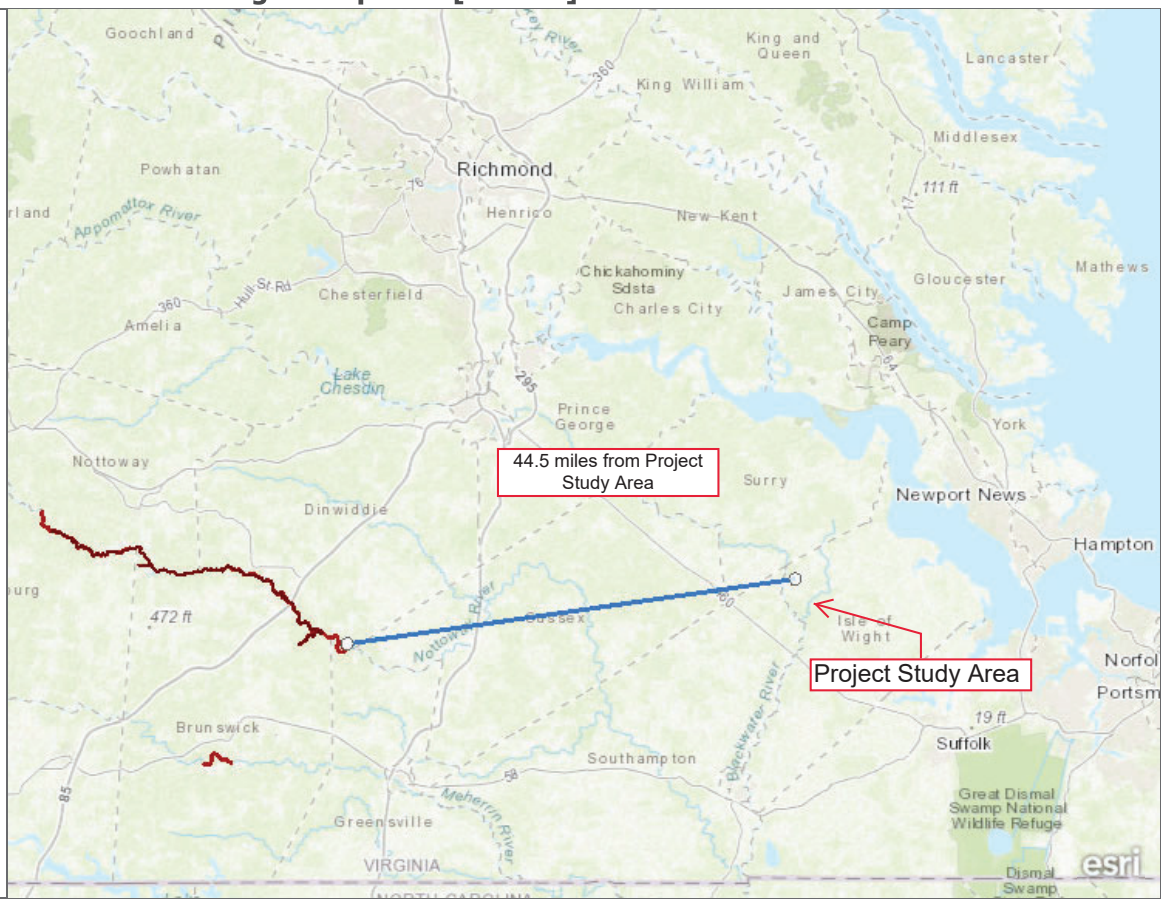
# Critical Habitat for Threatened & Endangered Species [USFWS]

**Final Polygon Features**

**Final Linear Features**

**Proposed Polygon Features**

**Proposed Linear Features**




A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

Esri, HERE, Garmin, FAO, USGS, NGA, EPA, NPS

# CCB Mapping Portal

**Layers:** VA Eagle Nest Buffers, VA Eagle Nest Locator

**Map Center [longitude, latitude]:** [-76.83631896972655, 36.933702217046296]

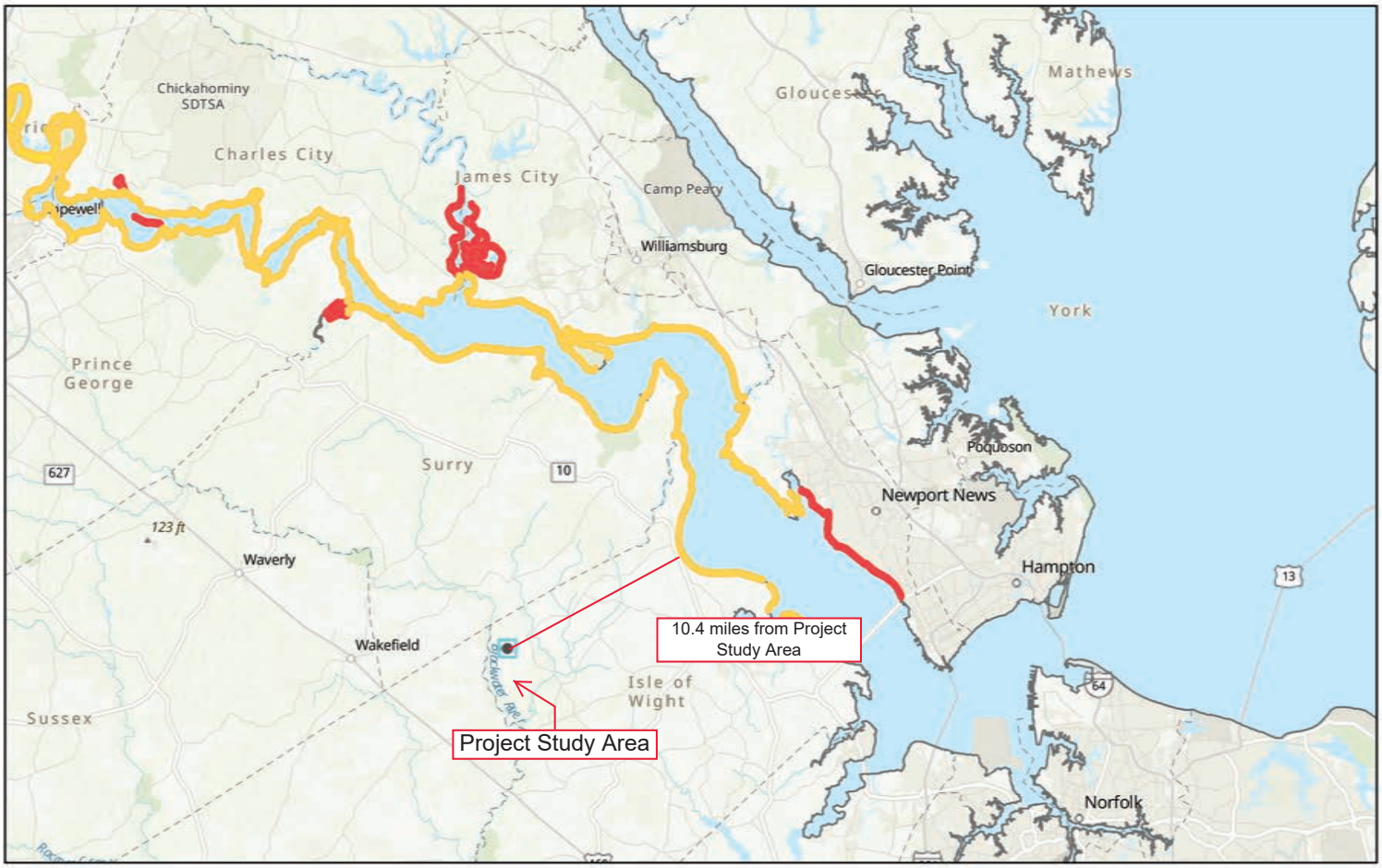
**Map Link:**
https://www.ccbbirds.org/maps/#layer=VA+Eagle+Nest+Buffers&layer=VA+Eagle+Nest+Locator&zoom=11&lat=36.933702217046296&lng=-76.83631896972655&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=Street+Map+%28OSM%2FCarto%29

**Report Generated On:** 03/27/2023

The Center for Conservation Biology (CCB) provides certain data online as a free service to the public and the regulatory sector. CCB encourages the use of its data sets in wildlife conservation and management applications. These data are protected by intellectual property laws. All users are reminded to view the Data Use Agreement to ensure compliance with our data use policies. For additional data access questions, view our Data Distribution Policy, or contact our Data Manager, Marie Pitts, at mlpitts@wm.edu or 757-221-7503.

Area A

# BECA




March 27, 2023

1:577,791

0 4 8 16 mi

0 5 10 20 km

Esri, CGIAR, USGS, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

# APPENDIX C: STATE-LISTED SPECIES INFORMAL REVIEW

**Site Location**

37,00,52.7 -76,49,49.6
is **the Search Point**

**Show Position Rings**
(•) Yes ( ) No
1 mile and 1/4 mile at the **Search Point**

**Show Search Area**
(•) Yes ( ) No
2 Search distance miles buffer

Display at center | **Search Point** is not at map center

**Base Map** Choices
Topography

**Map Overlay** Choices
Current List: Position, Search, BECAR, BAEANests, TEWaters, TierII, Habitat, Trout, Anadromous

**Map Overlay Legend**

T & E Waters
Federal
State

Predicted Habitat WAP Tier I & II
Aquatic
Terrestrial

Trout Waters
Class I - IV
Class V - VI

Anadromous Fish Reach
Confirmed
Potential

123 Impediment

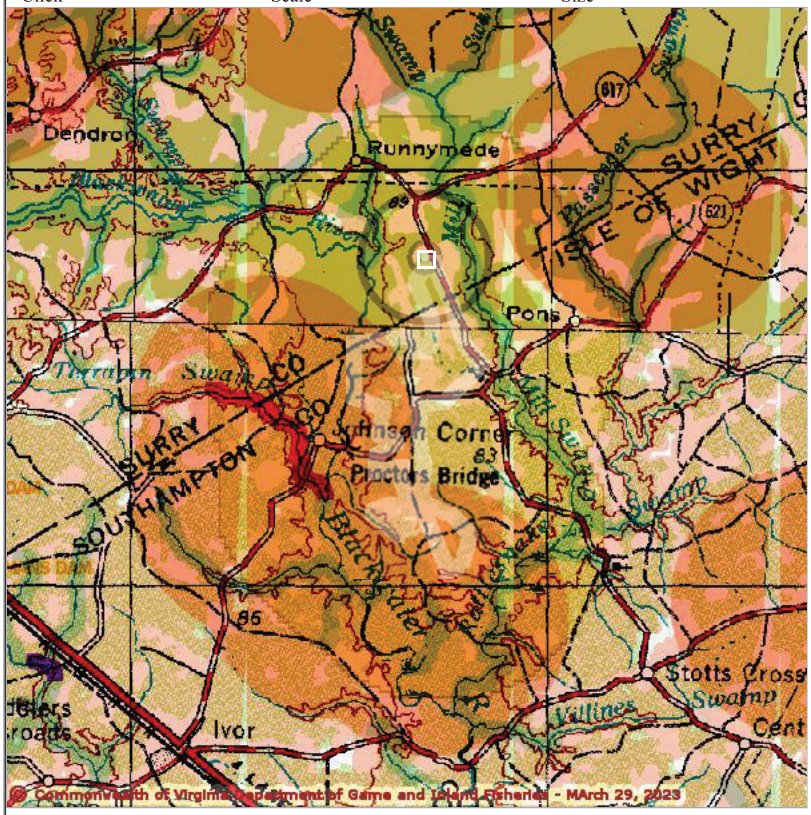
Position Rings 1 mile and 1/4 mile at the Search Point

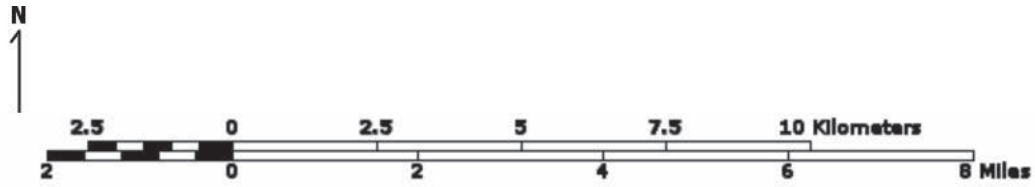
2 mile radius Search Area

Bald Eagle Concentration Areas and Roosts

Refresh Browser Page

Map Click: Pan | Id | M
Map Scale: In Zoom Out
Screen Size: Small Size Big
Help




Point of Search 37,00,52.7 -76,49,49.6
Map Location 36,58,55.9 -76,50,04.8

Select **Coordinate System:**
(•) Degrees,Minutes,Seconds Latitude - Longitude
( ) Decimal Degrees Latitude - Longitude
( ) Meters UTM NAD83 East North Zone
( ) Meters UTM NAD27 East North Zone

Base Map source: USGS 1:250,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 327114 and top 4104072. Pixel size is 23. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 19200 meters east to west by 19200 meters north to south for a total of 368.6 square kilometers. The map display represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 square miles.

Topographic maps and Black and white aerial photography for year 1990+-
are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
Shaded topographic maps are from TOPO! ©2006 National Geographic
http://www.national.geographic.com/topo
All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2023-03-29 10:45:27 (qa/qc March 21, 2016 12:20 - tn=1469798.0 dist=3218 I )
$poi=37.0146500 -76.8304699

| DGIF | Credits | Disclaimer | Contact vafwis_support@dgif.virginia.gov |Please view our privacy policy |
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Commonwealth of Virginia Governor

Skip to Content Privacy Policy Contact Us

Search Va DGIF Go

# Virginia Department of Game and Inland Fisheries



## VaFWIS Search Report Compiled on 3/29/2023, 10:45:04 AM

Known or likely to occur within a **2 mile buffer around polygon; center 37.0146500 -76.8304699** in **093 Isle of Wight County, 175 Southampton County, 181 Surry County, VA**

View Map of Site Location

593 Known or Likely Species ordered by Status Concern for Conservation
(displaying first 39) (39 species with Status* or Tier I** or Tier II** )

| BOVA Code | Status* | Tier** | Common Name | Scientific Name | Confirmed | Database(s) |
|---|---|---|---|---|---|---|
| 040228 | FESE | Ia | Woodpecker, red-cockaded | Picoides borealis | | BOVA |
| 010032 | FESE | Ib | Sturgeon, Atlantic | Acipenser oxyrinchus | | BOVA |
| 010214 | FESE | IIa | Logperch, Roanoke | Percina rex | | BOVA |
| 030071 | FTST | Ia | Turtle, loggerhead sea | Caretta caretta | | BOVA |
| 040144 | FTST | Ia | Knot, red | Calidris canutus rufa | | BOVA,HU6 |
| 040110 | FTSE | Ia | Rail, eastern black | Laterallus jamaicensis jamaicensis | | BOVA |
| 050022 | FTST | Ia | Bat, northern long-eared | Myotis septentrionalis | | BOVA |
| 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | Yes | BOVA,TEWaters,SppObs,HU6 |
| 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Potential | BOVA,Habitat,HU6 |
| 030064 | SE | Ia | Turtle, eastern chicken | Deirochelys reticularia reticularia | | BOVA |
| 050020 | SE | Ia | Bat, little brown | Myotis lucifugus | | BOVA |
| 050034 | SE | Ia | Bat, Rafinesque's eastern big-eared | Corynorhinus rafinesquii macrotis | Yes | BOVA,SppObs,HU6 |
| 050027 | FPSE | Ia | Bat, tri-colored | Perimyotis subflavus | Yes | BOVA,SppObs,HU6 |
| 020052 | SE | IIa | Salamander, eastern tiger | Ambystoma tigrinum | | BOVA |
| 030013 | SE | IIa | Rattlesnake, canebrake | Crotalus horridus | Potential | Habitat,HU6 |
| 040096 | ST | Ia | Falcon, peregrine | Falco peregrinus | | BOVA |
| 040293 | ST | Ia | Shrike, loggerhead | Lanius ludovicianus | | BOVA |
| 040385 | ST | Ia | Sparrow, Bachman's | Peucaea aestivalis | | BOVA,HU6 |
| 020044 | ST | IIa | Salamander, Mabee's | Ambystoma mabeei | Potential | BOVA,Habitat,HU6 |
| 040292 | ST | | Shrike, migrant loggerhead | Lanius ludovicianus migrans | | BOVA |
| 100079 | FC | IIIa | Butterfly, monarch | Danaus plexippus | | BOVA |
| 030067 | CC | IIa | Terrapin, northern diamond-backed | Malaclemys terrapin terrapin | Potential | BOVA,Habitat |
| 030063 | CC | IIIa | Turtle, spotted | Clemmys guttata | Yes | BOVA,SppObs,HU6 |
| 030031 | CC | IIIc | Kingsnake, scarlet | Lampropeltis elapsoides | | BOVA |
| 010174 | | Ia | Bass, Roanoke | Ambloplites cavifrons | | BOVA |
| 010077 | | Ia | Shiner, bridle | Notropis bifrenatus | | BOVA |
| 070131 | | Ic | Isopod, Phreatic | Caecidotea phreatica | | BOVA |
| 020063 | | IIa | Toad, oak | Anaxyrus quercicus | Yes | BOVA,Habitat,SppObs,HU6 |
| 020002 | | IIa | Treefrog, barking | Hyla gratiosa | | BOVA,HU6 |
| 040052 | | IIa | Duck, American black | Anas rubripes | | BOVA,HU6 |
| 040033 | | IIa | Egret, snowy | Egretta thula | | BOVA |

| | | | | | | |
|---|---|---|---|---|---|---|
| 040029 | | IIa | Heron, little blue | Egretta caerulea caerulea | | BOVA |
| 040036 | | IIa | Night-heron, yellow-crowned | Nyctanassa violacea violacea | | BOVA |
| 040181 | | IIa | Tern, common | Sterna hirundo | | BOVA,HU6 |
| 040320 | | IIa | Warbler, cerulean | Setophaga cerulea | | BOVA,HU6 |
| 040140 | | IIa | Woodcock, American | Scolopax minor | | BOVA,HU6 |
| 060071 | | IIa | Lampmussel, yellow | Lampsilis cariosa | | BOVA |
| 040105 | | IIb | Rail, king | Rallus elegans | | BOVA |
| 040304 | | IIc | Warbler, Swainson's | Limnothlypis swainsonii | | BOVA,HU6 |

To view **All 593 species** View 593

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier
Virginia Widlife Action Plan Conservation Opportunity Ranking:
a - On the ground management strategies/actions exist and can be feasibly implemented.; b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.; c - No on the grou

View Map of All Query Results from All Observation Tables

Bat Colonies or Hibernacula: **Not Known**

**Anadromous Fish Use Streams**

N/A

**Impediments to Fish Passage**

N/A

**Colonial Water Bird Survey** ( 3 records )

View Map of All Query Results Colonial Water Bird Survey

| Colony_Name | N Obs | Latest Date | N Species | | | View Map |
|---|---|---|---|---|---|---|
| | | | Different Species | Highest TE* | Highest Tier** | |
| Sycamore Crossroads | 1 | Jun 2 2003 | 1 | | | Yes |
| Blackwater River at Surry | 1 | Jun 1 1993 | 1 | | | Yes |
| Rattlesnake Swamp | 1 | Jun 1 1993 | 1 | | | Yes |

Displayed 3 Colonial Water Bird Survey

**Threatened and Endangered Waters** ( 13 Reaches )

View Map of All Threatened and Endangered Waters

| Stream Name | T&E Waters Species | | | | | | | View Map |
|---|---|---|---|---|---|---|---|---|
| | Highest TE* | BOVA Code, Status*, Tier**, Common & Scientific Name | | | | | | |
| Terrapin Swamp (0283664 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0285385 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0287738 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0289129 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0289623 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0290117 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0291410 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0291935 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0293016 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0294529 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0298333 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0302220 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0302289 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |

**Managed Trout Streams**

N/A

**Bald Eagle Concentration Areas and Roosts**

N/A

**Bald Eagle Nests**

N/A

**Species Observations** ( 56 records - displaying first 20 , 6 Observations with Threatened or Endangered species ) View Map of All Query Results Species Observations

| obsID | class | Date Observed | Observer | N Species | |
|---|---|---|---|---|---|
| | | | | Different Species | Highest TE |
| 55516 | SppObs | May 7 1998 | BEATY, AND ZEYTOONIAN, VIRGINIA COOPERATIVE FISH AND WILDLIFE RESEARCH UNIT. | 3 | FTST |
| 55237 | SppObs | May 7 1998 | BRAVEN B. BEATY AND RICHARD J. NEVES, DEPARTMENT OF FISHERIES AND WILDLIFE AT VA TECH | 3 | FTST |
| 635308 | SppObs | Aug 18 2021 | Shane Brodnick | 1 | SE |
| 58094 | SppObs | Aug 7 1997 | Steven M. Roble, Ph. D. , Staff Zoologist | 1 | SE |
| 53381 | SppObs | Aug 8 1996 | Steven M. Roble, Ph. D. , DCR | 2 | FPSE |
| 9410 | SppObs | Apr 5 1988 | Mitchell D. Norman, VDGIF | 3 | CC |
| 614290 | SppObs | Jun 26 2007 | John; Kleopfer\| Robert ; Clontz | 1 | |
| 375284 | Aquatics | Oct 12 2007 | B. T. Watson, M. E. Bradley | 7 | |
| 426929 | SppObs | May 17 2005 | VCU - INSTAR | 14 | |
| 62424 | SppObs | Aug 11 1999 | Ryan Smith, DGIF | 12 | |
| 11331 | SppObs | Sep 6 1985 | NORMAN | 19 | |
| 426934 | SppObs | Sep 6 1985 | VCU - INSTAR | 19 | |
| 426951 | SppObs | Sep 6 1984 | VCU - INSTAR | 10 | |
| 10425 | SppObs | Sep 6 1984 | Norman | 10 | |
| 10433 | SppObs | Aug 29 1984 | Norman | 23 | |
| 338036 | SppObs | Jan 1 1984 | MDN-B-NORMAN | 23 | |
| 338051 | SppObs | Jan 1 1984 | MDN-B-NORMAN | 10 | |
| 15411 | SppObs | May 5 1962 | R D ROSS | 4 | |
| 332815 | SppObs | Jan 1 1962 | VPI-B-VA. POLY. INST. | 4 | |
| 426942 | SppObs | May 12 2005 | VCU - INSTAR | 5 | |

Displayed 20 Species Observations

**Selected 56 Observations** View all 56 Species Observations

**Habitat Predicted for Aquatic WAP Tier I & II Species** ( 5 Reaches ) View Map Combined Reaches from Below of Habitat Predicted for WAP Tier I & II Aquatic Species

| Stream Name | Tier Species | | | | | | View Map |
|---|---|---|---|---|---|---|---|
| | Highest TE* | BOVA Code, Status*, Tier**, Common & Scientific Name | | | | | |
| Hickaneck Swamp (03010202) | SE | 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Yes |
| Mill Swamp (03010202) | SE | 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Yes |
| Rattlesnake Swamp (03010202) | SE | 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Yes |
| Terrapin Swamp (03010202) | SE | 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Yes |
| tributary (03010202) | SE | 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Yes |
| tributary (03010202) | SE | 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Yes |

**Habitat Predicted for Terrestrial WAP Tier I & II Species** ( 4 Species ) View Map of Combined Terrestrial Habitat Predicted for 4 WAP Tier I & II Species Listed Below

ordered by Status Concern for Conservation

| BOVA Code | Status* | Tier** | Common Name | Scientific Name | View Map |
|---|---|---|---|---|---|
| 030013 | SE | IIa | Rattlesnake, canebrake | Crotalus horridus | Yes |
| 020044 | ST | IIa | Salamander, Mabee's | Ambystoma mabeei | Yes |
| 030067 | CC | IIa | Terrapin, northern diamond-backed | Malaclemys terrapin terrapin | Yes |
| 020063 | | IIa | Toad, oak | Anaxyrus quercicus | Yes |

**Virginia Breeding Bird Atlas Blocks** ( 2 records )

View Map of All Query Results
Virginia Breeding Bird Atlas Blocks

| BBA ID | Atlas Quadrangle Block Name | Breeding Bird Atlas Species | | | View Map |
|---|---|---|---|---|---|
| | | Different Species | Highest TE* | Highest Tier** | |
| 55056 | Dendron, SE | 43 | | III | Yes |
| 56056 | Runnymede, SE | 65 | | III | Yes |

**Public Holdings:**

N/A

**Summary of BOVA Species Associated with Cities and Counties of the Commonwealth of Virginia:**

| FIPS Code | City and County Name | Different Species | Highest TE | Highest Tier |
|---|---|---|---|---|
| 093 | Isle of Wight | 421 | FESE | I |
| 175 | Southampton | 402 | FESE | I |
| 181 | Surry | 445 | FESE | I |

**USGS 7.5' Quadrangles:**
Ivor
Dendron
Raynor
Runnymede

**USGS NRCS Watersheds in Virginia:**

N/A

**USGS National 6th Order Watersheds Summary of Wildlife Action Plan Tier I, II, III, and IV Species:**

| HU6 Code | USGS 6th Order Hydrologic Unit | Different Species | Highest TE | Highest Tier |
|---|---|---|---|---|
| CU59 | Blackwater River-Terrapin Swamp | 99 | FTSE | I |
| CU60 | Mill Swamp-Moores Swamp | 89 | FTSE | I |
| CU61 | Rattlesnake Swamp | 88 | FTSE | I |
| CU62 | Blackwater River-Antioch Swamp | 92 | FTSE | I |

Compiled on 3/29/2023, 10:45:05 AM I1469798.0 report=all searchType= P dist= 3218 poi= 37.0146500 -76.8304699 siteDD= 37.0146550 -76.8304718;37.0066990 -76.8254288;37.0001450 -76.8230508;36.9967600 -76.8213098;36.9930180 -76.8166158;36.9852540 -76.8256298;36.9847270 -76.8336928;36.9804500 -76.8326788;36.9788090 -76.8335 -76.8324618;36.9563430 -76.8367528;36.9612070 -76.8454438;36.9632160 -76.8392578;36.9610180 -76.8391648;36.9615850 -76.8345228;36.9685120 -76.8383148;36.9712350 -76.8373848;36.9696540 -76.8447548;36.9730630 -76.8446968;36.9763590 -76.8378158;36.9781580 -76.8437688;36.9839170 -76.8427458;36.9859910 -76.8507688;36.9910220 -76.8303698;37.0146550 -76.8304718;.

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| 3/29/2023, 10:45:05 AM | DGIF | Credits | Disclaimer | Please view our privacy policy |
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I 1469798

If you have difficulty reading or accessing documents, please Contact Us for assistance.

# Natural Heritage Resources

**Your Criteria**

Taxonomic Group: Select All

Global Conservation Status Rank: Select All

State Conservation Status Rank: Select All

Federal Legal Status: Select All

State Legal Status: Select All

County: Isle of Wight,Surry

Physiographic Province: Select All

Watershed (8 digit HUC): 03010202 - Blackwater River

Subwatershed (12 digit HUC): CU59 - Blackwater River-Terrapin Swamp,CU60 - Mill Swamp-Moores Swamp,CU61 - Rattlesnake Swamp

Planning District: Select All

Virginia Coastal Zone: Select All

Search Run: 3/27/2023 15:27:24 PM

**Result Summary**

Total Species returned: 3

Total Communities returned: 0

Click scientific names below to go to NatureServe report.

Click column headings for an explanation of species and community ranks.

| Common Name/Natural Community | Scientific Name | Scientific Name Linked | Global Conservation Status Rank | State Conservation Status Rank | Federal Legal Status | State Legal Status | Statewide Occurrences | Virginia Coastal Zone |
|---|---|---|---|---|---|---|---|---|
| **Isle of Wight** | | | | | | | | |
| Southern Coastal Plain Blackwater Blackwater River-Terrapin Swamp | | | | | | | | |

| Common Name/Natural Community | Scientific Name | Scientific Name Linked | Global Conservation Status Rank | State Conservation Status Rank | Federal Legal Status | State Legal Status | Statewide Occurrences | Virginia Coastal Zone |
|---|---|---|---|---|---|---|---|---|
| Hampton Roads | | | | | | | | |
| MAMMALS | | | | | | | | |
| Eastern Big-eared Bat | Corynorhinus rafinesquii macrotis | Corynorhinus rafinesquii macrotis | G3G4T3 | S2 | None | LE | 44 | Y |
| Rattlesnake Swamp | | | | | | | | |
| Hampton Roads | | | | | | | | |
| MAMMALS | | | | | | | | |
| Eastern Big-eared Bat | Corynorhinus rafinesquii macrotis | Corynorhinus rafinesquii macrotis | G3G4T3 | S2 | None | LE | 44 | Y |

## Surry

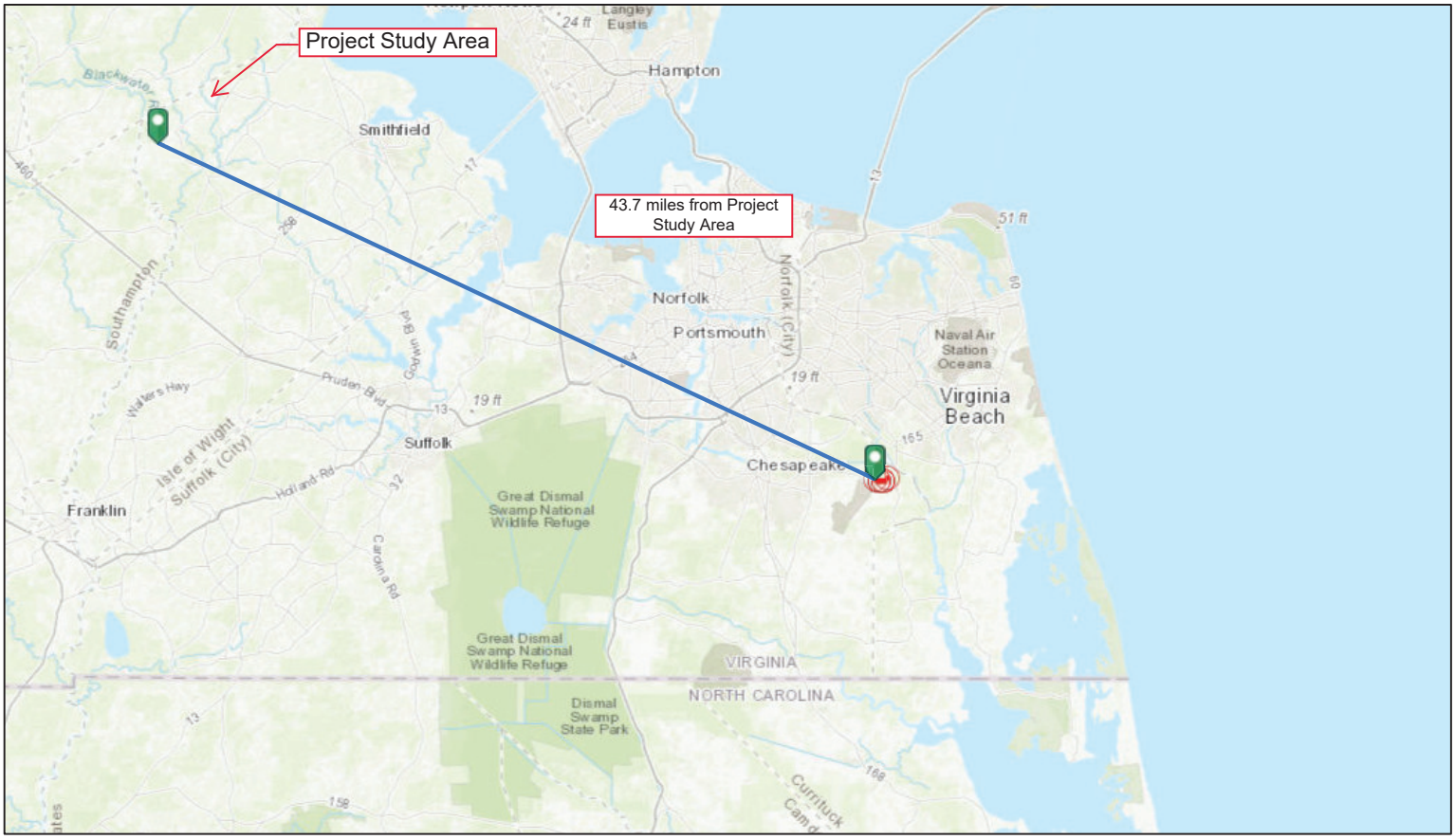
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Southern Coastal Plain | | | | | | | | |
| Blackwater | | | | | | | | |
| Rattlesnake Swamp | | | | | | | | |
| Crater | | | | | | | | |
| MAMMALS | | | | | | | | |
| Eastern Big-eared Bat | Corynorhinus rafinesquii macrotis | Corynorhinus rafinesquii macrotis | G3G4T3 | S2 | None | LE | 44 | Y |

**Note: On-line queries provide basic information from DCR's databases at the time of the request. They are NOT to be substituted for a project review or for on-site surveys required for environmental assessments of specific project areas.**

**For Additional Information** on locations of Natural Heritage Resources please submit an information request.

**To Contribute information** on locations of natural heritage resources, please fill out and submit a rare species sighting form.

# NLEB Locations and Roost Trees




3/27/2023, 2:38:01 PM

NLEB Known Occupied Maternity Roost (Summer Habitat)

1:577,791

0 4 8 16 mi

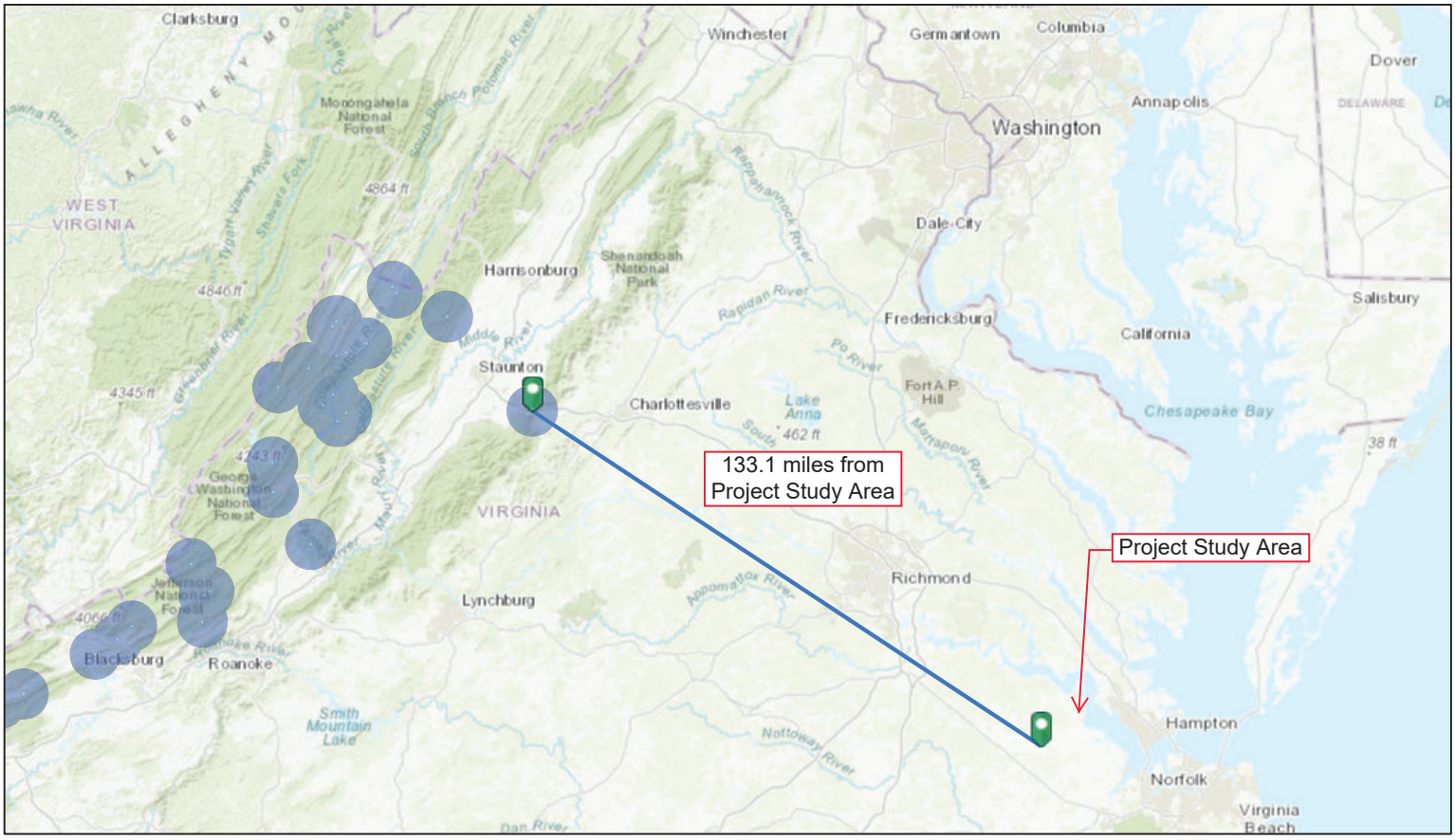
0 5 10 20 km

Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

VA Dept. Game & Inland Fisheries

Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS |

# MYLU PESU




3/27/2023, 2:55:31 PM

1:2,311,162

0 15 30 60 mi

0 20 40 80 km

Esri, HERE, Garmin, FAO, USGS, EPA, NPS

Tri-colored and Little Brown Hibernaculum Half Mile Buffer

Tri-colored and Little Brown Hibernaculum 5.5 Mile Buffer

Dept. Game and Inland Fisheries

Esri, HERE, Garmin, FAO, USGS, EPA, NPS |

# Attachment N
# Historical and Cultural Resources Report

**REPORT >**

# Phase IA Cultural Resource Assessment of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**DATE > August 2023**

**LOCATION >** Isle of Wight and Surry Counties, Virginia

**PREPARED FOR >**
AES Clean Energy

**PREPARED BY >**
Dutton + Associates, LLC

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

# PHASE IA CULTURAL RESOURCES ASSESSMENT OF THE ±817.46 Hectare (2,020 Acre) SYCAMORE CROSS SOLAR STUDY AREA

## ISLE OF WIGHT AND SURRY COUNTIES, VIRGINIA

***PREPARED FOR:***
**AES CLEAN ENERGY**
**4200 INNSLAKE DRIVE**
**SUITE 302**
**GLEN ALLEN, VIRGINIA 23060**

***PREPARED BY*:**
**DUTTON + ASSOCIATES, LLC**
**1115 CROWDER DRIVE**
**MIDLOTHIAN, VIRGINIA 23113**
**804.897.1960**

***PRINCIPAL INVESTIGATOR:***
**ROBERT J. TAYLOR, JR., M.A.**

***PROJECT ARCHAEOLOGIST:***
**HOPE SMITH, PH.D.**

**AUGUST 2023**

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# ABSTRACT

*In August 2023 Dutton +Associates, LLC (D+A) completed a Phase IA cultural resource assessment of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar study area in Isle of Wight and Surry counties, Virginia. The assessment was conducted for planning purposes in order to confirm existing conditions of the study area, note surface evidence of cultural activity, and identify recommended survey methods based upon the results of the background research and field reconnaissance. The study area is located near the border of Isle of Wight and Surry counties generally along Sycamore Cross Road, Ramsey Road, Mill Swamp Road, Rattlesnake Trail, and White Hill Trail. The study area consists of multiple parcels and tracts of land that may not correspond precisely with the boundaries chosen for the final development of the project. Rather, the study area represents the maximum extent of the parcels being considered for development.*

*Analysis of historic maps and aerial photographs from the mid-nineteenth to early-twentieth century reveal a well-established network of roads and a number of dwellings scattered across the study area during that period. Previous cultural resource survey has recorded a number of buildings from that period, although many have since been demolished and the study area is now sparsely developed. Just seven (7) building/building complexes remain extant within the study area, although they range from good condition and occupied to ruinous and abandoned. Several additional homes and building complexes are within or bordering the overall study area limits but are in carve-out parcels excluded from development. Buildings/complexes within the study area include two ruinous early-nineteenth century dwellings, three late-nineteenth century dwellings, a vacant early-twentieth century dwelling, and a mid-twentieth century dwelling. Field inspection revealed evidence of two additional map projected buildings that remain only as sites.*

*The study area is bordered by Blackwater River and Mill Swamp and crossed by numerous swamps, drainages, and pocosins. These natural resources would have been attractive to prehistoric hunters and gatherers, but the terrain within the study was not likely to have supported large, permanent settlements. The primary prehistoric resources that are likely to be present are small, temporary procurement camps located above the wetlands, however, no such sites have been previously recorded within the study area limits.*

*Although the study area contains a number of site-predictive factors, such as the natural resources, a historic road network, and mapped buildings, land use throughout the twentieth and twenty-first centuries has negatively impacted the stratigraphic integrity of the soils. Much of the study area has been used to produce timber for an extended period of time and multiple harvests resulting in multiple episodes of clearcutting, planting, and regrowth. Most of the regrowth has been in the form of trees planted in steeply-banked rows interspersed with deep furrows, and in most cases the topsoil and eluviated layers have been destroyed or displaced. Areas not put to use for timber have been used agriculturally and therefore subject to regular plow and tilling.*

*Based on the above observations, the locations of the map-projected buildings that were field verified as well as previously recorded architectural resources should be considered high potential for historic sites. Together, these account for an area covering about* ***34 hectares (85 acres)*** *total. The map-projected locations of buildings that were not visible through surface reconnaissance but reveal evidence of prior disturbance from logging should be considered moderate potential for*

*historic sites. Landforms bordering Blackwater River should likewise be considered moderate potential for prehistoric sites, in addition to open, well-drained fields that have not be previously disturbed by logging. Together, the moderate potential area covers an area of about* ***365 hectares (901 acres)*** *total. A 25% sample of the moderate potential areas should be subjected to targeted subsurface testing. This sample should include the least disturbed landforms that correspond to or share similar characteristics as the locations of buildings depicted on historic maps. The remainder of the study area that does not lie in wetland should be considered low potential for archaeological resources. A sample constituting 10% of the low-potential area should be subjected to subsurface testing. This 10% should include the least-disturbed terraces overlooking wetlands and intersections of streams to test for prehistoric resources; along the edges of roads and field depicted on Civil War-era maps to test for early historic sites; and any other areas that appear to be less disturbed in the field. The total low probability area is about* ***170 hectares (421 acres)****. A large tract of land at the northern end of the study area has been subject to recent, approved phase I survey and that area will not require further investigation as part of this effort The table below details these areas.*

| ***Potential*** | ***Reason*** | ***STP Sample*** | ***Total Area*** | ***STP Area*** |
|---|---|---|---|---|
| ***High*** | *Yard space around extant and map-projected architectural resources* | *100%* | *34 hectares 85 acres* | *34 hectares 85 acres* |
| ***Moderate*** | *Yard space around map-projected architectural resources in areas of documented disturbance. Finger ridges and terraces overlooking Blackwater River and confluences.* | *25%, chosen based on field conditions, pedestrian survey of remainder* | *365 hectares 901 acres* | *91 hectares 225 acres* |
| ***Low*** | *Areas with no site predictors* | *10%, chosen based on field conditions, pedestrian survey of remainder* | *170 hectares 421 acres* | *17 hectares 42 acres* |
| ***No Subsurface Testing*** | *Wetlands, water-saturated soils, slopes greater than 15%, previously surveyed areas* | *Pedestrian survey where possible* | *248 hectares 613 acres* | *Pedestrian survey where possible* |
| ***Total*** | | | ***817.46 hectares 2,020 acres*** | ***142 hectares 352 acres*** |

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# 1. INTRODUCTION

In July 2023 Dutton +Associates, LLC (D+A) completed a Phase IA cultural resource assessment of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar study area in Isle of Wight and Surry counties, Virginia. Fieldwork for the study was conducted January 4th and 5th, and June 28th and 29th, 2023. The D+A effort is intended to provide a comprehensive archival study that will include a complete listing and discussion of previously recorded historic properties located within and in the vicinity of the study area, a historical map review of the study area in order to better understand the development and use of the properties and their role in the larger community, provide a basis for interpreting previously recorded historic properties, define potential locations where historic resources (above and below ground) are present or likely to be present, as well as delineate areas where consideration of archaeological resources is not necessary to assist in the development of a strategy for addressing historic resource issues going forward in the Certificate of Public Convenience and Need (CPCN) process.

Robert J. Taylor, Jr., M.A. served as the Principal Investigator, oversaw all project tasks, and co-authored the report. Hope Smith, Ph.D., served as the Project Archaeologist, coauthored the report, and was assisted in the field by Rebecca Mattson and Courtney Roark. Dara Friedberg, M.S., conducted background research for the project and coauthored the report. Copies of all field notes, maps, correspondence, and research materials are on file at D+A's main office in Midlothian, Virginia.

### STUDY AREA

The study area is located near the border of Isle of Wight and Surry counties generally along Sycamore Cross Road, Ramsey Road, Mill Swamp Road, Rattlesnake Trail, and White Hill Trail (Figure 1-1). The study area consists of multiple parcels and tracts of land that may not correspond precisely with the boundaries chosen for the final development of the project. Rather, the study area represents the maximum extent of the parcels being considered for development, and the final project area may be smaller than the current study area.

As part of the effort, field reconnaissance to document existing conditions was limited to those parcels where access was expressly granted while the rest of the study area was limited to desktop review only (Figure 1-2).

**Figure 1-1: General location of the study area. Source: USGS**

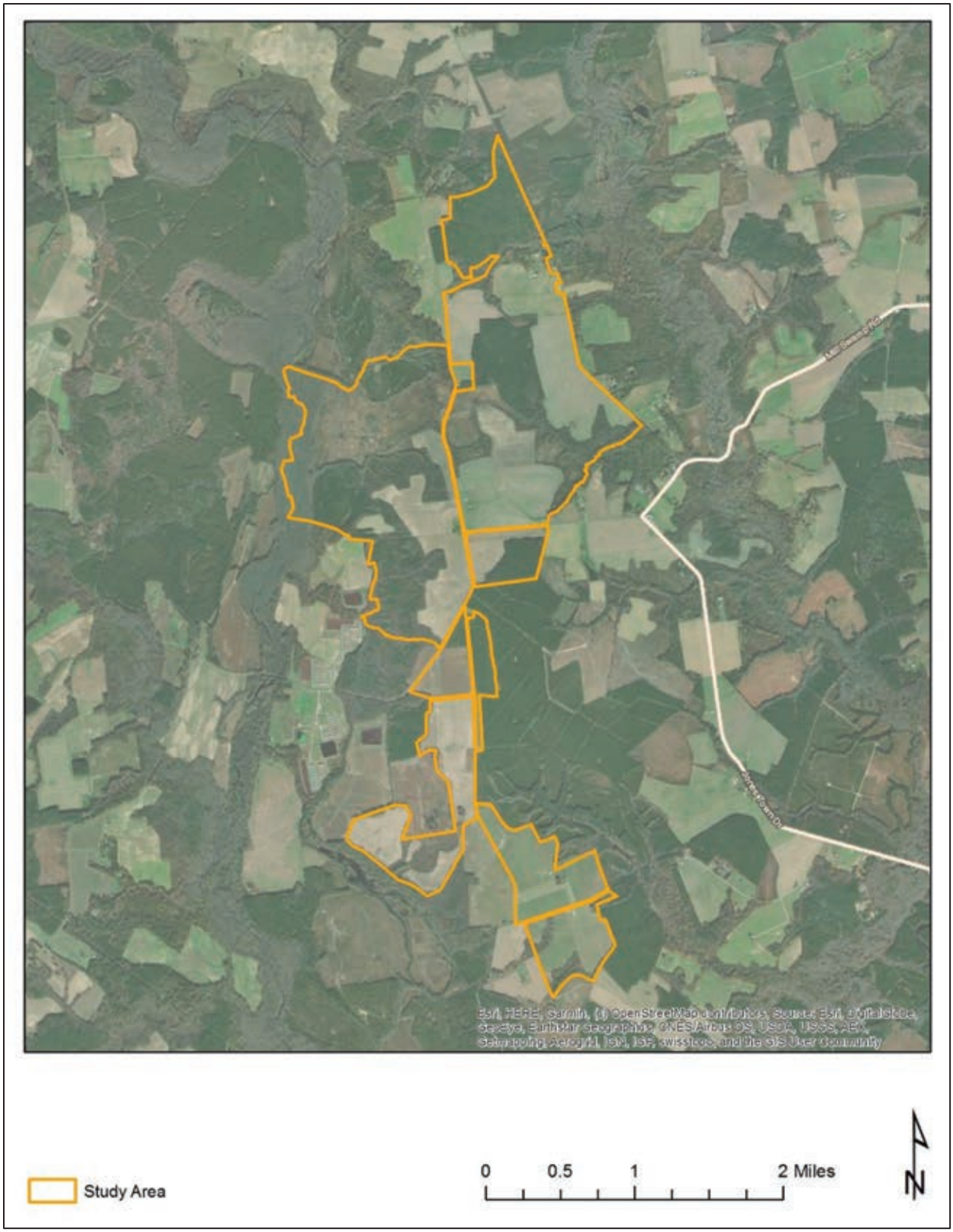


**Figure 1-2: Aerial view of study area depicting parcels subject to full assessment as well as desktop-only.**

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# 2. RESEARCH DESIGN

The Phase IA cultural resource assessment of the Sycamore Cross Solar study area was undertaken to provide a comprehensive archival study of previous cultural resource investigations in the study area, a historical map review to understand the land-use and development of properties within the study area, and define potential locations within the study area where historic resources (above and below ground) are present or likely to be present. Limited field reconnaissance was also conducted to verify existing conditions and note visible evidence of cultural resources, previous disturbance, or other pertinent landscape features. The background research, field reconnaissance, and field survey methodologies are summarized below.

## ARCHIVAL RESEARCH

In January 2023, D+A conducted background research with the goal of identifying all previously recorded historic properties located within and in the vicinity of the study area in accordance with VDHR's guidance document titled *Guidelines for Conducting Cultural Resources Survey in Virginia* (Revised October 2017). Background research was conducted at the VDHR and on the internet and including the following sources:

- VDHR V-CRIS site files; and
- National Park Service, American Battlefield Protection Program, maps and related documentation.

In further preparation for the Phase IA survey, D+A conducted additional review of the following documents and sources for information relative to unrecorded historic property locations in the study area:

- County Tax Assessors records;
- USDA Historic Aerial Imagery;
- U.S. Geological Survey Topographic Maps;
- Previous historic resource survey documents; and
- Local historical society archives.

## ARCHAEOLOGICAL FIELD SURVEY

For those parcels within the study area where field access was granted, a limited pedestrian survey was conducted to document existing conditions and to note surface evidence of cultural activity or material. In addition, a limited number of judgmentally placed shovel tests were excavated in order to assess and document soil conditions throughout the project area. For any newly encountered archaeological resources identified during the reconnaissance, photographs were taken of the general vicinity and of any visible features. A field map was prepared showing feature locations, permanent landmarks, topographic and vegetation variation, as well as sources of disturbance. Sufficient information was included on the map to permit easy re-identification of the resources.

### REPORT AND RECORD PREPARATION

The results of the background research and field reconnaissance were synthesized and summarized in this report accompanied by maps and photographs as appropriate. All research material and documentation generated by this project are on file at D+A's office in Midlothian, Virginia.

### QUALIFICATIONS AND STANDARDS

The D+A personnel who directed and conducted this survey meet the professional qualification standards of the Department of the Interior (48 FR 44738-9). All work was conducted in accordance with the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (Federal Register 48:44716-44742, September 29, 1983), and VDHR's *Guidelines for Conducting Historic Resource Survey in Virginia* (rev. 2017).

# 3. ENVIRONMENTAL CONTEXT

## PHYSICAL DESCRIPTION AND LOCATION

The Sycamore Cross Solar study area consists of ±817.46-Hectare (2,020 Acres) of land divided into multiple contiguous and discontiguous parcels. The study area is located along the border of Isle of Wight and Surry counties within a primarily rural area of the Coastal Plain of Southside Virginia. The landscape within and bordering the study area is a mix of cultivated agricultural field, planted timber stands, and native woodland, particularly bordering the numerous drainages and swamps that dissect the area (Figure 3-1).

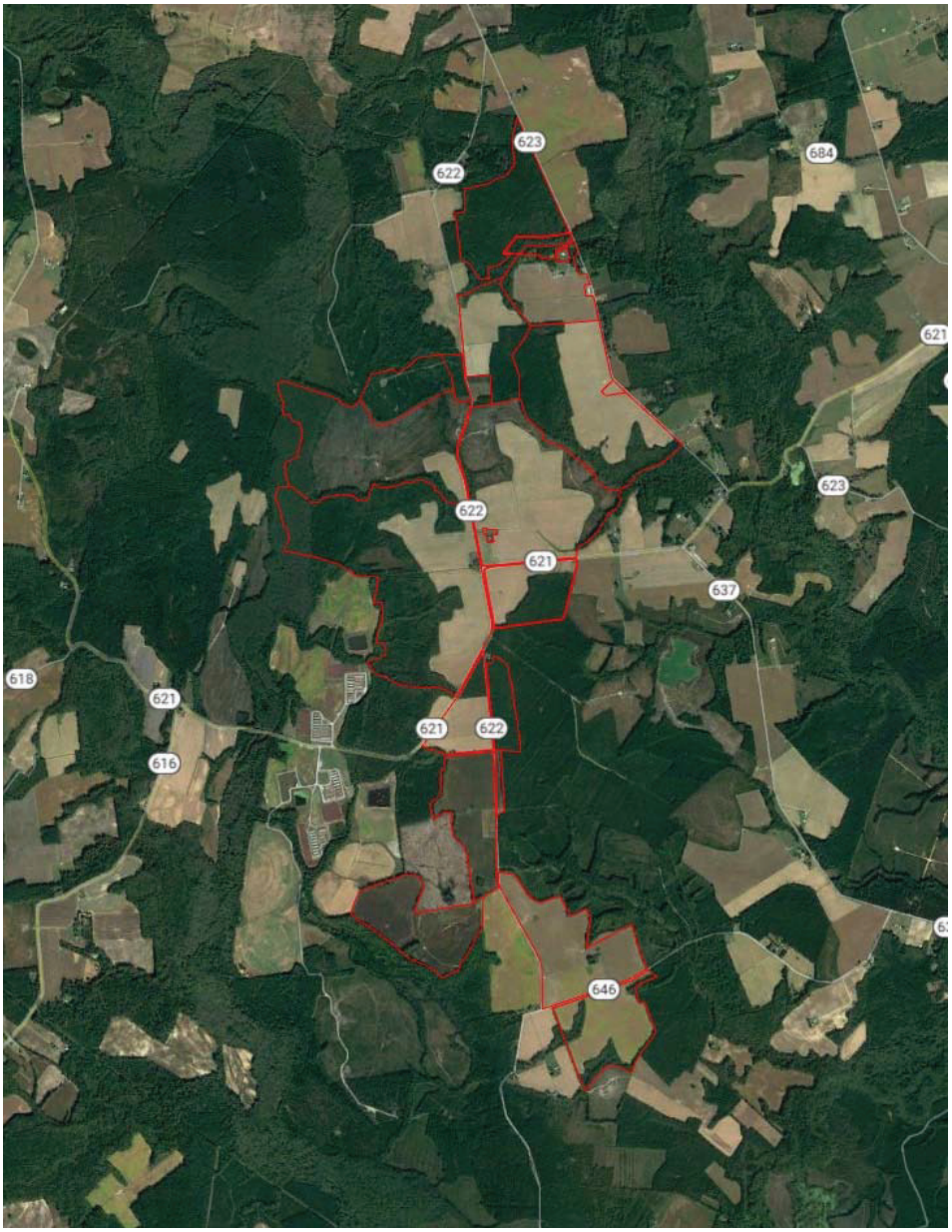


**Figure 3-1. Aerial view of study area illustrating existing conditions.**

## GEOLOGY AND TOPOGRAPHY

The study area topography is characterized by primarily flat level terrain associated with the Lowland subprovince of the Coastal Plain region. The area is underlain by a thick wedge of sediments resting on an eroded surface of Precambrian to early Mesozoic rock. Generally, a lightly dissected, dendritic drainage pattern occurs throughout this region with broad, low landforms and shallow, sluggish drainageways. The elevation of the study area ranges from approximately ±7.9 meters (26 feet) to ±27.4 meters (90 feet) above mean sea level with the highest elevations located along the crest of a broad ridge along the eastern edge of the study area and the lowest elevations bordering the Blackwater River along the western edge.

## HYDROLOGY

Most of the study area drains west into Blackwater River, although portions of the eastern edge drain eastward into Mill Swamp which flows into Rattlesnake Swamp and ultimately into Blackwater River. This flows south into North Carolina where it empties into the Chowan River, which flows into Albemarle Sound, which empties into the Currituck Sound before ultimately draining into the Atlantic Ocean.

## PEDOLOGY

The study area is dominated by sandy loams and sandy clay loams formed from marine sediments. The most prominent soil type is Slagel fine sandy loam which is moderately well drained and covers about 25% of the study area. The second most prominent soil type is Kinston loam, which represents about 17.8% of the study area and is considered poorly drained. Well-drained Emporia fine sandy loam are the only other soils types that account for a significant portion of the study area at 15.2%. The rest of the study area is comprised of assorted sandy loams and complexes. Approximately 39.7% of the soils within the study area are classified as poorly to somewhat poorly drained (Figure 3-2 and Table 3-1).

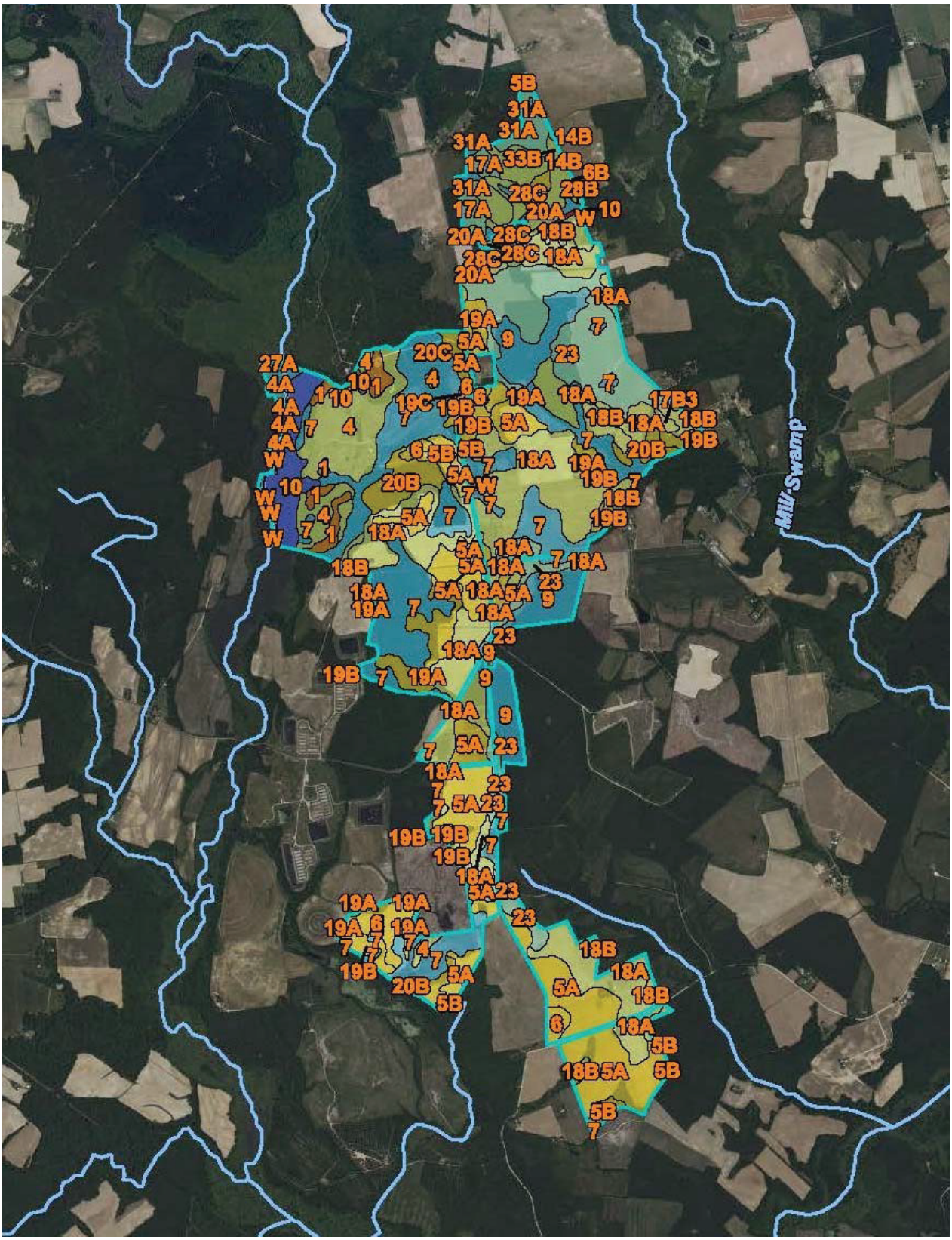


**Figure 3-2: Soil survey of the Sycamore Cross study area showing drainage class (USDA 2023).**

**Table 3-1: Soil survey data for study area parcel cluster, showing drainage rating. Source: USDA.**

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 1 | Alaga fine sand | Somewhat excessively drained | 29.3 | 1.5% |
| 4 | Chipley sand | Moderately well drained | 116.0 | 5.7% |
| 5A | Emporia fine sandy loam, 0 to 2 percent slopes | Well drained | 286.6 | 14.2% |
| 5B | Emporia fine sandy loam, 2 to 6 percent slopes | Well drained | 21.0 | 1.0% |
| 6 | Kenansville loamy sand | Well drained | 41.6 | 2.1% |
| 7 | Kinston loam | Poorly drained | 347.0 | 17.2% |
| 9 | Myatt fine sandy loam | Poorly drained | 119.0 | 5.9% |
| 10 | Nawney loam | Very poorly drained | 55.9 | 2.8% |
| 17B3 | Slagle sandy loam, 2 to 6 percent slopes, severely eroded | Moderately well drained | 3.7 | 0.2% |
| 18A | Slagle fine sandy loam, 0 to 2 percent slopes | Moderately well drained | 401.5 | 19.9% |
| 18B | Slagle fine sandy loam, 2 to 6 percent slopes | Moderately well drained | 56.9 | 2.8% |
| 19A | Uchee loamy sand, 0 to 2 percent slopes | Well drained | 66.8 | 3.3% |
| 19B | Uchee loamy sand, 2 to 6 percent slopes | Well drained | 40.1 | 2.0% |
| 19C | Uchee loamy sand, 6 to 10 percent slopes | Well drained | 2.1 | 0.1% |
| 20B | Uchee-Peawick complex, 2 to 6 percent slopes | Well drained | 57.3 | 2.8% |
| 20C | Uchee-Peawick complex, 6 to 10 percent slopes | Well drained | 9.2 | 0.5% |
| 23 | Yemassee fine sandy loam | Somewhat poorly drained | 205.4 | 10.2% |
| W | Water | | 4.1 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **1,863.4** | **92.2%** |
| **Totals for Area of Interest** | | | **2,020.4** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 4A | Bibb sandy loam, 0 to 2 percent slopes, frequently flooded | Poorly drained | 3.9 | 0.2% |

**Table 3-1 (cont.): Soil survey data for primary study area parcel cluster, showing drainage rating. Source: USDA.**

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| W | Water | | 3.4 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **7.3** | **0.4%** |
| **Totals for Area of Interest** | | | **2,020.4** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 5B | Burrowsville loamy sand, 2 to 6 percent slopes | Moderately well drained | 0.1 | 0.0% |
| 6B | Caroline silt loam, 2 to 6 percent slopes | Well drained | 0.0 | 0.0% |
| 14B | Emporia fine sandy loam, 2 to 6 percent slopes | Well drained | 0.5 | 0.0% |
| 17A | Jedburg loam, 0 to 2 percent slopes | Somewhat poorly drained | 40.1 | 2.0% |
| 20A | Kinston loam, 0 to 2 percent slopes, frequently flooded | Poorly drained | 13.0 | 0.6% |
| 21B | Lakeland sand, 2 to 6 percent slopes | Excessively drained | 1.7 | 0.1% |
| 27A | Nawney and Mattan soils, 0 to 1 percent slopes, frequently flooded | Poorly drained | 9.4 | 0.5% |
| 28B | Nevarc-Remlik complex, 2 to 6 percent slopes | Moderately well drained | 0.5 | 0.0% |
| 28C | Nevarc-Remlik complex, 6 to 10 percent slopes | Moderately well drained | 28.4 | 1.4% |
| 28D | Nevarc-Remlik complex, 10 to 15 percent slopes | Moderately well drained | 5.7 | 0.3% |
| 31A | Rains fine sandy loam, 0 to 2 percent slopes | Poorly drained | 5.3 | 0.3% |
| 33A | Slagle fine sandy loam, 0 to 2 percent slopes | Moderately well drained | 1.1 | 0.1% |
| 33B | Slagle fine sandy loam, 2 to 6 percent slopes | Moderately well drained | 39.7 | 2.0% |
| 35B | Uchee loamy fine sand, 2 to 6 percent slopes | Well drained | 4.2 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **149.6** | **7.4%** |
| **Totals for Area of Interest** | | | **2,020.4** | **100.0%** |

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# 4. PREVIOUS INVESTIGATIONS

This section includes a summary of all the cultural resource management events that have taken place within the study area registered at VDHR through July 2023. It also lists all previously identified architectural resources and archaeological sites located within the study area, as well as within one mile of the study area.

## PREVIOUS SURVEYS RELEVANT TO THE STUDY AREA

VCRIS reveals that three Phase I cultural resource surveys have been conducted within one mile of the study area, one of which included portions of the study area (Table 4-1 and Figure 4-1). These surveys are archaeological in nature, although some include architectural resource investigations as well. The three surveys were conducted as part of assorted utility and infrastructure projects.

**Table 4-1: Previously conducted Phase I surveys within one mile of the study area. Orange highlight denotes survey including portions of the study area.**

| Report Number | Survey Title | Author/ Affiliation | Year | VDHR Review File |
|---|---|---|---|---|
| IW-105 | Phase I Cultural Resources Survey for the Align RNG Virginia – Waverly Renewable Natural Gas Project, Isle of Wight County, Virginia | TRC | 2022 | 2021-0097 |
| SY-079 | Phase I Cultural Resource Survey of the ±2,106.02-Hectare (±5,204.1-Acre) Cavalier Solar Study Area, Isle of Wight and Surry Counties, Virginia | DUTTON | 2020 | 2020-0521 |
| VA-176 | Phase I Archaeological Survey, Virginia Reliability Project, Cities of Chesapeake and Suffolk, and Greensville, Isle of Wight, Prince George, Southampton, Surry, and Sussex Counties, Virginia | ERM | 2022 | 2021-0026 |

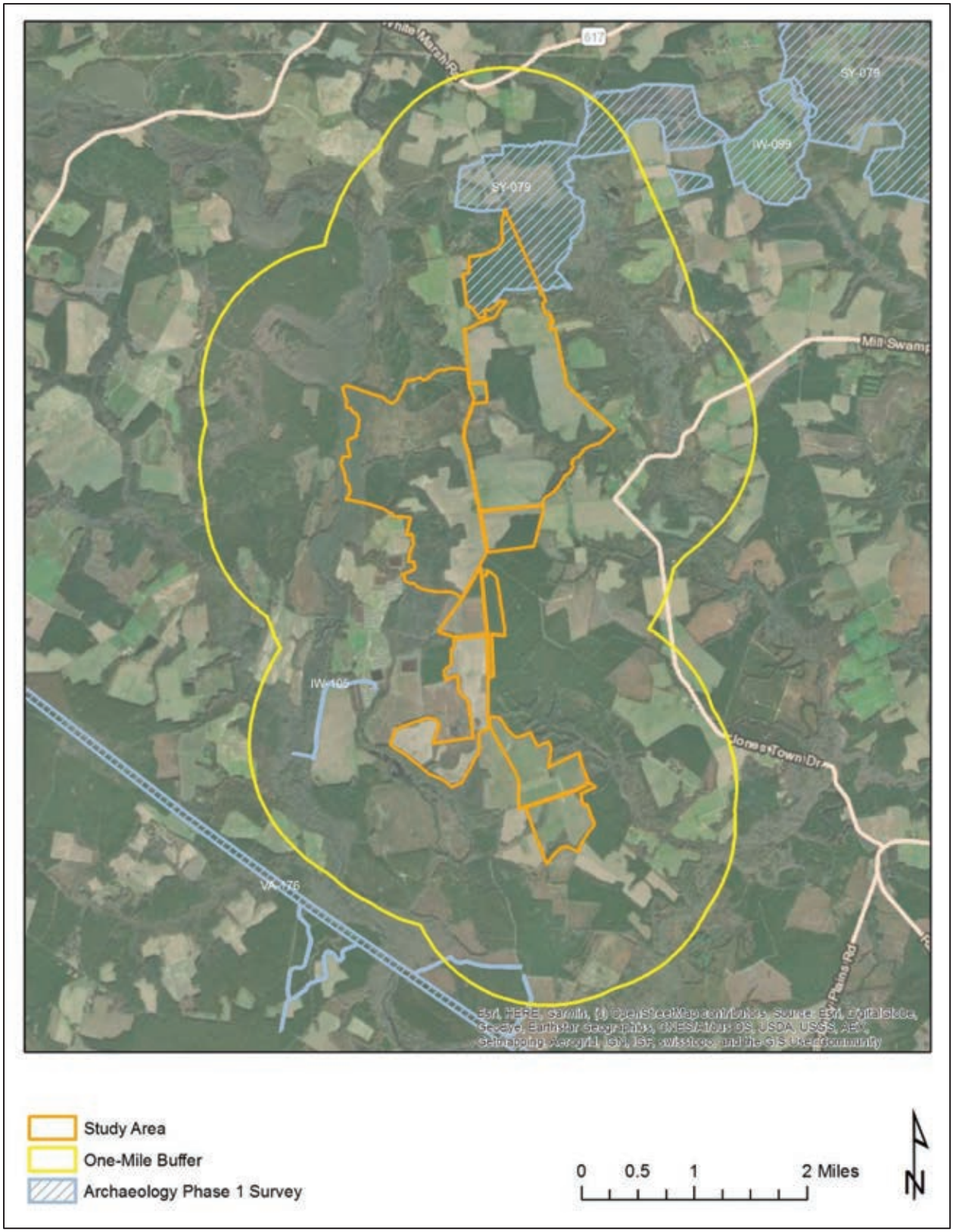


**Figure 4-1: Previous Phase I surveys conducted within one mile of the study area Source: V-CRIS**

## PREVIOUSLY IDENTIFIED ARCHAEOLOGICAL SITES WITHIN ONE MILE

There are ten (10) previously recorded archaeological sites located within one mile of study area, two of which are located within the study area (Table 4-2 and Figure 4-2). The sites within one mile include prehistoric lithic scatters and camps; as well as historic period domestic sites and refuse scatters. Of the sites within one mile, eight (8) have been determined not eligible and two (2) have not been formally evaluated by the VDHR. Of the two sites within the study area, both are historic period artifact scatters that have been determined not eligible for listing in the NRHP.

**Table 4-2: Table detailing all archaeological resources within one mile of study area. Orange highlight denotes site is within the limits of the study area.**

| VDHR # | Site Type | Cultural Designation | Temporal Association | NRHP Status |
|---|---|---|---|---|
| 44IW0327 | Camp | Native American | Early Archaic Period (8500 - 6501 B.C.E), Middle Archaic Period (6500 - 3001 B.C.E), Late Archaic Period (3000 - 1201 B.C.E), Early Woodland (1200 B.C.E - 299 C.E), Middle Woodland (300 - 999 C.E) | Not Evaluated |
| 44IW0336 | Lithic scatter | Native American | Pre-Contact | DHR Staff: Not Eligible |
| 44SY0128 | Dwelling, single | Indeterminate | Historic/Unknown | Not Evaluated |
| 44SY0316 | Dwelling, single | Indeterminate | World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0317 | Artifact scatter | Indeterminate | Reconstruction and Growth (1866 - 1916) | DHR Staff: Not Eligible |
| 44SY0318 | Dwelling, single | Indeterminate | Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0319 | Artifact scatter | Indeterminate | Reconstruction and Growth (1866 - 1916) | DHR Staff: Not Eligible |
| 44SY0320 | Dwelling, single | Indeterminate | World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0321 | Outbuilding | Indeterminate | Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0322 | Artifact scatter, Lithic scatter | Indeterminate | Pre-Contact, Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991) | DHR Staff: Not Eligible |

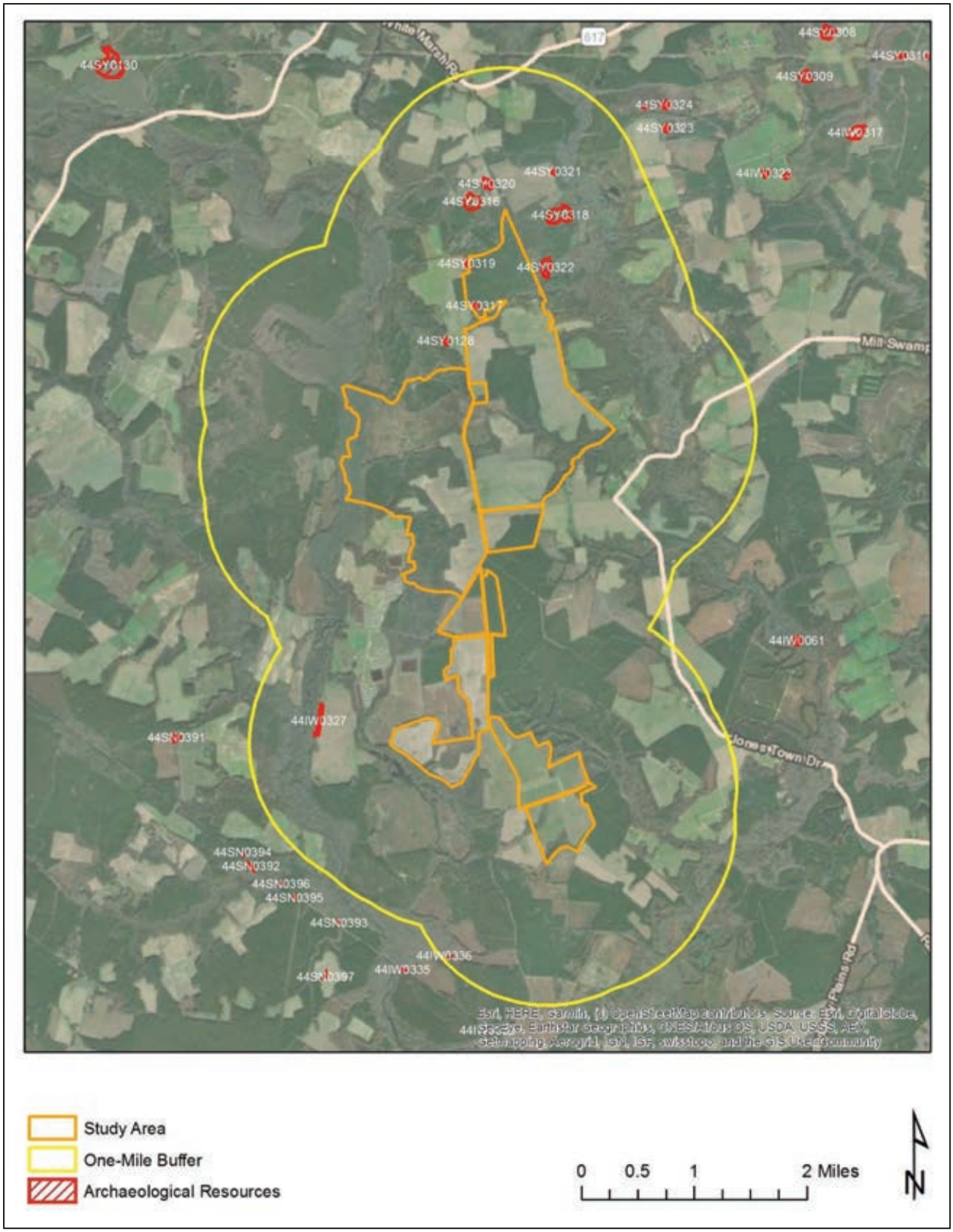


**Figure 4-2: Previously recorded archaeological sites located within one mile of the study area. Source: V-CRIS**

## PREVIOUSLY IDENTIFIED ARCHITECTURAL RESOURCES WITHIN ONE MILE

There are thirty-two (32) previously recorded architectural resources located one mile of the study area, nine (9) of which are located within the study area (Table 4-3 and Figure 4-3). The resources within one mile include single-family homes from the mid-eighteenth to mid-twentieth century, a commercial building from the turn-of-the-twentieth century, a church from the early-twentieth century, and a family cemetery from the early-twentieth century. Thirteen of the resources have been determined not eligible for listing in the NRHP by the VDHR and the rest have not been formally evaluated. Of the nine resources within the study area, nine are dwellings with four from the early-nineteenth century, four from the late-nineteenth century, and one from the early-twentieth century; and one is a late-nineteenth century commercial building. One late-nineteenth and one early-twentieth century dwelling have been determined not eligible for listing in the NRHP and the rest have not been formally evaluated.

**Table 4-3: Previously identified architectural resources located within one mile of the study area. Orange highlight denotes resource is located within the study area.**

| VDHR ID# | Resource Name | Type | Year | NRHP Status |
|---|---|---|---|---|
| 046-0029 | House, Route 622 (Function/Location) | Single Dwelling | c.1800 | Not Evaluated |
| 046-0030 | Betts House (Historic) | Single Dwelling | c.1802 | Not Evaluated |
| 046-0032 | Dudley House and Outbuildings (Historic) | Single Dwelling | c.1820 | Not Evaluated |
| 046-0055 | Tenant House, Sycamore Crossroads (Historic/Current) | Secondary Dwelling | c.1800 | Not Evaluated |
| 046-0056 | Grays' Brick House (Historic/Current) | Single Dwelling | c.1825 | Not Evaluated |
| 046-0057 | Brick House (Descriptive) | Single Dwelling | c.1825 | Not Evaluated |
| 046-0068 | Wilson Hollemon House, Mill Swamp Rd (Rt 621) (Historic/Location) | Single Dwelling | c.1830 | Not Evaluated |
| 046-5147 | Farmhouse, 14537 Rattlesnake Trail (Function/Location) | Single Dwelling | 1850 | Not Evaluated |
| 046-5148 | Farmhouse, 13407 Ramsey Road (Function/Location) | Single Dwelling | 1880 | Not Evaluated |
| 046-5149 | Store, Intersection of Mill Swamp Road and Sycamore Cross Drive (Function/Location) | Commercial Building | 1899 | Not Evaluated |
| 046-5150 | Farmhouse, 11356 Proctors Bridge Road (Function/Location) | Single Dwelling | 1899 | Not Evaluated |
| 046-5151 | Mill Swamp Baptist Church & Cemetery (Historic/Current) | Church/Chapel | 1928 | Not Evaluated |
| 046-5152 | Store, 6159 Jones Town Road (Function/Location) | Service Station | c.1930 | Not Evaluated |
| 046-5234 | William Gray House (Historic/Current) | Single Dwelling | c.1825 | Not Evaluated |
| 046-5260 | House, 6330 Mill Swamp Road (Function/Location), Mill Swamp Baptist Church Parsonnage (Historic) | Single Dwelling | c.1900 | Not Evaluated |
| 046-5550 | Dwelling, 10126 White Hill Trail (Function/Location) | Single Dwelling | 1890 | DHR Staff: Not Eligible |
| 046-5551 | Dwelling, 10106 White Hill Trail (Function/Location) | Single Dwelling | 1944 | DHR Staff: Not Eligible |
| 046-5552 | Dwelling, 10088 White Hill Trail (Function/Location) | Single Dwelling | c.1930 | DHR Staff: Not Eligible |
| 087-0003 | Binford House (Historic) | Single Dwelling | c.1750 | Not Evaluated |

| VDHR ID# | Resource Name | Type | Year | NRHP Status |
|---|---|---|---|---|
| 087-5328 | Brantley Home (Historic), Pretlow Farm (Historic) | Single Dwelling | c.1900 | Not Evaluated |
| 087-5509 | 1760 Henley Pretlow House (Historic), Captain Pretlow House (Historic), House 4071 Proctor's Bridge Road (Function/Location) | Single Dwelling | 1760 | Not Evaluated |
| 090-0051 | Stratman House (Historic/Current) | Single Dwelling | c.1750 | Not Evaluated |
| 090-5160 | Dwelling, 9091 White Marsh Road (Function/Location) | Single Dwelling | 1905 | DHR Staff: Not Eligible |
| 090-5161 | Dwelling, 9100 White Marsh Road (Function/Location) | Single Dwelling | 1949 | DHR Staff: Not Eligible |
| 090-5162 | Dwelling, 274 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1890 | DHR Staff: Not Eligible |
| 090-5163 | Dwelling, 337 Berrymans Corner Road (Function/Location) | Single Dwelling | 1942 | DHR Staff: Not Eligible |
| 090-5164 | Dwelling, 285 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1900 | DHR Staff: Not Eligible |
| 090-5165 | Simmons and Brown Cemetery (Current Name) | Cemetery | c.1900 | DHR Staff: Not Eligible |
| 090-5166 | Dwelling, 1122 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1930 | DHR Staff: Not Eligible |
| 090-5167 | Dwelling, 1097 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1965 | DHR Staff: Not Eligible |
| 090-5168 | Dwelling, 1676 Berrymans Corner Road (Function/Location) | Single Dwelling | 1870 | DHR Staff: Not Eligible |
| 090-5174 | House, Berrymans Corner Road (Function/Location) | Single Dwelling | c.1920 | DHR Staff: Not Eligible |

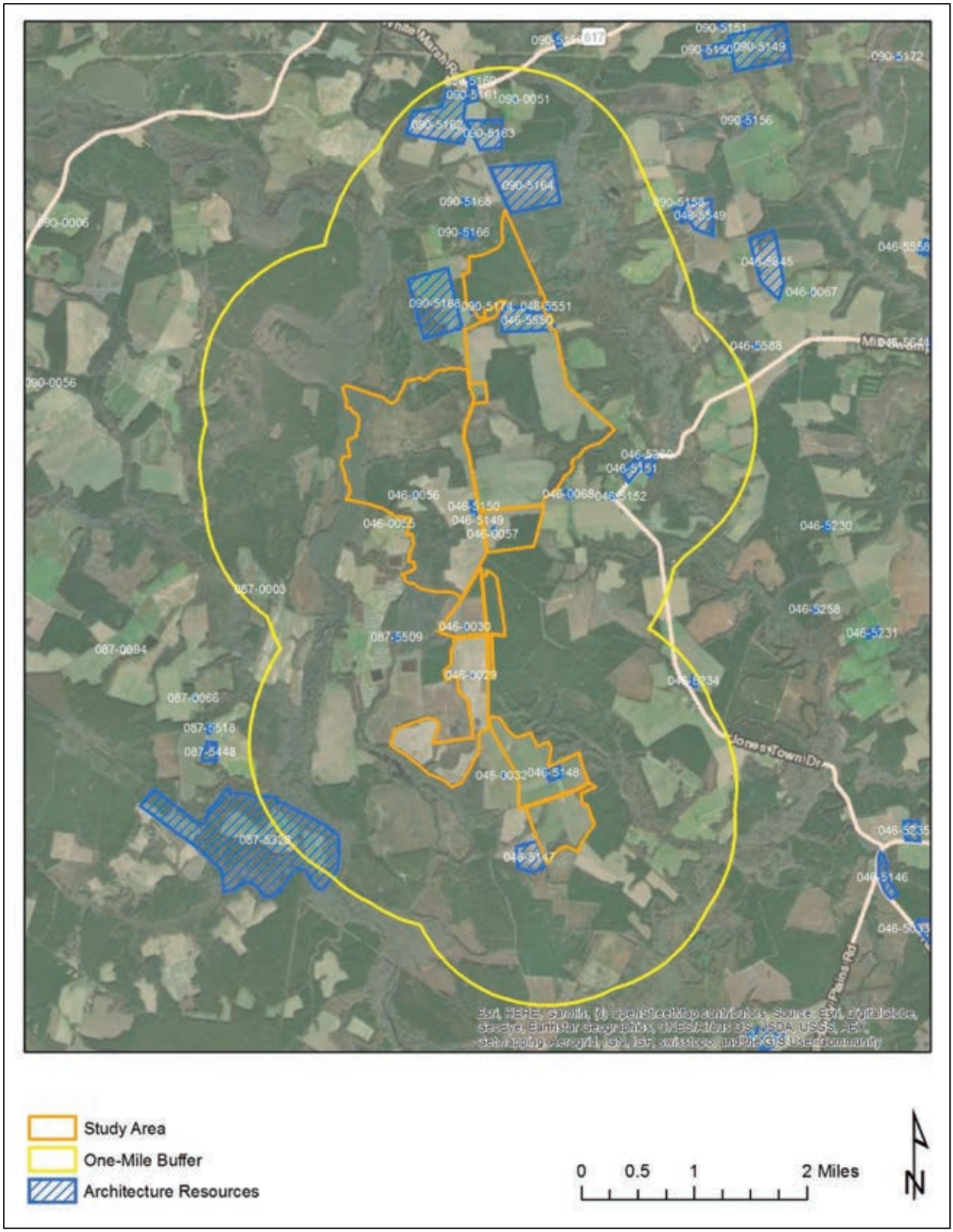


**Figure 4-3: Previously recorded architectural resources within one mile of the study area. Source: V-CRIS**

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# 5. HISTORIC MAP REVIEW

The Sycamore Cross Solar study area is located at the northwestern corner of Isle of Wight County, spanning the county line into Surry County. Prior to English arrival to Virginia, the region was home to the Warraskoyak living in the two major villages of Mathomank, near present-day Burwell's Bay, and Mokete, at Pagan Point. Though the tribes' primary villages were along the James River, they used interior lands up to at least 20 miles inland (King 1993:1). As early as 1608, the English crossed the James River to what is now Isle of Wight County though it would not be until 1619 when the first permanent English settlement was initiated in the future county (Morrison and Gwaltney 2006). While the south side of the James River was rich, the lands were fringed by swamps and the harbors were fewer and shallower making the region a bit less desirable (Rouse 1968:17).

The study area would have remained the frontier as settlement was focused along the James River. By 1634, the population of the Virginia Colony had grown to the point that King Charles I directed the formation of eight shires (counties). James City County spanned both sides of the James River and encompassed Surry County. To the east of it was Warroaquyoake, later renamed Isle of Wight (Rouse 1969:67).

Despite unrest between European settlers and American Indians, land continued to be granted. Land was first settled along the James River and its tributaries after which colonists were forced to move farther inland into the more swampy land. In the vicinity of the study area are Blackwater River and Mill Swamp.

By the mid-eighteenth century, the population increasingly moved inland from the James River and the farms in Isle of Wight County were typically between 500 to 1,700 acres (David 2007:9). According to V-CRIS records, several mid- to late eighteenth century homes were constructed less than two miles of the study area. During the American Revolution, though the British passed through Isle of Wight and Surry counties, closer to the James River, the war did not impact this region as it did nearby port towns, like Norfolk and Portsmouth (Figure 5-1).

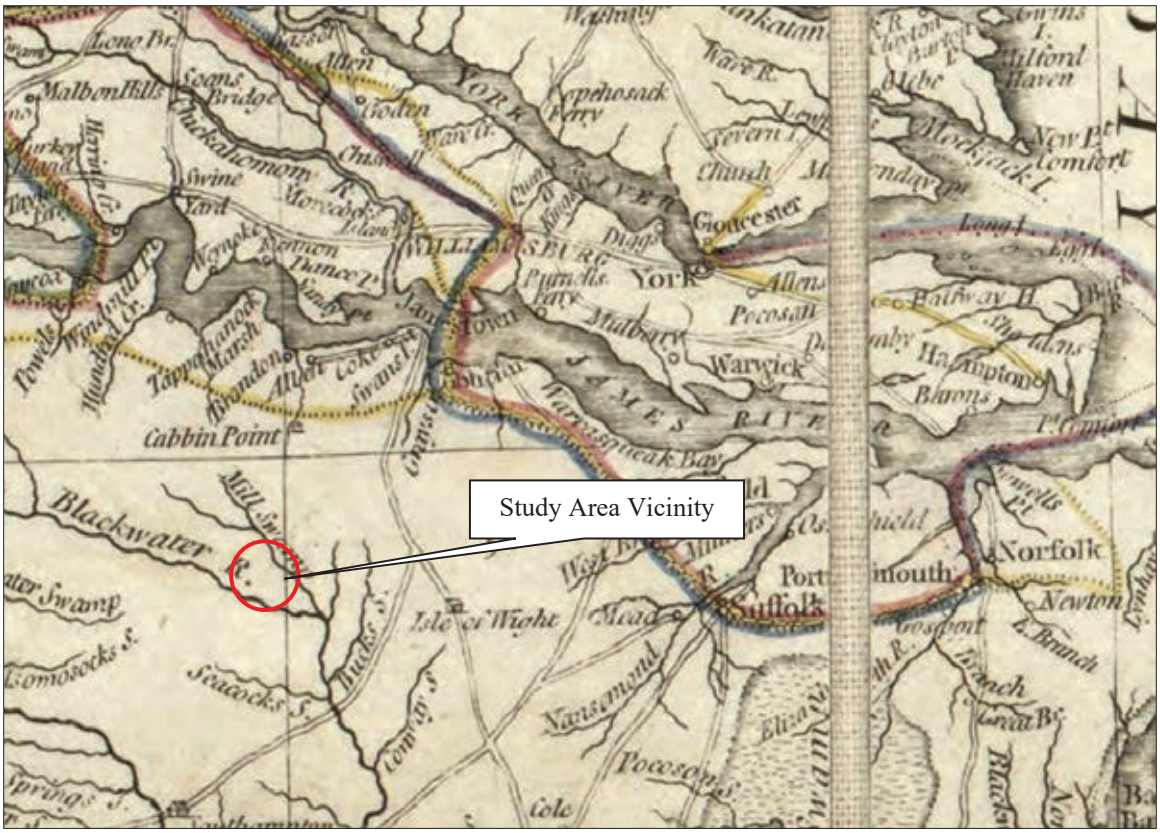


**Figure 5-1: Detail of *The marches of Lord Cornwallis in the Southern Provinces*, 1787, depicting general vicinity of the study area. Source: Library of Congress**

As time passed, the almost exclusively agrarian society was beginning to accommodate urban centers and small hamlets, although farming continued to be the primary means of livelihood. While the population remained relatively steady, there was a shift to the southern half of the county as people were enticed by the open lands and inland roadways. Roads began to increasingly cross the county and homesteads continued to be erected, including within the study area and the general vicinity (Figure 5-2).

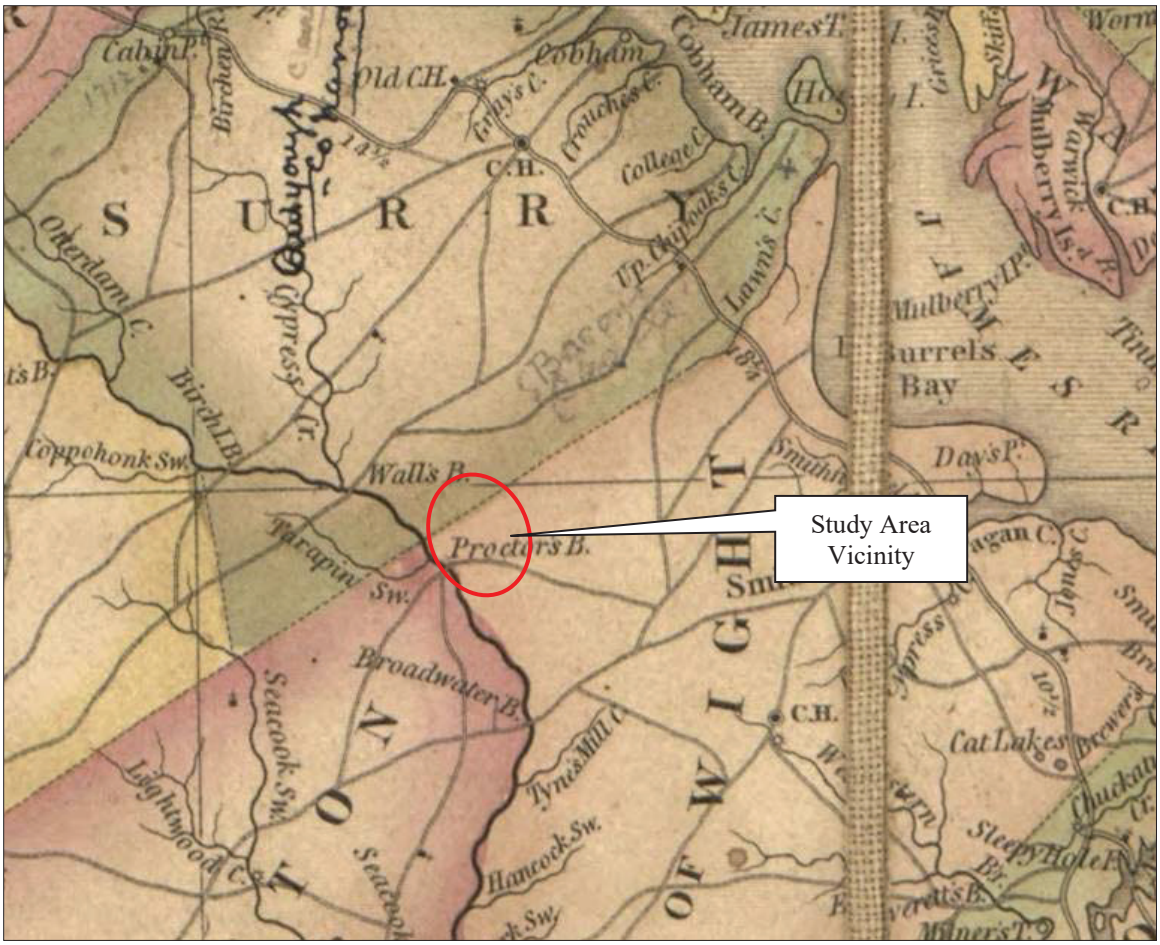


**Figure 5-2: Detail of *A map of the state of Virginia*, 1827, depicting the vicinity of the study area. Source: Library of Congress**

By the 1830s, a lasting migration from older settled regions of Virginia to lands opening in the west and an agricultural depression affected area's commerce and population. Between 1830 and 1850, the population of Isle of Wight County decreased 11 percent and that of Surry County fell by more than 13 percent (USCB). Despite the drop in population, the enslaved and free black population remained about 50 percent of the total population. Approximately 90 percent of the total population was involved in agriculture and identified as farmers (David 2007:10).

Despite the number of marshes crossing the study area, structures within it and in the vicinity were common by the mid-nineteenth century as evidenced by mid-nineteenth century maps. In Surry County, the study area appears to have been completed wooded (Figure 5-3). Mapping illustrates several buildings within or adjacent to the study area in Isle of Wight County, however (Figure 5-4). This includes homes related to the Bell, Betts, and Barlow families. According to a Works Progress Administration survey of Virginia's historical inventory, there was a small family cemetery associated with the Betts House that may be within the study area (Jordan 1937). The cemetery is not identified in Find-a-Grave or on topographic maps. Major roads crossed through the study area in Isle of Wight County, including that connecting to Proctor's Bridge over the Blackwater River. Also located in Isle of Wight County, on Rattlesnake Road (now Sycamore Cross Drive, Route 622) were a store and a schoolhouse.

**Figure 5-3: Detail of *Map of Surry Sussex and Southampton counties, Virginia*, 1863, depicting the portion of the study area in Surry County. Source: Library of Congress**

**Figure 5-4: Detail of *Map of Isle of Wight and part of Nansemond*, 1864, depicting the primary study area parcel cluster in Isle of Wight County. Source: Library of Congress**

During the Civil War, no major battles took place in the county, although a skirmishes did occur. The products of the countryside were depleted in service of the Confederate cause. Following the War Between the States, the longstanding agricultural economy of Tidewater Virginia began to recover and the production of peanuts increased. In addition to peanuts, the county produced oats, potatoes, fruits, vegetables, and oysters (Morrison and Gwaltney 2006). Timbering also prospered, as did the bacon and ham industry. As population increased, commerce also grew, particularly along the intersections of major inland roadways in the form crossroad stores. With improved

inland transportation corridors, crossroads stores became more common, within the study area was Sycamore Crossroads.

As the twentieth century continued, the number of farms steadily increased. Additionally, during this time many farms were subdivided and new single family homes were constructed or new dwellings replaced older homes on farms (David 2007:18). Topographic maps from this period illustrate the increase of buildings within and around the study area as well as a lumber railroad in the study area in Surry County (Figure 5-5).

**Figure 5-5: Detail of the 1919 and 1920 topographic maps, *Surry* and *Ivor,* depicting the primary study area parcel cluster. Source: USGS**

The end of World War II brought with it a building boom that would begin to change the character of the earlier farmsteads within counties, particularly Isle of Wight. With its proximity to Newport News, Portsmouth, and Norfolk, the county began to become a bedroom community. As the twentieth century continued and transitioned in the twenty-first, the study area remained much as it had historically, as a mixture of forested land and agricultural fields with some farmsteads (Figure 5-6 through Figure 5-10). Buildings previously depicted in the study area in Surry County, were no longer illustrated by the mid-twentieth century. Sycamore Crossroads remained, though it was referred as McClelland on the 1944 topographic map. On the same map, south of McClelland, McClelland School was depicted within the study area. This was a small school that served black students (Locations n.d.). The study area continues to show evidence of agriculture and timbering on its land.

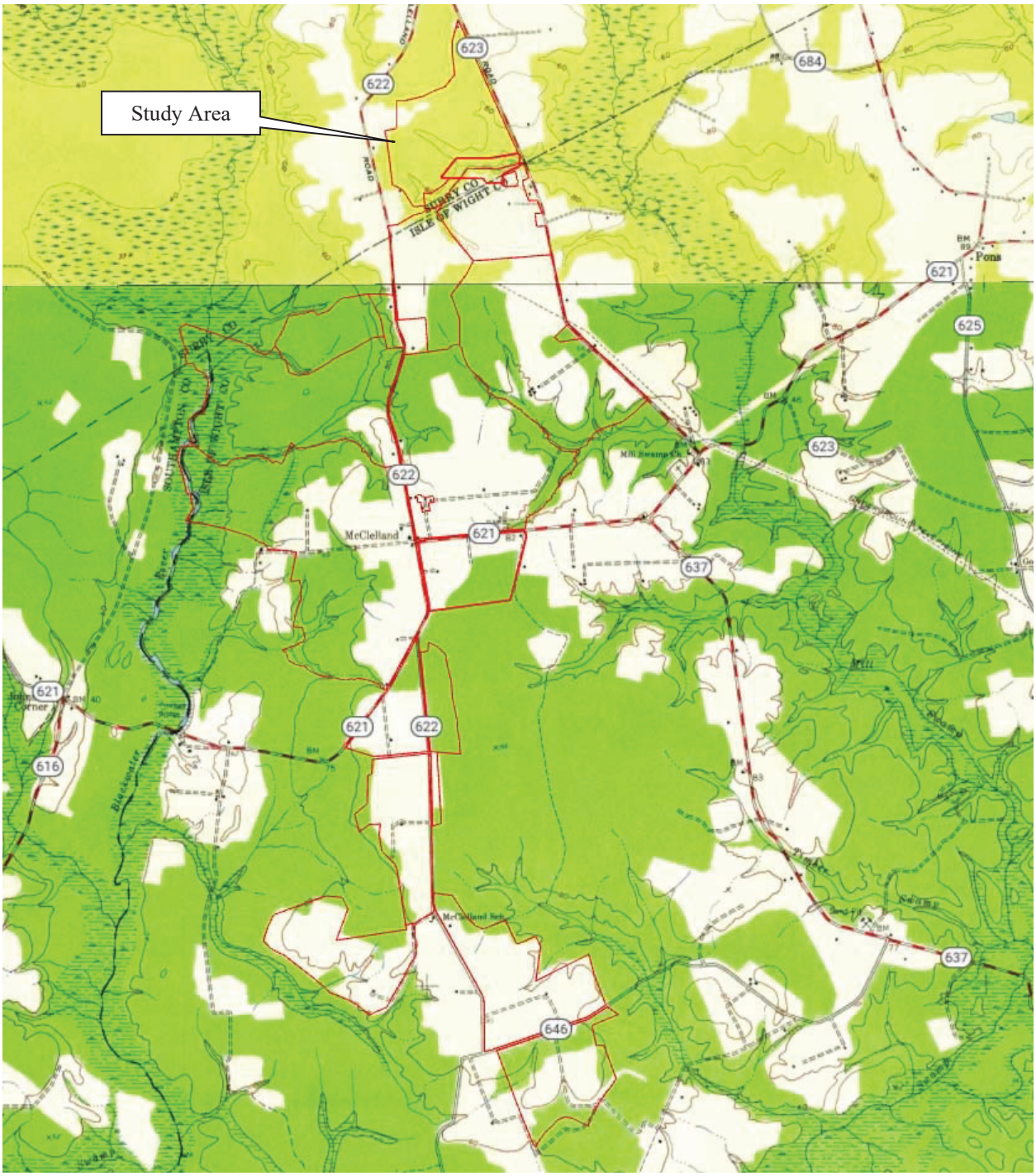


**Figure 5-6: Detail of the 1944 and 1954 topographic maps, *Raynor* and *Runnymeade*, depicting the primary study area parcel cluster. Source: USGS**

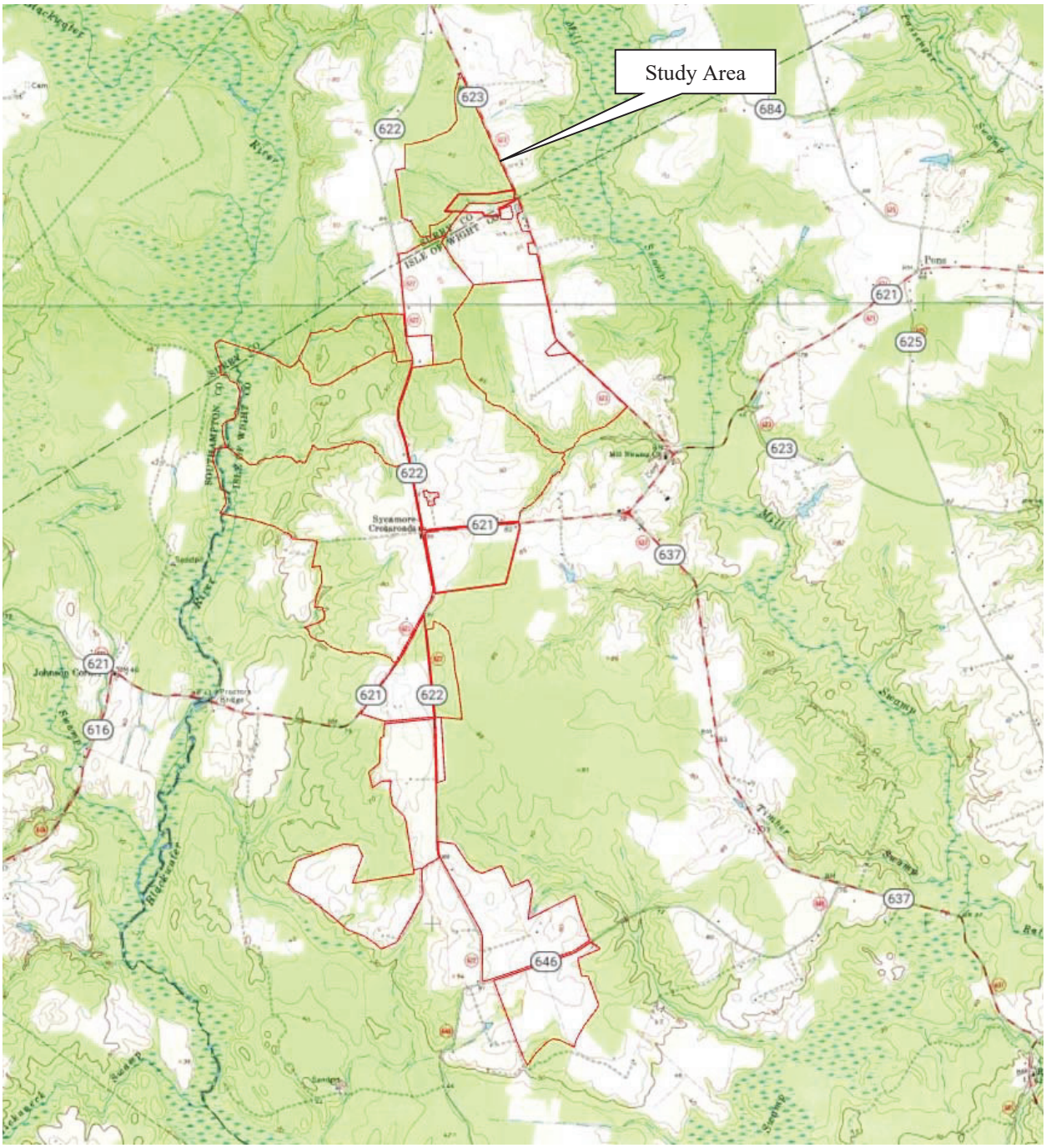


**Figure 5-7: Detail of the 1968 and 1971 topographic maps, *Raynor* and *Runnymeade*, depicting the primary study area parcel cluster. Source: USGS**

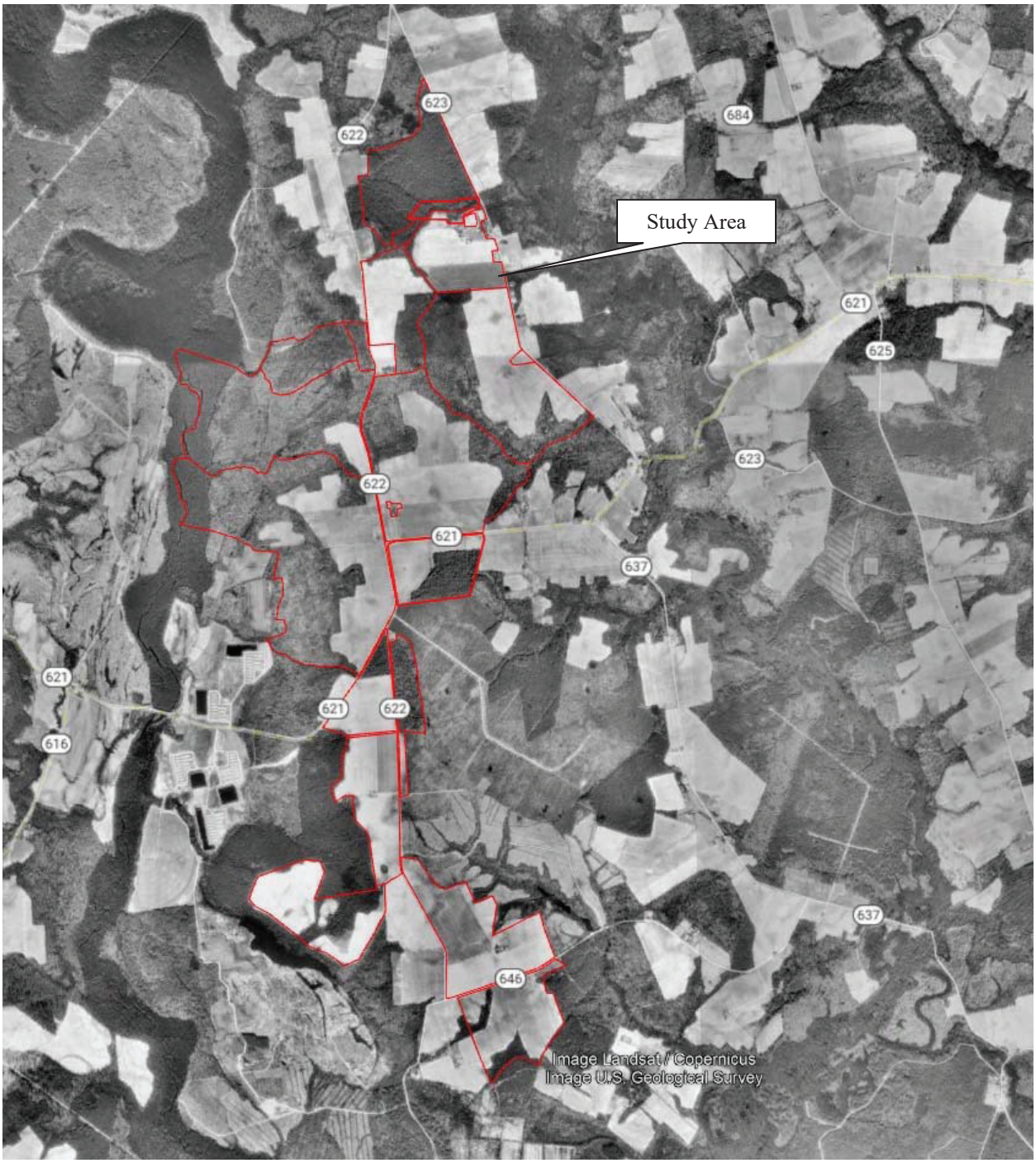


**Figure 5-8: Detail of a 1990 aerial depicting the primary study area parcel cluster. Source: Google Earth**

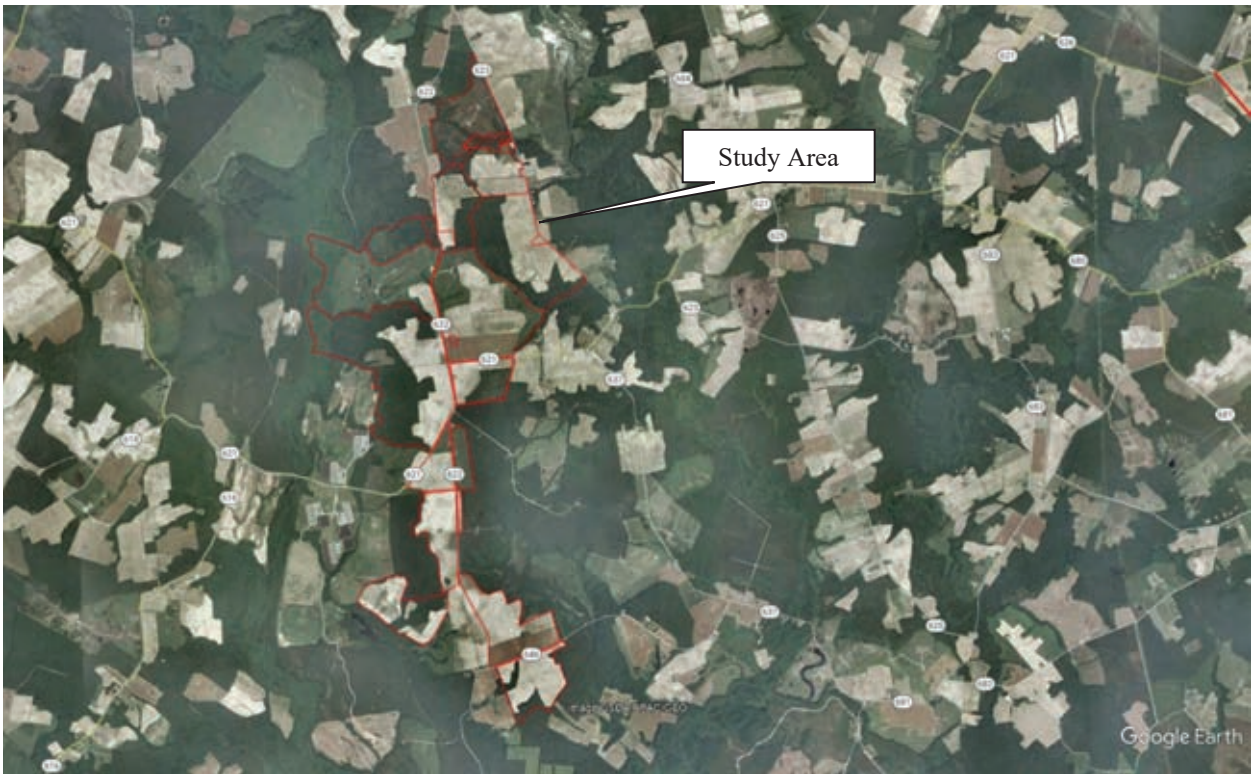


**Figure 5-9: Detail of a 2003 aerial depicting the study area. Source: Google Earth**

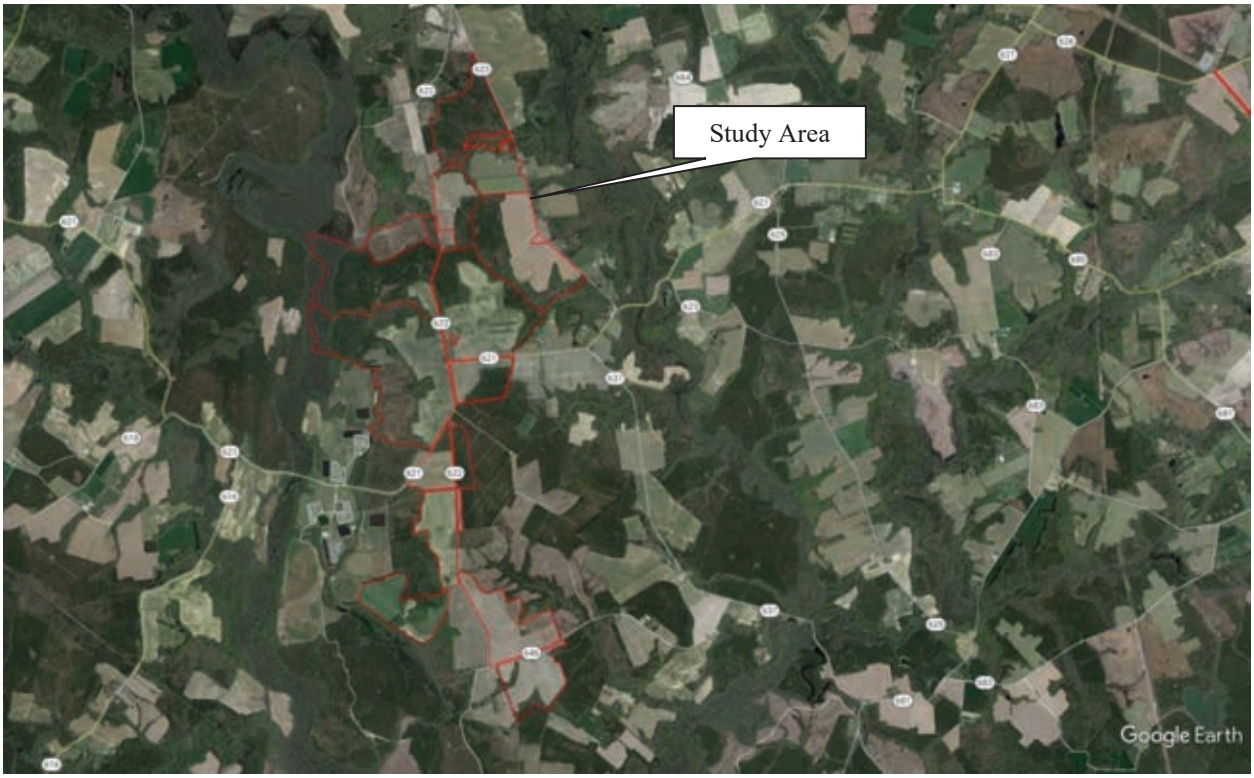


**Figure 5-10: Detail of a 2017 aerial depicting the study area. Source: Google Earth**

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# 6. ASSESSMENT RESULTS

On January 4th and 5th and June 28th and 29th, 2023, D+A performed field reconnaissance for the Phase IA cultural resources assessment of the Sycamore Cross Solar study area in Isle of Wight and Surry counties, Virginia. The field investigations involved a walkover reconnaissance of the study area tracts, as well as the excavation of nine (9) judgmental shovel test pits in order to determine soil stratigraphy within them. To organize the field investigations, the study area was divided into three sections, including the northern, central, and southern parcels (Figure 6-1). The results of the assessment are summarized below.

**Figure 6-1: Sycamore Cross Study Area depicting Field Reconnaissance Areas.**

## NORTHERN PARCELS

The Northern Parcels area consists of six tracts of land at the northern edge of the overall study area. The parcels are generally located between Berrymans Corner Road to the west and Mill Swamp Road to the east, and north of an unnamed tributary to Mill Swamp (Figure 6-2).

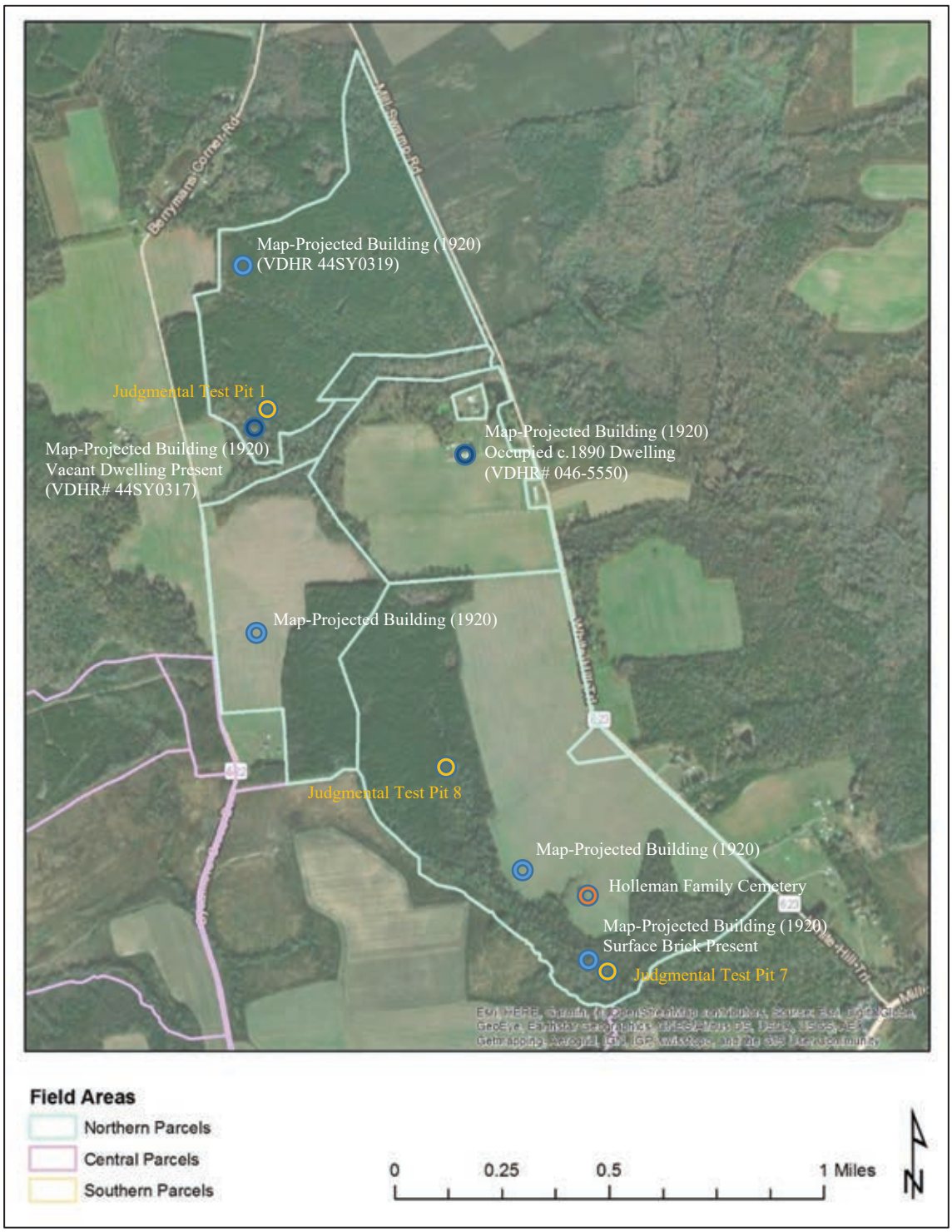



**Figure 6-2: Northern parcels map.**

At present time, the northernmost two parcels are completely wooded, while the lower parcels are a mix of open agricultural field, primarily occupying the portions of the area along the road while the central areas along the Mill Swamp tributary are wooded. Vegetation in the northern parcels consisted of mature planted pine with scrub understory (Figure 6-3) while the vegetation within the lower areas is a mix of native woodland along the drainage and mature planted pine (Figure 6-4 and Figure 6-5). The agricultural fields were fallow at the time of inspection in January and planted with corn as of June (Figure 6-6). The terrain of the area is generally flat, except along the drainages that cross through the lower edge of the northernmost parcel and centrally through the lower parcels, enroute towards Mill Swamp to the east.

One occupied dwelling and farm complex is located near the northern edge of this area just south of a drainage leading into Mill Swamp. This building appears to coincide with one labeled as "Turner" on Civil War-era maps and has been previously recorded as a circa 1890 dwelling (VDHR# 046-5550) (Figure 6-7). Two additional previously recorded dwellings from the early- to mid-twentieth century are located along the road to the front of this house (VDHR# 046-5551 and 046-5552), but both are excluded from the project study area.

One abandoned dwelling with an associated outbuilding was observed in the western edge of the northernmost parcel (Figure 6-8). This building is located within the limits of previously recorded site VDHR# 44SY0317, recorded as a Reconstruction and Growth (1866-1916) era site that has been determined not eligible. Civil War-era maps reveal what is now Sycamore Cross Road was present along the western edge of the area, but suggests the area remained wooded and undeveloped at that time. However, a 1920 topographic map reveals a building present by that time in generally the same location as the abandoned home. A driveway off Berrymans Corner Road (SR 622) leads to the home.

The 1920s topographic map also reveals several additional buildings scattered throughout the northern parcel area, none of which remain extant, although evidence of several remain. One in the northwestern corner of the area coincides with site 44SY0319 but no surface evidence was observed. This site has been recorded as a Reconstruction and Growth (1866-1916) era site that was determined not eligible for listing in the NRHP by the VDHR. A relic farm lane from Sycamore Cross Drive in the western most parcel leads to the location of one of the map-projected buildings although field inspection did not reveal surface evidence of the building. The 1920 map projects two additional buildings along the drainage in the southernmost parcel of this area of which a brick was observed on the surface in the vicinity of one (Figure 6-9) but no evidence was observed of the second. A family cemetery associated with the Holleman family was observed within a copse of trees set between the map-projected locations of these buildings (Figure 6-10).

**Figure 6-3: Planted pine forest of northernmost Parcel, looking South from Judgmental 1**

**Figure 6-4: Field edge within southernmost Parcel, looking northeast from near Judgmental 7**

**Figure 6-5: Wooded area along drainage in southernmost parcel, looking northwest from Judgmental 8**

**Figure 6-6: Corn planted within southernmost parcel, looking southeast**

**Figure 6-7: Occupied dwelling along Mill Swamp Road generally coinciding with "Turner" on Civil War-era maps and previously recorded as circa 1890 VDHR# 046-5550.**

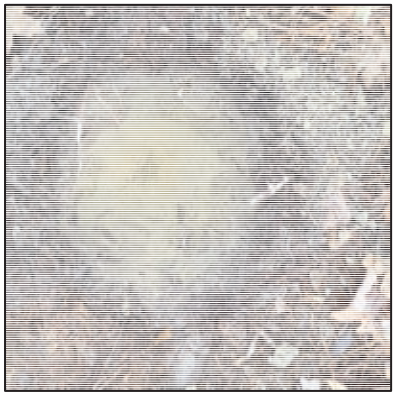
**Figure 6-8: Vacant dwelling in the northernmost parcel coinciding with Site 44SY0317.**

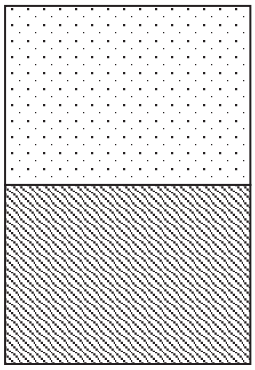
**Figure 6-9: Brick on surface in the vicinity of a 1920 map projected building**

**Figure 6-10: Headstone within family cemetery, looking east.**

Three judgmental shovel tests were excavated throughout the northern parcel assessment area, including one in the northwestern portion of the area near a standing home in the vicinity of Site 44SY0317 (STP 1), one within a wooded area bordering the drainage that extends through the central portion of the area (STP 2), and one in the southern portion of the area in the vicinity of a 1920 map projected home where a brick was encountered on the surface (STP 3).

Judgmental STP 1 confirmed disturbed topsoil in what appears to be a previously logged area and was negative for cultural material. Soils consisted of a topsoil layer of 2.5Y 5/4 silty clay loam topsoil (A horizon) over top of 2.5Y 5/6 silty clay subsoil (B horizon) (Figure 6-11). The shovel test pit was highly disturbed, with little historic integrity remaining.



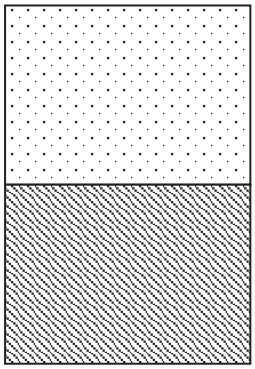


2.5Y 5/4 silty clay loam
0-33 cm

2.5Y 5/6 silty clay
33-40 cm

**Figure 6-11: Soil profile of Judgmental 1.**

Judgmental STP 8 confirmed disturbed topsoil in what appears to be a previously logged area and was negative for cultural material. Soils consisted of a topsoil layer of 2.5Y 5/6 sandy clay loam topsoil (A horizon) over top of 2.5Y 6/6 sandy clay subsoil (B horizon) (Figure 6-12).



2.5Y 5/6 sandy clay loam
0-41 cm

2.5Y 6/6 sandy clay
41-51 cm

**Figure 6-12: Soil profile of Judgmental 8.**

Judgmental STP 7 revealed natural soil stratigraphy within an area of native vegetation bordering a drainage and was negative for cultural material. Soils consisted of a topsoil layer of 10YR 7/4

sandy loam topsoil (A horizon) overlying 2.5Y 7/3 sandy clay loam, over top of 5Y 6/4 sandy clay subsoil (B horizon) (Figure 6-13).

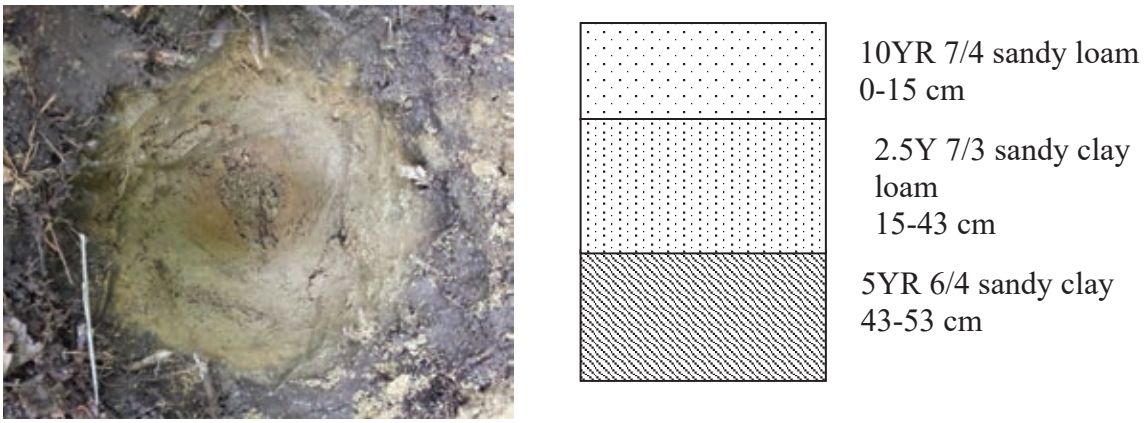



**Figure 6-13: Soil profile of Judgmental 7.**

## CENTRAL PARCELS

The Central Parcels area consists of six tracts of land sited centrally within the overall study area. The area spans Sycamore Cross Drive/Proctors Bridge Road (State Rte 622) and borders Blackwater River to the west and an offshoot of Mill Swamp to the east (Figure 6-14).

**Figure 6-14: Central parcels map.**

At present time, the area is a mix of open agricultural field and woodland, including both native forest and planted pine. The terrain in the crop fields of the central area parcels is generally flat while the forested and timbered areas to the rear of the parcels are slightly more rolling down to the bordering rivers and swampy areas. Most of the two parcels east of Sycamore Cross Drive are cleared as agricultural fields that are currently in crop. The northern field is bordered by a planted pine stand that has been logged within the last three years (Figure 6-15), although a narrow drainage extends through the front of the parcel along and crossing Sycamore Cross Road (Figure 6-16). The entrances to the timbered areas do not appear well maintained or easily accessible but there are farm roads in the crop fields that provide access to the properties. The southern field is bordered by a large patch of deciduous forest (Figure 6-17). Of the tracts on the west side of Sycamore Cross Road, the front portions (nearest the road) are cleared field while the rear portions nearer Blackwater River are wooded. The majority of the woodland in the southern tract is a mix of young-growth pine interspersed with native hardwood and swampy wetland vegetation along a network of drainages leading into the river (Figure 6-18). The large middle parcel was planted timber that was harvested within the last three years leaving just narrow lines of native vegetation along a drainage at the front of the tract and along Blackwater River to the rear. The northernmost two tracts on the west side of Sycamore Cross Road is a mix of native hardwood, young pine, and scrub brush (Figure 6-19 and Figure 6-20).

There were four standing buildings observed within the Central parcels area, one of which is located within a small parcel excluded from the study area footprint, while the other three are within the study area limits. Two of the extant buildings appear to coincide with structures depicted on Civil War-era maps and a third is also believed to be Antebellum but is not illustrated on maps from that period. At that time, two buildings were shown in proximity to the intersection of Sycamore Cross Road and Mill Swamp Drive including one on the northeast corner that was labeled as a "store" and an unlabeled building was mapped across the road to the south. The mapped location of the store coincides with the location of the standing building that is located within an exclusion parcel (Figure 6-21). This building functions as a dwelling, but may historically have operated as a tavern or "store". The building mapped on the south side of the intersection appears to coincide with a ruinous structure that remains within an agricultural field that is recorded as VDHR# 046-0057 (Figure 6-22 through Figure 6-24). A third building believed to be Antebellum was observed near the western edge of the assessment area, but does not appear to be depicted on Civil War-era maps. The structure has been previously recorded as the circa 1825 "Gray's House" (VDHR# 046-0056). The dwelling remains in ruinous condition, however, a variety of materials and evidence of other features, including brick fall, and subsurface pits were observed in the vicinity of the house (Figure 6-25 through Figure 6-30). Civil War-era maps do depict a building on the west side of Sycamore Cross Drive north of Gray's House and therefore may represent the same building with a mapping discrepancy. Field investigation did not reveal any surface evidence of a structure in the map-projected location of this building, however, there were artifacts such as whiteware, terracotta drainpipe, solarized glass, and brick fragments observed in the plowed field where the building was map-projected. In the trees to the west of the field, there was a push pile with a large stone and some modern detritus but no indications of extant structures or foundations (Figure 6-31).

The 1920 topographic map also reveals eight additional buildings present by that time, one of which coincides with the fourth standing buildings observed in the area. This building has been previously recorded as an 1899 dwelling (VDHR# 046-5150) (Figure 6-32). Field inspection did

not reveal surface evidence of any of the other map-projected buildings. None of the previously recorded buildings have been formally evaluated for NRHP-eligibility.

**Figure 6-15: Recently timbered terrain and vegetation around Judgmental 3, looking East.**

**Figure 6-16: Drainage between Berrymans Corner Rd and timbered field, looking East.**

**Figure 6-17: Debris pile within wooded area along southeastern edge of area, looking southwest.**

**Figure 6-18: Planted pine and wetland vegetation, looking west from Judgmental 4.**

**Figure 6-19: Deciduous vegetation and scrub in northern tract on west side of Sycamore Cross Road, looking south.**

**Figure 6-20: Planted pine in northern tract on west side of Sycamore Cross Road, looking southeast.**

**Figure 6-21: Intersection of Sycamore Cross Drive and Mill Swamp Road showing Civil War-era "store" to the right (within exclusion parcel) and c.1899 farmhouse (VDHR# 046-5150) to the left, looking north.**

**Figure 6-22: Ruinous c.1825 structure (VDHR# 046-0057) located southeast of Sycamore Cross Road and Mill Swamp Drive, looking east.**

**Figure 6-23: View of ruinous c.1825 structure (VDHR# 046-0057), looking north.**

**Figure 6-24: Interior view of ruinous c.1825 structure (VDHR# 046-0057), looking southeast**

**Figure 6-25: Circa 1825 "Gray's Brick House" (VDHR# 046-0056) in western portion of assessment area, looking northeast.**

**Figure 6-26: Depression near Gray's Brick House, looking west.**

**Figure 6-27: Second depression near Gray's Brick House, looking north.**

**Figure 6-28: Brick pile near Gray's Brick House, looking southeast.**

**Figure 6-29: Gray's Brick House setting, looking north.**

**Figure 6-30: Swampy area at rear of western parcel, looking northeast.**

**Figure 6-31: Push-pile and stone in treeline near Civil War-era map-projected building site in western parcel, looking southwest.**

**Figure 6-32: View of c.1899 farmhouse (VDHR# 046-5150), looking west.**

Four judgmental shovel test pits were excavated throughout this testing area including one near the standing c.1825 Grays Brick House (Judgmental STP 5), one within an area of native woodland (Judgmental STP 4), one within an area of young, mixed vegetation (Judgmental STP 9), and one

within a recently timbered area (Judgmental STP 3). Soils in these parcels vary drastically based on location. Soils near the Gray's House were undisturbed, primarily consisting of 10YR 4/3 sandy loam topsoil over top of 2.5Y 5/4 sandy clay subsoil (Figure 6-33). The shovel test pit in the native woodland area had similar stratigraphy; dry, although with wetland qualities, consisting of 10YR 3/2 Silty loam over 10YR 6/1 Sandy clay (Figure 6-34). The judgmental tests in the recently timbered areas were considerably deeper and disturbed. The soils in STP 3 consisted of a 2.5Y 5/6 Sandy clay loam (A horizon) over 10YR 5/6 Sandy clay (B horizon) (Figure 6-35).

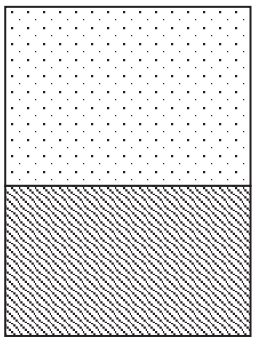



**Figure 6-33: Soil Profile of Judgmental 5.**

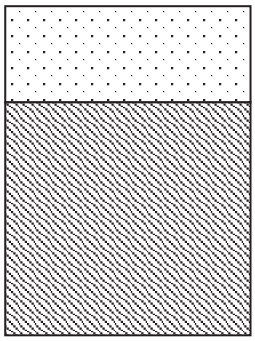
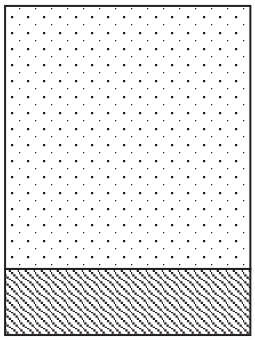



**Figure 6-34: Soil Profile of Judgmental 4.**



2.5Y 5/6 Sandy clay loam
0-68 cm

10YR 5/6 Sandy clay
68-80 cm

**Figure 6-35: Soil Profile of Judgmental 3.**

### SOUTHERN PARCELS

The Southern Parcels area consists of seven tracts of land sited at the southern end of the overall study area. The area spans Ramsey Road (State Rte 622) with three parcels on the west side of the road and three on the east side, as well as one on the south side of Rattlesnake Trail. The parcels generally back up to small drainages that dissect the area (Figure 6-36).

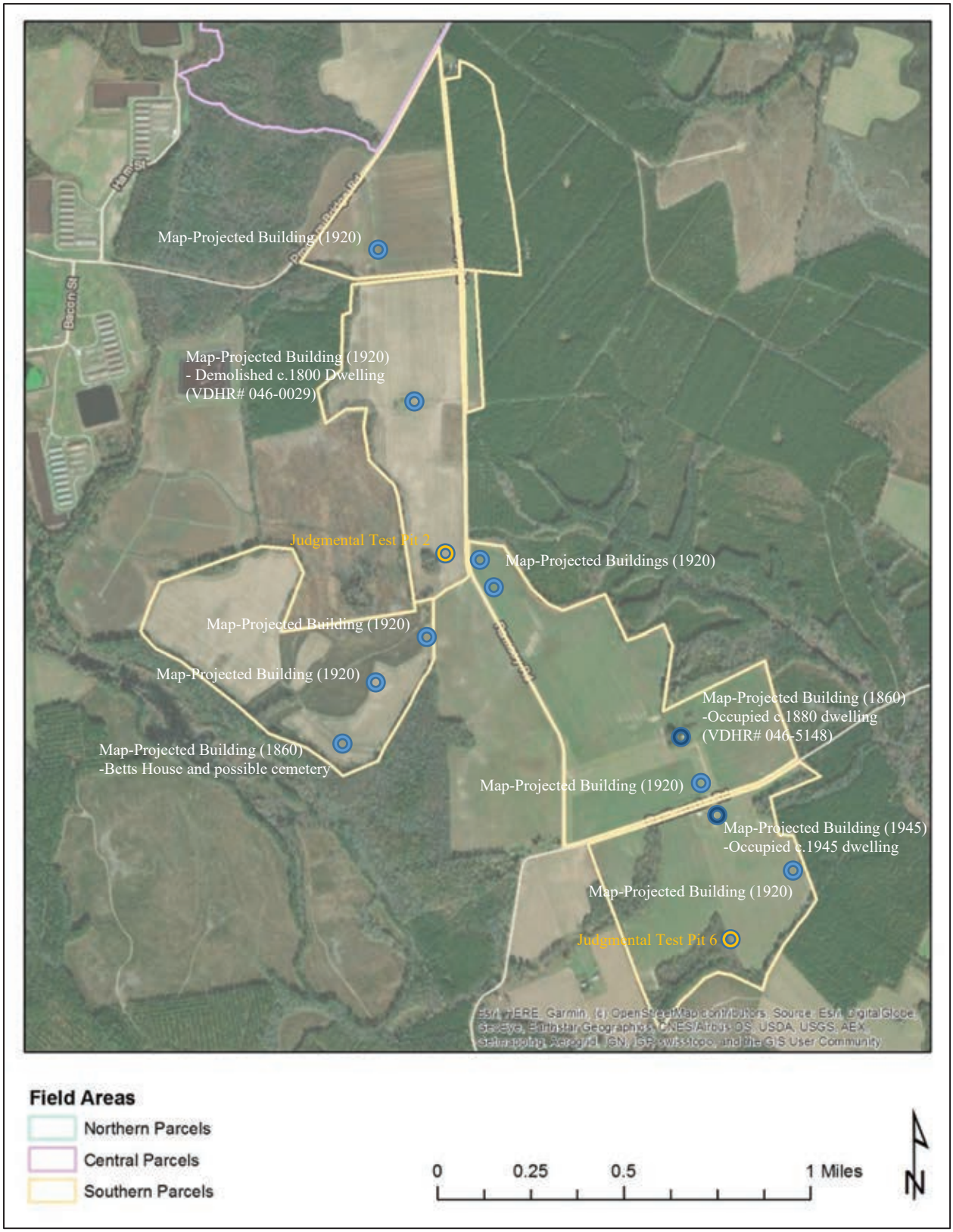



**Figure 6-36: Southern parcels map.**

At present time, this area is primarily open agricultural field with just small patches of planted and recently harvested timber, as well as smaller patches of vegetated native woodland. The timber harvested area is limited to the southwestern-most parcel abutting a drainage leading to Blackwater River that was harvested within the last three years. A network of logging roads leads through this parcel and beyond the timbered area to an agricultural field at the rear. Another large patch of planted pine is situated on the east side of Ramsay Road at the northeastern edge of this area. The native woodlands are limited to treelines bordering two low drainages that cross through the southeastern-most parcel and a larger patch of woodland in the northernmost parcel (Figure 6-37 and Figure 6-38). Vegetation in these areas consists of a mix of deciduous trees and some evergreens. The remaining portions of the southern parcel area are primarily agricultural fields that are currently in crop (Figure 6-39 through Figure 6-41). Terrain of this area is nearly flat, particularly within the crop field areas, while the edges and rear of the parcels slopes gently towards the short, low drainages that cross through the southernmost two parcels (Figure 6-42).

There were two standing building complexes observed within the Southern Parcels area, including a single-family home and associated outbuilding set near the road in the front of the southernmost parcel along Rattlesnake Road and a farm complex across the road to the north. The building on the north side of Rattlesnake Road appears to coincide with a Civil War-era map projected building, however, the home is previously recorded as a c.1880 dwelling (VDHR# 046-5148) (Figure 6-43 through Figure 6-45). The extant building on the south side of Rattlesnake Road coincides with a building depicted on a 1945 topographic map. The small frame building appears to date from the second-quarter of the twentieth century (Figure 6-46). Civil War-era maps reveal what is now Ramsey Road was present, as was Rattlesnake Trail, although this road was depicted at that time as secondary route. Another road crossing the area was also depicted and coincides with what is now a private farm lane along the lower edge of the southwestern-most parcel. In addition to the extant home on the north side of Rattlesnake Road that coincides with a Civil War map-projected building but is recorded as a c.1880 dwelling, another home labeled as "Betts" was depicted west of Ramsay Road. That building continues to be depicted on a 1920 topographic map of the area and was inventoried in the 1930s as part of a WPA project. That documentation noted the home as a frame structure and mentioned a family burial in the vicinity, however, no evidence of the structure or cemetery was observed at this time. The 1920 map depicts a number of additional buildings throughout the area as well, including two along the west side of Ramsay Road in the northwestern two parcels, two more set further back from Ramsay Road in the southwestern parcel, two set immediately along the east side of Ramsay Road, and two spanning Rattlesnake Road. Field investigation revealed evidence of one building projected on the west side of Ramsay Road on the 1920 topographic map, but none of the other map-projected buildings from the Civil War-era or 1920 topo map. The building site on the west side of Ramsay Road verified through field inspection was also previously recorded in 1973 as a c.1800 dwelling frame dwelling. At that time, it was noted as remaining in ruinous condition and was updated to demolished by 2005 (VDHR# 046-0029). Field inspection at this time confirmed the building is no longer extant, but the site is still evident as a grassy patch with relic hardwood vegetation at the end of a dirt lane within the center of an otherwise plowed and cultivated agricultural field. Located south of this homesite within the same parcel is a small patch of trees that is not depicted on maps until a 1960s aerial that reveals it as a ring of trees. Inspection at this time revealed a ring of hardwood trees with scrub brush and greenbriers throughout the interior (Figure 6-47). Several fence posts remain around the ring, and the soils were soft and uneven. A surface scatter of cultural materials included iron scrap and a twentieth century bottle dump (Figure 6-48 and Figure 6-49).

**Figure 6-37: Wooded area in northern parcel, looking east.**

**Figure 6-38: View of treeline in vicinity of Judgmental 6, looking north.**

**Figure 6-39: Landscape within southeastern parcel, looking north.**

**Figure 6-40: View towards map-project building site (VDHR# 046-0029) within northwestern parcel, looking north.**

**Figure 6-41: Crops within fields bordering Ramsay Road, looking north.**

**Figure 6-42: Terrain at edge of field in southernmost parcel, looking south.**

**Figure 6-43: Extant building on the north side of Rattlesnake Road coinciding with a Civil War map project and previously recorded as a c.1880 dwelling (VDHR# 046-5148), looking northeast.**

**Figure 6-44: Barn in the vicinity of the previously recorded c.1880 dwelling (VDHR# 046-5148), looking north.**

**Figure 6-45: Shed in the vicinity of the previously recorded c.1880 dwelling (VDHR# 046-5148), looking northeast.**

**Figure 6-46: Extant twentieth century dwelling along south side of Rattlesnake Road, looking southwest.**

**Figure 6-47: Tree ring in northwestern parcel, looking north.**

**Figure 6-48: Vegetation within tree ring, looking north.**

**Figure 6-49: Iron scrap within tree ring, looking west.**

Two judgmental shovel test pits were excavated in the southern parcels area, including one within an agricultural field in the northwestern parcel in the vicinity of the tree ring, and the other within the southwestern parcel near the edge of a field just inside the deciduous treeline. The shovel test within the field revealed a 28-cm deep 2.5Y 4/4 plow zone over a 2.5Y 5/6 A Horizon that extended to 44 cm deep resting on a 10YR 5/6 sandy clay subsoil (Figure 6-50). The shovel test within the treeline revealed a more natural soil profile consisting of a 2.5Y 4/2 sandy loam layer over 2.5YR 5/6 sandy clay loam (Figure 6-51).

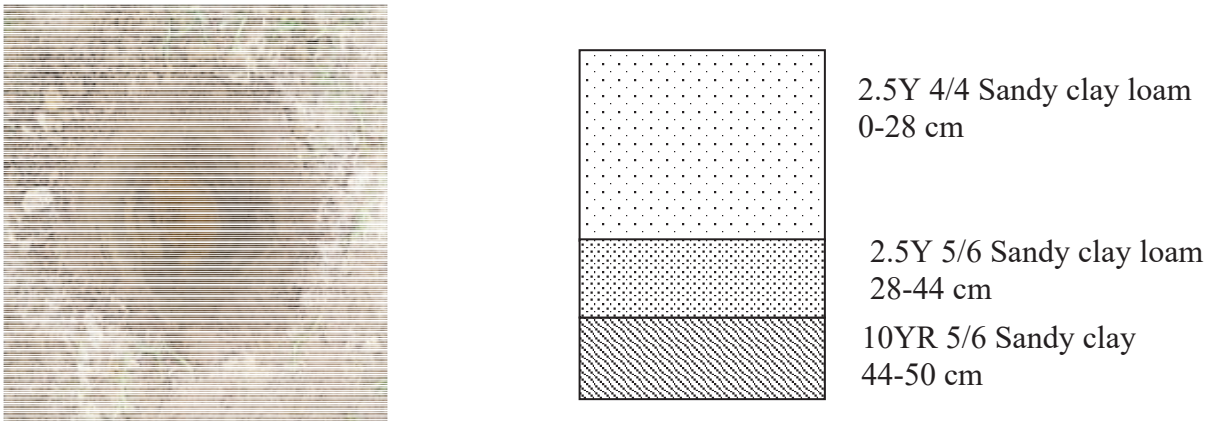
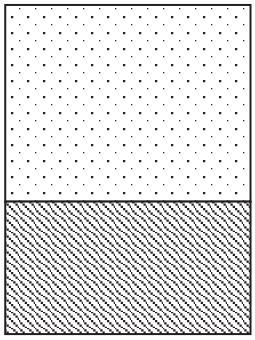



**Figure 6-50: Soil Profile of Judgmental 2.**



2.5Y 4/2 Sandy loam
0-24 cm

2.5Y 5/6 Sandy clay loam
24-37 cm

**Figure 6-51: Soil Profile of Judgmental 6.**

# 7. CONCLUSIONS AND RECOMMENDATIONS

In August 2023 Dutton +Associates, LLC (D+A) completed a Phase IA cultural resource assessment of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar study area in Isle of Wight and Surry counties, Virginia. The assessment was conducted for planning purposes in order to confirm existing conditions of the study area, note surface evidence of cultural activity, and identify recommended survey methods based upon the results of the background research and field reconnaissance. The study area is located near the border of Isle of Wight and Surry counties generally along Sycamore Cross Road, Ramsey Road, Mill Swamp Road, Rattlesnake Trail, and White Hill Trail. The study area consists of multiple parcels and tracts of land that may not correspond precisely with the boundaries chosen for the final development of the project. Rather, the study area represents the maximum extent of the parcels being considered for development.

Analysis of historic maps and aerial photographs from the mid-nineteenth to early-twentieth century reveal a well-established network of roads and a number of dwellings scattered across the study area during that period. Previous cultural resource survey has recorded a number of buildings from that period, although many have since been demolished and the study area is now sparsely developed. Just seven (7) building/building complexes remain extant within the study area, although they range from good condition and occupied to ruinous and abandoned. Several additional homes and building complexes are within or bordering the overall study area limits but are in carve-out parcels excluded from development. Buildings/complexes within the study area include two ruinous early-nineteenth century dwellings, three late-nineteenth century dwellings, a vacant early-twentieth century dwelling, and a mid-twentieth century dwelling. Field inspection revealed evidence of two additional map projected buildings that remain only as sites.

The study area is bordered by Blackwater River and Mill Swamp and crossed by numerous swamps, drainages, and pocosins. These natural resources would have been attractive to prehistoric hunters and gatherers, but the terrain within the study was not likely to have supported large, permanent settlements. The primary prehistoric resources that are likely to be present are small, temporary procurement camps located above the wetlands, however, no such sites have been previously recorded within the study area limits.

Although the study area contains a number of site-predictive factors, such as the natural resources, a historic road network, and mapped buildings, land use throughout the twentieth and twenty-first centuries has negatively impacted the stratigraphic integrity of the soils. Much of the study area has been used to produce timber for an extended period of time and multiple harvests resulting in multiple episodes of clearcutting, planting, and regrowth. Most of the regrowth has been in the form of trees planted in steeply-banked rows interspersed with deep furrows, and in most cases the topsoil and eluviated layers have been destroyed or displaced. Areas not put to use for timber have been used agriculturally and therefore subject to regular plow and tilling.

Based on the above observations, the locations of the map-projected buildings that were field verified as well as previously recorded architectural resources should be considered high potential for historic sites. Together, these account for an area covering about **34 hectares (85 acres)** total. The map-projected locations of buildings that were not visible through surface reconnaissance but reveal evidence of prior disturbance from logging should be considered moderate potential for

historic sites. Landforms bordering Blackwater River should likewise be considered moderate potential for prehistoric sites, in addition to open, well-drained fields that have not be previously disturbed by logging. Together, the moderate potential area covers an area of about **365 hectares (901 acres)** total. A 25% sample of the moderate potential areas should be subjected to targeted subsurface testing. This sample should include the least disturbed landforms that correspond to or share similar characteristics as the locations of buildings depicted on historic maps. The remainder of the study area that does not lie in wetland should be considered low potential for archaeological resources. A sample constituting 10% of the low-potential area should be subjected to subsurface testing. This 10% should include the least-disturbed terraces overlooking wetlands and intersections of streams to test for prehistoric resources; along the edges of roads and field depicted on Civil War-era maps to test for early historic sites; and any other areas that appear to be less disturbed in the field. The total low probability area is about **170 hectares (421 acres).** A large tract of land at the northern end of the study area has been subject to recent, approved phase I survey and that area will not require further investigation as part of this effort (Table 7-1 and Figure 7-1 and Figure 7-2).

**Table 7-1: Summary of archaeological potential within the study area.**

| Potential | Reason | STP Sample | Total Area | STP Area |
|---|---|---|---|---|
| **High** | Yard space around extant and map-projected architectural resources | 100% | 34 hectares<br>85 acres | 34 hectares<br>85 acres |
| **Moderate** | Yard space around map-projected architectural resources in areas of documented disturbance. Finger ridges and terraces overlooking Blackwater River and confluences. | 25%, chosen based on field conditions, pedestrian survey of remainder | 365 hectares<br>901 acres | 91 hectares<br>225 acres |
| **Low** | Areas with no site predictors | 10%, chosen based on field conditions, pedestrian survey of remainder | 170 hectares<br>421 acres | 17 hectares<br>42 acres |
| **No Subsurface Testing** | Wetlands, water-saturated soils, slopes greater than 15%, previously surveyed areas | Pedestrian survey where possible | 248 hectares<br>613 acres | Pedestrian survey where possible |
| **Total** | | | **817.46 hectares<br>2,020 acres** | **142 hectares<br>352 acres** |

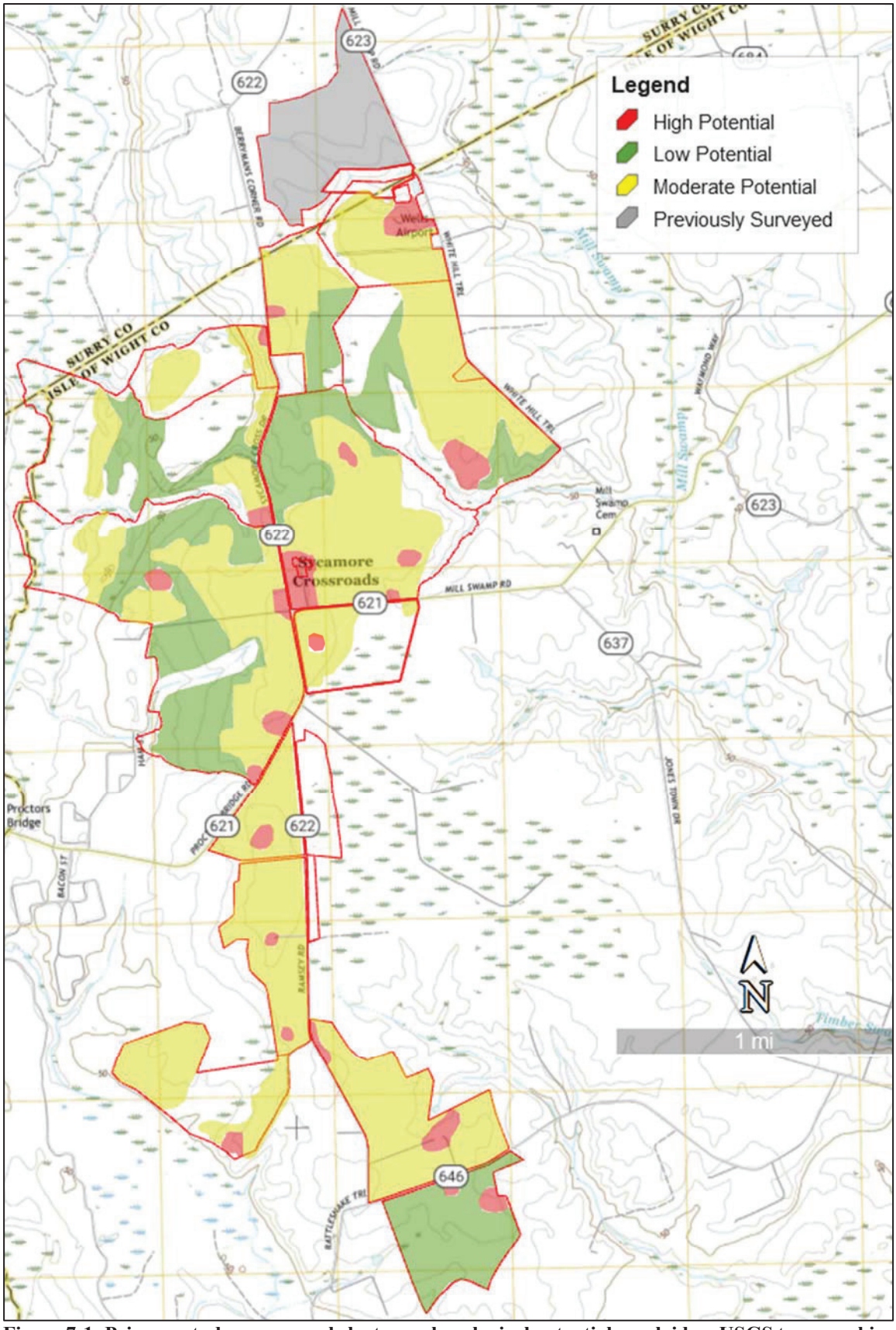



**Figure 7-1: Primary study area parcel cluster archaeological potential overlaid on USGS topographic map.**

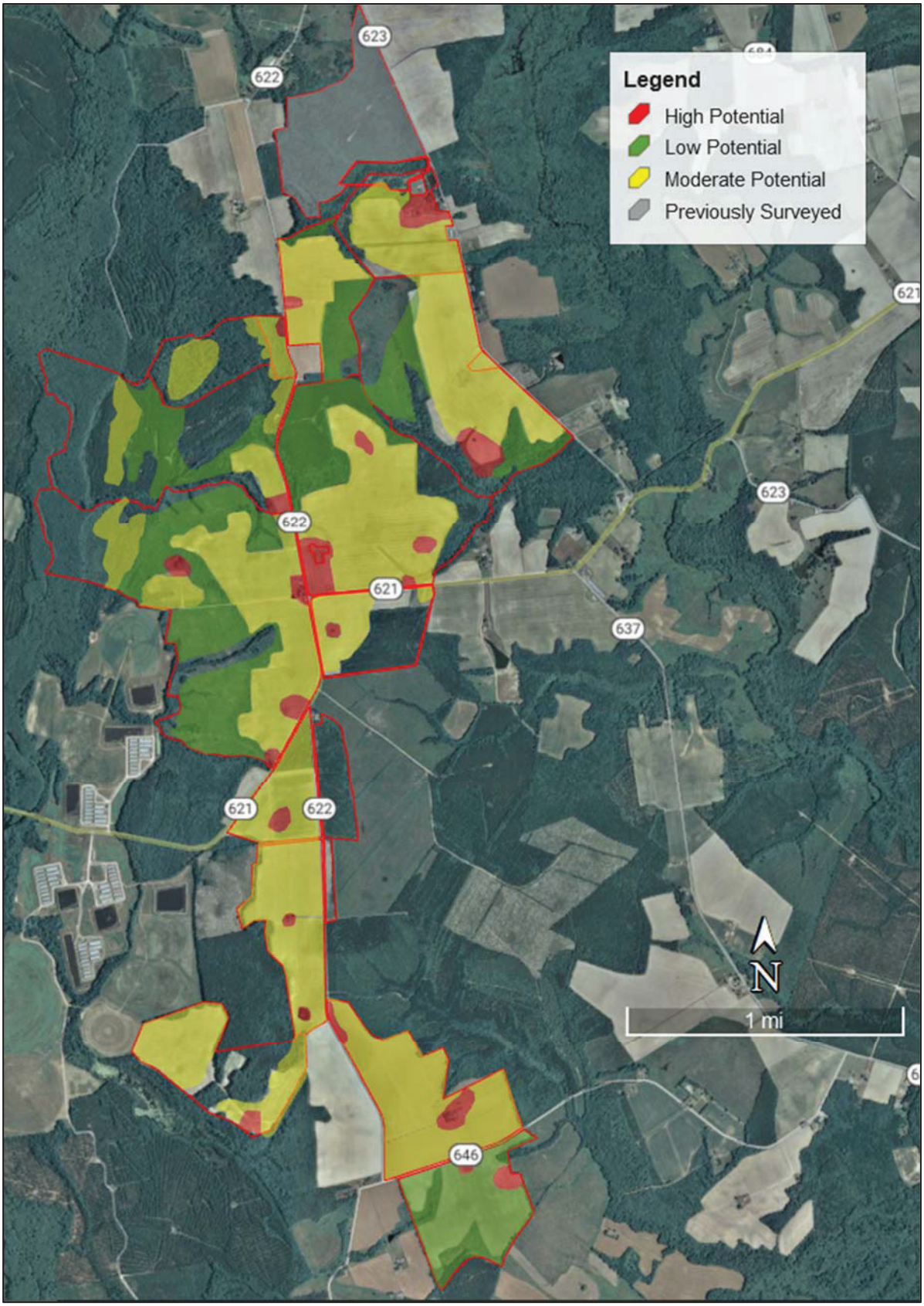



**Figure 7-2: Primary study area parcel cluster archaeological potential overlaid on aerial photography.**

COMMONWEALTH of VIRGINIA

Travis A. Voyles
*Secretary of Natural and Historic Resources*

**Department of Historic Resources**
2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan
*Director*
Tel: (804) 367-2323
Fax: (804) 367-2391
www.dhr.virginia.gov

August 28, 2023

Julia Wellman
Dept. of Environmental Quality
Office of Environmental Impact Review
P.O. Box 1105
Richmond, VA 23218

RE- Application of Sycamore Cross Solar, LLC, PUR-2023-00126
Isle of Wight and Surry Counties, VA
DEQ #23-108S
DHR File No. 2023-4691

Dear Ms. Wellman

We have received your request for comments on the project referenced above. Our comments are provided as assistance to the Department of Environmental Quality (DEQ) and the State Corporation Commission (SCC) in the review of this application. In general, the SCC application does not reflect the full record of consultation on this project, nor does it sufficiently identify potential impacts to historic properties that may be eligible for listing in the Virginia Landmarks Register (VLR)/National Register of Historic Places (NRHP).

On August 2, 2023, DHR received the OEIR review request. The application includes a Phase IA desktop analysis and proposed survey strategy for the Sycamore Cross Solar project area. Typically, DHR does not consider desktop analyses to be sufficient for identifying historic properties that may be eligible for the listing in the VLR/NRHP. Furthermore, the proposed survey strategy included in the application for the Sycamore Cross Solar project is, in our opinion, inadequate for identifying archaeological resources within the project area.

In a letter dated August 14, 2023, DHR provided comments to the applicant's consultants, Dutton and Associates (D+A) regarding the proposed survey strategy in the Phase IA desktop analysis report. DHR recommended revising the probability map to more accurately reflect previous disturbance and site probability. On August 24, 2023, DHR received a revised Phase IA report from D+A. The newly revised survey strategy is generally sufficient for identifying archaeological resources within the project area; however, this revised Phase IA is not included in the SCC application. The application should be amended to include the revised Phase IA report.

As stated earlier, desktop analyses are typically not considered sufficient for identifying historic resources that are eligible for listing in the VLR/NRHP and assessing the full impacts of a project on historic resources. Without a sufficient identification of historic properties, it is difficult for DHR to provide meaningful comments about potential adverse impacts. The desktop analysis does state that there are areas with moderate to high potential

for archaeological resources. These areas should be adequately surveyed, and any identified sites should be evaluated for eligibility for listing in the VLR/NRHP and assessed for impacts. The desktop analysis also listed previously identified architectural resources within the study area that have not been evaluated for the VLR/NRHP. Moderate to severe impacts to VLR/NRHP-eligible/listed resources should be avoided, minimized or mitigated in consultation with DHR and other stakeholders.

While DHR often supports the phased review of electric transmission line projects regulated by the SCC, solar projects often have much larger footprints and more extensive impacts on historic resources. We are concerned that any approval by the SCC at this time would be made with insufficient information to make an informed decision regarding the potential impact of this project on significant historic resources. That said, in order to fully identify and address impacts to historic resources, we recommend the following:

1. The SCC application must be updated to include the revised Phase IA report and amended survey plan.
2. Any project approval should allow for sufficient flexibility in design to accommodate avoidance of significant archaeological sites and minimization of visual impacts to adjacent properties and construction should not commence until the studies and analyses listed below and completed.
3. Archaeological and architectural surveys should be completed by qualified professionals in accordance with DHR's *Survey Guidelines* and the revised Phase IA report prior to any significant project-related ground disturbance. All identified resources should be evaluated for listing in the VLR/NRHP.
4. The results of the archaeological and architectural surveys should be submitted to DHR for review and comment.
5. Potential direct and indirect impacts to all VLR/NRHP-eligible/listed resources, including previously inaccessible properties, should be assessed in consultation with DHR.
6. All moderate to severe impacts to VLR/NRHP-eligible/listed resources should be avoided, minimized, and/or mitigated by the applicant in consultation with DHR and other stakeholders.

If you have any questions regarding these comments, please contact me at 804-482-8091 or via email, jennifer.bellville-marrion@dhr.virginia.gov.

Sincerely,

Jenny Bellville-Marrion
Project Review Archaeologist
Review and Compliance Division

Cc: Robert Taylor, Dutton and Associates

ISLE of WIGHT COUNTY MUSEUM

**MEMORANDUM**

TO: Amy Ring, Director of Community Development, Isle of Wight County

FROM: Jennifer England
Director, Isle of Wight County Museum
Historic Resources Manager, Isle of Wight County

RE: Sycamore Cross Solar Energy Generation Facility
Conditional Use Permit (CUP-8-23) – Third Submittal Tax Map Numbers 09-01-001, 10-01-017, 11-01-015, 16-01-002, 16-01- 002A, 16-01-003, 16-01-008, 16-01-009, 17-01-003, 17-01-003C, 17-01- 001, 17-01-002, 27-01-003, and 27-01-004

DATE: March 26, 2024

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After reviewing the **Updated Historical and Cultural Resources Report Dated August 2023** as prepared by Dutton + Associates for AES Clean Energy and sPower with reference to Conditional Use Permit (CUP-8-23), the Isle of Wight County Museum/Isle of Wight County Department of Historic Resources acknowledges that much of the acreage to be developed as a solar energy facility has been plowed, logged and utilized as farmland for many years. However, there are still a few notable concerns, and some of them are noted here as they were in a previous memorandum.

The report's study area includes multiple parcels and tracts of land--some of these span Isle of Wight County's border to cross into Surry County. Within the project area, there are multiple recorded archaeological and architectural resources. These sites as well as their boundaries are considered high potential for archaeological discovery. Expanding the project area by one mile adds other resources to this list. Vegetative cover may be required for the varied project locations within the viewshed of some of these historic resources.

103 Main Street
Smithfield, VA 23430
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(757) 357-0114 FAX

ISLE of WIGHT COUNTY MUSEUM

Of particular note are these sites. Avoidance with a 100-foot buffer is recommended. In the event that is not possible, a Phase II evaluation should be required.

- Site 44SYO309, farmstead
- Site 44SY0310, archaeological materials with a single grave
- Cemeteries in areas D2 and D3

There are nine previously recorded architectural resources located within the study area. Only two have been formally evaluated by Virginia Department of Historic Resources staff for eligibility on the National Register of Historic Places. Before proceeding with the project, the remaining resources should be formally evaluated. Additionally, these dwellings may or may not have associated cemeteries which will require avoidance.

Overall, the proposed project will certainly impact – both directly and indirectly - archaeological, cultural or architectural historic resources in Isle of Wight County. Determining the full extent of the project's archaeological history may not be possible because of size; however, if the project proceeds, an on-site archaeologist during site preparation and construction should be considered.

The potential on the project site for archaeological artifacts is highly likely. As the project proceeds, the Isle of Wight County Museum should be the repository for discovered artifacts and future finds on this site as they will further the interpretation or discovery of Isle of Wight County history.

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# SYCAMORE CROSS SOLAR
## ECONOMIC & FISCAL CONTRIBUTION TO THE COUNTIES OF SURRY AND ISLE OF WIGHT, VIRGINIA

**Prepared for**

aes

MANGUM economics

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# About Mangum Economics, LLC

Mangum Economics is a Glen Allen, Virginia based firm that was founded in 2003. Since then, we have become known as a leader in industry analysis, economic impact assessment, policy and program evaluation, and economic and workforce strategy development. The Mangum Team specializes in producing objective and actionable quantitative economic research that our clients use for strategic decision making in a variety of industries and environments. We know that our clients are unique, and that one size does not fit all. As a result, we have a well-earned reputation for tailoring our analyses to meet the specific needs of specific clients, with a specific audience.

Most of our research falls into four general categories:

- **Economic Development and Special Projects:** The Mangum Team has performed hundreds of analyses of proposed economic development projects. One recent example was an analysis of the proposed $2.3 billion Green City "net-zero eco district." The Mangum Team has also authored multiple economic development plans, including identifying industry recruitment opportunities created by the high-speed MAREA and BRUSA sub-sea cable landings in Virginia Beach.
- **Energy:** The Mangum Team has produced analyses of the economic and fiscal impact of over 23 GW of proposed solar, wind, battery, and hydro projects spanning twenty states. Among those projects was Dominion Energy's 2.6 GW Coastal Virginia Offshore Wind project off of Virginia Beach. In addition, the Mangum Team has also performed economic and fiscal impact analyses for the natural gas, nuclear, oil, and pipeline industries.
- **Information Technology:** Working with some of the largest names in the industry, to date the Mangum Team has produced analyses of the economic and fiscal impact of the data center industry in multiple states. Among those, were studies conducted in IL, MD, and VA that were instrumental in the passage of industry-specific legislation.
- **Policy Analysis:** The Mangum Team also has extensive experience in identifying and quantifying the intended and unintended economic consequences of proposed legislative and regulatory initiatives.

## The Project Team

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## Executive Summary

**This report assesses the economic and fiscal contribution that the proposed Sycamore Cross Solar project would make to the counties of Surry and Isle of Wight, Virginia. The primary findings from that assessment are as follows:**

1) **Sycamore Cross Solar is a proposed 240-megawatt (MW) alternating current (AC) solar photovoltaic power generating facility. The project would be located northeast of US Highway 460 and west of Route 10 in the counties of Surry and Isle of Wight, Virginia. The total acreage leased and purchased for the project would be approximately 1,156 acres of timberland and agricultural land.**
    - The actively used, fenced-in portion of the project site would encompass approximately 125 acres located in Surry County and approximately 1,030 acres located in Isle of Wight County.
    - The project would involve an investment of $437.1 million in capital equipment and improvements to the existing property. Approximately $34.6 million of that total would be located in Surry County and approximately $402.5 million would be located in Isle of Wight County.[1]

2) **The proposed Sycamore Cross Solar project would make a significant economic contribution to the counties of Surry and Isle of Wight:**
    - The proposed Sycamore Cross Solar project would provide an estimated one-time pulse of economic activity to the counties of Surry and Isle of Wight during its construction phase supporting approximately:
        - 197 direct, indirect, and induced job years.
        - $9.9 million in associated wages and benefits.
        - $91.6 million in economic output.
    - The proposed Sycamore Cross Solar project would provide an estimated annual economic impact to the counties of Surry and Isle of Wight during its ongoing operational phase supporting approximately:
        - 7 direct, indirect, and induced jobs.
        - $0.6 million in associated wages and benefits.
        - $1.6 million in economic output.

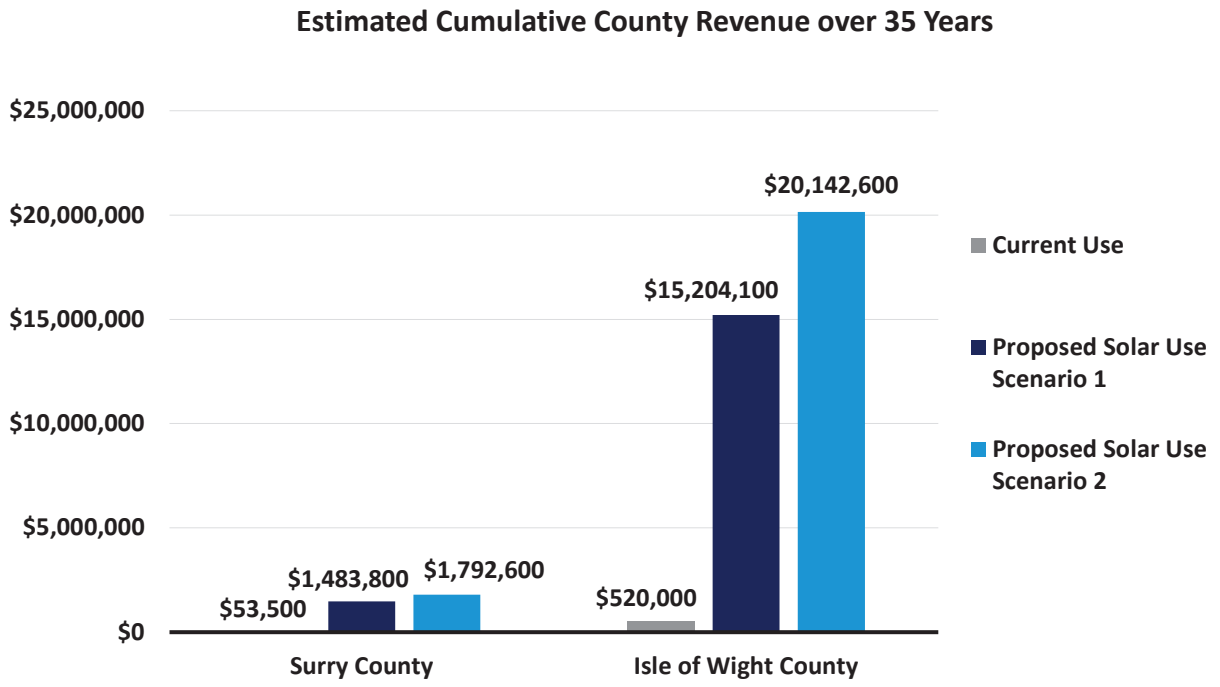
3) **The proposed Sycamore Cross Solar project would also make a significant fiscal contribution to the counties of Surry and Isle of Wight. The proposed project would generate approximately:**
    - $1.4 million in state and local tax revenue from the one-time pulse of economic activity associated with the project's construction.

[1] Data Source: AES Corporation. Allocation of generation capacity and investment subject to change based on final design.

- Surry County:
  - $1.5 million in cumulative county revenue over the facility's anticipated 35-year operational life assuming revenues are generated from the reassessment of the real property and the taxation of the associated capital investments, (Scenario 1); or
  - $1.8 million in cumulative county revenue over the facility's anticipated 35-year operational life assuming revenues are generated from the reassessment of the real property and payments associated with a locally adopted revenue share ordinance. The payments would be based on the project's generation capacity and would include a 10 percent escalator every five years (Scenario 2).
- Isle of Wight County:
  - $15.2 million in cumulative county revenue over the facility's anticipated 35-year operational life assuming revenues are generated from the reassessment of the real property and the taxation of the associated capital investments, (Scenario 1); or
  - $20.1 million in cumulative county revenue over the facility's anticipated 35-year operational life assuming revenues are generated from the reassessment of the real property and payments associated with a locally adopted revenue share ordinance. The payments would be based on the project's generation capacity and would include a 10 percent escalator every five years (Scenario 2).

4) **The proposed Sycamore Cross Solar project would have a significantly greater fiscal impact on The counties of Surry and Isle of Wight than the property generates in its current use:**

- Surry County: The proposed Sycamore Cross Solar project would generate approximately $1.5 million (from taxation on capital investments) or $1.8 million (from a revenue share ordinance) in cumulative county revenue over the facility's anticipated 35-year operational life, as compared to approximately $53,500 in cumulative county revenue in the property's current use – that's a 28- to 34-fold increase over the current use revenues.
- Isle of Wight County: The proposed Sycamore Cross Solar project would generate approximately $15.2 million (from taxation on capital investments) or $20.1 million (from a revenue share ordinance) in cumulative county revenue over the facility's anticipated 35-year operational life, as compared to approximately $520,000 in cumulative county revenue in the property's current use – that's a 29- to 39-fold increase over current use revenues.




*The estimates provided in this report are based on the best information available and all reasonable care has been taken in assessing the quality of that information. However, because these estimates attempt to foresee the consequences of circumstances that have not yet occurred, it is not possible to be certain that they will be representative of actual events. These estimates are intended to provide a good indication of likely future outcomes and should not be construed to represent a precise measure of those outcomes.*

# Introduction

This report assesses the economic and fiscal contribution that the proposed Sycamore Cross Solar project would make to the Counties of Surry and Isle of Wight, Virginia. This report was commissioned by AES Clean Energy (AES) and produced by Mangum Economics.

# The Project

Sycamore Cross Solar is a proposed 240-megawatt (MW) alternating current (AC) solar photovoltaic power generating facility. The project would be located northeast of US Highway 460 and west of Route 10 in the counties of Surry and Isle of Wight, Virginia. The total acreage leased and purchased for the project would be approximately 1,156 acres of timberland and agricultural land. The estimated actively used, fenced-in solar site encompasses approximately 125 acres in Surry County and 1,030 acres in Isle of Wight County.

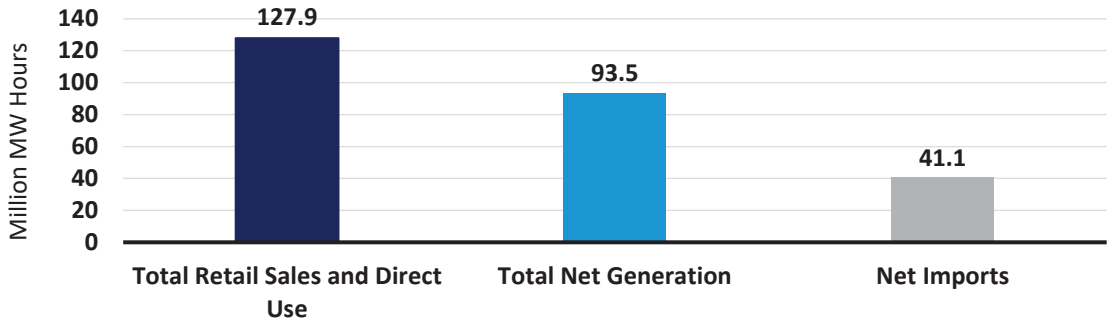
# Electricity Production in Virginia

This section provides a backdrop for the proposed Sycamore Cross Solar project by profiling Virginia's electricity production sector and the role that solar energy could play in that sector.

## Overall Market

As shown in Figure 1, in 2021 electricity sales and direct use in Virginia totaled 127.9 million megawatt hours, ranking the state 10th among the fifty states in terms of electricity consumption. However, only 73 percent of that demand was met by in-state utilities, independent producers, and other sources. As a result, Virginia had to import the remaining electricity it consumed from producers in other states. As with all imports, this means that the jobs, wages, and economic output created by that production went to localities in those states, not to localities in Virginia.

Figure 1: Demand and Supply of Electricity in Virginia in 2021 (in millions of megawatt-hours)[2]



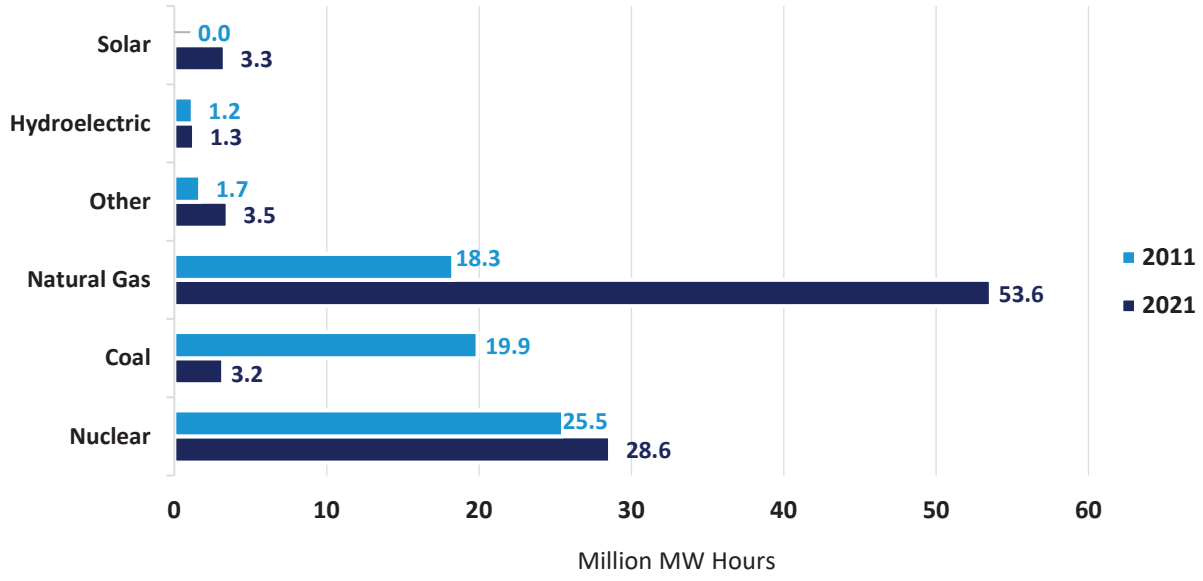

[2] Data Source: U.S. Energy Information Administration. In this chart, "Net Imports" also takes into account losses during transmission. As a result, it does not directly equal the residual of "Total Net Generation" minus "Total Retail Sales and Direct Use."

## Sources of Production

Between 2011 and 2021, the total amount of electricity produced in Virginia increased from 66.7 to 93.5 million megawatt hours, while retail and direct consumption of electricity increased from 112.1 to 127.9 million megawatt hours. Consequently, imports of electricity decreased by 11.8 million megawatt hours (or 22 percent) during this time.[3] Figure 2 provides a comparison of the energy sources that were used to produce electricity in Virginia in each of those years. As these data show, the most significant change between 2011 and 2021 was a decrease in the use of coal and an increase in the use of natural gas. Where coal was the state's second largest source of electricity in 2011, accounting for 19.9 million megawatt hours (or 29.9 percent) of production, by 2021 production had fallen by 16.7 million megawatt hours, making coal a distant fifth place source of electricity with only 3.4 percent of production.

In contrast, the share of electricity produced using cleaner-burning low-emissions energy sources increased over the period. Where natural gas accounted for only 18.3 million megawatt hours (or 27.5 percent) of Virginia's electricity production in 2011, by 2021 that proportion had almost tripled to 53.6 million megawatt hours (or 57.3 percent of production), making natural gas the state's largest source of electricity. In addition, solar, which entered the Virginia electricity production market in 2016, increased its share to 3.3 million megawatt hours in 2021.

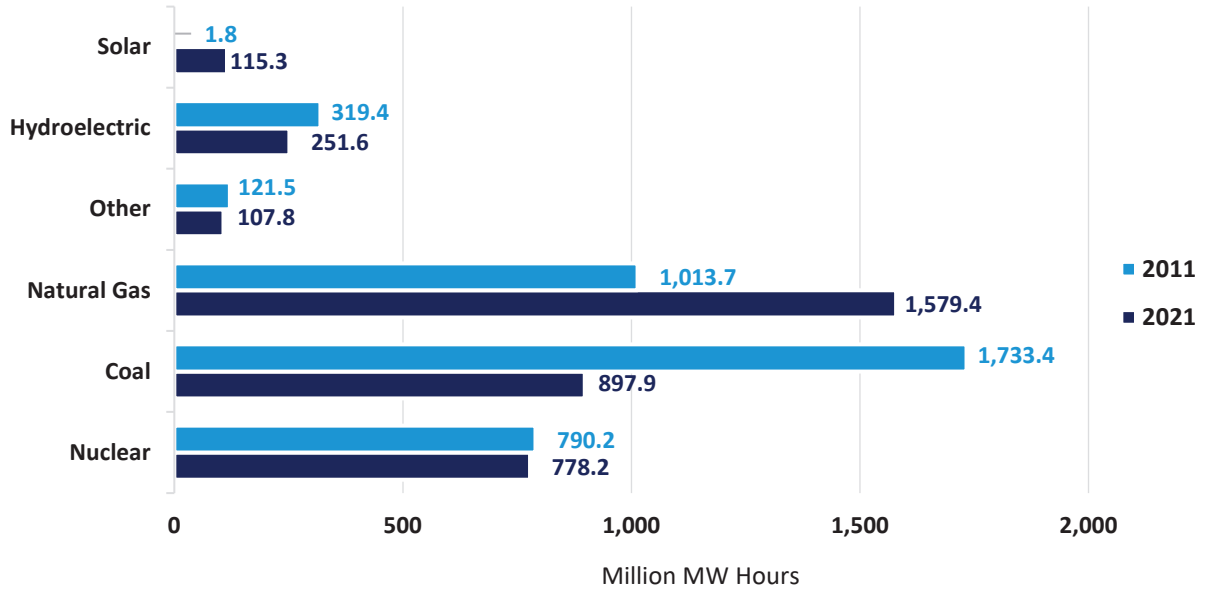
Figure 2: Electricity Generation in Virginia by Energy Source in 2011 and 2021 (in millions of megawatt-hours)[4]




[3] Imports also takes into account losses during transmission. As a result, totals do not equal sum of components.
[4] Data Source: U.S. Energy Information Administration. The "Other" category includes battery, wood, wind, petroleum, other biomass, "other", and pumped storage.

Figure 3 provides similar data for the U.S. as a whole. A quick comparison of Figures 2 and 3 shows that although the degree of reliance on specific energy sources for electricity production is quite different between the U.S. and Virginia, the trend toward lower-emissions energy sources is the same. Nationally, between 2011 and 2021 the amount of electricity produced using coal declined by 835.5 million megawatt hours from 42 to 22 percent of production, while in contrast the amount of electricity produced using natural gas increased by 565.7 million megawatt hours from 25 to 38 percent of production. Nationwide, as in Virginia, the reliance on renewable energy sources such as solar increased during this time but at a slower pace than in Virginia. Between 2011 and 2021, the amount of electricity produced using solar increased by 113.5 million megawatt hours to 2.8 percent of total electricity production in the nation compared to 3.5 percent of total electricity production in Virginia.

Figure 3: Electricity Generation in the United States by Energy Source in 2011 and 2021 (in millions of megawatt-hours)[5]

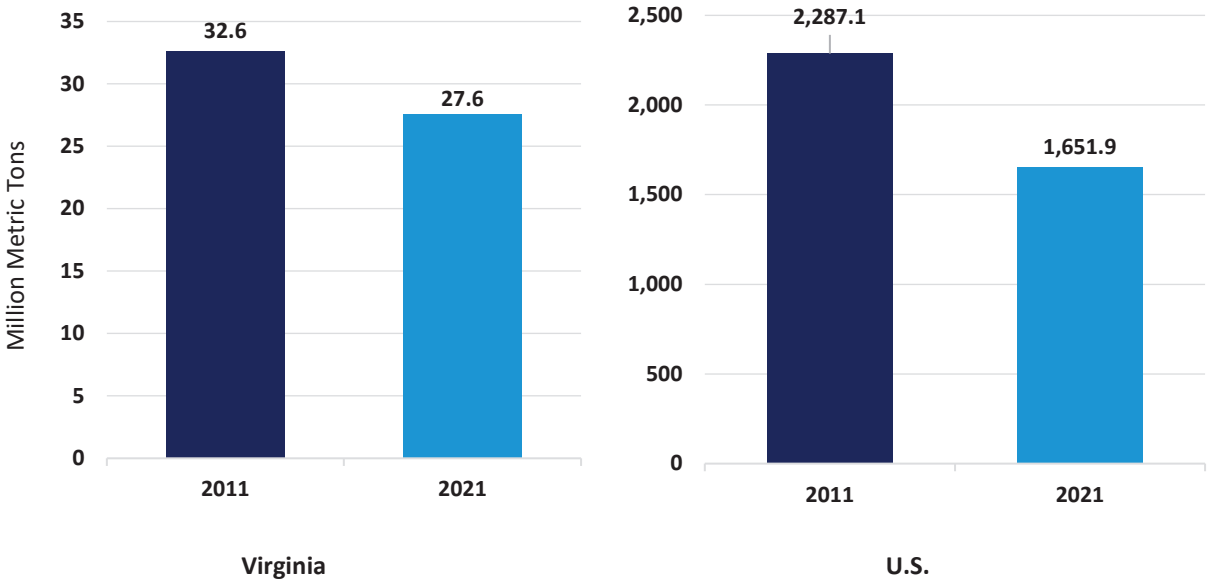



## Impact on the Environment

In discussing the impact of these trends on the environment, it is important to realize that electricity production is one of the U.S.'s largest sources of greenhouse gas emissions. Figure 4 depicts carbon dioxide emissions from electricity production in 2011 and 2021 for both Virginia and the U.S. As these data indicate, between 2011 and 2021, as the share of electricity produced in Virginia by coal fell from 29.9 to 3.4 percent, carbon dioxide emissions from electricity production fell from 32.6 to 27.6 million metric tons. Where at the national level, as the share of electricity produced by coal fell from 42 to 22 percent, carbon dioxide emissions from electricity production fell from 2,287.1 to 1,651.9 million metric tons.

[5] Data Source: U.S. Energy Information Administration. "Other" includes battery, geothermal, hydroelectric, other, other biomass, other gas, petroleum, pumped storage, wind, and wood.

Figure 4: Carbon Dioxide Emissions from Electricity Production (millions of metric tons)[6]




[6] Data Source: U.S. Energy Information Administration.

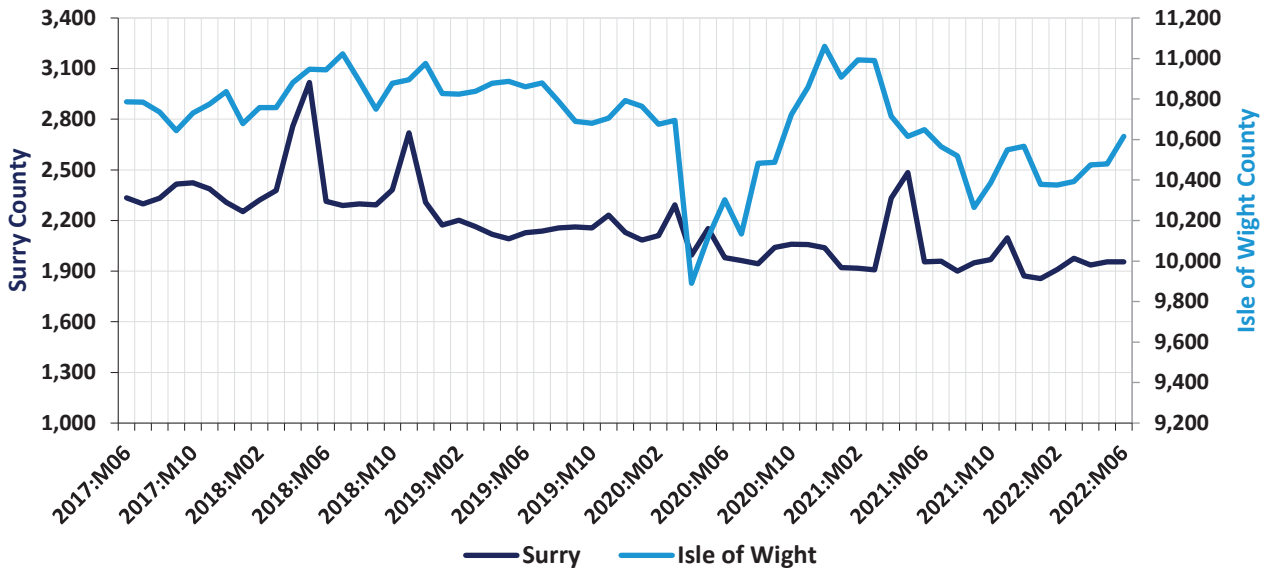
# Local Economic Profile

This section provides context for the economic and fiscal impact assessments to follow by profiling the local economies of the counties of Surry and Isle of Wight.

## Total Employment

Figure 5 depicts the trend in total employment in the counties of Surry and Isle of Wight from June 2017 through June 2022. As these data show, employment in Surry County generally declined through the five-year period. Employment in Isle of Wight County remained generally stable until the decrease in economic activity associated with the COVID-19 pandemic led to a steep employment decline in Isle of Wight County in April 2020. Since then, employment has rebounded back to pre-pandemic levels. As of June 2022, county employment stood at 1,956 jobs in Surry County and 10,616 jobs in Isle of Wight County. This represents an overall decrease in employment of 16.2 percent (or 379 jobs) in Surry County and 1.6 percent (or 170 jobs) in Isle of Wight County over the five-year period. To put this number in perspective, over this same period, total statewide employment in Virginia increased by 1.5 percent.[7]

Figure 5: Total Employment in the Counties of Surry and Isle of Wight– June 2017 to June 2022[8]

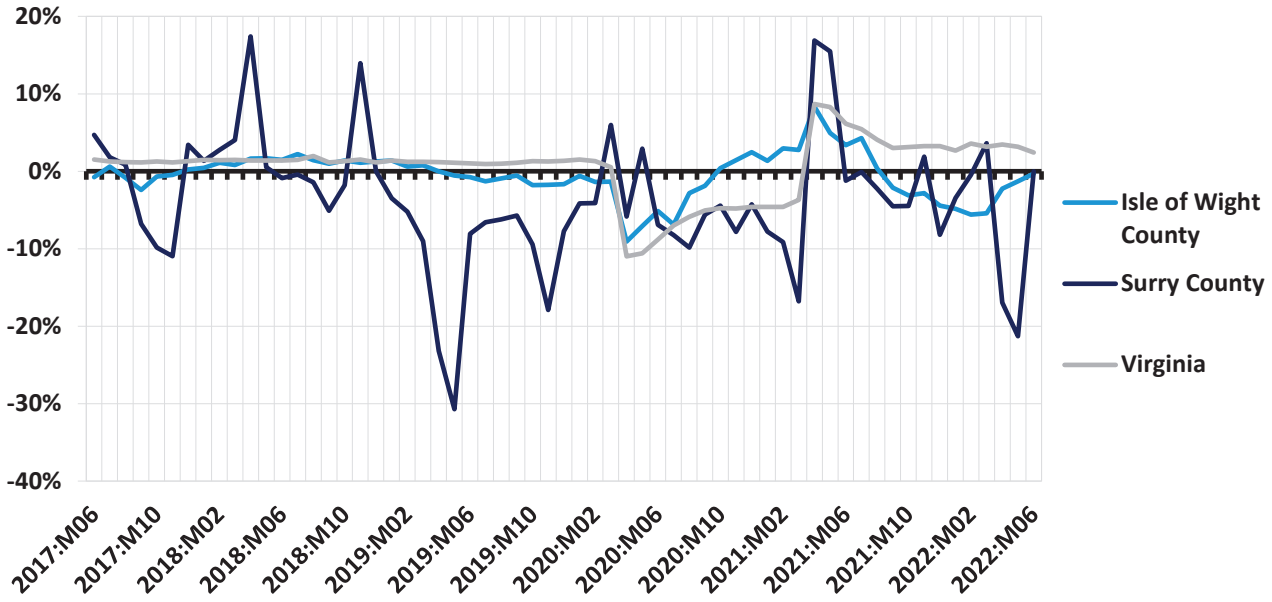



To control for seasonality and provide a point of reference, Figure 6 compares the year-over-year change in total employment in the counties of Surry and Isle of Wight to that of the state of Virginia over the same five-year period. Any point above the zero line in this graph indicates an increase in employment, while any point below the zero line indicates a decline in employment. As these data show, Surry County experienced periods of high employment growth and high employment loss throughout the period. Isle of Wight County tracked closely with the statewide trend throughout the

[7] Data Source: U.S. Bureau of Labor Statistics.
[8] Data Source: U.S. Bureau of Labor Statistics.

five-year period. As of June 2022, the year-over-year change in total employment was 0 percent in Surry County and minus 0.3 percent in Isle of Wight County as compared to 2.4 percent statewide in Virginia.

Figure 6: Year-Over-Year Change in Total Employment – June 2017 to June 2022[9]




## Employment and Wages by Industry Supersector

To provide a better understanding of the underlying factors motivating the total employment trends depicted in Figures 5 and 6, Figures 7 through 9 provide data on private employment and wages in the counties of Surry and Isle of Wight by industry supersector.[10]

Figure 7 provides an indication of the distribution of private sector employment across industry supersectors in the counties of Surry and Isle of Wight in the second quarter of 2022. As these data indicate, the largest industry sector that quarter in Surry County was Trade, Transportation, and Utilities (873 jobs). In Isle of Wight County, the largest industry sector that quarter was Manufacturing (2,646 jobs).

Figure 8 provides a similar ranking for average private sector weekly wages by industry supersector in the counties of Surry and Isle of Wight in the second quarter of 2022. As these data show, the highest paying industry sector that quarter in Surry County was Trade, Transportation and Utilities ($2,088 per week). In Isle of Wight County, the highest paying sector was Information ($2,089 per week).

[9] Data Source: U.S. Bureau of Labor Statistics.
[10] A "supersector" is the highest level of aggregation in the coding system that the Bureau of Labor Statistics uses to classify industries.

Figure 7: Private Employment by Industry Supersector in the Counties of Surry and Isle of Wight– 2nd Qu. 2022[11]

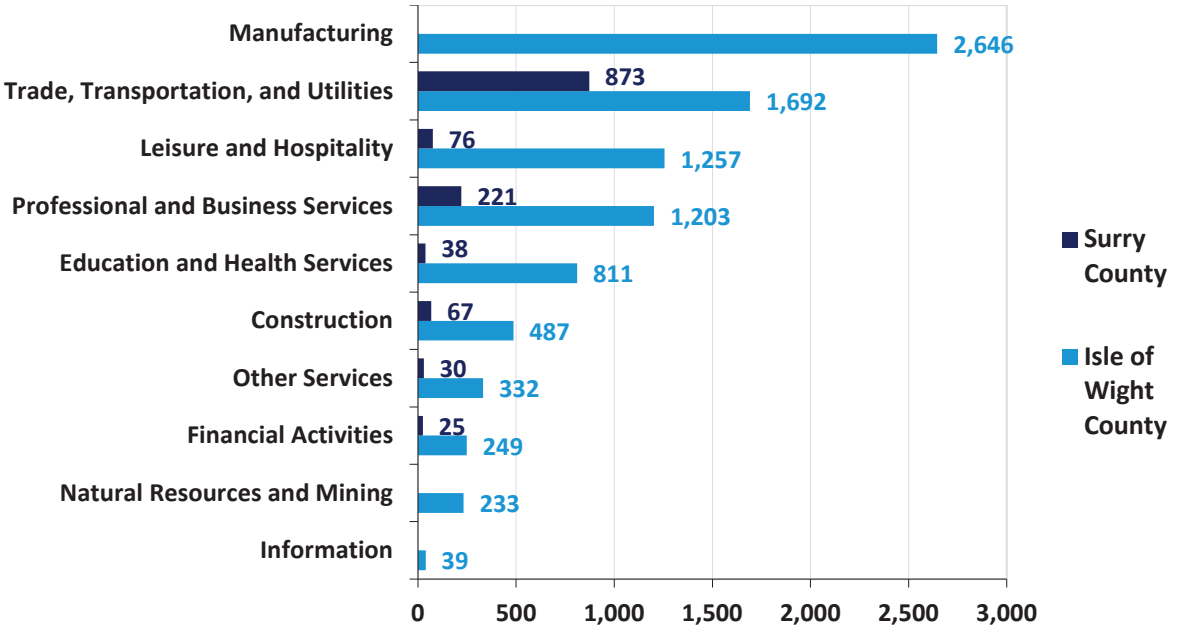
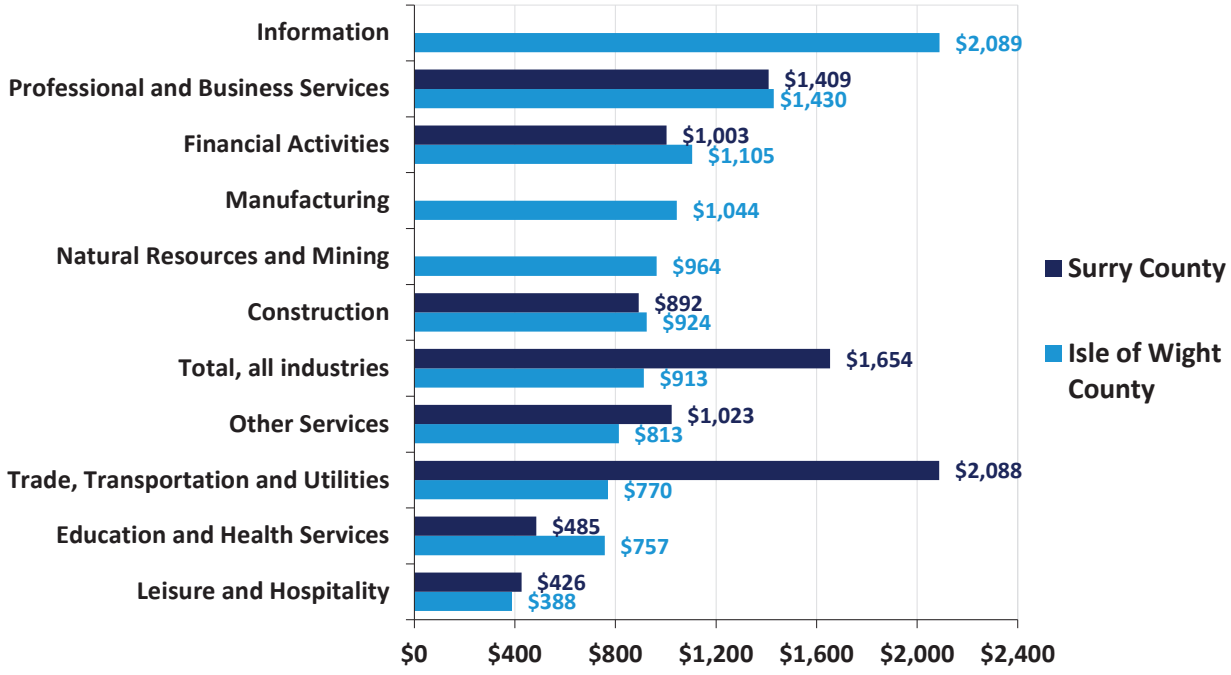



Figure 8: Average Private Weekly Wages by Industry Supersector in the Counties of Surry and Isle of Wight – 2nd Qu. 2022[12]

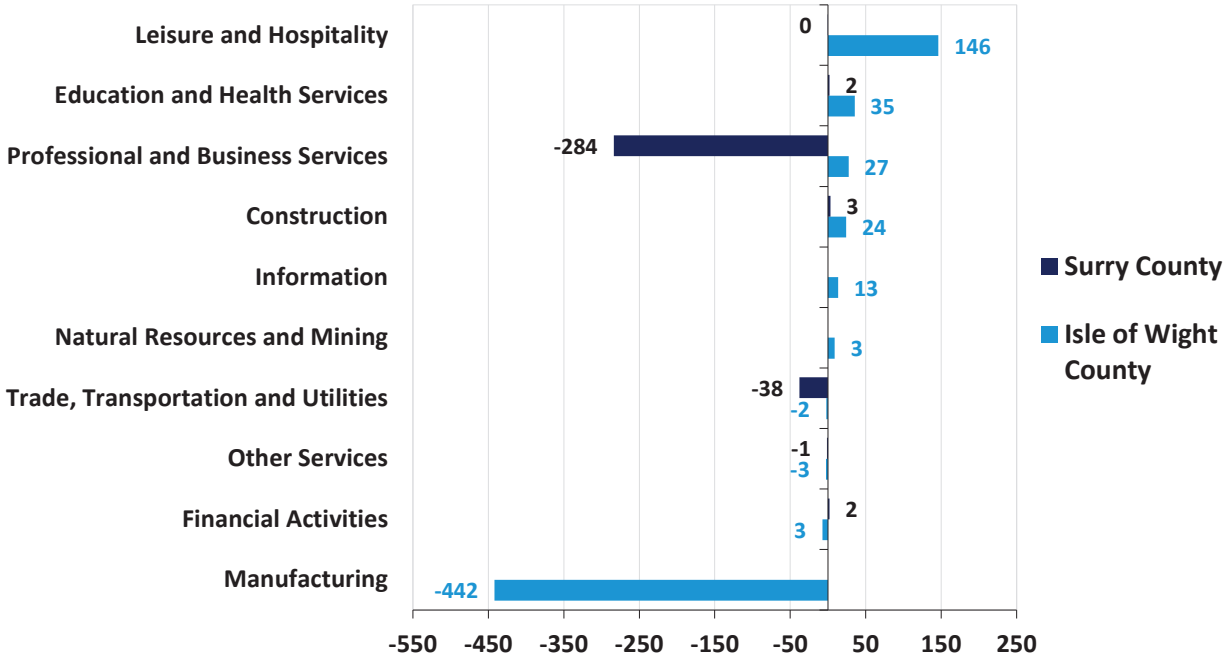



[11] Data Source: U.S. Bureau of Labor Statistics. Data on the Natural Resources and Mining, Manufacturing, and Information sectors in Surry County have been suppressed due to data confidentiality.

[12] Data Source: U.S. Bureau of Labor Statistics. Data on the Natural Resources and Mining, Manufacturing, and Information sectors in Surry County have been suppressed due to data confidentiality.

Figure 9 details the year-over-year change in private sector employment from the second quarter of 2021 to the second quarter of 2022 in the counties of Surry and Isle of Wight by industry supersector. Over this period, the largest employment gains in Surry County occurred in the Construction (up 3 jobs) sector, and the largest employment loss occurred in the Professional and Business Services (down 284 jobs) sector. The largest employment gain in Isle of Wight County occurred in the Leisure and Hospitality (up 146 jobs) sector, and the largest employment loss occurred in the Manufacturing (down 442 jobs) sector.

Figure 9: Change in Private Employment by Industry Supersector in the Counties of Surry and Isle of Wight from 2nd Qu. 2021 to 2nd Qu. 2022[13]

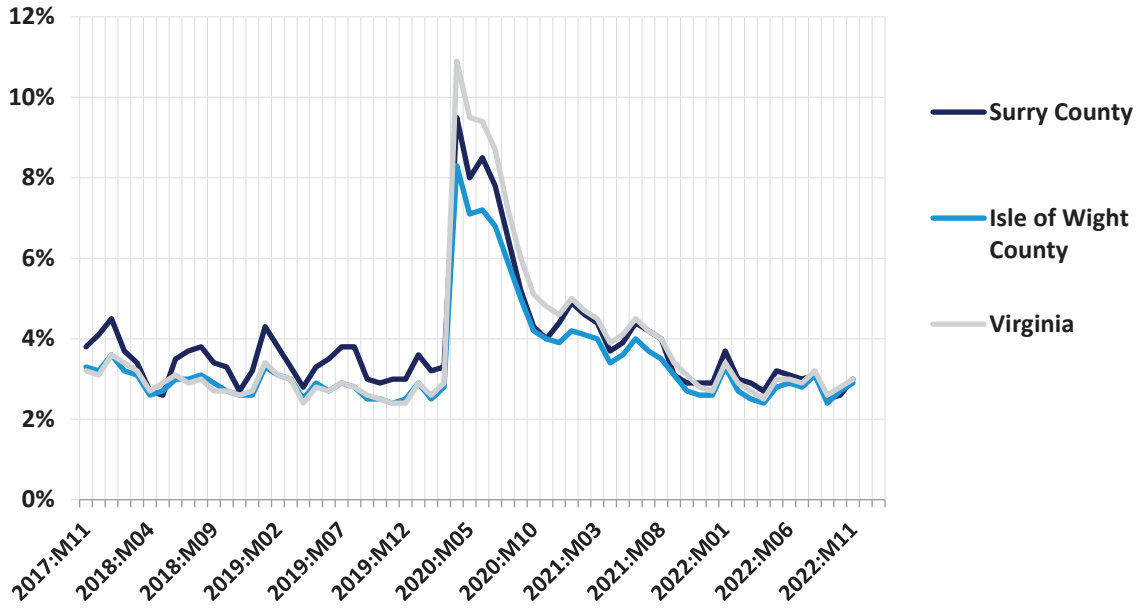



## Unemployment

Figure 10 illustrates the unemployment trend in the counties of Surry and Isle of Wight over the five-year period from November 2017 through November 2022 and benchmarks those data against the statewide trend for Virginia. As these data show, unemployment rates in the counties of Surry and Isle of Wight generally tracked closely to the statewide norm. In April 2020 unemployment in both the counties and the state significantly rose as a result of the labor dislocations caused by the COVID-19 pandemic. The counties' unemployment rates did not peak as high as the statewide rate. As of November 2022, unemployment stood at 3.0 percent in Surry County, 2.9 percent in Isle of Wight County, and 3.0 percent in Virginia as a whole.

[13] Data Source: Bureau of Labor Statistics. Data on the Natural Resources and Mining, Manufacturing, and Information sectors in Surry County have been suppressed due to data confidentiality.

Figure 10: Unemployment Rate – November 2017 to November 2022[14]




[14] Data Source: Bureau of Labor Statistics.

# Economic and Fiscal Impact

This section quantifies the economic and fiscal contribution that the proposed Sycamore Cross Solar project would make to the counties of Surry and Isle of Wight. The analysis separately evaluates the one-time pulse of economic activity that would occur during the construction phase of the project, as well as the annual economic activity that the project would generate during its ongoing operations phase.

## Method

To empirically evaluate the likely local economic impact attributable to the proposed Sycamore Cross Solar project, the analysis employs a regional economic impact model called IMPLAN.[15] The IMPLAN model is one of the most commonly used economic impact simulation models in the U.S., and in Virginia is used by UVA's Weldon Cooper Center, the Virginia Department of Planning and Budget, the Virginia Employment Commission, and other state agencies and research institutes. Like all economic impact models, the IMPLAN model uses economic multipliers to quantify economic impact.

Economic multipliers measure the ripple effects that an expenditure generates as it makes its way through the economy. For example, as when the Sycamore Cross Solar project purchases goods and services – or when contractors hired by the facility use their salaries and wages to make household purchases – thereby generating income for someone else, which is in turn spent, thereby becoming income for yet someone else, and so on, and so on. Through this process, one dollar in expenditures generates multiple dollars of income. The mathematical relationship between the initial expenditure and the total income generated is the economic multiplier.

One of the primary advantages of the IMPLAN model is that it uses regional and national production and trade flow data to construct region-specific and industry-specific economic multipliers, which are then further adjusted to reflect anticipated actual spending patterns within the specific geographic study area that is being evaluated. As a result, the economic impact estimates produced by IMPLAN are not generic. They reflect as precisely as possible the economic realities of the specific industry, and the specific study area, being evaluated.

In the analysis that follows, these impact estimates are divided into three categories. First round direct impact measures the direct economic contribution of the entity being evaluated (e.g., own employment, wages paid, goods and services purchased by the Sycamore Cross Solar project). Second round indirect and induced impact measures the economic ripple effects of this direct impact in terms of business to business, and household (employee) to business, transactions. Total impact is simply the sum of the preceding two. These categories of impact are then further defined in terms of employment (the jobs that are created), labor income (the wages and benefits associated with those jobs), and economic output (the total amount of economic activity that is created in the economy).

[15] IMPLAN is produced by IMPLAN Group, LLC.

## Construction Phase

This portion of the section assesses the economic and fiscal impact that the one-time pulse of activity associated with construction of the proposed Sycamore Cross Solar project would have on the counties of Surry and Isle of Wight.

### Inputs and Assumptions

The analysis is based on the following inputs and assumptions:

- Total investment in the Sycamore Cross Solar project is estimated to be approximately $437.1 million.[16]
- Of that total:
    - Architecture, engineering, site preparation, and other construction and development costs are estimated to be approximately $253.1 million.[17]
    - Capital equipment costs are estimated to be approximately $184.0 million.[18] It is anticipated that no capital equipment would be purchased from vendors in the counties of Surry and Isle of Wight.[19]
- For ease of analysis, all construction expenditures are assumed to take place in a single year.

### Economic Impact

Applying these inputs in the IMPLAN model results in the following estimates of one-time economic and fiscal impact. As shown in Table 1, construction of the proposed Sycamore Cross Solar project would directly provide a one-time pulse supporting approximately: 1) 102 job years, 2) $5.3 million in wages and benefits, and 3) $75.9 million in economic output to the counties of Surry and Isle of Wight.

Taking into account the economic ripple effects that direct investment would generate, the total estimated one-time impact on the counties of Surry and Isle of Wight would support approximately: 1) 197 job years, 2) $9.9 million in wages and benefits, 3) $91.6 million in economic output, and 4) $1.4 million in state and local tax revenue.

[16] Data Source: AES.
[17] Data Source: AES.
[18] Data Source: AES.
[19] Data Source: IMPLAN Group LLC.

Table 1: Estimated One-Time Economic and Fiscal Impact on the Counties of Surry and Isle of Wight from Construction of the Sycamore Cross Solar Project[20,21]

| Economic Impact | Employment (Job Years)[22] | Wages and Benefits | Output |
|---|---|---|---|
| **1st Round Direct Economic Activity** | 102 | $5,253,400 | $75,938,700 |
| **2nd Round Indirect and Induced Economic Activity** | 95 | $4,671,900 | $15,708,700 |
| **Total Economic Activity** | **197** | **$9,925,300** | **$91,647,400** |
| **Fiscal Impact** | | | |
| **State and Local Tax Revenue** | | | **$1,431,500** |

**Totals may not sum due to rounding.*

## Ongoing Operations Phase

This portion of the section assesses the annual economic and fiscal impact that the proposed Sycamore Cross Solar project would have on the counties of Surry and Isle of Wight during its anticipated 35-year operational phase.

### Economic Impact Inputs

The analysis is based on the following inputs:

- The Sycamore Cross Solar project would employ approximately five individuals and spend approximately $1.3 million each year for maintenance and repair, vegetative control, and other operational expenditures.[23]

### Economic Impact

Applying these inputs in the IMPLAN model results in the following estimates of annual economic impact. As shown in Table 2, annual operation of the proposed Sycamore Cross Solar project would on average directly support approximately: 1) 5 jobs, 2) $0.5 million in wages and benefits, and 3) $1.3 million in economic output to the counties of Surry and Isle of Wight.

[20] It is important to note that construction sector jobs are not necessarily new jobs, but the investments made can also support an existing job during the construction of the project. Due to preliminary nature of the project, the analysis is based on industry averages. Actual spending patterns may vary based on vendor contracts and final design.
[21] A construction sector job, also referred to as a job year, is equal to one job over one year. It is used to denote employment on construction projects where the construction schedule extends beyond one year and to account for the fact that actual on-site employment may vary over the period.
[22] Please note that it is not possible to determine how much of the economic impact would take place in specifically Isle of Wight County or Surry County. That level of granularity is not available for a regional analysis.
[23] Data Source: AES.

Taking into account the economic ripple effects that direct impact would generate, the total estimated annually supported impact on the counties of Surry and Isle of Wight would be approximately: 1) 7 jobs, 2) $0.6 million in wages and benefits, and 3) $1.6 million in economic output.

Table 2: Estimated Annual Economic Impact on the Counties of Surry and Isle of Wight from the Ongoing Operation of the Sycamore Cross Solar Project[24]

| Economic Impact | Employment | Wages and Benefits | Output |
|---|---|---|---|
| **1st Round Direct Economic Activity** | 5 | $501,200 | $1,250,000 |
| **2nd Round Indirect and Induced Economic Activity** | 2 | $82,900 | $302,700 |
| **Total Economic Activity** | **7** | **$584,100** | **$1,552,700** |

**Totals may not sum due to rounding.*

## Fiscal Impact Inputs and Assumptions

The analysis is based on the following inputs and assumptions:

- The Sycamore Cross Solar project would involve an investment of approximately $437.1 million in capital equipment and improvements to the existing property. Approximately $34.6 million of that total would be invested in Surry County and approximately $402.5 million in Isle of Wight County.[25]
- The Sycamore Cross Solar project would be situated on approximately 125 acres in Surry County and on approximately 1,030 acres in Isle of Wight County.[26]
- The actively used, fenced-in acreage in Surry County would be reassessed at $13,000 per acre.[27]
- The actively used, fenced-in acreage in Isle of Wight County would be removed from the land use program and reassessed at $15,000 per acre.[28]
- Tax rates and locality ratios remain constant throughout the analysis.
- The initial interconnection request for Sycamore Cross Solar was filed in March 2017.[29]
- The Sycamore Cross Solar project's total generation capacity would be 240 MW AC, of which approximately 19 MW would be located in Surry County and approximately 221 MW would be located in Isle of Wight County.[30]
- The Sycamore Cross Solar project would become operational in the fourth quarter of 2026.[31]

[24] Please note that it is not possible to determine how much of the economic impact would take place in specifically Isle of Wight County or Surry County. That level of granularity is not available for a regional analysis.
[25] Data Source: AES.
[26] Data Source: AES.
[27] Data Source: Surry County Commissioner of Revenue's Office. Current assessment value of existing solar farm in the county.
[28] Data Source: Isle of Wight County Commissioner of Revenue's Office. Current assessment value of existing solar farm in the county.
[29] Data Source: AES.
[30] Data Source: AES.
[31] Data Source: AES.

## Fiscal Impact – Surry County

This portion of the section quantifies the direct fiscal contribution that the proposed Sycamore Cross Solar project would make to Surry County. The analysis considers two scenarios. Both scenarios include the additional revenue that the Sycamore Cross Solar project would generate for Surry County over a 35-year period from the increased property assessments associated with reassessing the site as solar use property. Scenario 1 then describes the additional revenue Sycamore Cross Solar would generate for Surry County from taxes levied on the capital investment, while Scenario 2 assumes tax revenue generated from the capital investment will be replaced with revenue associated with a locally adopted revenue share ordinance and based on the project's total generation capacity.

### *Reassessment of Property*

Table 3 details the increased property assessments associated with reassessing the 125-acre fenced-in site as solar use property. The county real estate tax revenue from the project after reassessment is estimated to be approximately $11,600 per year, for a cumulative total of approximately $404,600 over the project's anticipated 35-year operational life expectancy.[32] In contrast, the property currently generates approximately $1,530 per year in real estate tax revenue for the county, for a cumulative total of approximately $53,500 over 35 years.[33]

Table 3: Estimated Surry County Revenue Generated by the Proposed Sycamore Cross Solar Project over 35 Years from Real Estate Taxes

| | |
|---|---|
| Estimated Increased Appraised Value of Property under Solar Use[34] | $1,628,100 |
| Surry County Real Estate Tax Rate | 0.0071 |
| Annual County Real Estate Tax – Solar Use | $11,600 |
| **Cumulative Revenue over 35 Years** | **$404,600** |

**Totals may not sum due to rounding.*

### *Scenario 1: Taxation of Capital Investment*

Table 4 separately details the additional annual revenue that the proposed Sycamore Cross Solar project would generate for Surry County over a 35-year period from taxes levied on capital investment. This calculation is based on: 1) the taxable portion of capital investments pursuant to the 80 percent local tax exemption pursuant to Virginia Code §58.1-3660[35], times 2) the State Corporation Commission's utility assessment ratio for taxation of public utilities in Surry County, times 4) the State Corporation

[32] Assumes property will be reassessed at $13,000 per acre once it is under solar use.
[33] Derived from Surry County's Real Estate Assessment database. Includes value of existing structures.
[34] Calculated as 125 acres times $13,000.
[35] The Virginia Code §58.1-3660 stipulates that solar facilities over 20MW for which an interconnection request was filed between January 1, 2015 and June 30, 2018 are subject to an 80 percent exemption from local property taxes.

Commission's depreciation guidelines for solar facilities, times 5) Surry County's real property tax rate of $0.71 per $100 of assessed value pursuant to Virginia Code §58.1-2606.

As the data in Table 4 indicate, based on these calculations the estimated additional county revenue from taxation of capital investments associated with the proposed Sycamore Cross Solar project would be approximately $43,600 in the project's first year of operation, with that figure projected to decline to approximately $4,800 in the project's 34th year of operation and thereafter, as the value of the proposed capital investments is depreciated, for a cumulative total of approximately $1.1 million.

Table 4: Estimated Surry County Revenue by Proposed Solar Investment Over 35 Years

| Year | Total Capital Investment subject to Exemption[36] | Depreciated Value of Taxable Capital Investment[37] | Additional Annual County Tax Revenue Solar Investment[38] |
|---|---|---|---|
| 1 | $34,602,325 | $6,141,221 | $43,600 |
| 2 | $34,602,325 | $6,141,221 | $43,600 |
| 3 | $34,602,325 | $6,141,221 | $43,600 |
| 4 | $34,602,325 | $6,141,221 | $43,600 |
| 5 | $34,602,325 | $6,141,221 | $43,600 |
| 6 | $34,602,325 | $6,141,221 | $43,600 |
| 7 | $34,602,325 | $6,141,221 | $43,600 |
| 8 | $34,602,325 | $6,141,221 | $43,600 |
| 9 | $34,602,325 | $6,120,068 | $43,500 |
| 10 | $34,602,325 | $6,016,349 | $42,700 |
| 11 | $34,602,325 | $5,906,490 | $41,900 |
| 12 | $34,602,325 | $5,790,489 | $41,100 |
| 13 | $34,602,325 | $5,667,664 | $40,200 |
| 14 | $34,602,325 | $5,536,652 | $39,300 |
| 15 | $34,602,325 | $5,398,133 | $38,300 |
| 16 | $34,602,325 | $5,251,426 | $37,300 |
| 17 | $34,602,325 | $5,095,848 | $36,200 |
| 18 | $34,602,325 | $4,931,400 | $35,000 |
| 19 | $34,602,325 | $4,756,034 | $33,800 |
| 20 | $34,602,325 | $4,571,115 | $32,500 |
| 21 | $34,602,325 | $4,374,596 | $31,100 |
| 22 | $34,602,325 | $4,166,477 | $29,600 |
| 23 | $34,602,325 | $3,946,075 | $28,000 |

[36] Data Source: AES.
[37] Accounts for the State Corporation Commission's depreciation guidelines for solar facilities and the utility assessment ratio for taxation of public utilities in Surry County. Also accounts for the 80 percent exemption from local property taxes pursuant to Virginia Code §58.1-3660 for projects over 20 MW with an interconnection request between January 1, 2015 and June 30, 2018.
[38] Calculated pursuant to Virginia Code §58.1-2606 which stipulates that capital equipment owned by utilities is taxed as real property and the local tax rate on that capital equipment would be capped at Surry County's real property tax rate of $0.72 per $100 of assessed value.

| Year | Total Capital Investment subject to Exemption[36] | Depreciated Value of Taxable Capital Investment[37] | Additional Annual County Tax Revenue Solar Investment[38] |
|---|---|---|---|
| 24 | $34,602,325 | $3,712,027 | $26,400 |
| 25 | $34,602,325 | $3,464,331 | $24,600 |
| 26 | $34,602,325 | $3,200,941 | $22,700 |
| 27 | $34,602,325 | $2,922,539 | $20,800 |
| 28 | $34,602,325 | $2,627,078 | $18,700 |
| 29 | $34,602,325 | $2,314,558 | $16,400 |
| 30 | $34,602,325 | $1,982,250 | $14,100 |
| 31 | $34,602,325 | $1,630,835 | $11,600 |
| 32 | $34,602,325 | $1,258,268 | $8,900 |
| 33 | $34,602,325 | $863,183 | $6,100 |
| 34 | $34,602,325 | $682,358 | $4,800 |
| 35 | $34,602,325 | $682,358 | $4,800 |
| **Estimated Cumulative Total** | | | **$1,079,200** |

**Totals may not sum due to rounding.*

### *Scenario 1: Total Fiscal Impact*

Table 5 combines the results from the calculations depicted in Tables 3 and 4 to provide an estimate of the cumulative fiscal contribution that the proposed Sycamore Cross Solar project would make to Surry County over its 35-year anticipated operational life under Scenario 1. As these data indicate, that cumulative total is approximately $1.5 million.

Table 5: Estimated Cumulative Surry County Revenue from the Proposed Sycamore Cross Solar Project over 35 Years under Scenario 1

| | |
|---|---|
| County Real Estate Tax | $404,600 |
| County Revenue from Taxation of Capital Investments | $1,079,200 |
| **Total Cumulative Revenue over 35 Years** | **$1,483,800** |

**Totals may not sum due to rounding.*

### *Scenario 2: Revenue Share Ordinance*

The following section describes the additional annual revenue that the proposed Sycamore Cross Solar project would generate for Surry County assuming the county adopts an energy revenue share ordinance under Virginia Code §58.1-2636 in lieu of taxes on capital investment. This statute currently stipulates that a locality may assess an annual revenue share of up to $1,400 per megawatt (MW) alternating current (AC) generation capacity of a solar facility. However, legislation that was passed in the 2021 General Assembly (SB 1201/HB 2006) and went into effect July 1, 2021, allows a 10 percent escalator to be applied to the $1,400 per MW revenue share every five years, beginning in 2026.

Table 6 details the revenue generated from a revenue share ordinance including the 10 percent escalator. Based on a total generation capacity of 19 MW AC and an assumed commissioning date in the fourth quarter of 2026, a revenue share ordinance would generate approximately $1.4 million over the anticipated 35-year operational life of the project.

Table 6: Estimated Surry County Revenue Generated from a Revenue Share Ordinance over 35 Years

| Year | MW | Revenue Share per MW with Escalator | Annual County Revenue |
|---|---|---|---|
| 1 | 19 | $1,540 | $29,300 |
| 2 | 19 | $1,540 | $29,300 |
| 3 | 19 | $1,540 | $29,300 |
| 4 | 19 | $1,540 | $29,300 |
| 5 | 19 | $1,540 | $29,300 |
| 6 | 19 | $1,694 | $32,200 |
| 7 | 19 | $1,694 | $32,200 |
| 8 | 19 | $1,694 | $32,200 |
| 9 | 19 | $1,694 | $32,200 |
| 10 | 19 | $1,694 | $32,200 |
| 11 | 19 | $1,863 | $35,400 |
| 12 | 19 | $1,863 | $35,400 |
| 13 | 19 | $1,863 | $35,400 |
| 14 | 19 | $1,863 | $35,400 |
| 15 | 19 | $1,863 | $35,400 |
| 16 | 19 | $2,050 | $38,900 |
| 17 | 19 | $2,050 | $38,900 |
| 18 | 19 | $2,050 | $38,900 |
| 19 | 19 | $2,050 | $38,900 |
| 20 | 19 | $2,050 | $38,900 |
| 21 | 19 | $2,255 | $42,800 |
| 22 | 19 | $2,255 | $42,800 |
| 23 | 19 | $2,255 | $42,800 |
| 24 | 19 | $2,255 | $42,800 |
| 25 | 19 | $2,255 | $42,800 |
| 26 | 19 | $2,480 | $47,100 |
| 27 | 19 | $2,480 | $47,100 |
| 28 | 19 | $2,480 | $47,100 |
| 29 | 19 | $2,480 | $47,100 |
| 30 | 19 | $2,480 | $47,100 |
| 31 | 19 | $2,728 | $51,800 |
| 32 | 19 | $2,728 | $51,800 |
| 33 | 19 | $2,728 | $51,800 |
| 34 | 19 | $2,728 | $51,800 |
| 35 | 19 | $2,728 | $51,800 |
| **Cumulative Total** | | | **$1,388,000** |

### *Scenario 2: Total Fiscal Impact*

Table 7 combines the results from the calculations depicted in Tables 3 and 6 to provide an estimate of the cumulative fiscal contribution that the proposed Sycamore Cross Solar project would make to Surry County over its 35-year anticipated operational life under Scenario 2. As these data indicate, that cumulative total is approximately $1.8 million.

Table 7: Estimated Cumulative Surry County Revenue from the Proposed Sycamore Cross Solar Project over 35 Years under Scenario 2

| | Total Revenue |
|---|---|
| County Real Estate Tax | $404,600 |
| County Revenue from Revenue Share Ordinance | $1,388,000 |
| **Total Cumulative Revenue over 35 Years** | **$1,792,600** |

## Fiscal Impact – Isle of Wight County

This portion of the section quantifies the direct fiscal contribution that the proposed Sycamore Cross Solar project would make to Isle of Wight County. The analysis considers two scenarios. Both scenarios include the additional revenue that the Sycamore Cross Solar project would generate for Isle of Wight County over a 35-year period from the increased property assessments associated with reassessing the site as solar use property. Scenario 1 then describes the additional revenue Sycamore Cross Solar would generate for Isle of Wight County from taxes levied on the capital investment, while Scenario 2 assumes tax revenue generated from the capital investment will be replaced with revenue associated with a locally adopted revenue share ordinance and based on the project's total generation capacity.

### *Reassessment of Property*

Table 8 details the increased property assessments associated with removing the affected acreage from the land use program and reassessing the 1,030-acre fenced-in site as solar use property. The county real estate tax revenue from the project after reassessment is estimated to be approximately $109,700 per year, for a cumulative total of approximately $3.8 million over the project's anticipated 35-year operational life expectancy.[39] Adding one-time rollback taxes of approximately $157,700 increases that cumulative total to approximately $4.0 million. In contrast, the property currently generates approximately $14,900 per year in real estate tax revenue for the county, for a cumulative total of approximately $520,000 over 35 years.[40]

Table 8: Estimated Isle of Wight County Revenue Generated by the Proposed Sycamore Cross Solar Project over 35 Years from Real Estate Taxes

| | |
|---|---|
| Estimated Increased Appraised Value of Property under Solar Use[41] | $15,455,300 |
| Isle of Wight County Real Estate Tax Rate | 0.0071 |
| Annual County Real Estate Tax – Solar Use | $109,700 |
| **Cumulative Revenue over 35 Years** | **$3,840,600** |
| **One-time Rollback Taxes[42]** | **$157,700** |
| **Cumulative Revenue over 35 Years** | **$3,998,300** |

**Totals may not sum due to rounding.*

[39] Assumes property will be reassessed at $15,000 per acre once it is under solar use.
[40] Derived from Isle of Wight County's Real Estate Assessment database. Includes value of existing structures.
[41] Calculated as 1,030 acres times $15,000.
[42] Rollback taxes are computed as the difference between the land use value assessment tax and the tax on the fair market value for the affected acreage for five complete tax years plus the current year, including simple interest. Does not account for changes in assessment values.

### *Scenario 1: Taxation of Capital Investment*

Table 9 separately details the additional annual revenue that the proposed Sycamore Cross Solar project would generate for Isle of Wight County over a 35-year period from taxes levied on capital investment. This calculation is based on: 1) the taxable portion of capital investments pursuant to the 80 percent local tax exemption pursuant to Virginia Code §58.1-3660[43], times 2) the State Corporation Commission's utility assessment ratio for taxation of public utilities in Isle of Wight County, times 4) the State Corporation Commission's depreciation guidelines for solar facilities, times 5) Isle of Wight County's real property tax rate of $0.71 per $100 of assessed value pursuant to Virginia Code §58.1-2606.

As the data in Table 9 indicate, based on these calculations the estimated additional county revenue from taxation of capital investments associated with the proposed Sycamore Cross Solar project would be approximately $452,700 in the project's first year of operation, with that figure projected to decline to approximately $50,300 in the project's 34th year of operation and thereafter, as the value of the proposed capital investments is depreciated, for a cumulative total of approximately $11.2 million.

Table 9: Estimated Isle of Wight County Revenue by Proposed Solar Investment Over 35 Years

| Year | Total Capital Investment subject to Exemption[44] | Depreciated Value of Taxable Capital Investment[45] | Additional Annual County Tax Revenue Solar Investment[46] |
|---|---|---|---|
| 1 | $402,479,675 | $63,767,270 | $452,700 |
| 2 | $402,479,675 | $63,767,270 | $452,700 |
| 3 | $402,479,675 | $63,767,270 | $452,700 |
| 4 | $402,479,675 | $63,767,270 | $452,700 |
| 5 | $402,479,675 | $63,767,270 | $452,700 |
| 6 | $402,479,675 | $63,767,270 | $452,700 |
| 7 | $402,479,675 | $63,767,270 | $452,700 |
| 8 | $402,479,675 | $63,767,270 | $452,700 |
| 9 | $402,479,675 | $63,547,627 | $451,200 |
| 10 | $402,479,675 | $62,470,669 | $443,500 |
| 11 | $402,479,675 | $61,329,943 | $435,400 |
| 12 | $402,479,675 | $60,125,450 | $426,900 |
| 13 | $402,479,675 | $58,850,105 | $417,800 |

[43] The Virginia Code §58.1-3660 stipulates that solar facilities over 20MW for which an interconnection request was filed between January 1, 2015 and June 30, 2018 are subject to an 80 percent exemption from local property taxes.
[44] Data Source: AES.
[45] Accounts for the State Corporation Commission's depreciation guidelines for solar facilities and the utility assessment ratio for taxation of public utilities in Isle of Wight County. Also accounts for the 80 percent exemption from local property taxes pursuant to Virginia Code §58.1-3660 for projects over 20 MW with an interconnection request between January 1, 2015 and June 30, 2018.
[46] Calculated pursuant to Virginia Code §58.1-2606 which stipulates that capital equipment owned by utilities is taxed as real property and the local tax rate on that capital equipment would be capped at Isle of Wight County's real property tax rate of $0.71 per $100 of assessed value.

| Year | Total Capital Investment subject to Exemption[44] | Depreciated Value of Taxable Capital Investment[45] | Additional Annual County Tax Revenue Solar Investment[46] |
|---|---|---|---|
| 14 | $402,479,675 | $57,489,736 | $408,200 |
| 15 | $402,479,675 | $56,051,430 | $398,000 |
| 16 | $402,479,675 | $54,528,101 | $387,100 |
| 17 | $402,479,675 | $52,912,663 | $375,700 |
| 18 | $402,479,675 | $51,205,118 | $363,600 |
| 19 | $402,479,675 | $49,384,208 | $350,600 |
| 20 | $402,479,675 | $47,464,104 | $337,000 |
| 21 | $402,479,675 | $45,423,552 | $322,500 |
| 22 | $402,479,675 | $43,262,550 | $307,200 |
| 23 | $402,479,675 | $40,974,013 | $290,900 |
| 24 | $402,479,675 | $38,543,772 | $273,700 |
| 25 | $402,479,675 | $35,971,825 | $255,400 |
| 26 | $402,479,675 | $33,236,918 | $236,000 |
| 27 | $402,479,675 | $30,346,135 | $215,500 |
| 28 | $402,479,675 | $27,278,221 | $193,700 |
| 29 | $402,479,675 | $24,033,175 | $170,600 |
| 30 | $402,479,675 | $20,582,658 | $146,100 |
| 31 | $402,479,675 | $16,933,753 | $120,200 |
| 32 | $402,479,675 | $13,065,205 | $92,800 |
| 33 | $402,479,675 | $8,962,844 | $63,600 |
| 34 | $402,479,675 | $7,085,252 | $50,300 |
| 35 | $402,479,675 | $7,085,252 | $50,300 |
| **Estimated Cumulative Total** | | | **$11,205,800** |

**Totals may not sum due to rounding.*

### *Scenario 1: Total Fiscal Impact*

Table 10 combines the results from the calculations depicted in Tables 8 and 9 to provide an estimate of the cumulative fiscal contribution that the proposed Sycamore Cross Solar project would make to Isle of Wight County over its 35-year anticipated operational life under Scenario 1. As these data indicate, that cumulative total is approximately $15.2 million.

Table 10: Estimated Cumulative Isle of Wight County Revenue from the Proposed Sycamore Cross Solar Project over 35 Years under Scenario 1

| | |
|---|---|
| County Real Estate Tax | $3,998,300 |
| County Revenue from Taxation of Capital Investments | $11,205,800 |
| **Total Cumulative Revenue over 35 Years** | **$15,204,100** |

### *Scenario 2: Revenue Share Ordinance*

The following section describes the additional annual revenue that the proposed Sycamore Cross Solar project would generate for Isle of Wight County assuming the county adopts an energy revenue share ordinance under Virginia Code §58.1-2636 in lieu of taxes on capital investment. This statute currently stipulates that a locality may assess an annual revenue share of up to $1,400 per megawatt (MW) alternating current (AC) generation capacity of a solar facility. However, legislation that was passed in the 2021 General Assembly (SB 1201/HB 2006) and went into effect July 1, 2021, allows a 10 percent escalator to be applied to the $1,400 per MW revenue share every five years, beginning in 2026.

Table 11 details the revenue generated from a revenue share ordinance including the 10 percent escalator. Based on a total generation capacity of 221 MW AC and an assumed commissioning date in the fourth quarter of 2026, a revenue share ordinance would generate approximately $16.1 million over the anticipated 35-year operational life of the project.

Table 11: Estimated Isle of Wight County Revenue Generated from a Revenue Share Ordinance over 35 Years

| Year | MW | Revenue Share per MW with Escalator | Annual County Revenue |
|---|---|---|---|
| 1 | 221 | $1,540 | $340,300 |
| 2 | 221 | $1,540 | $340,300 |
| 3 | 221 | $1,540 | $340,300 |
| 4 | 221 | $1,540 | $340,300 |
| 5 | 221 | $1,540 | $340,300 |
| 6 | 221 | $1,694 | $374,400 |
| 7 | 221 | $1,694 | $374,400 |
| 8 | 221 | $1,694 | $374,400 |
| 9 | 221 | $1,694 | $374,400 |
| 10 | 221 | $1,694 | $374,400 |
| 11 | 221 | $1,863 | $411,800 |
| 12 | 221 | $1,863 | $411,800 |
| 13 | 221 | $1,863 | $411,800 |
| 14 | 221 | $1,863 | $411,800 |
| 15 | 221 | $1,863 | $411,800 |
| 16 | 221 | $2,050 | $453,000 |
| 17 | 221 | $2,050 | $453,000 |
| 18 | 221 | $2,050 | $453,000 |
| 19 | 221 | $2,050 | $453,000 |
| 20 | 221 | $2,050 | $453,000 |
| 21 | 221 | $2,255 | $498,300 |
| 22 | 221 | $2,255 | $498,300 |
| 23 | 221 | $2,255 | $498,300 |
| 24 | 221 | $2,255 | $498,300 |
| 25 | 221 | $2,255 | $498,300 |
| 26 | 221 | $2,480 | $548,100 |

| Year | MW | Revenue Share per MW with Escalator | Annual County Revenue |
|---|---|---|---|
| 27 | 221 | $2,480 | $548,100 |
| 28 | 221 | $2,480 | $548,100 |
| 29 | 221 | $2,480 | $548,100 |
| 30 | 221 | $2,480 | $548,100 |
| 31 | 221 | $2,728 | $602,900 |
| 32 | 221 | $2,728 | $602,900 |
| 33 | 221 | $2,728 | $602,900 |
| 34 | 221 | $2,728 | $602,900 |
| 35 | 221 | $2,728 | $602,900 |
| **Cumulative Total** | | | **$16,144,300** |

### *Scenario 2: Total Fiscal Impact*

Table 12 combines the results from the calculations depicted in Tables 8 and 11 to provide an estimate of the cumulative fiscal contribution that the proposed Sycamore Cross Solar project would make to Isle of Wight County over its 35-year anticipated operational life under Scenario 2. As these data indicate, that cumulative total is approximately $20.1 million.

Table 12: Estimated Cumulative Isle of Wight County Revenue from the Proposed Sycamore Cross Solar Project over 35 Years under Scenario 2

| | Total Revenue |
|---|---|
| County Real Estate Tax | $3,998,300 |
| County Revenue from Revenue Share Ordinance | $16,144,300 |
| **Total Cumulative Revenue over 35 Years** | **$20,142,600** |

# Current Agricultural Use

This section provides a benchmark for the previous estimates of the economic contribution that the proposed Sycamore Cross Solar project would make to the counties of Surry and Isle of Wight by estimating the economic and fiscal contribution that the site makes to the counties in its current use.

## Economic Impact Inputs and Assumptions

The analysis is based on the following inputs and assumptions:

- The proposed Sycamore Cross Solar project would be situated on an approximately 1,156-acre tract of land, of which approximately 125 acres are located in Surry County and 1,030 acres are located in Isle of Wight County.[47]
- The land currently is timberland and agricultural land used to produce corn, soybeans, cotton, and peanuts.[48]

## Economic Impact

Applying these inputs to the IMPLAN model results in the following estimates of annual economic impact. As shown in Table 13, in its current use, the proposed Sycamore Cross Solar project site directly supports approximately: 1) 1 job, 2) $0.1 million in wages and benefits, and 3) $0.4 million in economic output to the counties of Surry and Isle of Wight.

Taking into account the economic ripple effects that direct impact generates, on average, the total annually supported impact on the counties of Surry and Isle of Wight is approximately: 1) 2 jobs, 2) $0.2 million in wages and benefits, and 3) $0.5 million in economic output.

Table 13: Total Estimated Annual Economic Impact of the Sycamore Cross Solar Project Site on the Counties of Surry and Isle of Wight– Current Use[49]

| Economic Impact | Employment | Wages and Benefits | Output |
|---|---|---|---|
| **1st Round Direct Economic Activity** | 1 | $111,400 | $382,200 |
| **2nd Round Indirect and Induced Economic Activity** | 1 | $56,700 | $163,800 |
| **Total Economic Activity** | **2** | **$168,100** | **$546,000** |

**Totals may not sum due to rounding.*

[47] Data Source: AES.
[48] Data Source: AES.
[49] Calculations based data from the U.S. Department of Agriculture and IMPLAN Group, LLC for Isle of Wight County, Surry County, and Virginia.

## Fiscal Impact Inputs and Assumptions

The analysis is based on the following inputs and assumptions:

- The proposed Sycamore Cross Solar project would be situated on an approximately 1,156-acre tract of land, of which approximately 125 acres would be located in Surry County and 1,030 acres would be located in Isle of Wight County.[50]
- The current assessment value of the affected acreage in Surry County is approximately $0.2 million.[51]
- The current assessment value of the affected acreage in Isle of Wight County is approximately $2.1 million.[52]

## Fiscal Impact – Surry County

Table 14 details the estimated tax revenue that the proposed Sycamore Cross Solar site generates for Surry County in its current use. As the data in Table 14 indicate, the current county real estate tax revenue from the project site is estimated to be approximately $1,530 per year, for a cumulative total of approximately $53,500 over 35 years.

Table 14: Estimated Surry County Revenue Generated by the Proposed Sycamore Cross Solar Project Site over 35 Years from Real Estate Taxes – Current Use

| | |
|---|---|
| Estimated Assessed Value of Property – Current Use | $215,300 |
| Surry County Current Real Estate Tax Rate | 0.0071 |
| Estimated Annual County Real Estate Tax – Current Use | $1,530 |
| **Total Cumulative Revenue over 35 Years** | **$53,500** |

**Totals may not sum due to rounding.*

## Fiscal Impact – Isle of Wight County

Table 15 details the estimated tax revenue that the proposed Sycamore Cross Solar site generates for Isle of Wight County in its current use. As the data in Table 15 indicate, the current county real estate tax revenue from the project site is estimated to be approximately $14,900 per year, for a cumulative total of approximately $520,000 over 35 years.

[50] Data Source: AES.
[51] Data Source: Derived from Surry County's Real Estate Assessment database. Includes value of existing structures.
[52] Data Source: Derived from Isle of Wight County's Real Estate Assessment database. Includes value of existing structures.

Table 15: Estimated Isle of Wight County Revenue Generated by the Proposed Sycamore Cross Solar Project Site over 35 Years from Real Estate Taxes – Current Use

| | |
|---|---|
| Estimated Assessed Value of Property – Current Use | $2,092,500 |
| Isle of Wight County Current Real Estate Tax Rate | 0.0071 |
| Estimated Annual County Real Estate Tax – Current Use | $14,900 |
| **Total Cumulative Revenue over 35 Years** | **$520,000** |

*The estimates provided in this report are based on the best information available and all reasonable care has been taken in assessing the quality of that information. However, because these estimates attempt to foresee the consequences of circumstances that have not yet occurred, it is not possible to be certain that they will be representative of actual events. These estimates are intended to provide a good indication of likely future outcomes and should not be construed to represent a precise measure of those outcomes.*

# COUNTY OF ISLE OF WIGHT

*OFFICE OF THE COMMISSIONER OF THE REVENUE*
*Post Office Box 107*
*Isle of Wight, Virginia 23397*
*(757) 365-6222*

**Gerald H. Gwaltney**
**Commissioner of the Revenue**


## MEMORANDUM

**TO:** Amy M. Ring
Community Development Director

**FROM:** Gerald H. Gwaltney,
Commissioner of the Revenue

**DATE:** May 16, 2024

**RE:** **Sycamore Cross Solar Project**
**Conditional Use Permit (CUP-8-23), Third Submittal**

---

I have completed the review of the Sycamore Cross Solar Project Third Submittal. The solar project's initial interconnection request for Sycamore Cross Solar was filed in March 2017. This date is important because it occurs within the period (Jan. 1, 2015 – June 30, 2018) in which all solar equipment related to the application received an 80% exemption. No other category of taxable property in Isle of Wight receives such an exemption.

Below are several deficiencies in their submittal relating to the tax revenue analysis.

- **Real Estate**

  Rollback Taxes – the third submittal incorrectly calculates the rollback taxes. The amount of rollback taxes is overstated because "simple interest" is not applied in Isle of Wight County. This error indicates Sycamore Cross Solar, LLC did not review the County's land use ordinance.

  The study did not provide the worksheet detailing the rollback taxes by year for each parcel subject to the rollback tax, making it impossible to confirm the calculations.

- **Equipment**

  The State Corporation Commission will assess the solar equipment. Table 9 lists the "Depreciated Value of Taxable Capital Investment" as $63,767,270 for years 1 through 8. The study defines the formula used to arrive at the value. This formula includes the "SCC utility assessment ratio for taxation of public utilities in Isle of Wight County." If the 2023 sales ratio was used, then the capital investment taxes are overstated.

  The study did not provide the worksheet detailing the rates used to determine the taxes on the equipment, making it impossible to confirm the calculations.

Please let me know if you have any questions.

**Sycamore Cross A and B Solar Projects with Approved Solar Energy Generation Facilities as of 5/21/24**

| PROJECT | DEVELOPED AREA (PER CUP) | PRIME FARMLAND /SOILS OF STATEWIDE IMPORTANCE* | % OF TOTAL PRIME SOILS (rounded) | LOCATION | % OF TOTAL FARMLAND** | TOTAL MW | APPROVAL DATE |
|---|---|---|---|---|---|---|---|
| Woodland | 180 | 124 | 0.10% | Longview | 0.22% | 20 | 2015 |
| Solidago | 170 | 170 | 0.14% | Redhouse | 0.21% | 20 | 2018 |
| Ho-Fel | 330 | 315 | 0.26% | Lees Mill | 0.41% | 55 | 2019; Amended 2023 |
| Windsor PV1 | 630 | 630 | 0.52% | Windsor | 0.78% | 85 | 2019; Amended in 2021 |
| Cavalier | 500 | 500 | 0.41% | Hardy | 0.62% | 240 | 2021 |
| Nuby Run | 20 | 20 | 0.02% | Orbit | 0.02% | 2 | 2022 |
| Carver | 637 | 297 | 0.24% | Windsor | 0.79%<br>0.00% | 71 | Approved 7/23/2023 |
| Prairie Solar | 152 | 152 | 0.12% | Longview | 0.19%<br>0.00% | 20 | Approved 8/17/23 |
| Courthouse Solar | 18 | 18 | 0.01% | Route 258 | 0.02% | 3 | Approved 11/16/23 |
| Sycamore Cross A & B (Proposed) | 1,030 | 1,030 | 0.84% | Ramsey/Mill Swamp/White Hill Trail/Sycamore Cross/Rattlesnake | 1.28% | 240 | Under Review |
| | | | | | | | |
| **TOTAL** | **3,667** | **3,256** | **2.66%** | | **4.57%** | **756** | |

***Prime soils include Prime Farmland, Prime, If Drained, and Soils of Statewide Importance – 122,296 total acres in County***

***Total active agricultural lands as of 2022 Census of Agriculture – 80,316 acres***

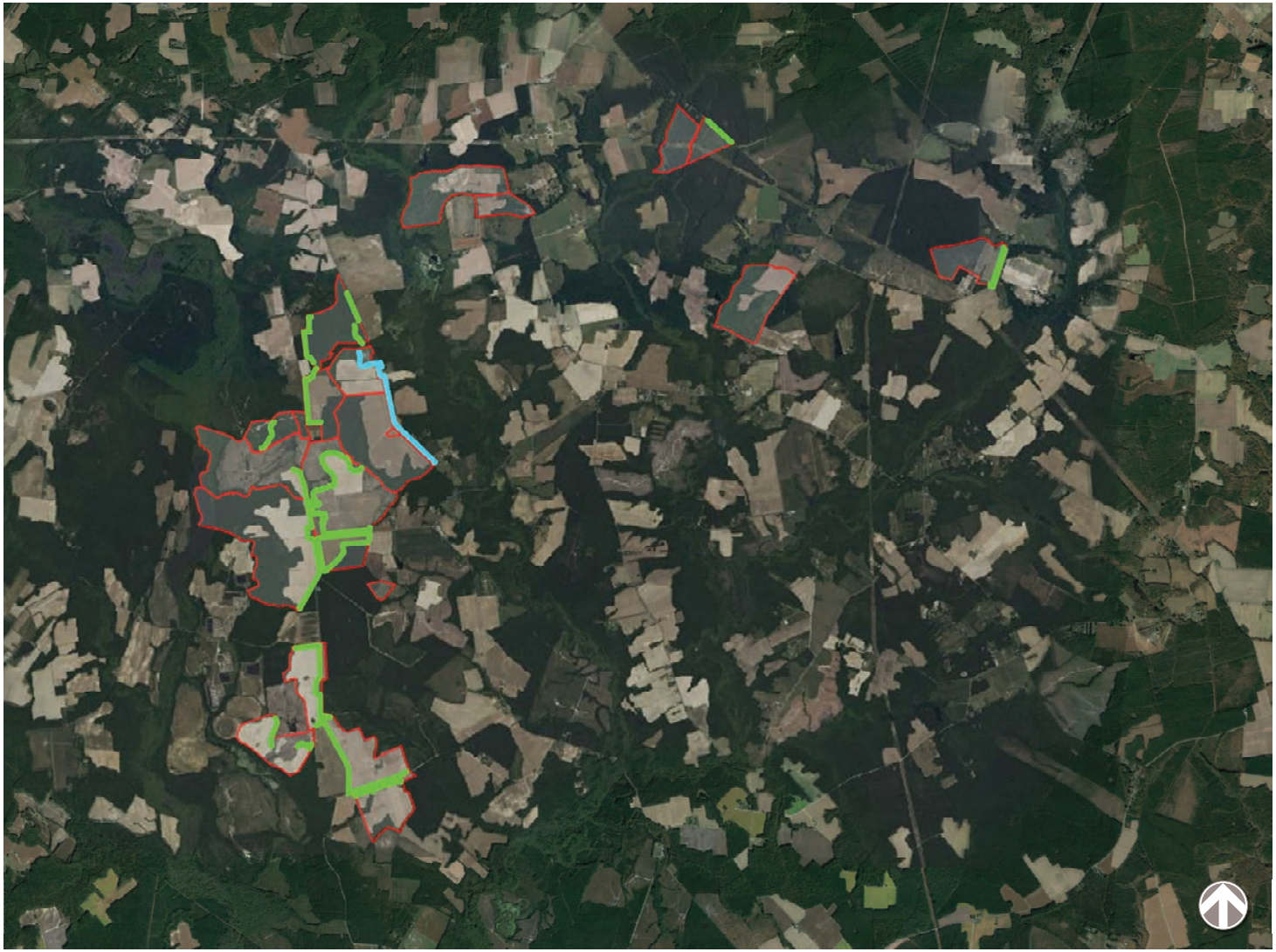
# SYCAMORE CROSS SOLAR PROJECT

## Isle of Wight and Surry Counties, Virginia

## CONCEPTUAL LANDSCAPE

FEBRUARY 2024

**LANDSCAPE SCREENING BY ZONE**



*LEGEND*

FRONTAGE ZONE

BUFFER ZONE

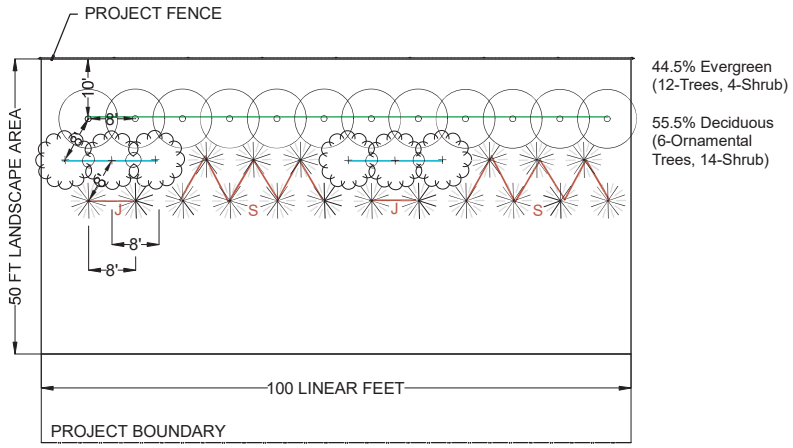
SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

# SYCAMORE CROSS SOLAR FACILITY

## LANDSCAPE SCREENING - PLANT SCHEMATICS AND CONCEPTUAL PLANT LISTS

## FRONTAGE ZONE LANDSCAPE

Apply to landscape screening areaalong public roadways with ROW greater than 50 feet

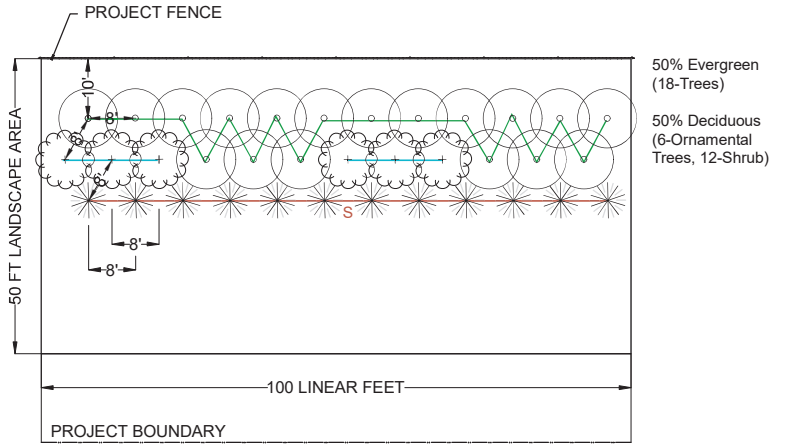



44.5% Evergreen (12-Trees, 4-Shrub)

55.5% Deciduous (6-Ornamental Trees, 14-Shrub)

## BUFFER ZONE LANDSCAPE - ABUTTING RESIDENTIAL PARCELS

Apply to Abutting Residential Parcels where the existing vegetation not present




50% Evergreen (18-Trees)

50% Deciduous (6-Ornamental Trees, 12-Shrub)

## CONCEPTUAL PLANT LIST

| CONCEPT PLANT LIST | | | | |
|---|---|---|---|---|
| **Botanical Name** | **Common Name** | **Height at Planting** | **Mature height** | **Mature Spread** |
| **EVERGREEN** | | | | |
| Ilex X 'Conap' oakleaf | Red Holly/ Oakleaf Holly | 6 FT | 15 FT | 9 FT |
| Ilex X mary nell | Mary Nell Holly | 6 FT | 20 FT | 10 FT |
| Juniperus virginiana 'Brodie' | Eastern Red Cedar | 6 FT | 15 FT | 6 FT |
| Myrica cerifera | Southern Wax Myrtle | 6 FT | 15 FT | 20 FT |
| Thuja Occidentalis 'techny' | Eastern Arborvitae | 6 FT | 15 FT | 10 FT |
| **ORNAMENTAL** | | | | |
| Amelanchier canadensis | Shadblow serviceberry | 6 FT | 25 FT | 15 FT |
| Chionanthus virginicus | Fringetree | 6 FT | 20 FT | 20 FT |
| Magnolia Virginiana | Sweetbay Magnolia | 6 FT | 20 FT | 20 FT |
| **SHRUB** | | | | |
| Juniperus communis var. depressa | Juniper | 1.5 FT | 4 FT | 10 FT |
| Lindera benzion | Spicebush | 1.5 FT | 10 FT | 10 FT |

J

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SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

# SYCAMORE CROSS SOLAR FACILITY

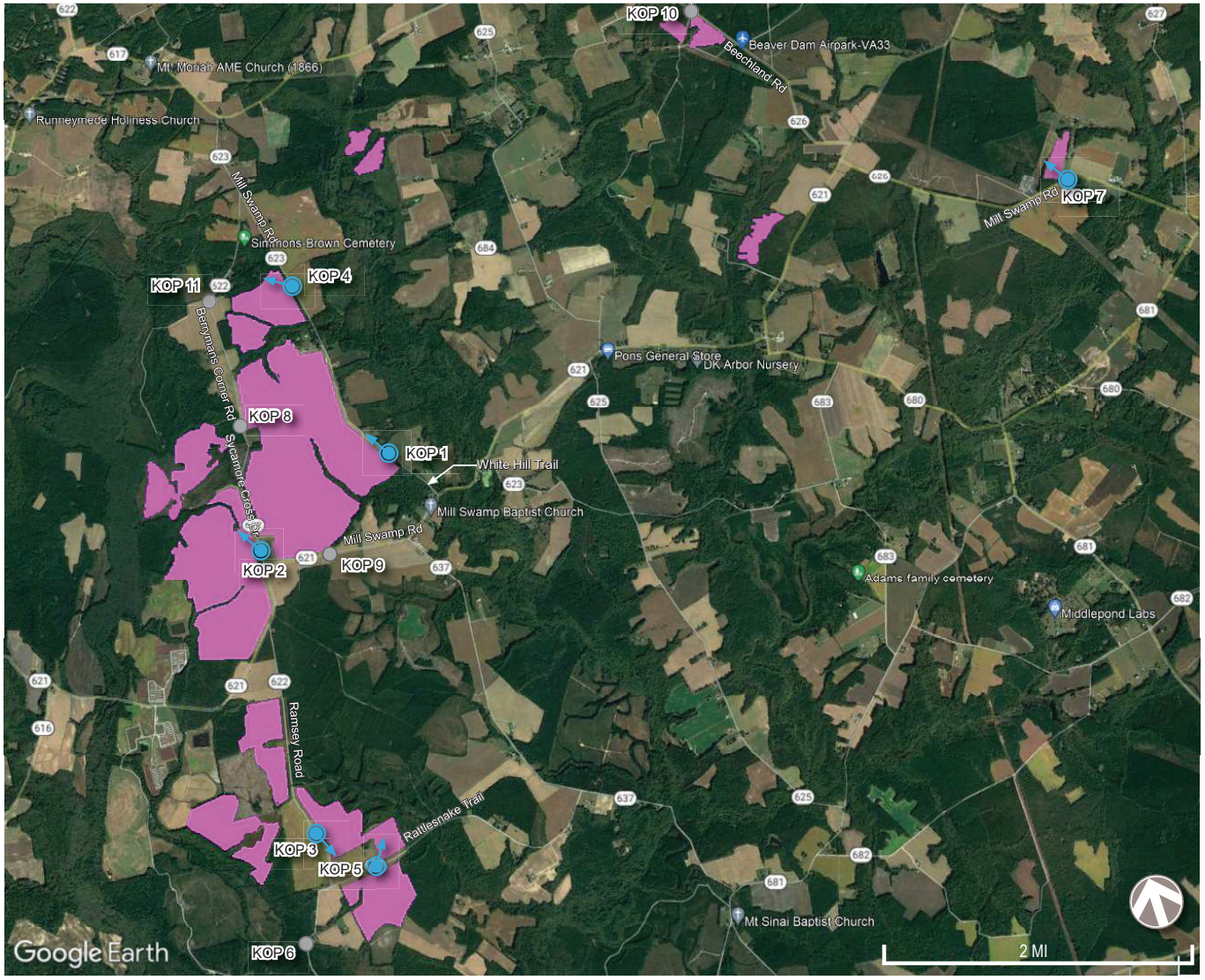
LANDSCAPE SCREENING - PLANT SCHEMATICS AND CONCEPTUAL PLANT LISTS

# SYCAMORE CROSS SOLAR PROJECT

## Isle of Wight and Surry Counties, Virginia

## PHOTO SIMULATIONS

APRIL 2024

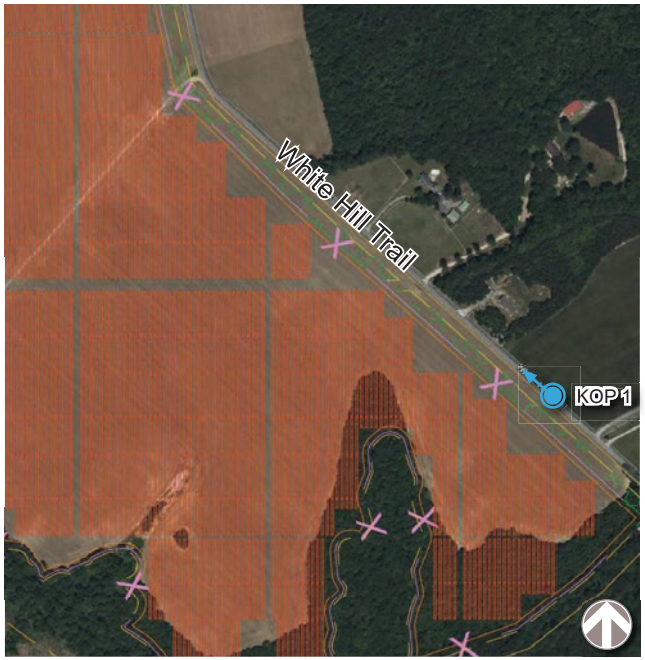



*LEGEND*

- Photo Simulation / Viewing Direction
- Project Area
- Candidate KOP Location

# SYCAMORE CROSS SOLAR FACILITY

## KEY OBSERVATION POINT LOCATION MAP




**KOP 1:**
**WHITE HILL TRAIL**

**KOP 2:**
**SYCAMORE CROSS DRIVE**

**KOP 3:**
**RAMSEY RD**

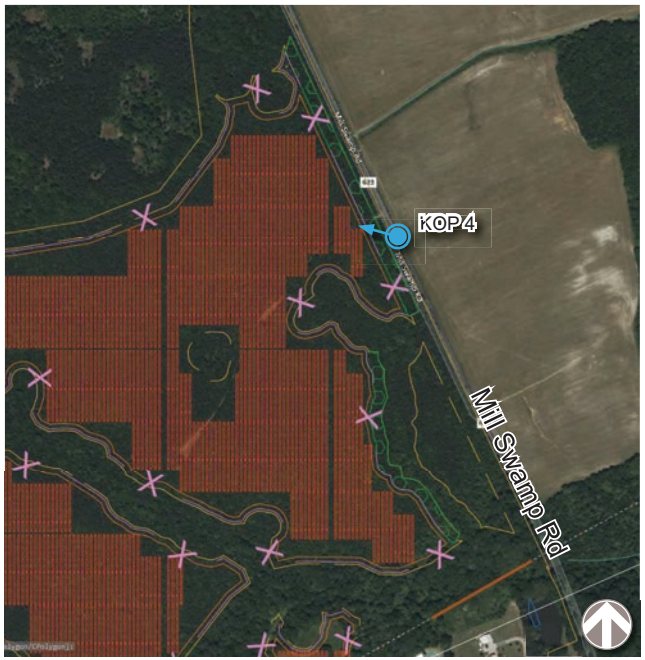
*LEGEND*

- PV Area
- Panels
- Fenceline
- Vegetative Buffer Area

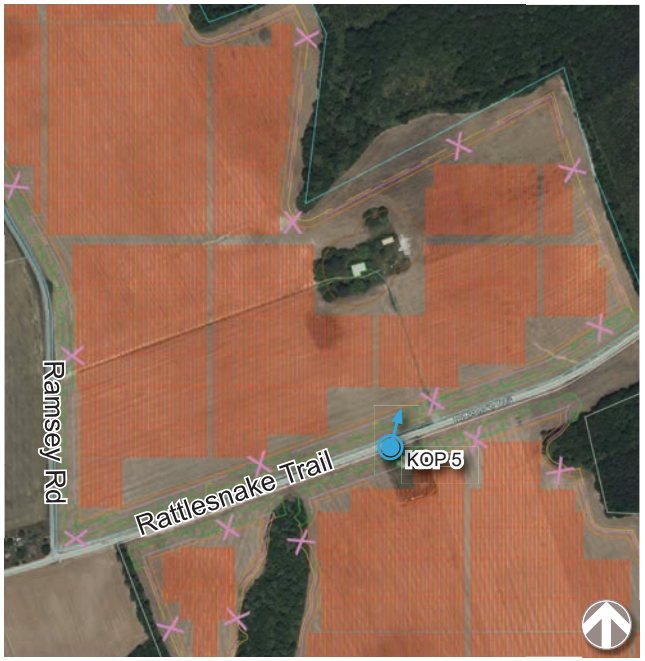
PHOTO LOCATION
& VIEWING DIRECTION

# SYCAMORE CROSS SOLAR FACILITY

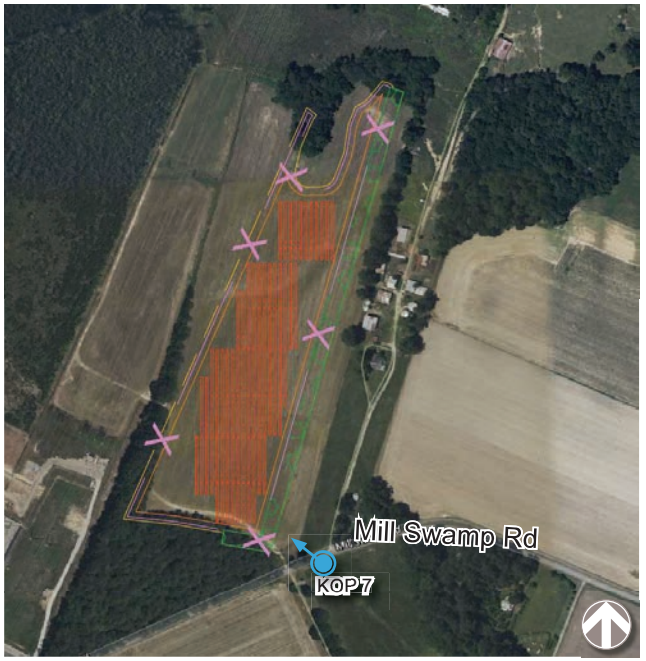
LANDSCAPE BUFFER VISUALIZATION - PHOTO LOCATIONS




**KOP 4:**
**MILL SWAMP ROAD**




**KOP 5:**
**RATTLESNAKE TRAIL**




**KOP 7:**
**MILL SWAMP ROAD**

*LEGEND*

- PV Area
- Panels
- Fenceline
- Vegetative Buffer Area

PHOTO LOCATION
& VIEWING DIRECTION

# SYCAMORE CROSS SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION - PHOTO LOCATIONS

## KOP 1:
## WHITE HILL TRAIL

### PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:18 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.994477° |
| LONGITUDE: | -76.817906° |
| DISTANCE TO PROJECT: | 155 FT |

EXISTING

SIMULATED - WITH PLANT SCREENING: AT PLANTING

SIMULATED - WITH PLANT SCREENING: AT MATURE HEIGHT

## KOP 2:
## SYCAMORE CROSS DRIVE

### PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 10:20 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.986213° |
| LONGITUDE: | -76.833997° |
| DISTANCE TO PROJECT: | 175 FT |

EXISTING

SIMULATED - WITH PLANT SCREENING: AT PLANTING

SIMULATED - WITH PLANT SCREENING: AT MATURE HEIGHT

## KOP 3:
## RAMSEY ROAD

### PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 9:32 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | SOUTHEAST |
| LATITIUDE: | 36.959386° |
| LONGITUDE: | -76.829939° |
| DISTANCE TO PROJECT: | 145 FT |

EXISTING

SIMULATED - WITH PLANT SCREENING: AT PLANTING

SIMULATED - WITH PLANT SCREENING: AT MATURE HEIGHT

**DISCLAIMER**: The photographs used as the base for these simulations were collected during winter months where existing deciduous trees are pictured in the leaf-off condition. The landscape screening simulated shows full leaf-on conditions for all vegetation used for screening. While this does not match existing conditions, it demonstrates the maximum extent of screening proposed.

# SYCAMORE CROSS SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION - BEFORE AND AFTER BUFFER INSTALLATION

## KOP 4:
## MILL SWAMP ROAD

### PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:35 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.011385° |
| LONGITUDE: | -76.827799° |
| DISTANCE TO PROJECT: | 190 FT |

EXISTING

SIMULATED - WITH PLANT SCREENING: AT PLANTING

## KOP 5:
## RATTLESNAKE TRAIL

### PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 8:53 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHEAST |
| LATITIUDE: | 36.955797° |
| LONGITUDE: | -76.823667° |
| DISTANCE TO PROJECT: | 400 FT |

EXISTING

SIMULATED - WITH PLANT SCREENING: AT PLANTING

SIMULATED - WITH PLANT SCREENING: AT MATURE HEIGHT

## KOP 7:
## MILL SWAMP ROAD

### PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 1:05 PM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.014834° |
| LONGITUDE: | -76.733937° |
| DISTANCE TO PROJECT: | 270 FT |

EXISTING

SIMULATED - WITH PLANT SCREENING: AT PLANTING

SIMULATED - WITH PLANT SCREENING: AT MATURE HEIGHT

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# SYCAMORE CROSS SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION - BEFORE AND AFTER BUFFER INSTALLATION

# SYCAMORE CROSS SOLAR PROJECT

## KOP 1: White Hill Trail

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:18 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.994477° |
| LONGITUDE: | -76.817906° |
| DISTANCE FROM PROJECT: | 155 FT |

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 1: White Hill Trail

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:18 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.994477° |
| LONGITUDE: | -76.817906° |
| DISTANCE FROM PROJECT: | 155 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 1: White Hill Trail

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:18 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.994477° |
| LONGITUDE: | -76.817906° |
| DISTANCE FROM PROJECT: | 155 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 2: Sycamore Cross Dr

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 10:20 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.986213° |
| LONGITUDE: | -76.833997° |
| DISTANCE FROM PROJECT: | 175 FT |

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 2: Sycamore Cross Dr

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 10:20 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.986213° |
| LONGITUDE: | -76.833997° |
| DISTANCE FROM PROJECT: | 175 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 2: Sycamore Cross Dr

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 10:20 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.986213° |
| LONGITUDE: | -76.833997° |
| DISTANCE FROM PROJECT: | 175 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 3: Ramsey Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 9:32 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | SOUTHEAST |
| LATITIUDE: | 36.959386° |
| LONGITUDE: | -76.829939° |
| DISTANCE FROM PROJECT: | 145 FT |

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 3: Ramsey Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 9:32 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | SOUTHEAST |
| LATITIUDE: | 36.959386° |
| LONGITUDE: | -76.829939° |
| DISTANCE FROM PROJECT: | 145 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 3: Ramsey Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 9:32 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | SOUTHEAST |
| LATITIUDE: | 36.959386° |
| LONGITUDE: | -76.829939° |
| DISTANCE FROM PROJECT: | 145 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 4: Mill Swamp Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:35 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 37.011385° |
| LONGITUDE: | -76.827799° |
| DISTANCE FROM PROJECT: | 190 FT |

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 4: Mill Swamp Rd

PHOTO SIMULATION

**PROJECT VIEWS ARE OBSTRUCTED BY EXISTING VEGETATION**

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:35 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 37.011385° |
| LONGITUDE: | -76.827799° |
| DISTANCE FROM PROJECT: | 190 FT |

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 5: Rattlesnake Trail

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 8:53 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHEAST |
| LATITIUDE: | 36.955797° |
| LONGITUDE: | -76.823667° |
| DISTANCE FROM PROJECT: | 400 FT |

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 5: Rattlesnake Trail

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 8:53 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHEAST |
| LATITIUDE: | 36.955797° |
| LONGITUDE: | -76.823667° |
| DISTANCE FROM PROJECT: | 400 FT |

**DISCLAIMER**:
The photographs used as the base for these simulations were collected during winter months where existing deciduous trees are pictured in the leaf-off condition. The landscape screening simulated shows full leaf-on conditions for all vegetation used for screening. While this does not match existing conditions, it demonstrates the maximum extent of screening proposed.

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 5: Rattlesnake Trail

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

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| TIME: | 8:53 AM |
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| VIEWING DIRECTION: | NORTHEAST |
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| DISTANCE FROM PROJECT: | 400 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 7: Mill Swamp Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 1:05 PM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 37.014834° |
| LONGITUDE: | -76.733937° |
| DISTANCE FROM PROJECT: | 270 FT |

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 7: Mill Swamp Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 1:05 PM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 37.014834° |
| LONGITUDE: | -76.733937° |
| DISTANCE FROM PROJECT: | 270 FT |

**DISCLAIMER**:
The photographs used as the base for these simulations were collected during winter months where existing deciduous trees are pictured in the leaf-off condition. The landscape screening simulated shows full leaf-on conditions for all vegetation used for screening. While this does not match existing conditions, it demonstrates the maximum extent of screening proposed.

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 7: Mill Swamp Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 1:05 PM |
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**DISCLAIMER**:
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**ORDINANCE NUMBER ___ _____**

**AN ORDINANCE TO ISSUE CONDITIONAL USE PERMIT CUP-8-23 TO ESTABLISH A MAJOR UTILITY SERVICE, SPECIFICALLY A 214 MW UTILITY-SCALE SOLAR ENERGY GENERATION FACILITY, ON APPROXIMATELY 1,795 ACRES LOCATED ON MILL SWAMP ROAD (RTE. 621) WITH TAX PARCEL NUMBERS 09-01-001, 16-01-002, 16-01-002A, 16-01-003, 16-01-005. 16-01-008, 16-01-009, 17-01-003, 17-01-003C, 17-01-001, 17-01-002, 17-01-011, 27-01-003, AND 27-01-004 IN THE RURAL AGRICULTURAL CONSERVATION ZONING DISTRICT AND TO WITHDRAW APPROXIMATELY 860 ACRES THAT ARE PART OF TAX PARCEL NUMBERS 09-01-001, 16-01-003, 16-01-008, 16-01-009, 17-01-003C, 27-01-003 AND 17-01-011 FROM THE MOONLIGHT AGRICULTURAL AND FORESTAL DISTRICT**

WHEREAS, Sycamore Cross Solar, LLC, applicant, has requested the issuance of a conditional use permit for a certain portion or all of the property with tax parcel numbers 09-01-001, 16-01-002, 16-01-002A, 16-01-003, 16-01-005. 16-01-008, 16-01-009, 17-01-003, 17-01-003C, 17-01-001, 17-01-002, 17-01-011, 27-01-003, and 27-01-004 for a 214 MW utility scale solar energy generation facility which land is depicted on Exhibit "A"; and,

WHEREAS, the applicant has also requested the withdrawal of 860 acres on part of tax map parcels 09-01-001, 16-01-003, 16-01-008, 16-01-009, 17-01-003C, 27-01-003 and 17-01-011 from the Moonlight Agricultural and Forestal District, which land is also depicted on Exhibit "A"; and,

WHEREAS, the procedural requirements of Appendix B, Zoning Ordinance, of the Code of Isle of Wight County, Virginia, 2005 (as amended), have been followed; and,

WHEREAS, in acting upon this request, the Planning Commission and Board of Supervisors have considered the matters enunciated in Section 15.2-2284 of the Code of Virginia (1950), as amended, and Section 1-1017 of the Isle of Wight County Zoning Ordinance with respect to the purposes stated in Code of Virginia (1950), as amended, Section 15.2-2200 and 15.2 2283; and,

WHEREAS, the Planning Commission has made a recommendation of denial of the application at their May 28, 2024, regular meeting;

NOW, THEREFORE, BE IT ORDAINED by the Isle of Wight County Board of Supervisors of Isle of Wight County, Virginia, that:

Section 1. Exhibits.

Exhibit "A," "Property Map", and Exhibit "B" Conditions which are attached hereto, are hereby incorporated as part of this ordinance.

Section 2. Findings.

The Board of Supervisors finds that the proposal for a conditional use permit (CUP-8-23) and the withdrawal of enrolled land in the Moonlight Agricultural and Forestal District, as submitted or modified with conditions herein, the expressed purpose of which is to permit a major utility service, specifically a 214 MW utility-scale solar energy generation facility, is in conformity with the standards of the Isle of Wight County Zoning Ordinance, and that it will have no more adverse effects on the health, safety or comfort of persons living or working in or driving through the neighborhood, and will be no more injurious to property or improvements in the neighborhood than would any other use generally permitted in the same district, taking into consideration the location, type and height of buildings or structures, the type and extent of landscaping and screening on site and whether the use is consistent with any theme, action, policy or map of the Comprehensive Plan with the conditions set forth below.

These findings are based upon the consideration for the existing use and character of the property, the Comprehensive Plan, the suitability of the property for various uses, the trends of growth or change, the

current and future requirements of the community as to land for various purposes as determined by population and economic studies and other studies, the transportation requirements of the community, the requirements of airports, housing, schools, parks, playgrounds, recreation areas and other public services, the conservation of natural resources, the preservation floodplains, the preservation of agricultural and forestal land, the conservation of properties and their values, and the encouragement of the most appropriate use of land throughout the County.

These findings are based upon a determination that the most reasonable and limited way of avoiding the adverse impacts of a major utility service is by the imposition of the conditions provided herein.

Section 3. Permit Granted.

The conditional use permit for the property be, and is hereby approved for the property, subject to the attached conditions in Exhibit "B" and the general conditions set forth in Section 4 hereof. The conditional use permit specifically allows for a 214 MW major utility service solar energy generation facility in compliance with the County Zoning Ordinance.

Section 4. Severability.

It is the intention of the Board of Supervisors that the provisions, sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable; and if any phrase, clause, sentence, paragraph, section, and provision of this ordinance hereby adopted shall be declared unconstitutional or otherwise invalid by the valid judgement or decree of a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining phrase, clauses, sentences, paragraphs, sections, and provisions of this ordinance, to the extent that they can be enforced notwithstanding such determination.

Section 5. Effective Date

This ordinance shall be effective upon passage and shall not be published or codified. The conditional use authorized by this permit shall be implemented within two (2) years from that date of approval by the Board of Supervisors and shall terminate if not initiated within that time period.

This ordinance shall be effective upon passage and shall not be published or codified.

DATE: _____

READ AND PASSED: _____
Chairman, Board of Supervisors

TESTE: _____
Clerk, Board of Supervisors

Approved as to Form:

_____
Robert W. Jones Jr, County Attorney

EXHIBIT A

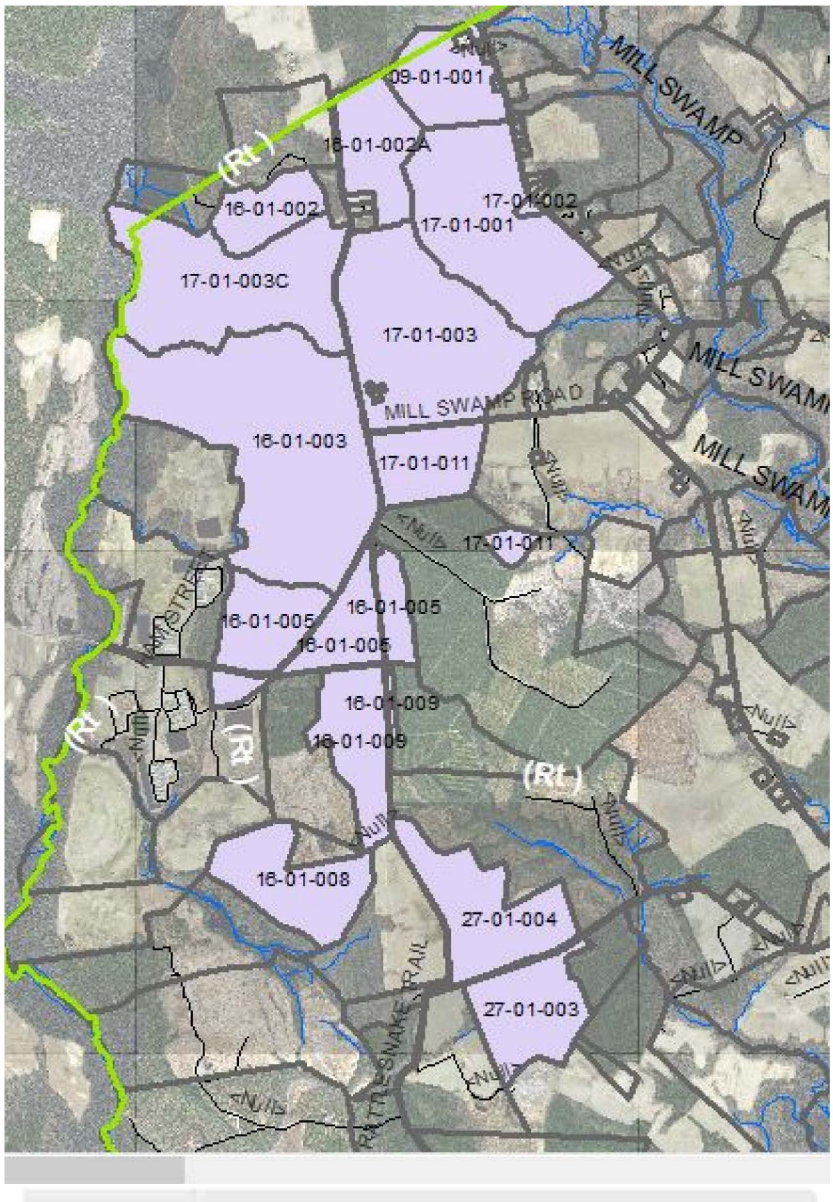
09-01-001
MILL SWAMP
16-01-002A
(Rt.)
16-01-002
17-01-002
17-01-001
17-01-003C
17-01-003
MILL SWAMP ROAD
16-01-003
17-01-011
17-01-011
16-01-005
16-01-005
16-01-005
16-01-009
16-01-009
(Rt.)
16-01-008
27-01-004
27-01-003
RATTLESNAKE TRAIL

**EXHIBIT B**

**CUP-8-23**
**SYCAMORE CROSS A CONDITIONS OF APPROVAL**

1. Topsoil shall be stockpiled on the site and shall be stored out of view from adjacent properties and public roads.
2. The applicant shall submit an invasive species management plan as recommended by DCR with the submission of the final site plan.
3. No impacts shall be permitted to the Pouches Swamp stream conservation unit area, the C1-C3 ecological core areas, or the priority forestland areas. The applicant shall submit a formal ecological core impact assessment with DCR as recommended.
4. The applicant shall submit a seed mix for site groundcover that includes native pollinators blooming in spring/summer as recommended by DCR.
5. The applicant will work directly with the Isle of Wight County Chamber of Commerce, Paul D. Camp Community College, and the Economic Development Department to ensure inclusion of local contractors in the bidding process.
6. A laminated Emergency Response Poster will be mounted near the front gate. The poster will include a general site plan, evacuation routes and muster points, emergency response chain of command, directions to the closest hospital, coordinates to the closest life flight landing area, and other pertinent information associated with the facility during an emergency response.
7. The facility perimeter fencing will be equipped with push bar pedestrian gates to permit emergency exits from the facility.
8. Adherence to the proposed transportation plan shall be required for all facility traffic. Truck traffic shall be limited to only to the preferred route as described in in the transportation plan. No other local routes in Isle of Wight County may be used. The applicant shall coordinate deliveries outside of school bus pickup and drop-off times.
9. Excluding the bufferyards, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing.
10. Hours of operation for construction and post-construction operation shall be limited to Monday through Friday, 7:00 a.m. to 6:00 p.m. Saturdays from 7:00 a.m. to 5:00 p.m. No construction is to occur on Sundays by any party involved with the project.
11. As part of the site plan review, the applicant shall provide documentation that the selected panels and all power-generating equipment on-site are “Tier 1” modules, as established by the most recent “PV Module Tier 1 List” issued by Bloomberg NEF or a similar third party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power-generating equipment initially installed and replaced on the site must qualify, for disposal purposes only, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP).
12. The applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil

conditions, including depth, density, and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to at least baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results.

13. Any recommendations provided by VDHR during site plan review will be adhered to, in addition to requirements in the zoning ordinance.

**REPORT >**

# Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**LOCATION >** Isle of Wight and Surry Counties, Virginia

**DATE > July 2024**

**PREPARED FOR >**
AES Clean Energy

**PREPARED BY >**
Dutton + Associates, LLC

**VDHR FILE NO. >**
2023-4691

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

# PHASE I CULTURAL RESOURCE SURVEY OF THE ±817.46 HECTARE (2,020 ACRE) SYCAMORE CROSS SOLAR PROJECT AREA

## ISLE OF WIGHT AND SURRY COUNTIES, VIRGINIA

***PREPARED FOR:***
**AES CLEAN ENERGY**
**4200 INNSLAKE DRIVE**
**SUITE 302**
**GLEN ALLEN, VIRGINIA 23060**

***PREPARED BY*:**
**DUTTON + ASSOCIATES, LLC**
**1115 CROWDER DRIVE**
**MIDLOTHIAN, VIRGINIA 23113**
**804.897.1960**

***PRINCIPAL INVESTIGATOR/***
***ARCHITECTURAL HISTORIAN:***
**ROBERT J. TAYLOR, JR., M.A.**

***SENIOR ARCHAEOLOGIST:***
**HOPE SMITH, PH.D.**

***RESEARCH HISTORIAN:***
**DARA FRIEDBERG, M.S.**

**JULY 2024**

# ABSTRACT

*In April 2024, Dutton +Associates, LLC (D+A) completed a Phase I cultural resource survey (Phase I) of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar project area in Isle of Wight and Surry counties, Virginia. Fieldwork for the study was conducted between December 2023 and March 2024. The effort was intended to provide documentation and assessment of cultural resources within the study area to make recommendations as to whether they may be potentially eligible for listing in the National Register of Historic Places (NRHP) and assess those that are considered NRHP-eligible for project impacts. The effort was conducted in support of an application for a Certificate of Public Convenience and Necessity (CPCN) from the Virginia State Corporation Commission (SCC) and serves as a follow-up to the previously coordinated Phase IA Cultural Resource Assessment of the Sycamore Cross Study Area (D+A July 2023).*

*The project involves the development of a solar energy production facility near the border of Isle of Wight and Surry counties generally along Sycamore Cross Road, Ramsey Road, Mill Swamp Road, Rattlesnake Trail, and White Hill Trail. As part of the project, a series of solar arrays will be built throughout the project area.*

*The architectural resources survey for the Sycamore Cross Solar Project resulted in the identification and recordation of forty-four (44) architectural resources greater than 50 years of age (constructed in 1974 or earlier) located within the one-half mile architectural survey area. Of the surveyed resources, twenty-five (25) were previously recorded (VDHR# VDHR# 046-0029, 046-0030, 046-0032, 046-0055, 046-0068, 046-5147/5152, 046-5260, 046-5550/5552, 087-5509, 090-5163/5168, and 090-5174) and nineteen (19) were newly recorded during this Phase I Survey (VDHR# 046-5804/5817 and 090-5208/5212). Ten (10) of the previously recorded sites were recently surveyed and determined not eligible for listing in the NRHP by the VDHR within the last five years, and therefore not subject to re-survey as part of this effort (VDHR# 046-5550/5552, 090-5163/5168, and 090-5174) and another previously recorded resource was relocated outside of the survey area and therefore also not subject to re-survey at this time (VDHR# 087-5509). Survey at this time also found that an additional five (5) previously recorded resources have been demolished since they were last updated (VDHR# 046-0029, 046-0030, 046-0032, 046-0055, and 046-5260). The surveyed resources consist primarily of domestic buildings and farmsteads from the early-nineteenth to mid-twentieth century. Also surveyed were several twentieth century commercial buildings, a former late-nineteenth century post office, a nineteenth century small family cemetery, and a mid-twentieth century church.*

*Of the surveyed resources, four (4) are considered potentially eligible for listing in the NRHP. This includes two Antebellum homes that represent the earliest extant development within the survey area and an important reflection of the architectural evolution of rural Isle of Wight County during that period. The other two resources are a late-nineteenth century post office and associated dwelling that remain as an example of a historically significant aspect of the crossroads community of Sycamore Cross at the turn-of-the-twentieth century. The rest of the surveyed properties generally do not appear to reflect any unique or significant design or historical associations, and as such, are recommended to be not eligible for listing in the NRHP individually or collectively.*

*Each of the four NRHP-eligible resources was subject to an assessment of impacts brought about by the project. Of the eligible resources, three are located directly within the study area, however, will be excluded by the project development plan and therefore will not be directly impacted by the project. With regards to indirect, visual impacts, field inspection revealed that the generally open nature of the landscape within and bordering the NRHP-eligible properties permits views of the project area that range from partially screened to nearly unobstructed. To minimize the potential for visibility of the project, a variety of measures have been employed including setbacks from roadways and property lines, and supplemental landscape buffers.* ***With these measures, it is D+A's recommendation that visibility of the project from one resource, the Wilson Hollemon House (VDHR# 046-0068) will be screened and therefore the Sycamore Cross Solar Project will have no more than a minimal impact to it. With regards to the remaining three resources, the setbacks and landscape screening will reduce visibility of the project but some portions will remain visible. As such, it is D+A's recommendation that the Sycamore Cross Solar Project will result in a moderate impact to the Sycamore Cross Post Office (VDHR# 046-5149), the house at 11356 Sycamore Cross Drive (VDHR# 046-5150), and the Betts Farm (VDHR# 046-5811)****.*

***Summary of NRHP-eligible architectural resources within the project survey area and recommendations of project impacts.***

| *VDHR ID#* | *Resource Name/Address* | *NRHP Eligibility* | *Proximity to Project* | *Project Impact* |
|---|---|---|---|---|
| *046-0068* | *Wilson Hollemon House, 5499 Mill Swamp Road* | *D+A: Potentially Eligible* | *Adjacent to Project* | *Minimal Impact* |
| *046-5149* | *Sycamore Cross Post Office, Mill Swamp Road* | *D+A: Potentially Eligible* | *Within Project Area (in Exclusion Area)* | *Moderate Impact* |
| *046-5150* | *House, 11356 Sycamore Cross Drive* | *D+A: Potentially Eligible* | *Within Project Area (in Exclusion Area)* | *Moderate Impact* |
| *046-5811* | *Betts Farm, 5191 Mill Swamp Road* | *D+A: Potentially Eligible* | *Within Project Area (in Exclusion Area)* | *Moderate Impact* |

*One (1) cemetery was identified within testing area B5 of the project area, and is an independent resource, not associated with any standing architectural resource.* ***Although the cemetery represents a typical small family cemetery and is considered not eligible for listing in the NRHP, the visual limits of the cemetery should be avoided with a 100-foot avoidance zone, or be subject to further delineation, to ensure protection during and after project construction.***

***Summary of Cemetery identified within the project area with proximity to project area and recommended avoidance measures.***

| *Cemetery #* | *Name, Location* | *NRHP Status* | *Proximity to Project Area* | *Avoidance/Impacts* |
|---|---|---|---|---|
| *046-5816* | *Holleman Cemetery, White Hill Trail* | *D+A: Not Eligible* | *Within Project Area* | *100-foot avoidance or further delineation* |

*Archaeological investigations followed an approved testing model that identified areas of high, moderate, and low archaeological potential. The testing strategy involved a combination of systematic pedestrian survey and shovel testing. A total of 1,175 shovel test pits were excavated throughout the project area. The archaeological survey resulted in the identification of 20 newly recorded sites and one previously recorded cemetery.*

*Of these sites, six are domestic sites associated with standing architectural resources, and fourteen are mid-nineteenth to early-twentieth century sites with no features and a light archaeological*

*signature. Most of these sites offer little new or significant archaeological data and are site types that are well represented in the region;* ***D+A recommends these 18 sites not eligible for inclusion in the NRHP, and no additional work is required.*** *However, two sites warrant further investigation: Site 44IW0424 consists of the ruin of a circa 1825 dwelling; and Site 44IW0407 contains surface features and artifacts and is also associated with an early-nineteenth-century house ruin. These two sites have the potential to provide new data about the early nineteenth century history of the area, and as such,* ***D+A recommends avoidance with a 50-foot buffer or further investigation of these sites.***

| *VDHR ID#* | *Site Type* | *Tine Period* | *NRHP Eligibility* | *Treatment/ Project Impacts* |
|---|---|---|---|---|
| *44IW0405* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0406* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| ***44IW0407*** | ***Farmstead*** | ***Antebellum Period, Civil War, Reconstruction and Growth, World War I to World War II*** | ***Potentially Eligible*** | ***Avoidance with 50-foot buffer/ Phase II Evaluation*** |
| *44IW0408* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0409* | *Farmstead* | *Civil War, Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0410* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0411* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0412* | *Artifact Scatter* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0413* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0414* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0415* | *Artifact Scatter* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0416* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0417* | *Artifact Scatter* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0418* | *Farmstead* | *Reconstruction and Growth* | *Not Eligible* | *No Impact* |
| *44IW0419* | *Farmstead* | *Civil War, Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0420* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0421* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0422* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0423* | *Artifact Scatter* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| ***44IW0424*** | ***Single Dwelling*** | ***Antebellum Period, Civil War, Reconstruction and Growth, World War I to World War II*** | ***Further Study*** | ***Avoidance with 50-foot buffer / Further Study*** |

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# 1. INTRODUCTION

In April 2024, Dutton +Associates, LLC (D+A) completed a Phase I cultural resource survey (Phase I) of the ±817.46-hectare (2,020-acre) Sycamore Cross Solar project area in Isle of Wight and Surry counties, Virginia. Fieldwork for the study was conducted between December 2023 and March 2024. The effort was intended to provide documentation and assessment of cultural resources within the study area to make recommendations as to whether they may be potentially eligible for listing in the National Register of Historic Places (NRHP) and assess those that are considered NRHP-eligible for project impacts. The effort was conducted in support of an application for a Certificate of Public Convenience and Necessity (CPCN) from the Virginia State Corporation Commission (SCC) and serves as a follow-up to the previously coordinated *Phase IA Cultural Resource Assessment of the Sycamore Cross Study Area* (D+A July 2023).

All research, fieldwork, and recording conducted as part of these investigations conforms to the guidance specified in the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (Federal Register 48:44716-44742, September 29, 1983), the Virginia Department of Historic Resources' (VDHR) *Guidelines for Conducting Historic Resources Survey in Virginia* (rev. 2017) and the Virginia Department of Environmental Quality's (DEQ) *Solar Permit by Rule Guidance* (2012) for complying with the provisions of §10.1-1197.6 B 7 of the *Code of Virginia*. Principal investigators meet the Secretary of the Interior's Professional Qualification Standards (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture. Robert J. Taylor, Jr. M.A. served as the Principal Investigator, oversaw architectural resource investigations, and coauthored the report. Hope Smith, Ph.D., oversaw archaeological investigations and coauthored the report. Research Historian Dara Friedberg M.S. conducted background research and prepared the historic context. Copies of all field notes, maps, correspondence, and research materials are on file at D+A's office in Midlothian, Virginia.

### PROJECT DESCRIPTION

The project involves the development of a solar energy production facility near the border of Isle of Wight and Surry counties generally along Sycamore Cross Road, Ramsey Road, Mill Swamp Road, Rattlesnake Trail, and White Hill Trail (Figure 1-1). The project area tracts are currently a mix of open agricultural field and woodland, including planted timber and native deciduous forest (1-2).

As part of the project, a series of solar arrays will be built throughout the project area within a project fenceline (Figure 1-3).

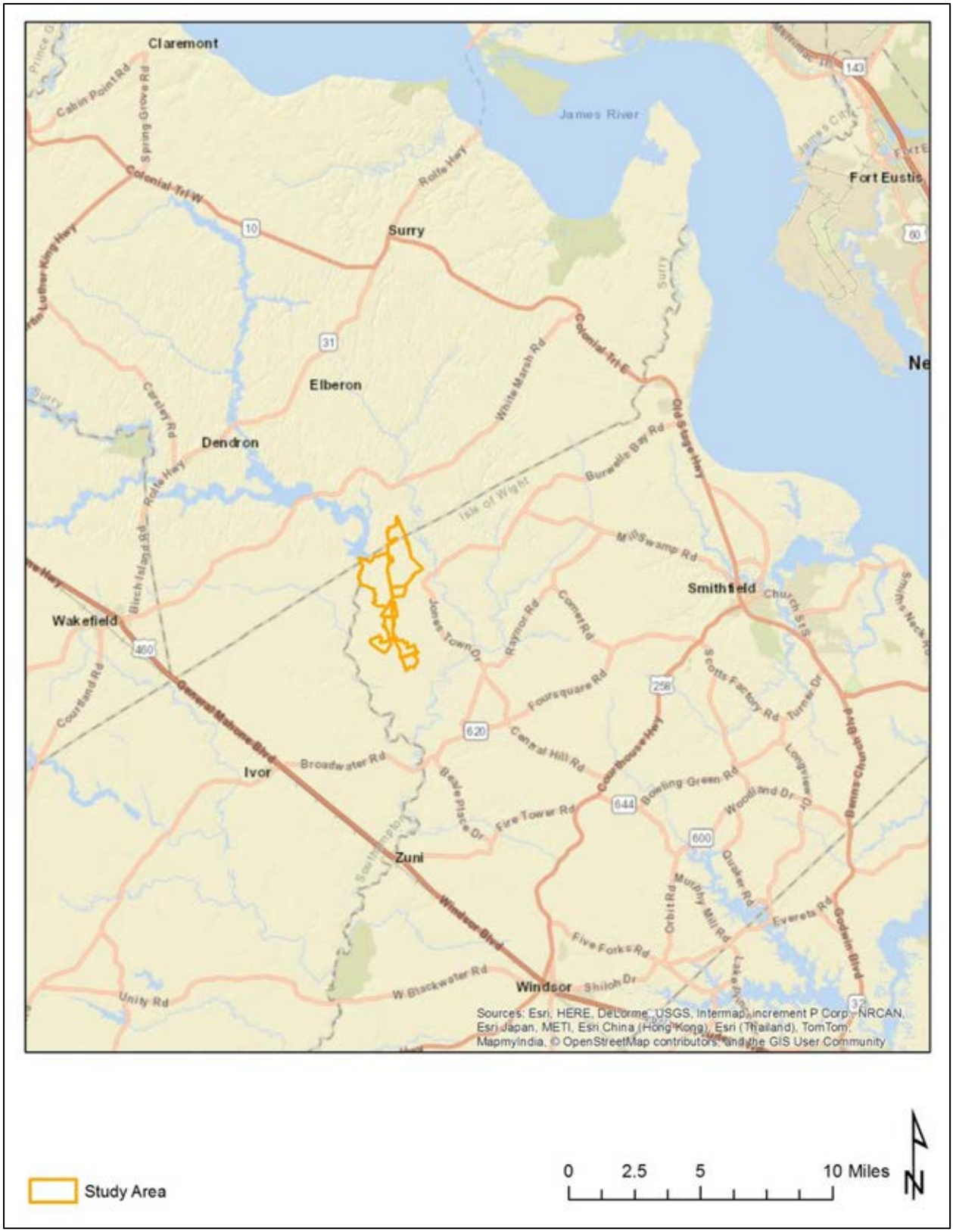


**Figure 1-1: General location of the project area. Source: USGS**

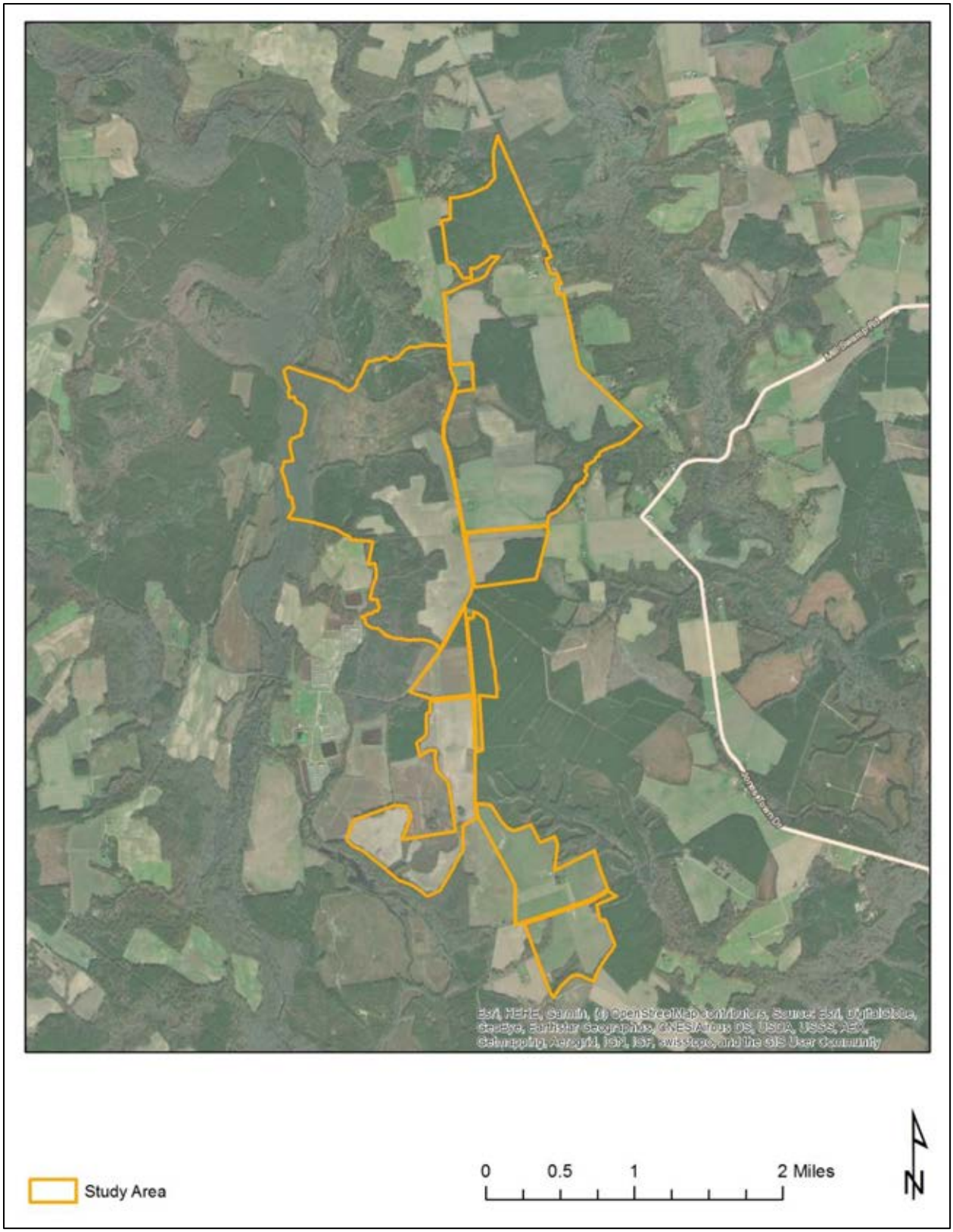


**Figure 1-2: Aerial view of the project area.**

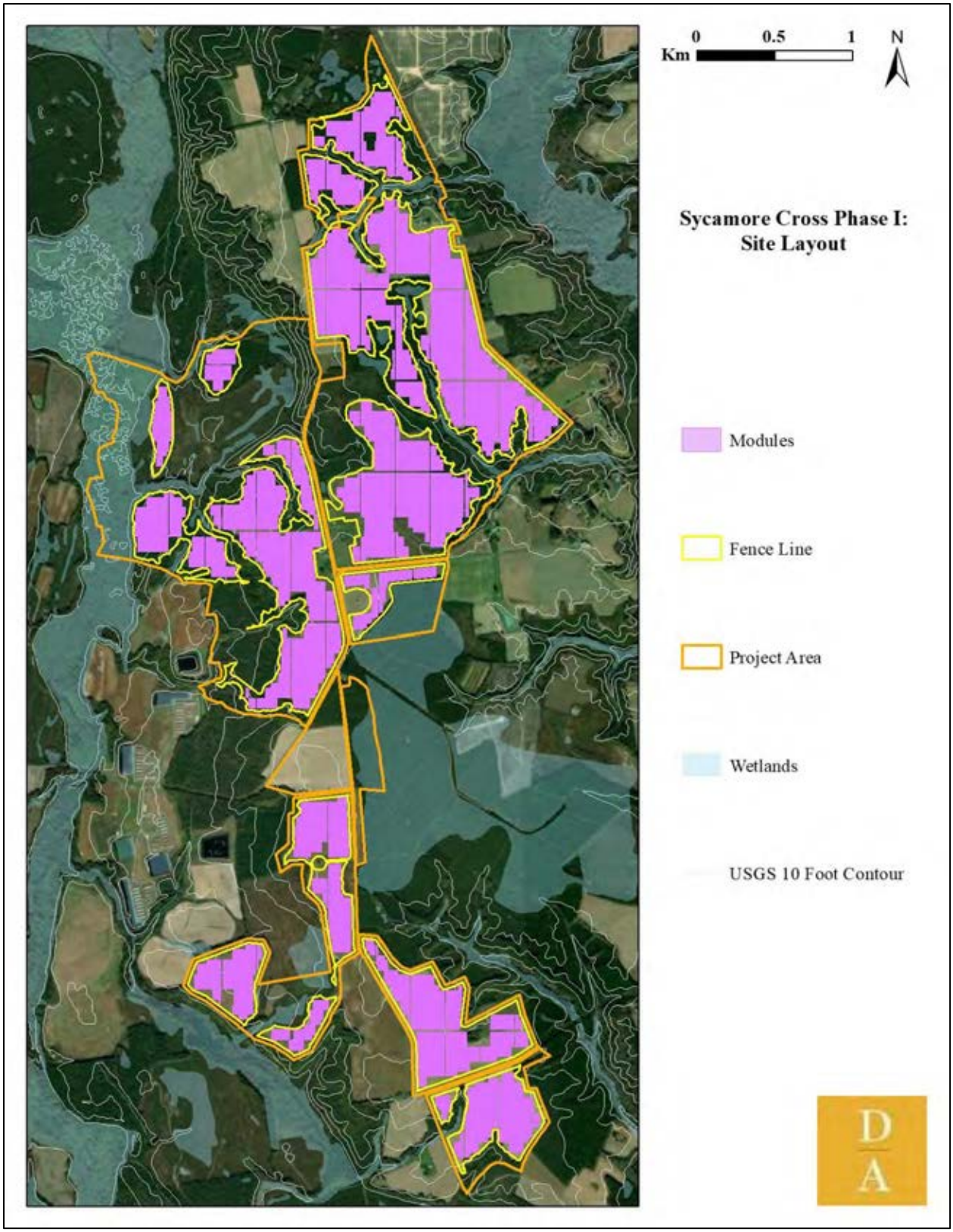


**Figure 1-3: Aerial view of the project area showing proposed fencelines and array layout.**

# 2. SURVEY AREA

For the purposes of this project, the survey area was established to define the area in which the project may result in impacts to NRHP-eligible cultural resources. Impacts considered include "direct", in which project construction, components, or other aspects may physically alter a cultural resource. "Indirect" impacts are those which may introduce features, qualities, or other characteristics into the setting of a cultural resource. In the case of solar projects, direct impacts are typically introduced by the location of proposed arrays, access roads, fence lines, and utility easements. Indirect impacts are typically limited to the introduction of visual features.

As such, the archaeological survey area included the entire limits of the study area, where arrays, substations, workspaces, access roads, and/or any other areas where ground-disturbing activities directly related to the project may take place. The survey strategy was further guided by, and conducted in accordance with, the testing strategy outlined in the *Phase IA Cultural Resource Assessment of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar project area in Isle of Wight and Surry counties, Virginia* (D+A 2023) and subsequent coordination with the VDHR (DHR File No. 2023-4691).

The architectural survey area includes the project area properties, as well as the geographic area around the project within which the associated project components may be seen. The default viewshed survey area for solar project according to the VDHR guidance for Solar Energy Projects is one-half mile, unless topography, vegetation, or other aspects of the landscape warrant a more refined distance. In the case of the Sycamore Cross Solar Project, the half-mile buffer was deemed appropriate and utilized. A map of the defined survey area for archaeological and architectural resources is illustrated in Figure 2-1.

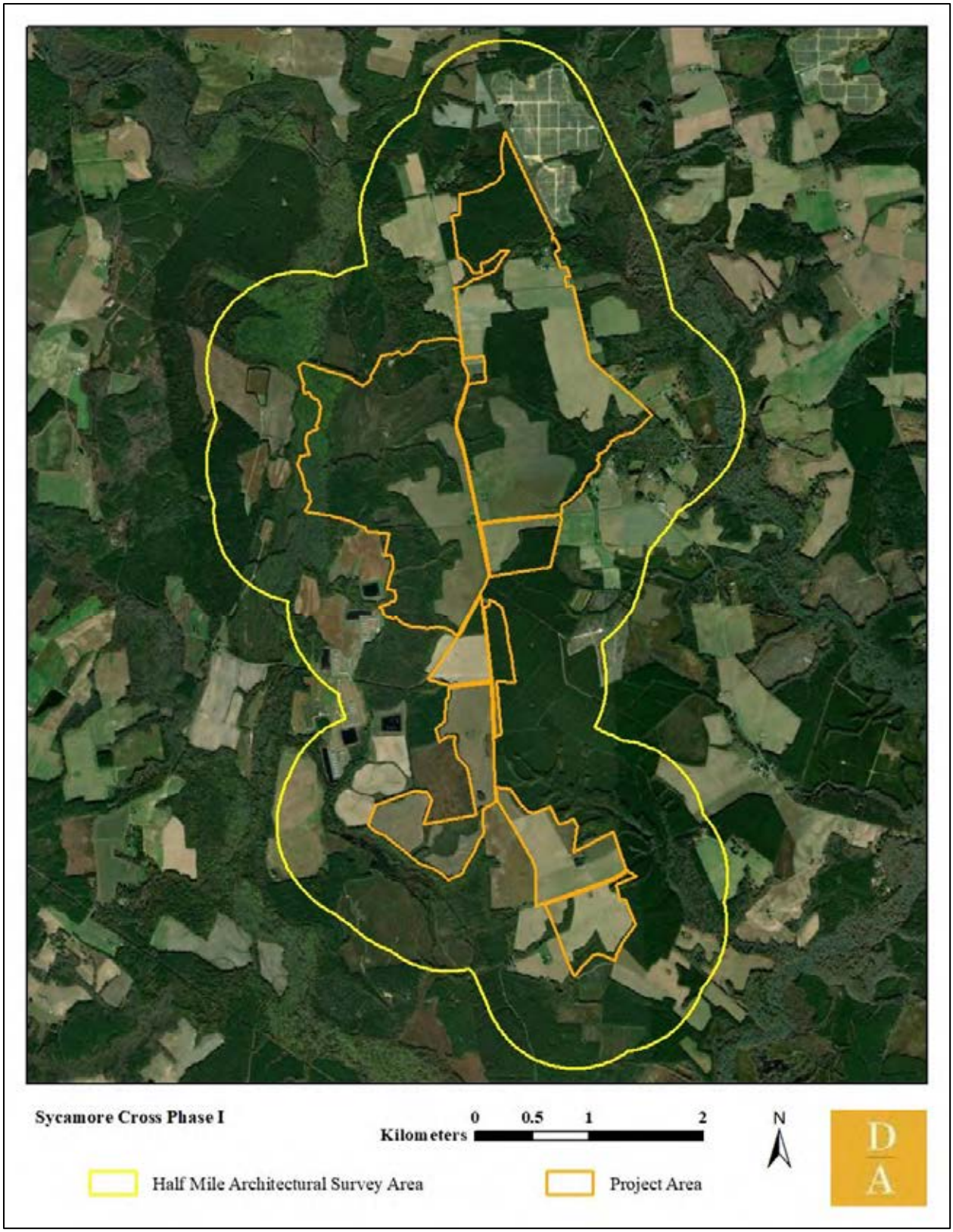


**Figure 2-1: Sycamore Cross Project Area and Survey Areas.**

# 3. RESEARCH DESIGN

The Phase I cultural resource survey of the Sycamore Cross Solar Project was undertaken in order to identify cultural resources within the project area, evaluate those resources for NRHP eligibility, and assess potential project impacts to NRHP-eligible resources. The Phase I survey methodology is summarized below and was further guided by the testing strategy outlined in the *Phase IA Cultural Resource Assessment of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar project area in Isle of Wight and Surry counties, Virginia* (D+A 2023).

### ARCHIVAL RESEARCH

In December 2023, D+A conducted background research with the goal of identifying all previously recorded historic properties located within one mile of the project area in accordance with VDHR's guidance document titled *Guidelines for Conducting Cultural Resources Survey in Virginia* (Revised 2017). Background research was conducted at the VDHR and on the internet and including the following sources:

- VDHR V-CRIS site files; and
- National Park Service, American Battlefield Protection Program, maps and related documentation.

In further preparation for the Phase I survey, D+A conducted additional review of the following documents and sources for information relative to unrecorded historic property locations in the project area:

- County Tax Assessors records;
- USDA Historic Aerial Imagery;
- U.S. Geological Survey Topographic Maps;
- Previous historic resource survey documents; and
- Local historical society archives.

The additional review conducted in support of the Phase I survey was designed to identify all properties greater than 50 years of age located within the survey area. Historic properties include architectural resources, historic and cultural landscapes, battlefields, and historic districts.

### CONTEXT DEVELOPMENT

Information from the literature review and background search was used in conjunction with additional research to develop a cultural and historical context to place the project area and any identified historic resources within their appropriate context for evaluations of historical significance. This context was developed through review of previous cultural resource studies, published and unpublished manuscripts, historic maps, aerial photographs, local histories, and a variety of internet sources.

For the purposes of this effort, a comprehensive cultural context of the Isle of Wight and Surry counties was prepared summarizing general historical trends, settlement patterns, and development

with a focus on the vicinity of the study area. Further analysis and context development were undertaken for the defined survey area so that newly recorded resources could be effectively evaluated.

## FIELD SURVEY

### *Archaeological Resources*

Archaeological testing was conducted in accordance with the model approved by the VDHR in the Phase IA probability map. At the outset of the Phase I field investigations, a limited pedestrian survey was conducted to document existing conditions and to note any observed changes since the Phase IA was completed.

Following the pedestrian survey, systematic shovel testing was conducted throughout portions of the project deemed to have the potential for intact archaeological deposits. Shovel tests were excavated at a maximum of 15-meter (50-foot) intervals along transects spaced 15 meters (50 feet) apart with shovel test pit placement avoiding areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.30 meters (1 foot) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

For any archaeological resources identified during the survey, photographs were taken of the general vicinity and of any visible features. A field map was prepared showing site limits, feature locations, permanent landmarks, topographic and vegetational variation, sources of disturbance, and all surface and subsurface investigations. GPS coordinates for all identified site locations were recorded and sufficient information was included on maps to permit easy relocation of sites. Notes were taken on surface and vegetational conditions, soil characteristics, dimensions and construction of features evident, and the amount and distribution of cultural materials present. All subsurface archaeological excavations were backfilled and returned to pre-survey conditions.

### *Architectural Resources*

The background research conducted in support of the Phase I reconnaissance survey was designed to identify architectural properties greater than 50 years of age located within the survey area. A reconnaissance field survey was undertaken to identify and document all buildings, objects, structures, sites, and districts within the survey area that were constructed in 1974 or earlier and meet (or will soon) the 50-year threshold for NRHP-consideration. Construction dates for resources were established through a combination of archival research, property records search, map analysis, and field inspection.

For each surveyed resource, field forms were completed with information from site observations including a physical description of the resource with information such as relationship to adjacent buildings and structures, general condition, surrounding setting, description of exterior materials, identifiable architectural or structural treatments, and retention of historic physical integrity. Site

plans depicting the built environment around each property were sketched. Each identified resource was then marked on both USGS 7.5-Minute Quadrangle maps and current aerial photographs. Representative digital photographs were taken to document each property's existing conditions, setting, and secondary resources.

All field survey identification and documentation were conducted from public ROW and included exterior features only. No interior inspections were conducted as part of this effort. In cases where a resource was not visible or accessible from the public ROW, the property was noted as such. All field documentation was organized and labeled with a unique identification number. Previously recorded resources subject to survey were numbered using their existing VDHR ID# while newly recorded resources were assigned a field recorder number.

All buildings and structures surveyed as part of this study were documented in accordance with VDHR's standards and guidelines and evaluated to determine potential significance in accordance with NRHP criteria. Concentrations of historic resources within or adjacent to the survey area were assessed in terms of their potential for inclusion in historic districts. Each resource's present condition, location relative to other resources, and distinguishing neighborhood characteristics were noted and photographed for an accurate assessment of NRHP Historic District eligibility.

*Assessment of Project Impacts*

Following identification and field inspection of historic properties, D+A assessed each resource for potential impacts brought about by the proposed project. Assessment of impacts was conducted through a combination of field inspection, digital photography, and review of topography and aerial photography. When assessing impacts, D+A considered those qualities and characteristics that qualify the property for listing in the NRHP and whether the project had the potential to alter or diminish the integrity of the property and its associated significance. Specific attention was given to determining whether or not the proposed project would introduce new visual elements into a property's setting or viewshed, which would either directly or indirectly alter those qualities or characteristics that qualify the historic property for listing in the NRHP. Identified impacts were assessed according to DHR's *Guidelines for Assessing Impacts of. Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* and characterized as **severe** (fully visible and incompatible with character-defining viewshed or setting), **moderate** (partially visible and incompatible with character-defining viewshed or setting), **minimal** (partially visible, but screened by intervening vegetation and/or not out of character with existing viewscape) or **no impact** (not visible).

## REPORT AND RECORD PREPARATION

Information from field survey was used in conjunction with background research and context development to assess each identified architectural resource for potential NRHP-eligibility. A results section was prepared that summarizes the field findings, assessment of significance and NRHP-eligibility. The results of the study are accompanied by maps and photographs as appropriate and were synthesized and summarized in this report along with the research design, archives search, and cultural contexts. All research material and documentation generated by this project are on file at D+A's office in Midlothian, Virginia. VDHR site forms (Virginia Cultural

Resources Information System (V-CRIS) were completed for all cultural resources, 50 years of age or older, identified during the survey.

## QUALIFICATIONS AND STANDARDS

The D+A personnel who directed and conducted this survey meet the professional qualification standards of the Department of the Interior (48 FR 44738-9). All work was conducted in accordance with the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (Federal Register 48:44716-44742, September 29, 1983), and VDHR's *Guidelines for Conducting Historic Resource Survey in Virginia* (rev. 2017).

# 4. ARCHIVES SEARCH

This section includes a summary of all the cultural resource management events that have taken place within the study area registered at VDHR through December 2023. It also lists all previously identified architectural resources and archaeological sites located within the project area, as well as within one mile of the study area.

### PREVIOUS SURVEYS RELEVANT TO THE STUDY AREA

VCRIS reveals that three Phase I cultural resource surveys have been conducted within one mile of the project area, one of which included portions of the project area (Table 4-1 and Figure 4-1). These surveys are archaeological in nature, although some include architectural resource investigations as well. The three surveys were conducted as part of assorted utility and infrastructure projects.

**Table 4-1: Previously conducted Phase I surveys within one mile of the project area. Orange highlight denotes survey including portions of the study area.**

| Report Number | Survey Title | Author/ Affiliation | Year | VDHR Review File |
|---|---|---|---|---|
| IW-105 | Phase I Cultural Resources Survey for the Align RNG Virginia – Waverly Renewable Natural Gas Project, Isle of Wight County, Virginia | TRC | 2022 | 2021-0097 |
| SY-079 | Phase I Cultural Resource Survey of the ±2,106.02-Hectare (±5,204.1-Acre) Cavalier Solar Study Area, Isle of Wight and Surry Counties, Virginia | DUTTON | 2020 | 2020-0521 |
| VA-176 | Phase I Archaeological Survey, Virginia Reliability Project, Cities of Chesapeake and Suffolk, and Greensville, Isle of Wight, Prince George, Southampton, Surry, and Sussex Counties, Virginia | ERM | 2022 | 2021-0026 |

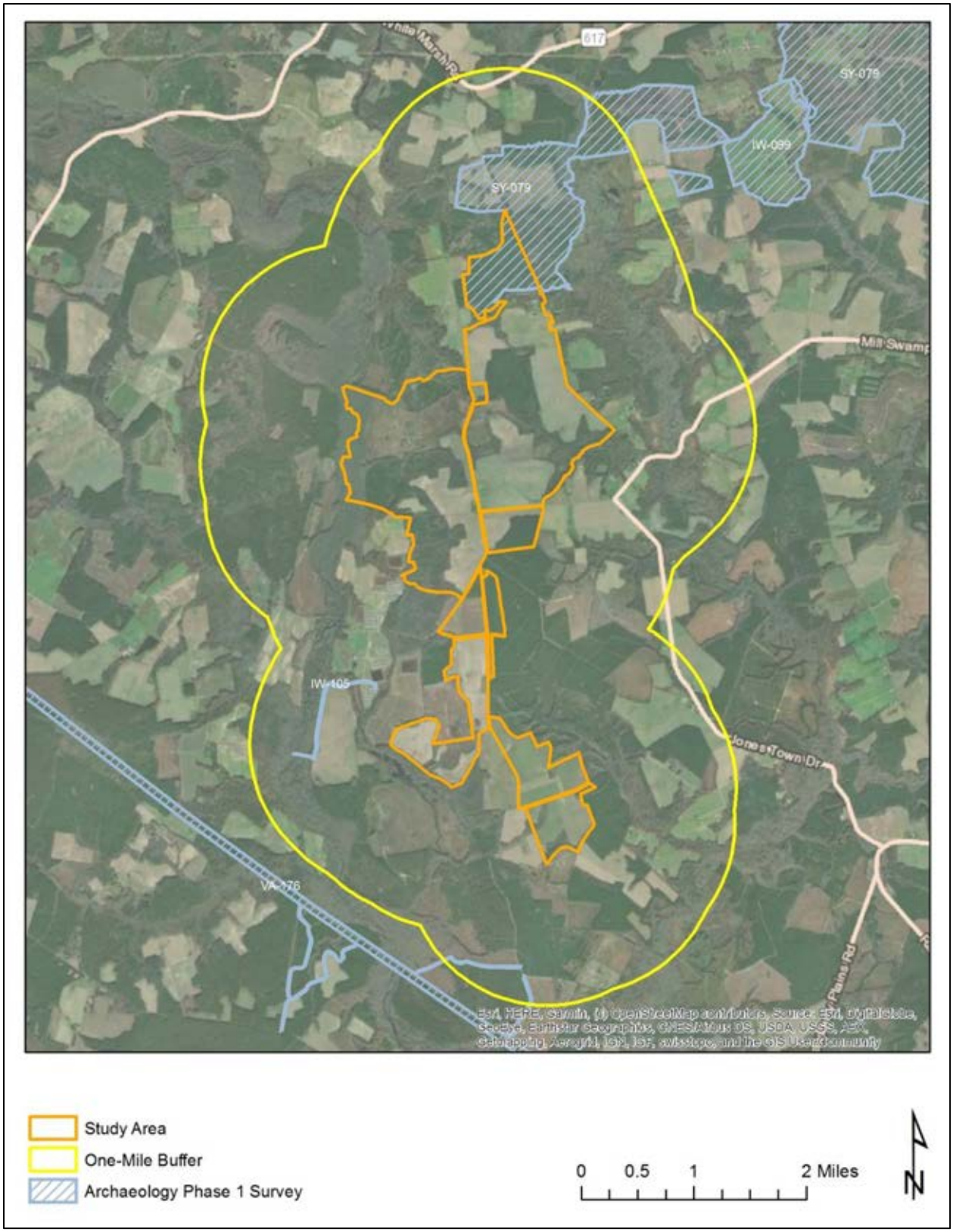


**Figure 4-1: Previous Phase I surveys conducted within one mile of the project area Source: V-CRIS**

## PREVIOUSLY IDENTIFIED ARCHAEOLOGICAL SITES WITHIN ONE MILE

There are ten (10) previously recorded archaeological sites located within one mile of the project area, two of which are located within the project area (Table 4-2 and Figure 4-2). The sites within one mile include prehistoric lithic scatters and camps; as well as historic period domestic sites and refuse scatters. Of the sites within one mile, eight (8) have been determined not eligible and two (2) have not been formally evaluated by the VDHR. Of the two sites within the project area, both are historic period artifact scatters that have been determined not eligible for listing in the NRHP.

**Table 4-2: Table detailing all archaeological resources within one mile of the project area. Orange highlight denotes site is within the limits of the project area.**

| VDHR # | Site Type | Cultural Designation | Temporal Association | NRHP Status |
|---|---|---|---|---|
| 44IW0327 | Camp | Native American | Early Archaic Period (8500 - 6501 B.C.E), Middle Archaic Period (6500 - 3001 B.C.E), Late Archaic Period (3000 - 1201 B.C.E), Early Woodland (1200 B.C.E - 299 C.E), Middle Woodland (300 - 999 C.E) | Not Evaluated |
| 44IW0336 | Lithic scatter | Native American | Pre-Contact | DHR Staff: Not Eligible |
| 44SY0128 | Dwelling, single | Indeterminate | Historic/Unknown | Not Evaluated |
| 44SY0316 | Dwelling, single | Indeterminate | World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0317 | Artifact scatter | Indeterminate | Reconstruction and Growth (1866 - 1916) | DHR Staff: Not Eligible |
| 44SY0318 | Dwelling, single | Indeterminate | Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0319 | Artifact scatter | Indeterminate | Reconstruction and Growth (1866 - 1916) | DHR Staff: Not Eligible |
| 44SY0320 | Dwelling, single | Indeterminate | World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0321 | Outbuilding | Indeterminate | Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0322 | Artifact scatter, Lithic scatter | Indeterminate | Pre-Contact, Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991) | DHR Staff: Not Eligible |

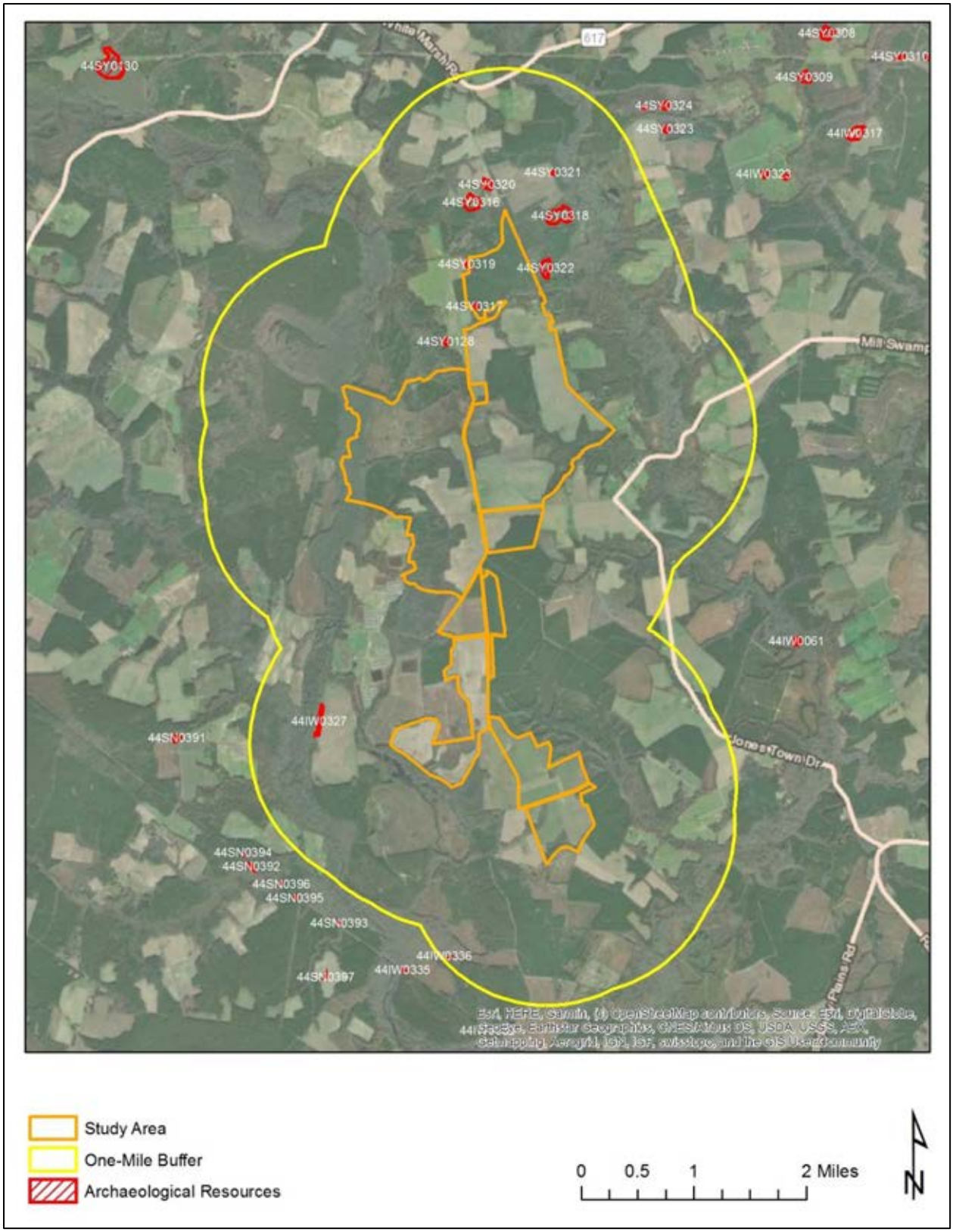


**Figure 4-2: Previously recorded archaeological sites located within one mile of the project area. Source: V-CRIS**

## PREVIOUSLY IDENTIFIED ARCHITECTURAL RESOURCES WITHIN ONE MILE

There are thirty-two (32) previously recorded architectural resources located within one mile of the project area, nine (9) of which are located within the project area (Table 4-3 and Figure 4-3). The resources within one mile include single-family homes from the mid-eighteenth to mid-twentieth century, a commercial building from the turn-of-the-twentieth century, a church from the early-twentieth century, and a family cemetery from the early-twentieth century. Thirteen of the resources have been determined not eligible for listing in the NRHP by the VDHR and the rest have not been formally evaluated. Of the nine resources within the project area, nine are dwellings with four from the early-nineteenth century, four from the late-nineteenth century, and one from the early-twentieth century; and one is a late-nineteenth century commercial building. One late-nineteenth and one early-twentieth century dwelling have been determined not eligible for listing in the NRHP and the rest have not been formally evaluated.

**Table 4-3: Previously identified architectural resources located within one mile of the project area. Orange highlight denotes resource is located within the project area.**

| VDHR ID# | Resource Name | Type | Year | NRHP Status |
|---|---|---|---|---|
| 046-0029 | House, Route 622 (Function/Location) | Single Dwelling | c.1800 | Not Evaluated |
| 046-0030 | Betts House (Historic) | Single Dwelling | c.1802 | Not Evaluated |
| 046-0032 | Dudley House and Outbuildings (Historic) | Single Dwelling | c.1820 | Not Evaluated |
| 046-0055 | Tenant House, Sycamore Crossroads (Historic/Current) | Secondary Dwelling | c.1800 | Not Evaluated |
| 046-0056 | Grays' Brick House (Historic/Current) | Single Dwelling | c.1825 | Not Evaluated |
| 046-0057 | Brick House (Descriptive) | Single Dwelling | c.1825 | Not Evaluated |
| 046-0068 | Wilson Hollemon House, Mill Swamp Rd (Rt 621) (Historic/Location) | Single Dwelling | c.1830 | Not Evaluated |
| 046-5147 | Farmhouse, 14537 Rattlesnake Trail (Function/Location) | Single Dwelling | 1850 | Not Evaluated |
| 046-5148 | Farmhouse, 13407 Ramsey Road (Function/Location) | Single Dwelling | 1880 | Not Evaluated |
| 046-5149 | Store, Intersection of Mill Swamp Road and Sycamore Cross Drive (Function/Location) | Commercial Building | 1899 | Not Evaluated |
| 046-5150 | Farmhouse, 11356 Proctors Bridge Road (Function/Location) | Single Dwelling | 1899 | Not Evaluated |
| 046-5151 | Mill Swamp Baptist Church & Cemetery (Historic/Current) | Church/Chapel | 1928 | Not Evaluated |
| 046-5152 | Store, 6159 Jones Town Road (Function/Location) | Service Station | c.1930 | Not Evaluated |
| 046-5234 | William Gray House (Historic/Current) | Single Dwelling | c.1825 | Not Evaluated |
| 046-5260 | House, 6330 Mill Swamp Road (Function/Location), Mill Swamp Baptist Church Parsonnage (Historic) | Single Dwelling | c.1900 | Not Evaluated |
| 046-5550 | Dwelling, 10126 White Hill Trail (Function/Location) | Single Dwelling | 1890 | DHR Staff: Not Eligible |
| 046-5551 | Dwelling, 10106 White Hill Trail (Function/Location) | Single Dwelling | 1944 | DHR Staff: Not Eligible |
| 046-5552 | Dwelling, 10088 White Hill Trail (Function/Location) | Single Dwelling | c.1930 | DHR Staff: Not Eligible |
| 087-0003 | Binford House (Historic) | Single Dwelling | c.1750 | Not Evaluated |

| VDHR ID# | Resource Name | Type | Year | NRHP Status |
|---|---|---|---|---|
| 087-5328 | Brantley Home (Historic), Pretlow Farm (Historic) | Single Dwelling | c.1900 | Not Evaluated |
| 087-5509 | 1760 Henley Pretlow House (Historic), Captain Pretlow House (Historic), House 4071 Proctor's Bridge Road (Function/Location) | Single Dwelling | 1760 | Not Evaluated |
| 090-0051 | Stratman House (Historic/Current) | Single Dwelling | c.1750 | Not Evaluated |
| 090-5160 | Dwelling, 9091 White Marsh Road (Function/Location) | Single Dwelling | 1905 | DHR Staff: Not Eligible |
| 090-5161 | Dwelling, 9100 White Marsh Road (Function/Location) | Single Dwelling | 1949 | DHR Staff: Not Eligible |
| 090-5162 | Dwelling, 274 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1890 | DHR Staff: Not Eligible |
| 090-5163 | Dwelling, 337 Berrymans Corner Road (Function/Location) | Single Dwelling | 1942 | DHR Staff: Not Eligible |
| 090-5164 | Dwelling, 285 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1900 | DHR Staff: Not Eligible |
| 090-5165 | Simmons and Brown Cemetery (Current Name) | Cemetery | c.1900 | DHR Staff: Not Eligible |
| 090-5166 | Dwelling, 1122 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1930 | DHR Staff: Not Eligible |
| 090-5167 | Dwelling, 1097 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1965 | DHR Staff: Not Eligible |
| 090-5168 | Dwelling, 1676 Berrymans Corner Road (Function/Location) | Single Dwelling | 1870 | DHR Staff: Not Eligible |
| 090-5174 | House, Berrymans Corner Road (Function/Location) | Single Dwelling | c.1920 | DHR Staff: Not Eligible |

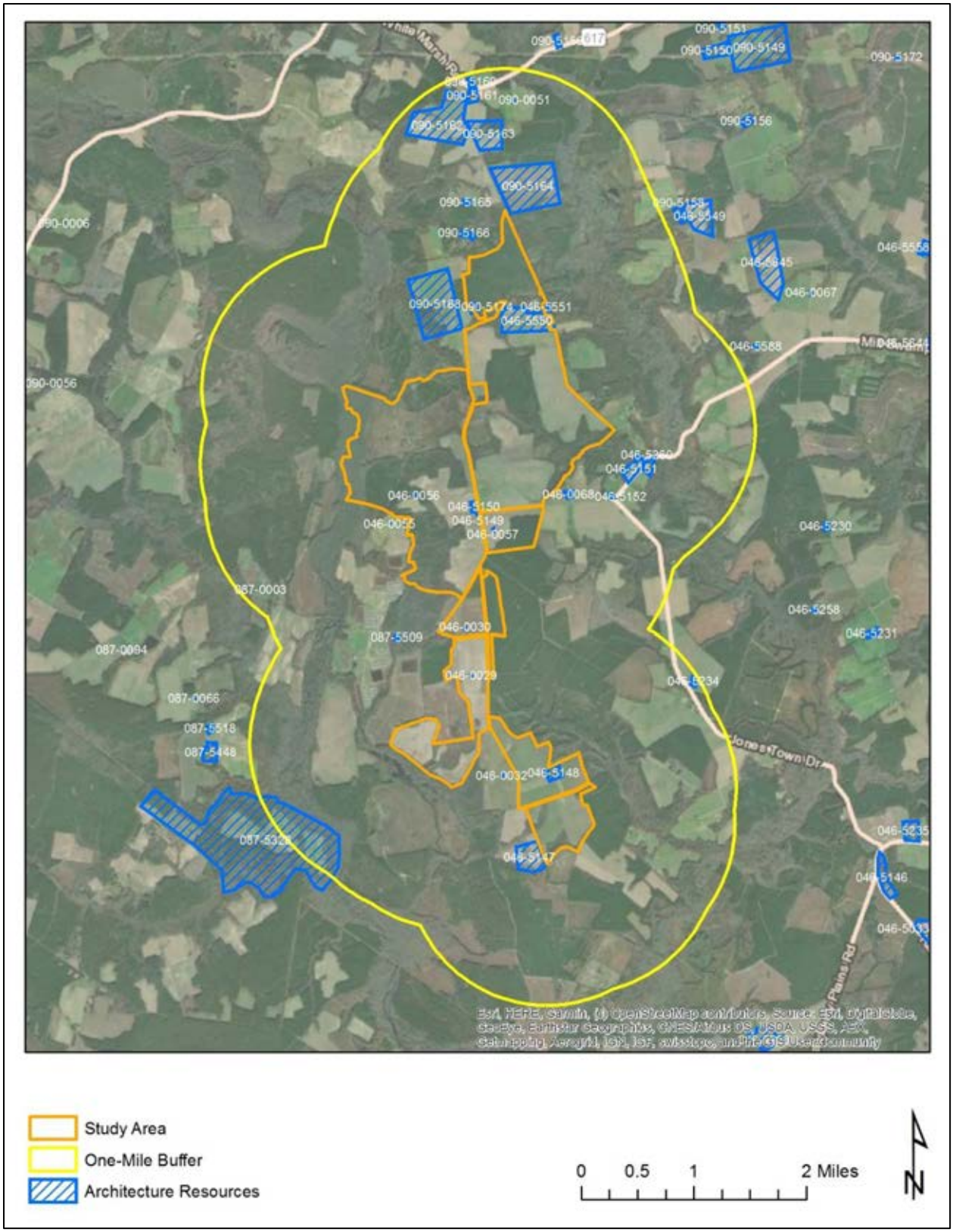


**Figure 4-3: Previously recorded architectural resources within one mile of the project area. Source: V-CRIS**

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# 5. ENVIRONMENTAL CONTEXT

## PHYSICAL DESCRIPTION AND LOCATION

The Sycamore Cross Solar project area consists of ±817.46 hectares (2,020 acres) of land divided into multiple contiguous and discontiguous parcels. The project area is located along the border of Isle of Wight and Surry counties within a primarily rural area of the Coastal Plain of Southside Virginia. The landscape within and bordering the project area is a mix of cultivated agricultural field, planted timber stands, and native woodland, particularly bordering the numerous drainages and swamps that dissect the area (Figure 5-1).

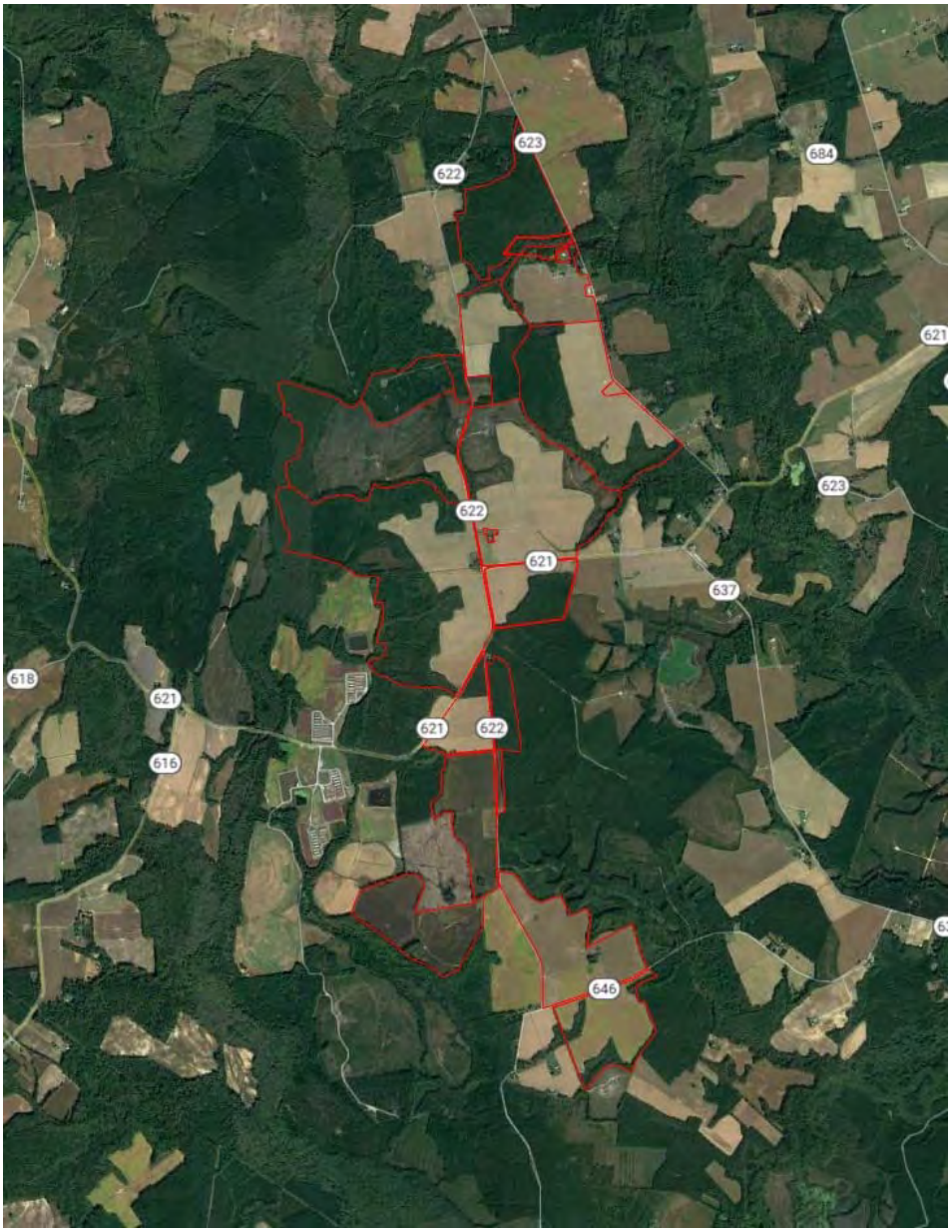


**Figure 5-1. Aerial view of project area illustrating existing conditions.**

## GEOLOGY AND TOPOGRAPHY

The project area topography is characterized by flat level terrain associated with the Lowland subprovince of the Coastal Plain region. The area is underlain by a thick wedge of sediments resting on an eroded surface of Precambrian to early Mesozoic rock. Generally, a lightly dissected, dendritic drainage pattern occurs throughout this region with broad, low landforms and shallow, sluggish drainageways. The elevation of the project area ranges from approximately ±7.9 meters (26 feet) to ±27.4 meters (90 feet) above mean sea level with the highest elevations located along the crest of a broad ridge along the eastern edge of the project area and the lowest elevations bordering the Blackwater River along the western edge.

## HYDROLOGY

Most of the project area drains west into Blackwater River, although portions of the eastern edge drain eastward into Mill Swamp which flows into Rattlesnake Swamp and ultimately into Blackwater River. This flows south into North Carolina where it empties into the Chowan River, which flows into Albemarle Sound, which empties into the Currituck Sound before ultimately draining into the Atlantic Ocean.

## PEDOLOGY

The project area is dominated by sandy loams and sandy clay loams formed from marine sediments. The most prominent soil type is Slagle fine sandy loam which is moderately well drained and covers about 25% of the study area. The second most prominent soil type is Kinston loam, which represents about 17.8% of the project area and is considered poorly drained. Well-drained Emporia fine sandy loam is the only other soil type that accounts for a significant portion of the project area at 15.2%. The rest of the study area is comprised of assorted sandy loams and complexes. Approximately 39.7% of the soils within the project area are classified as poorly to somewhat poorly drained (Figure 5-2 and Table 5-1).

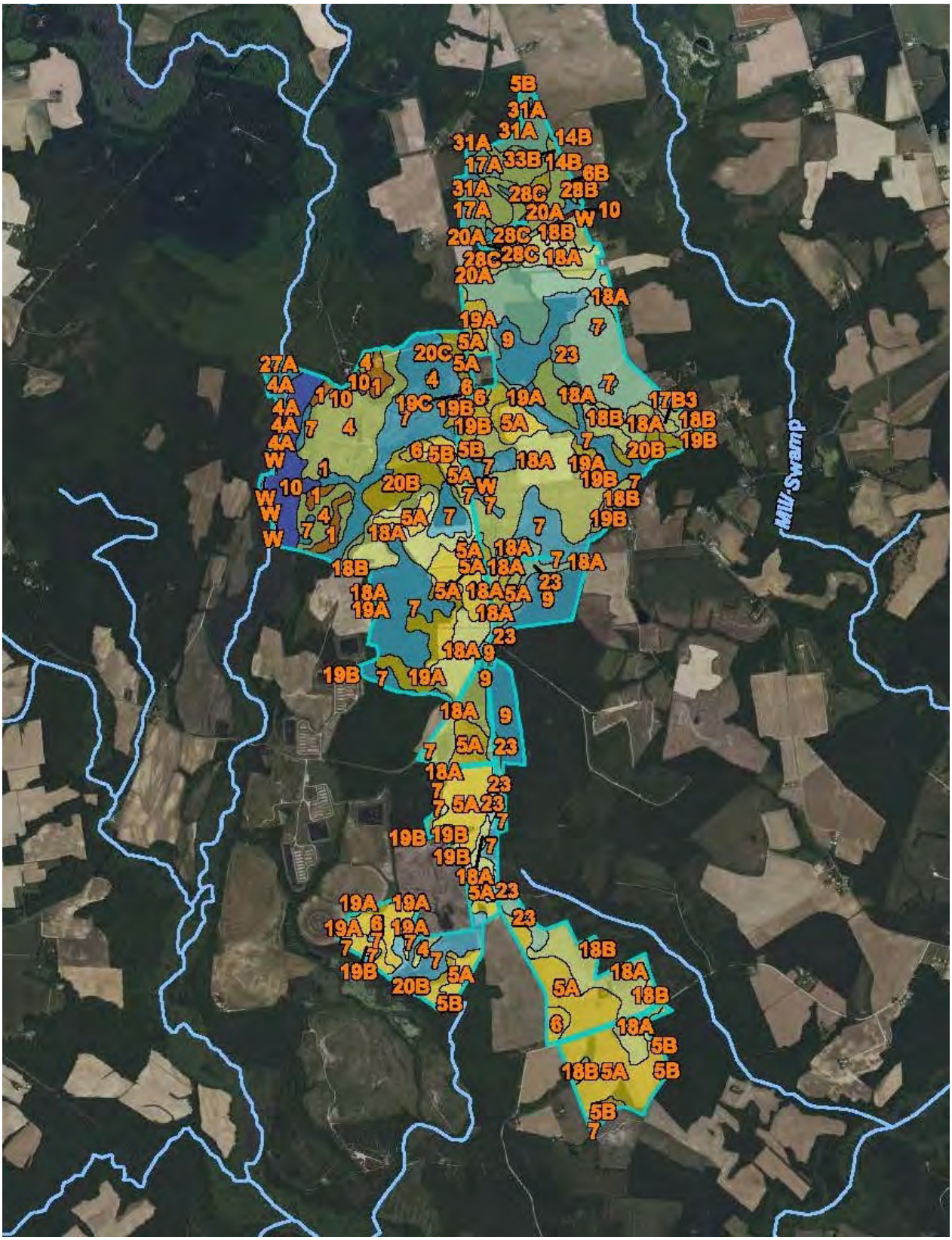


**Figure 5-2: Soil survey of the Sycamore Cross project area showing drainage class (USDA 2023).**

**Table 5-1: Soil survey data for the project area, showing drainage rating. Source: USDA.**

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 1 | Alaga fine sand | Somewhat excessively drained | 29.3 | 1.5% |
| 4 | Chipley sand | Moderately well drained | 116.0 | 5.7% |
| 5A | Emporia fine sandy loam, 0 to 2 percent slopes | Well drained | 286.6 | 14.2% |
| 5B | Emporia fine sandy loam, 2 to 6 percent slopes | Well drained | 21.0 | 1.0% |
| 6 | Kenansville loamy sand | Well drained | 41.6 | 2.1% |
| 7 | Kinston loam | Poorly drained | 347.0 | 17.2% |
| 9 | Myatt fine sandy loam | Poorly drained | 119.0 | 5.9% |
| 10 | Nawney loam | Very poorly drained | 55.9 | 2.8% |
| 17B3 | Slagle sandy loam, 2 to 6 percent slopes, severely eroded | Moderately well drained | 3.7 | 0.2% |
| 18A | Slagle fine sandy loam, 0 to 2 percent slopes | Moderately well drained | 401.5 | 19.9% |
| 18B | Slagle fine sandy loam, 2 to 6 percent slopes | Moderately well drained | 56.9 | 2.8% |
| 19A | Uchee loamy sand, 0 to 2 percent slopes | Well drained | 66.8 | 3.3% |
| 19B | Uchee loamy sand, 2 to 6 percent slopes | Well drained | 40.1 | 2.0% |
| 19C | Uchee loamy sand, 6 to 10 percent slopes | Well drained | 2.1 | 0.1% |
| 20B | Uchee-Peawick complex, 2 to 6 percent slopes | Well drained | 57.3 | 2.8% |
| 20C | Uchee-Peawick complex, 6 to 10 percent slopes | Well drained | 9.2 | 0.5% |
| 23 | Yemassee fine sandy loam | Somewhat poorly drained | 205.4 | 10.2% |
| W | Water | | 4.1 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **1,863.4** | **92.2%** |
| **Totals for Area of Interest** | | | **2,020.4** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 4A | Bibb sandy loam, 0 to 2 percent slopes, frequently flooded | Poorly drained | 3.9 | 0.2% |

**Table 3-1 (cont.): Soil survey data for project area, showing drainage rating. Source: USDA.**

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| W | Water | | 3.4 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **7.3** | **0.4%** |
| **Totals for Area of Interest** | | | **2,020.4** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 5B | Burrowsville loamy sand, 2 to 6 percent slopes | Moderately well drained | 0.1 | 0.0% |
| 6B | Caroline silt loam, 2 to 6 percent slopes | Well drained | 0.0 | 0.0% |
| 14B | Emporia fine sandy loam, 2 to 6 percent slopes | Well drained | 0.5 | 0.0% |
| 17A | Jedburg loam, 0 to 2 percent slopes | Somewhat poorly drained | 40.1 | 2.0% |
| 20A | Kinston loam, 0 to 2 percent slopes, frequently flooded | Poorly drained | 13.0 | 0.6% |
| 21B | Lakeland sand, 2 to 6 percent slopes | Excessively drained | 1.7 | 0.1% |
| 27A | Nawney and Mattan soils, 0 to 1 percent slopes, frequently flooded | Poorly drained | 9.4 | 0.5% |
| 28B | Nevarc-Remlik complex, 2 to 6 percent slopes | Moderately well drained | 0.5 | 0.0% |
| 28C | Nevarc-Remlik complex, 6 to 10 percent slopes | Moderately well drained | 28.4 | 1.4% |
| 28D | Nevarc-Remlik complex, 10 to 15 percent slopes | Moderately well drained | 5.7 | 0.3% |
| 31A | Rains fine sandy loam, 0 to 2 percent slopes | Poorly drained | 5.3 | 0.3% |
| 33A | Slagle fine sandy loam, 0 to 2 percent slopes | Moderately well drained | 1.1 | 0.1% |
| 33B | Slagle fine sandy loam, 2 to 6 percent slopes | Moderately well drained | 39.7 | 2.0% |
| 35B | Uchee loamy fine sand, 2 to 6 percent slopes | Well drained | 4.2 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **149.6** | **7.4%** |
| **Totals for Area of Interest** | | | **2,020.4** | **100.0%** |

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# 6. CULTURAL CONTEXT

The following section provides a brief summary of the general overarching regional prehistoric and historic themes relevant to Virginia and Isle of Wight and Surry counties. The primary emphasis of this context focuses on the anthropological and material culture trends in prehistory and history and describes how people throughout time could have left their archaeological mark on the landscape of the project area specifically. Prehistoric and historic occupation statistics and trends were analyzed, as were historic maps and available first-hand accounts which aided in establishing the appropriate cultural context for the project area as defined by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* and the Virginia Department of Historic Resources' *How to use Historic Contexts in Virginia: A Guide for Survey, Registration, Protection, and Treatment Projects* (VDHR 2017). Descriptions of settlement patterns, cultural characteristics, and a general description of relevant material culture of the time periods are presented below.

### PALEOINDIAN PERIOD (PRIOR TO 8000 B.C.)

Recent archaeological findings in Virginia have found the first Paleoindians are projected to have arrived in southeastern North America between 15,000 and 11,000 years ago, or approximately 13000 to 9000 B.C. (McAvoy and McAvoy 1997). Three of the earliest archaeological sites associated with Paleoindian occupation in Virginia are the Cactus Hill site (VDHR #44SX0202) located along the Nottoway River in Sussex County, the Thunderbird Site (VDHR #44WR0011) in Warren County, and the Saltville site (VDHR #44SM0037) in Smyth County. These early populations coincided with the late glacial era when sea levels were approximately 230 feet below their present-day level (Anderson et al. 1996:3). The Laurentide Ice Sheet covered much of northern North America, lowering temperatures in the region and creating an ideal environment for a boreal forest (Delcourt and Delcourt 1981). Paleoindians apparently survived in this environment through opportunistic hunting and gathering of smaller mammals, fish, and wild plants (Anderson 2001). Seasonably mobile, these Paleoindians utilized different food sources at different times of the year, an extensive subsistence pattern that required a large territory.

Accordingly, the Paleoindians may have maintained a central base camp located either in a diverse ecozone where flora and fauna were easily procured or near lithic sources that contained cryptocrystalline stone. Wider ranging satellite camps would then have been seasonally occupied to exploit other natural resources, be they lithic material, flora, or fauna (Anderson et al 1996; Daniel 1996; Binford 1980). Most Paleoindian sites are small and scattered, suggesting that the groups lived in small familial bands distributed across the landscape. The lack of status items among their archaeological remains suggests that these groups recognized little differentiation in status, and probably employed an egalitarian social structure. Ethnographic analogies suggest that Paleoindians might have maintained this rough equality by shunning aspiring leaders, and methods of property redistribution.

The Paleoindians relied upon durable and easily shaped cryptocrystalline materials such as chert and jasper for their tools. They fashioned these rocks into a variety of instruments, among which were scrapers, gravers, and adzes. Paleoindian projectile points tended to be fluted and bifacially

sharpened. Due to time and rising sea levels, many Paleoindian material culture finds are limited to isolated projectile points. Researchers differentiate the Paleoindian Period into three smaller periods reflecting changes in the morphology of projectile points. These periods include the Early Paleoindian (9500-9000 B.C.), the Middle Paleoindian (9000-8500 B.C.), and the Late Paleoindian (8500-8000 B.C.).

During the Early Paleoindian, Paleoindians produced large fluted Clovis points, a style widespread throughout North America, which could be affixed to a spear shaft. Sites from this period are found throughout the eastern seaboard in very low densities. Regions depicting greater concentrations of these sites are in Tennessee, the Cumberland and Ohio River Valley, western South Carolina, the northern Piedmont of North Carolina, and southern Virginia (Anderson 1990:164-71; Daniel 1996; Ward and Davis 1999).

The Middle Paleoindian saw a modification of Clovis points, such as the disappearance of the fluting in some cases and the addition of "ears" at the base of the point. The appearance of these new types, such as the Cumberland, Simpson, Clovis variants, and Suwanee points, might reflect changes in subsistence patterns as the result of rising global temperatures. During this time, it is theorized that American Indians began to radiate out from their previous range of occupation to exploit resources from more distant environments (Anderson 1990; Anderson et al. 1996; Ward and Davis 1999:31).

Changes to the projectile points intensified during the final centuries of the Paleoindian Period resulting in an increased number of changes in projectile point morphology. The Dalton and Hardaway types and other variants allowed late Paleoindian peoples to hunt new species.

The Paleoindian's scattered settlement pattern and simple culture contribute to the limited number of associated sites in the region, fewer than 75 sites have been identified in present-day Virginia and only 25 have been positively identified in the entire Chesapeake (Turner 1989; Dent 1995). Those Paleoindian sites that have been located tend to be quarry sites, which groups frequently visited and areas where several bands gathered (Meltzer 1988; McAvoy 1992). Many sites were likely destroyed when warming global temperatures melted the glaciers and inundated the low-lying Paleoindian settlements.

### ARCHAIC PERIOD (8000 TO 1200 B.C.)

Dramatic climatic changes beginning about 10,000 years ago prompted a reconfiguration of prehistoric people's subsistence strategies and social organization. Specifically, global temperatures began rising with the dawn of the Holocene geological period, simultaneously shrinking the glaciers and raising sea levels. In North America, the Laurentide Ice Sheet gradually receded northward, making the southeastern portion of the modern-day United States warmer and drier. The boreal forest of the Pleistocene era slowly gave way to a mixed conifer and northern hardwood forest. The area began to assume its modern-day climate and floral and faunal species. This warming also resulted in dramatic hydrological changes for coastal Virginia. As the sea level gradually climbed, the land was flooded; as a result, the lower reaches of the Susquehanna River flooded to form the Chesapeake Bay.

These climatic changes created new food sources for prehistoric people. The warmer, drier climate led to greater biodiversity, especially floral, as spruce and fir forests gave way to nut- and fruit-bearing trees (Aaron 2009:17). This allowed humans to rely more heavily on gathering wild plants, nuts, and berries. Indeed, archaeologists have discovered tools, such as nutting stones and pestles, for processing vegetable materials. The creation of the Chesapeake Bay, furthermore, allowed Archaic people to exploit seafood, such as anadromous fish and shellfish. The appearance of shell middens during the period testifies to the importance of mollusks to the Archaic diet (Dent 1995).

To exploit these new resources, Archaic people likely intensified their seasonal movement, splitting their time between a semi-permanent base camp and smaller, dispersed hunting and gathering camps. Bands of as many as 30 people may have gathered in the base camp for part of the year, and then dispersed into "microbands," composed of a single family or two, in other seasons (Griffin 1952; Anderson and Hanson 1998; Ward and Davis 1999). The range of band movement would have occurred over relatively large regions. These larger base camps are theorized to have been located along rich environmental areas near the Fall Line or along main rivers.

New subsistence patterns also required new technologies and the adaptation of existing technologies to be suitable to existing game. "The spear thrower [called an atlatl] added range and power to the hunter's arm. The axe enabled people to fell trees. The mortar and pestle made it easy to pound and grind nuts, seeds, and roots" (quoted in Aaron 2009:18). With new technologies, smaller game could be more easily hunted and plants could be processed more effectively. The resulting products of these technologies differentiate the Archaic Period into three smaller periods. The period also saw innovations in projectile point manufacturing. In a further divergence with the paleoindians who relied heavily on cryptocrystalline lithics, Archaic people utilized more materials, such as quartzite and quartz.

The Early Archaic (8000-6500 B.C.) is characterized by projectile points with corner and side-notches, rather than hafting the points to a wood shaft by fluting as the Paleoindians did. The resulting points, such as the Kirk Stemmed and Notched, Palmer Corner-Notched, Fort Nottoway, Kessell, Charleston, and Amos, are thus readily distinguishable from Paleoindian points (Custer 1990). Early Archaic people hunted caribous, elk, moose, deer, and bears (Egloff and Woodward 1992:12). Additionally, there appears to be an increase in population at this time.

The Middle Archaic (6500-3000 B.C.) is defined primarily by the appearance of stemmed projectile points which were fitted into a hold in the spear shaft. Therefore, points such as the LeCroy, Stanly, Morrow Mountain, and Guilford are diagnostic of middle Archaic assemblages. Some evidence also points to the use of grinding technology to make atlatls, or spear throwers, in this period. Mortar and pestles also began to appear during the Middle Archaic, as did axes. The ability to more easily clear forests, resulted in a change in hunting as deer, bears, turkey, and other animals came to the cleared land to eat the new, low-lying growth (Egloff and Woodward 1992:14-15).

Researchers have also pointed out that contexts from this period contain a larger amount of "expedient" stone tools, owing in part to the rapid environmental changes of the Climatic Optimum, which dates from 6000 to 2000 B.C. (Wendland and Bryson 1974; Claggett and Cable

1982; Ward and Davis 1999). These tools were makeshift and less formal, allowing their owners to use them for a wider variety of activities than tools designed for specific uses. The greater density and disbursement of archaeological sites from this period indicates a consistent rise in American Indian populations.

By the Late Archaic (3000-1200 B.C.), a more congenial climate and more abundant food sources led to dramatic population increases, there are estimates of tens of thousands of Virginia Indians during this time (Egloff and Woodward 1992:20). To be certain, this apparent increase might be exaggerated because late Archaic people had a richer material culture than previous peoples and hence left more archaeological evidence of their existence (Klein and Klatka 1991). Nonetheless, the greater number of late Archaic sites relative to earlier periods suggests that the human population did in fact expand over the course of the Archaic Period. According to Barber et al. (1992), late Archaic sites were more than twice as numerous as middle Archaic sites. As humans occupied the land more densely, they also became more sedentary and less mobile, perhaps owing to the greater reliance on plant-based food resources compared to hunting and fishing. Late Archaic people settled along fertile flood plains (Egloff and Woodward 1992:20).

American Indians from this region may also have begun to domesticate plants such as goosefoot, squash, and gourds (Yarnell 1976:268; Chapman and Shea 1981:70). They also used squash and gourds for food storage, in addition to earthen pits (Egloff and Woodward 1992:22). The projectile point technology of the Late Archaic Period is dominated by stemmed and notched point forms, many with broad blades, likely used as projectiles or knives. These points diminish in size towards the latter portion of this period (Dent 1995; Justice 1995).

It should also be noted that prehistoric sites that consist of lithic debitage, no diagnostic artifacts, and an absence of ceramic artifacts likely date to the Archaic Period. These sites are described in the records as "Prehistoric/Unknown," however they are most likely to date to this period despite not having a specific temporal designation.

**WOODLAND PERIOD (1200 B.C. TO 1600 A.D.)**

The American Indians of the Woodland Period began to maintain a greater reliance on horticulture and agriculture based on the cultivation of maize, imported from Mesoamerica via the Mississippi Valley, as well as squash, beans, and other crops. This increased sedentism and the nucleating of societies (Klein and Klatka 1991; Mouer 1991). Populations during this time began to consolidate into villages near rivers and floodplains with fertile soil, favorable terrain, and access to fauna. Satellite procurement camps are far less frequent than in the Archaic Period.

The Woodland Period is defined foremost by the development of ceramic technology for storing and cooking food. Although Archaic people had carved out vessels from soft soapstone, prehistoric Americans did not begin shaping ceramic vessels until around 1200 B.C. The earliest pottery produced on the coastal plain, the Marcey Creek Plain, and other types, in fact resembled those soapstone vessels, suggesting that they were used for similar purposes. Woodland peoples, however, modified the square- or oval-shape soapstone inspired vessels. They began decorating the pieces with cord and tempering them with soapstone and other types of grit to make them stronger. Examples include Selden Island ceramics (tempered with soapstone) and Accokeek

pieces (which used sand and grit for tempering). Anthropologists divide the period up into smaller periods based on changing projectile points and ceramics, as well as settlement patterns.

The beginning of the Early Woodland (1200 B.C.-A.D. 300) is defined by the appearance of ceramics from prehistoric archaeological context. Ceremonialism associated with the burial of the dead also appears at about 500 B.C. with stone and earth burial cairns and cairn clusters in the Shenandoah Valley (McLearen 1992; Stewart 1992). Early Woodland settlements in the Piedmont region of Virginia are located along rivers as well as in interior areas and there is evidence to suggest the Piedmont areas developed a more sedentary lifestyle during this time (Klein and Klatka 1991; Mouer 1991). Many Early Woodland sites in the Piedmont are permanent or semi-permanent villages that are large and intensively occupied. This corresponds with the domestication of weedy plants such as the goosefoot and sunflower along intentionally cleared riverine areas.

During the Middle Woodland (A.D. 300-1000), there is an increase in sites along major trunk streams and estuaries as people move away from smaller tributary areas and begin to organize into larger groups (Hantman and Klein 1992). The Middle Woodland diet becomes more complex as people begin to exploit nuts, amaranth, and chenopod seeds in addition to fish, deer, waterfowl, and turkey. Corn by this time had transformed into the large ears familiar today. The bow and arrow replaced spears for hunting (Egloff and Woodward 1992:25). With more specialized crafts and increased trade came status. Evidence of rank societies emerges more clearly with the spreading of religious and ritual behavior including symbols and regional styles apparent in ceramic styles and other sociotechnic and ideotechnic artifacts.

Variance in ceramic manufacture is a hallmark of the Middle Woodland Period. Pope's Creek ceramics are associated with the beginning of this period, and Mockely ceramics with the later. Pope's Creek ceramics are tempered with medium to coarse sand, with occasional quartz inclusions, and interior scoring has also been recorded (Stephenson 1963:94; McLearen and Mouer 1989). The majority of Pope's Creek ceramics have net-impressed surfaces (Egloff and Potter 1982:99; McLearen and Mouer 1989:5). Shell-tempered Mockley ceramics first appeared around 200 A.D. in Virginia to southern Delaware. There was a variation in surface treatments for Mockley that included plain, cord-marked, and net-impressed (Egloff and Potter 1982:103; Potter 1993:62).

By the Late Woodland Period (A.D. 1000-1606), the use of domesticated plants had assumed a role of major importance in the prehistoric subsistence system. The arrival and cultivation of beans joined corn and squash as the three major crops (Egloff and Woodward 1992:26). The adoption of agriculture represented a major change in the prehistoric subsistence economy and settlement patterns. Expanses of arable land became a dominant settlement factor, and sites were located on fertile floodplain soils or, in many cases, on higher terraces or ridges adjacent to them.

Virginia Indians became more settled and developed strong identities to their local settings. They began to organize into villages and small hamlets with more substantial housing that may have been placed in rows around a plaza (Egloff and Woodward 1992:26). These villages were highly nucleated and occasionally fortified with palisades. The fortifications demonstrate inter-group conflict.

Around 1150 A.D. Cashie Ware began to appear. Cashie Ware was made "with wicker-fabric of medium to narrow width, simple stamped, and plain surface treatments" and had slightly angular to rounded quartz pebbles for temper (Egloff and Potter 1982:109). While Cashie Ware was widespread throughout the interior Coastal Plain of North Carolina, it occurred in Greensville, Southampton, and Sussex counties of Virginia as Branchville Ware (Egloff and Potter 1982:109). This indicates that type was shared by the Iroquois Tribe.

Most of the coastal Virginia Indians, with the exception of the Meherrins and the Nottoways, were Algonquian-speaking people (Egloff and Woodward 2000:43). The majority of this population of approximately 14,000 to 21,000 were brought under the rule of Wahunsunacock, who formed the Powhatan chiefdom by the early seventeenth century (Egloff and Woodward 2000:43).

### SETTLEMENT TO SOCIETY (1607 – 1750)

Upon the arrival of Europeans to Virginia, American Indian towns and villages lined the James River (Figure 6-1). The vicinity of present-day Isle of Wight County was occupied by the Worrosquoyackes living in the two major villages of Mathomank, near present-day Burwell's Bay, and Mokete, at Pagan Point. Though the tribes' primary villages were along the James River, they used interior lands up to at least 20 miles inland (King 1993:1). The Quiyoughcohannock occupied Surry County in four towns dotting the roughly 100 square miles between the Upper and Lower Chippokes creeks (Geraghty 2019).

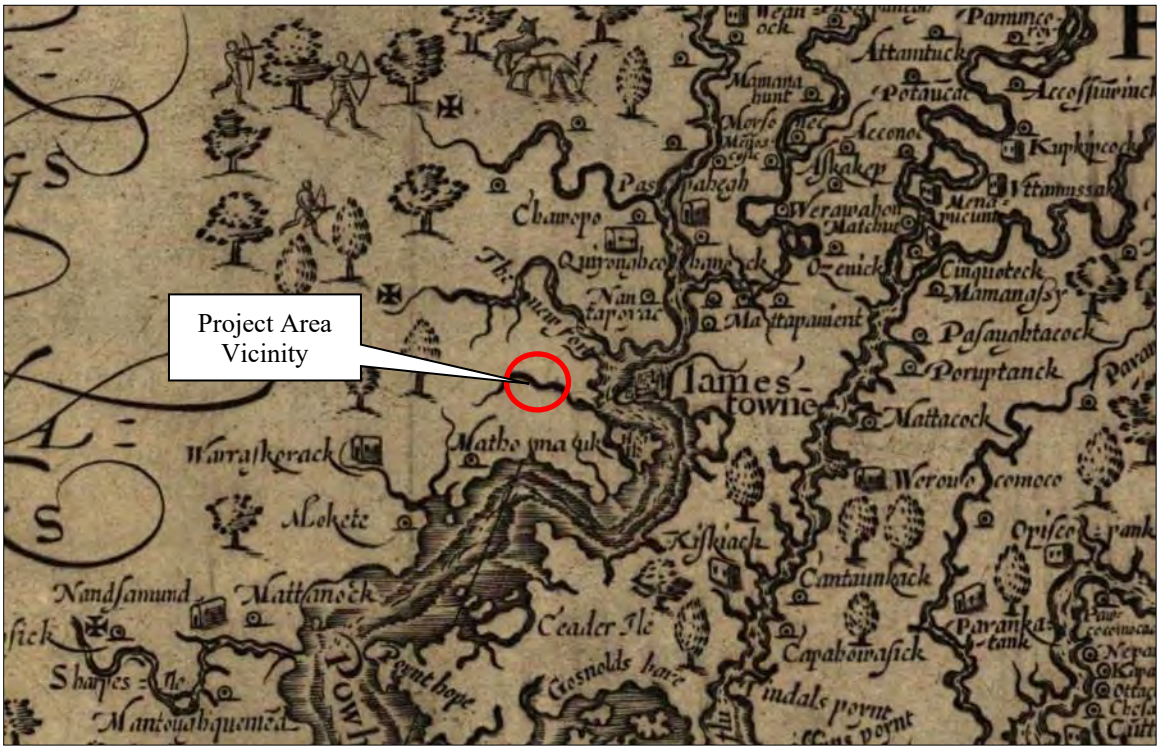


**Figure 6-1: Detail of *Virginia,* by John Smith, depicting the general vicinity of the project area. Source: Library of Congress**

On April 26, 1607, three ships commanded by Capt. Christopher Newport and sponsored by the proprietary London Company section of the Virginia Company made their first landfall in North America at Cape Henry, in the northeastern part of present-day Virginia Beach (City of). The crew landed just temporarily, and soon left the cape to seek a site further inland which would be more sheltered from ships of competing European countries. They sailed roughly 50 miles up the James River to where they established a fort at Jamestown in May 1607. Life at Jamestown was initially harsh, with the settlers suffering from starvation, disease, and attack by the native peoples.

In the spring of 1608, Capt. John Smith was driven by the necessity of finding food for the famished settlers. He crossed the James River into what is now Isle of Wight County and obtained bushels of corn from the Warraskoyak. While these American Indians initially acted kindly to the suffering settlers, in a few years they nearly killed every colonist on the south side of the James River (Morrison and Gwaltney 2006). The new settlers made some attempts to make use of the land to aid in their survival and in 1608 they began keeping hogs on Hog Island, approximately 14 miles northeast of the project area; a garrison was also placed on the island to warn Jamestown of approaching European enemies.

The Virginia Company's search for an income producing product in the colony came to fruition with John Rolfe's successful experimentation with tobacco in the early 1610s. The crop became the dominant crop of the colony and determined the pattern of nearly every aspect of life, encompassing the economy, the cultural landscape, and social relations (Kulikoff 1986; Moore 1976). Increased growth of the labor-intensive crop also led to more land hungry planters and increased use of indentured servants followed by enslaved individuals.

English settlement slowly spread along the James River. By 1619, Captain Christopher Lawne and Sir Richard Worsely initiated settlement on the south side of the James at Lawne's Creek, now roughly the dividing line of Isle of Wight and Surry Counties. Originally known as Lawne's Plantation, the London Company changed the name of the area to Isle of Wight Plantation in 1625. By 1620, there had been six land patents in what would become Surry County (Atkins 2008). While the south side of the James River was rich, the lands were fringed by swamps and the harbors were fewer and shallower making the area a bit less desirable (Rouse 1968:17). The continued spreading of European settlement, however, increasingly stressed relations between them and American Indians.

Chief Powhatan died in 1619 and control over the chiefdom was passed to his brother Opechancanough who planned to eradicate the English from Virginia (Tyler 1990:13). The murder of the Indian Nemattanew in early March 1622 provided pretext for a mass attack. On the morning of March 22, members of the Powhatan Confederacy and the Chickahominy Tribe killed English colonists along a 70-mile stretch on both sides of the James River. The result was the loss of more than a quarter of the total European population. Some English were saved through the actions of the Virginia Indian Chanco who warned Richard Pace, a resident of Surry County (King 1993:4). For the next decade, Virginia was in a state of open warfare between the two entities.

English settlement continued to spread, and some individuals were able to gain vast tracts of land, first along the major navigable waterways and then on the interior lands. In Virginia, the head right system was followed in the distribution of land. During the first hundred years of settlement, a

grant of fifty acres was given for the importation of every emigrant (Morrison and Gwaltney 2006). In this way, the size of land granted varied greatly. Using this system, many patents were distributed. The river front on the James was largely settled in the 1630s; in Surry County alone 147 original land patents have been identified in this decade (Atkins 2008).

By 1634, the population of the Virginia Colony had grown to the point that King Charles I directed the formation of eight shires (counties). James City County spanned both sides of the James River and encompassed Surry County. To the east of it was Warroaquyoake, later renamed Isle of Wight and the wharf village of Smithfield was chosen as the county seat (Rouse 1969:67). With the land patented on the south side of the river, Surry County historian James Kornwulf observed that "Today the region is one of the most heavily forested and least densely settled regions of the county…although there is ample evidence it was heavily planted in the seventeenth century" (quoted in Laird et al. 2017:16).

The growth in population saved the colony when Opechancanough planned a second uprising in 1644. Although more than 500 settlers lost their lives, by this time the colony was well established, and the loss did not seriously threaten its survival (Whittenburg and Coski 1989:21). The resulting treaty, Treaty of 1646, saw the loss of Virginia Indian's land between the York and Blackwater rivers (Egloff and Woodward 2000:45).

Approximately eight miles south of the James River was the upland (Kelly 1979:184). From this point south, waterways drained into the Blackwater River which, in turn, drained into the Albemarle Sound in North Carolina. The Sound, unlike the Chesapeake Bay, had no ports which placed a constraint on settlement and early planters trying to get products to markets. It is likely for this reason that the land was worth less than that closer to the James River. In the 1690s, the average land value was 51.1 pounds of tobacco per acre along the James and only 16.9 pounds around the Blackwater (Atkins 2008). The Blackwater River forms a portion of the western boundary of the project area.

Land was first settled along the James River and its tributaries after which colonists were forced to move farther inland (Figure 6-2). Several swamps drain into the Blackwater. Settlers, and Virginia Indians before them, would have found an abundance of game in the swampy lands (Bohannan 2002:75). The swamps that drained into the Blackwater River appear to have been numbered north to south. For example, Second Swamp (also known as Delk's Swamp, Passenger Swamp, and Pouches Swamp) extends south along the project area (King 1993:441). The present-day Mill Swamp, or Rattlesnake Swamp, near the eastern border of the project area may be First Swamp. It appears that patenting of land around First Swamp began in the mid-seventeenth century.

As indicated earlier by the Surry County historian, lands on the south side of the James River had ample forests. This would lead to a second good produced by the region: timber. Timber was exported as early as the European settling of the colony when Captain Newport took oak poles back to England for ships' masts in 1607 (Rouse 1968:33). This industry continues to the present day. The original use of Hog Island to keep hogs portended to another industry in the region: the raising of hogs. Many dwellings had large, deep, brick cellars which could be used for the storage of bacon and lard, among other things. As such, a trade in bacon began and continued to the

present. Bacon was traded in the West Indies for sugar, coffee, and rum (Morrison and Gwaltney 2006). With the growth and success on the south side, a new county was created in 1652. It was called Surry in reference to London south of the Thames River, Surrey (Rouse 1968:18). The original county extended south to the North Carolina border (Apel and Watson 2006:29).

The relative calm that had settled within the colony would soon be disrupted with Bacon's Rebellion in 1676. Nathaniel Bacon and his followers led a revolt against their perceived aggressors, American Indians, and the Governor of Virginia, Sir William Berkeley. In Surry County, Bacon's supporters seized an early dwelling owned by Arthur Allen, less than nine miles northeast of the project area. The dwelling may have been used as a fort, possibly leading to the name of Bacon's Castle (Bohannan 2002:16). Unrest would repeat in the region in the early eighteenth century. Slave insurrections were planned in 1709 and 1710 in Surry and Isle of Wight counties. In the 1709 plan, the foiled uprising involved both African and American Indian slaves (Holloway n.d.).

After the first legal settlement south of the Blackwater River in 1701, settlement quickly accelerated. By 1730, there were more residents south of the Blackwater than north for the first time leading to the creation of new counties from Isle of Wight and Surry counties in the 1740s and 1750s (Atkins 2008).

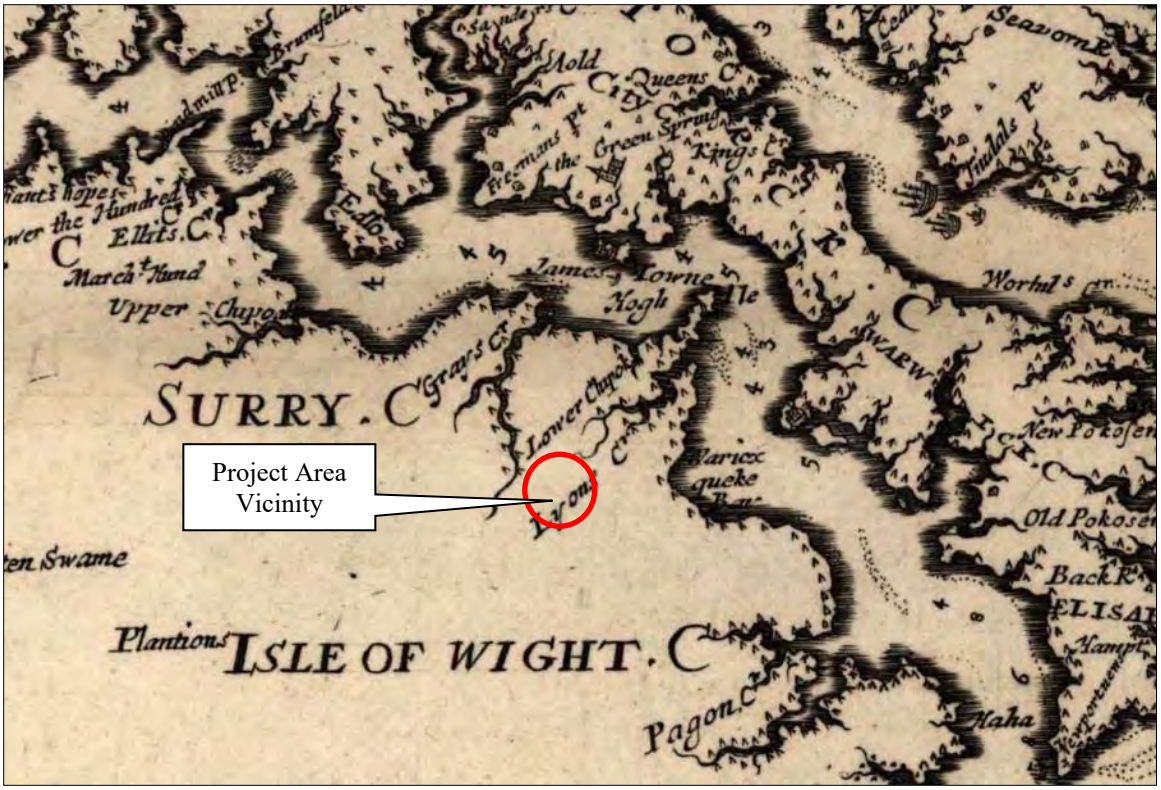


**Figure 6-2: Detail of *Virginia and Maryland as it is planted and inhabited this present year 1670* depicting the vicinity of the project area. Source: Library of Congress**

## COLONY TO NATION (1750 – 1789)

The economy continued to grow as additional agricultural land was cleared and cultivated. Tobacco continued to be the principal crop during this period, however as the century entered the fourth quarter the tobacco economy began to falter. Severe soil depletion from continuous cultivation of tobacco, particularly in the sandy soils in the counties that were not conducive for growing tobacco, coupled with the collapse of the European tobacco market precipitated a shift the economy and farmers began to diversify. The farms in Isle of Wight County at this time were typically between 500 to 1,700 acres (David 2007:9). One of the earliest homesteads erected in the general vicinity of the project area was the Henley Pretlow House (VDHR# 087-5509). This home, one of multiple owned by the Pretlow family in Isle of Wight and Surry counties, was constructed in 1760 on present-day Route 621 in Isle of Wight. In 1988, the building was moved to its current location in Surry County, roughly 1.25 miles southwest of its original location, to save it from demolition. The Binford Home (VDHR #087-0003) was constructed in 1802 near the intersection of Routes 621 and 616 (Macon 1938).

To aid in getting their goods to market, two early major north-south roads extended through the two counties; the project area was situated between them. Additionally, the village of Surry, eight miles north of the project area, grew as a crossroads. A stagecoach route connecting Petersburg and Portsmouth crossed the town by 1787 (Apel and Watson 2006:18). By this time, the town boasted of two stores, a tavern, an armory, and a cotton factory (Apel and Watson 2006:18). Smithfield, approximately ten miles east of the project area, officially became a town in 1752 and the main stage road from Norfolk to Richmond passed through it (Morrison and Gwaltney 2006).

As the population grew with the economy, early churches began appearing in Isle of Wight and Surry counties. One of the earliest Baptist churches in Isle of Wight was Mill Swamp Church. The church was established in 1774 by charter members of the disbanded Burleigh Church with David Barrow as its first pastor. Originally known as David Barrow's Church or the Church in Isle of Wight, the name was changed to Mill Swamp Church in 1791 for the old mill that stood a few miles away along the Surry County Line. Mill Swamp was the "mother church" to other Baptist churches in the county, including Smithfield, Moore's Swamp, Tucker Swamp, and Bethesda (King 1983:110). The current chapel on the site, located in the general vicinity east of the project area, was first built in 1832 and remodeled in 1895 (Morrison 2022:23).

While the market for crops grown in Virginia and throughout America was in high demand in European markets, tensions between the colonies and England began to put a strain on trade. At the end of the Seven Years' War (or the French and Indian War in North America) in 1763, the British government had an immense amount of debt. To pay for it, Parliament imposed heavy taxes on its subjects and tightened the administration of trade and navigation acts (Salmon 1983:22). These actions sparked a strong response from the colonies. In 1774, the Virginia Convention adopted resolves against the importation of British goods and the importation of enslaved laborers. It also required each county to form a volunteer company of cavalry or infantry to prepare for an armed conflict.

Counties on the south side of the James River prepared to fight, supplying men and materials to the cause (Atkins 2008). For example, in addition to the "725 men of military age", residents of

Isle of Wight County provided relief vessels and financed privateering vessels (King 1993:64; David 2007:9). Additionally, the seventeenth century fort on Burwell Bay was fortified and renamed Fort Boykin (David 2007:9). The British passed through the region twice under British Cavalry Colonel Tarleton (Figure 6-3). He and his men made a raid on Smithfield with the intent to destroy the records; the records were previously removed. The British left a wake of destruction wherever they went (Morrison and Gwaltney 2006).

Following the Battle of Greenspring, the main body of the British Army under Charles Cornwallis crossed the James River traveled to Portsmouth. No battles were fought in Isle of Wight and Surry counties and the war was won on the Virginia Peninsula.

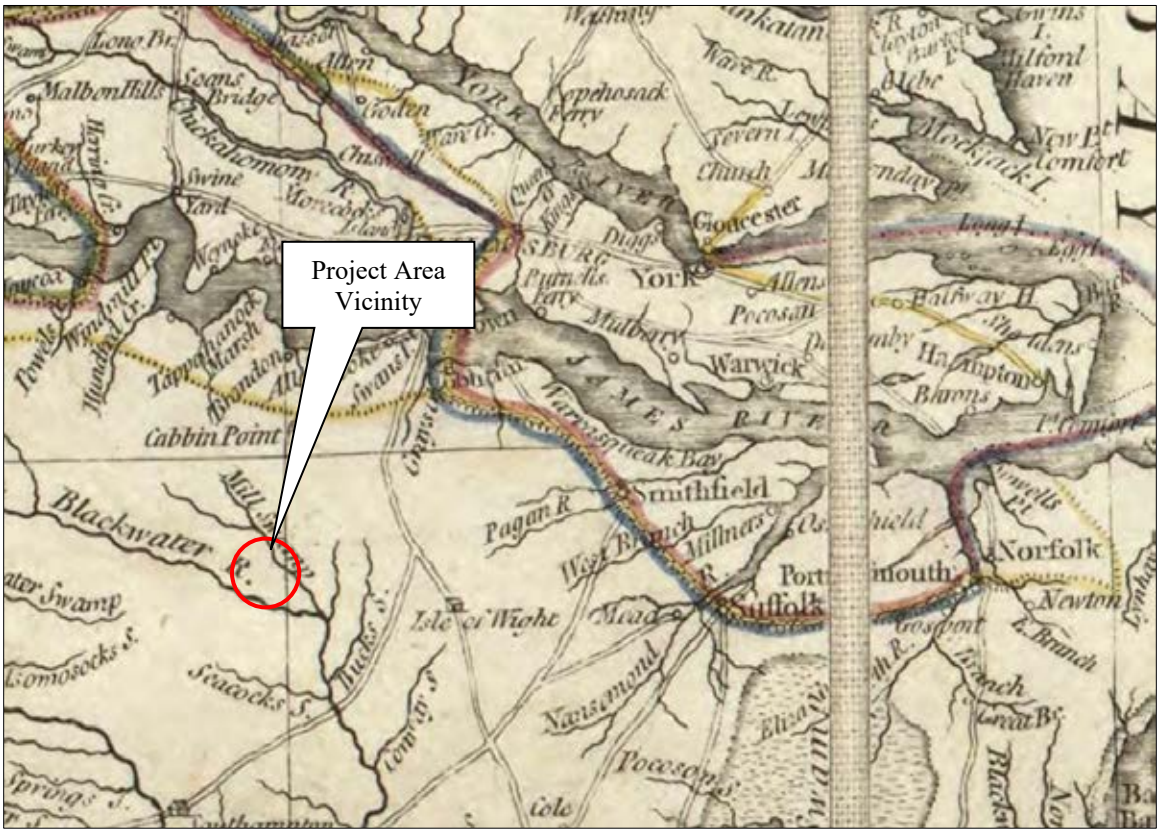


**Figure 6-3: Detail of *The marches of Lord Cornwallis, with Virginia and Maryland, and the Delaware counties*, 1787, depicting the vicinity of the project area. Source: Library of Congress**

## EARLY NATIONAL PERIOD (1789 – 1830)

Following American independence, Virginia entered a period of considerable change. The intensive tobacco cultivation previously pursued in the area had succeeded in severely depleting the area's soils of much-needed nutrients, making the crop unprofitable and leading farmers to explore other options. Over time, farmers in southeast Virginia turned to corn and grains, cotton, orchards, livestock, and finally peanuts and soybeans (King 1993:192). The value of farmland in the region increased dramatically in the early nineteenth century (Agee 1969). In Surry County, for example, the value of land, per acre, in 1800 was $1.65; in 1820 it had jumped to $4.81 (Agee 1969:36).

The almost exclusively agrarian society was beginning to accommodate urban centers and small hamlets, although farming continued to be the primary means of livelihood (Traceries 1993). While the population remained relatively steady, there was a shift to the southern half of the county as people were enticed by the open lands and inland roadways. At the first federal census in 1790, Surry County had 6,227 residents and Isle of Wight County had 9,028 (USCB). During this period the population of each county rose slightly to 7,109 residents in Surry and 10,517 in Isle of Wight (USCB).

When war broke out with Great Britain once more in 1811, the young men of Virginia stood ready to fight. Because the War of 1812 was primarily a sea war in Virginia, Norfolk was a highly vulnerable spot though towns along the shores of the state's major rivers were also at risk (King 1993:66). One of the major issues to wealthy white citizens that the war caused concerned slavery and Britain's declaration of freedom if enslaved laborers stood alongside the Great Britain.

Among the major issues facing farmers throughout Virginia in the early nineteenth century was that of inadequate roads which hampered their ability to get goods to markets. The poor condition of the network of roads and bridges, lack of navigable watercourses, and long distances to larger markets restricted growth of the area's economy. The solution to these problems was found in the internal improvement movement of the early nineteenth century. The construction and maintenance of roads had long been the responsibility of localities. Finally, in 1816, the General Assembly created the Fund for Internal Improvement and appointed the Board of Public Works to oversee its use; transportation improvement projects would receive the funding they needed to complete projects (O'Dell 1989). By the late 1820s, it appears that several major roads were in the general vicinity of the project area (Figure 6-4).

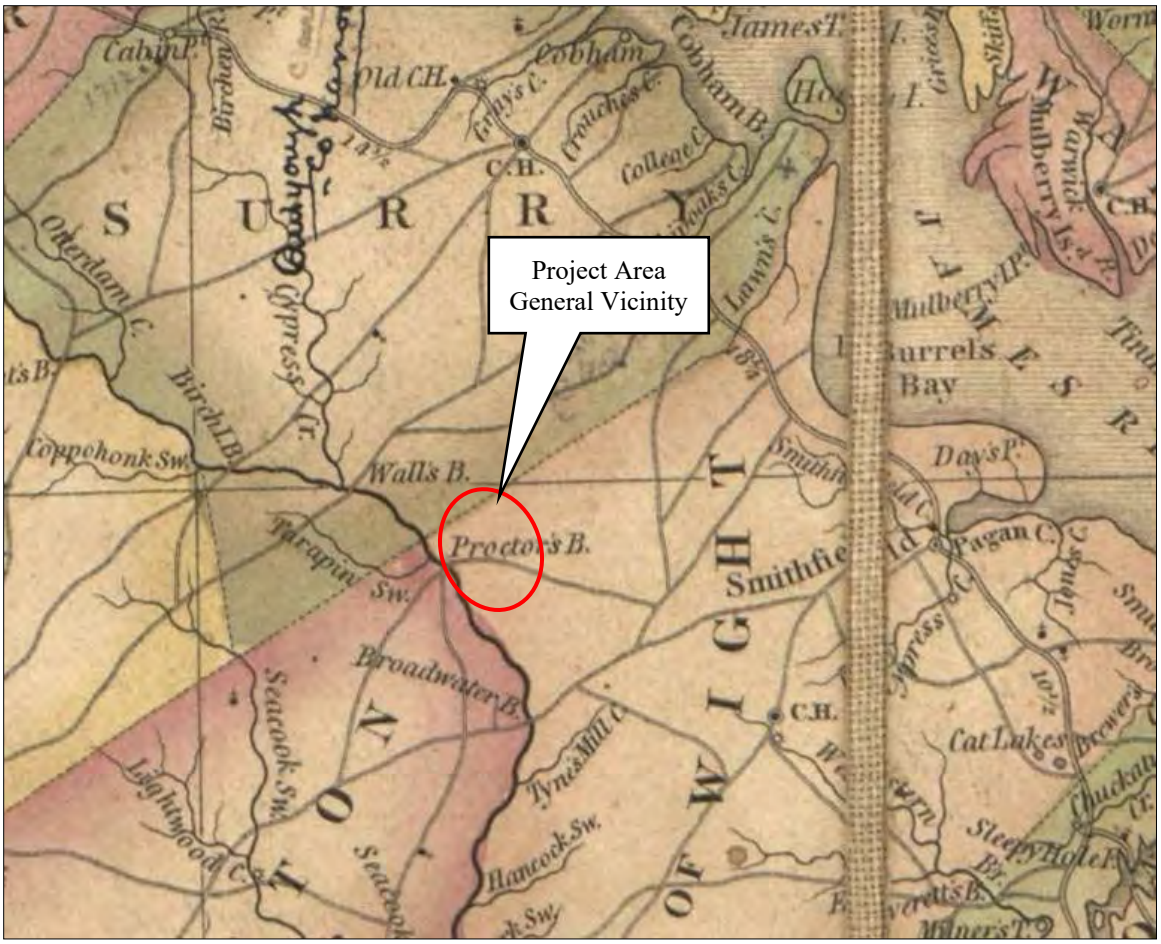


**Figure 6-4: Detail of *A map of the state of Virginia*, 1827, depicting the vicinity of the project area. Source: Library of Congress**

## ANTEBELLUM PERIOD (1830 – 1860)

By the 1830s, a lasting migration from older settled regions of Virginia to lands opening in the west and an agricultural depression affected area's commerce and population. Between 1830 and 1850, the population of Isle of Wight County decreased 11 percent and that of Surry County fell by more than 13 percent (USCB). Despite the drop in population, the enslaved and free black population remained about 50 percent of the total population. The high enslaved population led to unease and in 1831 there was an insurrection in nearby Southampton County; it became known as Nat Turner's Rebellion. Troops from Isle of Wight, Nansemond, and Surry counties guarded the borders of the counties to prevent an escape of the insurgents to the Dismal Swamp (Drewry 1900:83). The insurrection prompted scared white citizens to strengthen rules regarding enslaved workers and free blacks (Atkins 2008).

Approximately 90 percent of this total population was involved in agriculture and identified as farmers (David 2007:10). The diversification of crops throughout the Commonwealth continued and by 1859 Virginia was producing only 28.4 percent of the nation's tobacco (Agee 1969:21). Crops that took the place of tobacco in southeast Virginia included cotton, corn, and peanuts. Before the Civil War, peanuts, also known as "goober peas" or "ground peas" were little known

outside of the southern states (Morrison and Gwaltney 2006). Isle of Wight's first peanut export was in 1849; the county would eventually become the center of the peanut belt (David 2007:10). As agricultural industry grew, more mills were built in Isle of Wight and Surry counties. One of these mills was Pretlow's Mill, mapped to the west of the project area near the site of the Binford Home. This mill was presumably owned and operated by the Pretlows, who owned multiple properties, including the Binford home for roughly a decade, in the general vicinity in the early to mid-nineteenth century (Macon 1938). Another mill that appears on maps from this time period is White's Mill located north of the project area, however no documentation of this structure could be identified. Additionally, the ham and bacon industry continued growing. Before the coming of the railroad, the bacon trade reached out 30 to 40 miles into surrounding counties and hogs were driven in by foot from as far away as Kentucky, Tennessee, and North Carolina (Morrison and Gwaltney 2006). The railroad would create a bigger market.

The Norfolk and Petersburg Railroad was chartered in 1851 and completed in 1858, approximately five miles southwest of the project area, and extended through southern Isle of Wight County (King 1993: 241). The first railroad in Surry County, in 1854, was located at the northern end of the county and was related to the timber business (Atkins 2008).

Despite the number of marshes in the region, several structures were located within the project area and its general vicinity by the mid-nineteenth century (Figure 6-5 and Figure 6-6). Names that appear within the project area on Civil War period maps include Betts and Barlow, both in Isle of Wight County. Affluent families in the local community, both the Betts and the Barlow families owned large plots of land featuring grand, high-style plantation homes. Members of the Betts family presided over two properties in the general vicinity of the project area (VDHR# 046-0030 and 046-5811), built circa 1802 and 1850, respectively. The Barlow family owned a house off of what is now Ramsey Road (VDHR# 046-5148), constructed in 1880. Located on the north side of Mill Swamp Road just outside of the project area was the Mayfield post office. Built in 1830, Mayfield was one of the earliest post offices in Isle of Wight County and was discontinued in 1886 when replaced by the Sycamore Crossroads post office. The post office operated out of the Hollemon home with Wilson Hollemon as both the first owner of the house and the first postmaster (King 1993:328-330).

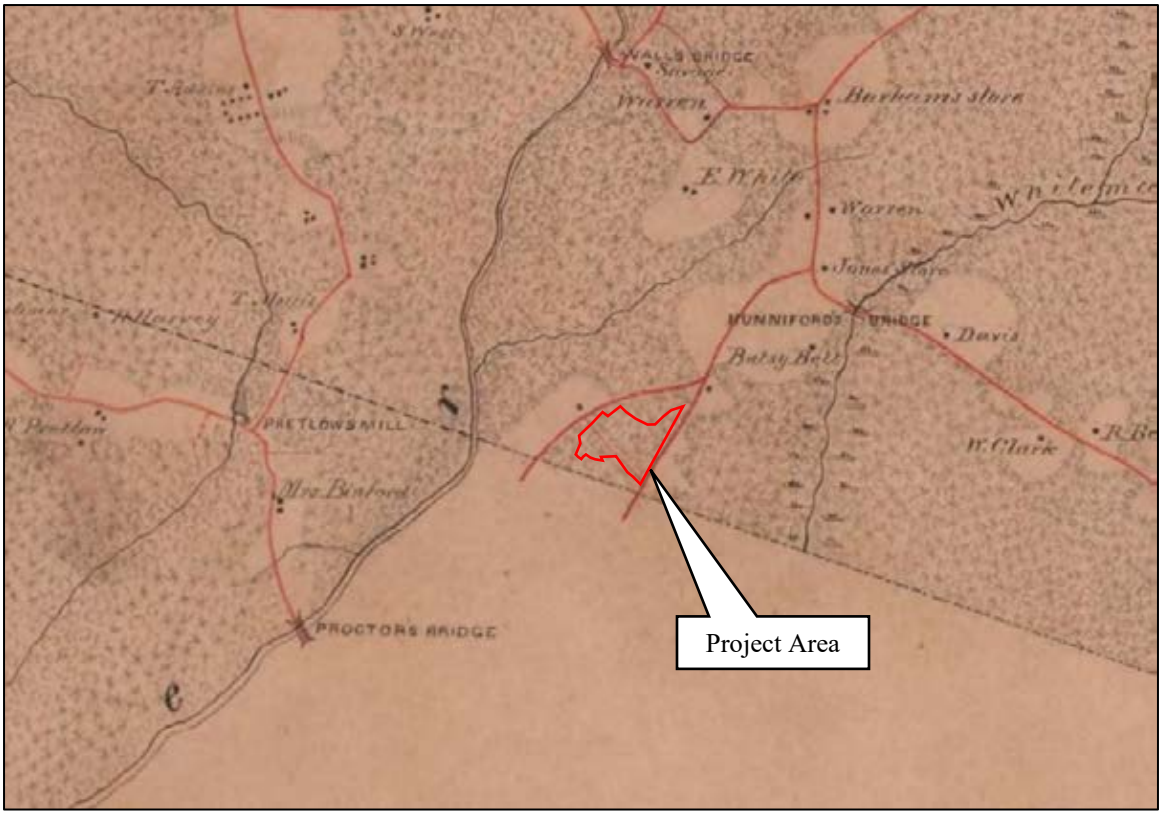


**Figure 6-5: Detail of *Map of Surry Sussex and Southampton counties, Virginia*, 1863, depicting the project area in Surry County. Source: Library of Congress**

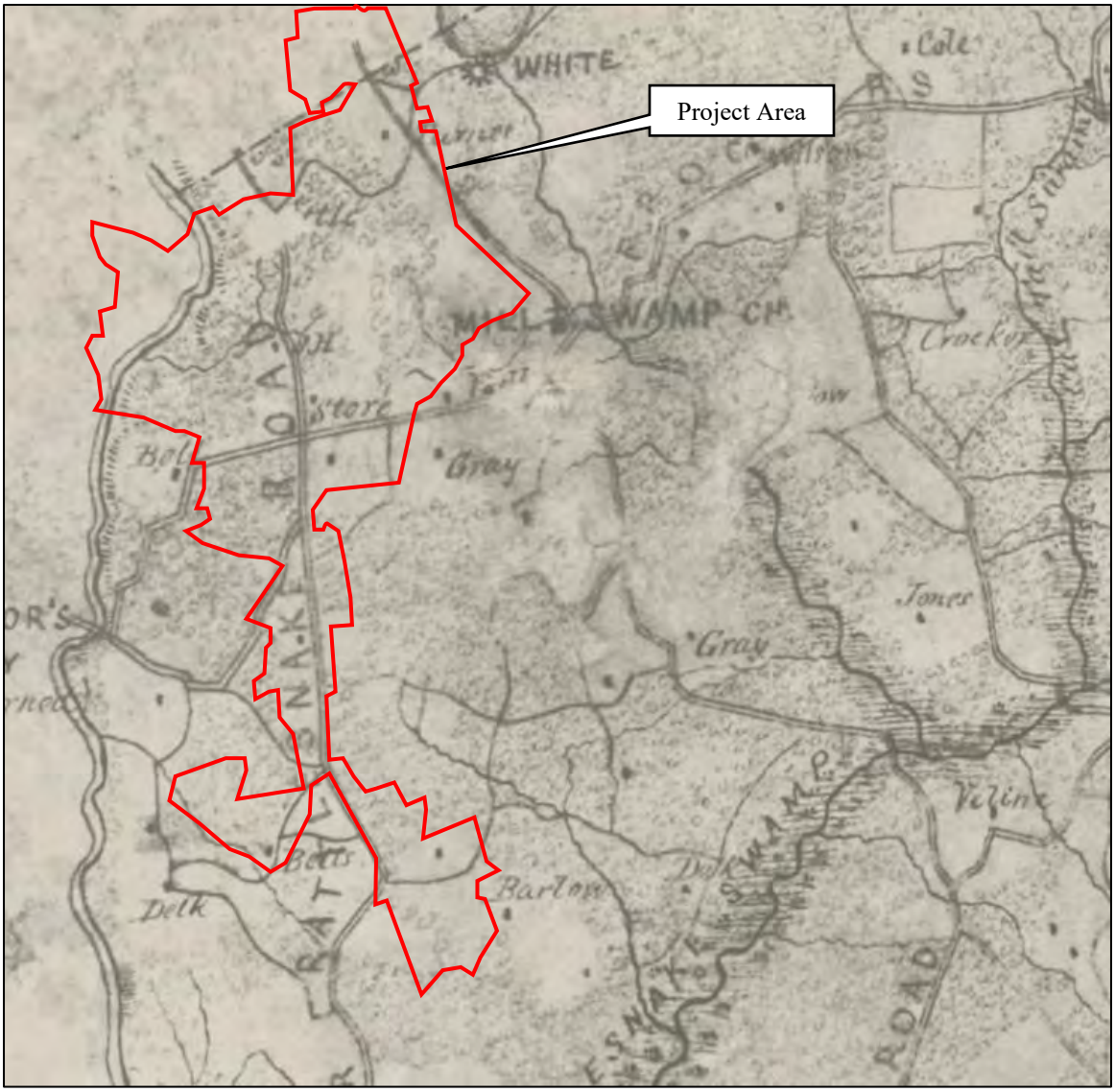


**Figure 6-6: Detail of *Map of Isle of Wight and part of Nansemond*, 1864, depicting the project area in Isle of Wight County. Source: Library of Congress**

## CIVIL WAR (1861 – 1865)

As an old, settled area of Tidewater Virginia, Isle of Wight and Surry counties continued to have a large proportion of residents that were enslaved. When the counties voted on the issue of secession on April 17, 1861, both were pro-secession. On the coast of Isle of Wight County, two forts were constructed or reinstituted during the war, Fort Huger and Fort Boykin. With their proximity to Union forces in Hopewell and Petersburg, Surry County soldiers served as scouts (Atkins 2008).

No major battles took place in Isle of Wight or Surry counties. A skirmish did occur in Smithfield in 1864. Early in 1862, Confederates were forced out of the Smithfield area and all bridges were burned and by 1864 Union gunboats controlled the James River. In January of that year, a federal steamer was fired upon by a Confederate contingent in Smithfield. The steamer was soon refloated

and got aid from Newport News. The Federals came ashore and forced the Rebels to flee. While waiting for their return boat to Newport News, the Rebels fired upon Union forces. The Federals were able to board their boat only to get stuck in mud at which point they were taken prisoner and the boat was burned (King 1993:172, 174).

There was also a skirmish in Surry County on the Blackwater River. Confederate soldiers were holding a bridge over the river when, in May, Federals attempted to cross. Having much larger numbers, Union forces succeeded and the Rebels abandoned their position (Atkins 2008).

On the home front, the succulent flavor of Smithfield meat emerged during the Civil War. As farms were not operating to the same capacity as previously, farmers began to let pigs root in fields where peanuts had been dug. They found peanut-fed hogs far more palatable than those which had foraged the woods (Rouse 1968:15).

### RECONSTRUCTION AND GROWTH (1865 – 1917)

While no large battles were fought in Isle of Wight and Surry counties, the economies were devastated and redevelopment of the agricultural economy was slow. Though Surry County was generally quiet after the war, around Bacon's Castle there was unrest between former enslaved individuals and the white population. In 1868 and 1869, homes, schools, and churches were burned (Atkins 2008).

The longstanding agricultural economy of Tidewater Virginia began to recover. The production of peanuts increased, their cultivation improved, and, by the aid of special implements, their production was cheapened. The value of the crop was estimated to be not less than three million dollars for the nuts alone (Morrison and Gwaltney 2006). P.D. Gwaltney and Company was created in 1870 for the shipping of ham and peanuts. The company grew dramatically in the late nineteenth century and by 1898 it had become the largest peanut company in the world (David 2007:13). Added to this is the value of the peanut vines in serving as a forage crop for horses and cattle and nuts on the ground for hogs (Morrison and Gwaltney 2006). In addition to peanuts, Isle of Wight County produced oats, potatoes, fruits, vegetables, and oysters (Morrison and Gwaltney 2006). Farms, growing peanuts and other products, were sprinkled throughout the project area.

Timbering also prospered during this period aided by northern investors (Rouse 1968:34). For example, David Steel, of Delaware, began the Surry Lumber Company in 1873 (Rouse 1968:34). The town of Dendron, about six miles northwest of the project area, grew around this company and the construction of several sawmills (Apel and Watson 2006:22). The lumber company also chartered the Surry, Sussex & Southampton Railway (SS&S) to haul products (Apel and Watson 2006:22). A small lumber railroad would eventually extend from Passenger Swamp to the town of Surry. Included among the various lumber companies in Isle of Wight were Watkins Lumber Company, Cumberland Lumber Company, and Kirk Lumber Company (David 2007:13).

Finally, Smithfield's early trade in bacon and ham gave rise to attention in the feeding and slaughtering of hogs and curing of bacon. In the early twentieth century, Smithfield's shipment of cured hams was about 40,000 (Morrison and Gwaltney 2007). With these important industries, the financial condition of counties improved by the close of the nineteenth century and population

increased. Between 1870 and 1910, the population of Isle of Wight County increased by 79 percent from 8,320 residents to 14,929; the population of Surry County increased by 74 percent from 5,585 inhabitants to 9,715 (USCB).

As population increased, commerce also grew, particularly along the intersections of major inland roadways in the form crossroad stores. With improved inland transportation corridors, crossroads stores became more common. Many of these crossroads merchants took advantage of the expanded postal system and operated post offices from their stores. Between 1865 and 1900, the number of post offices increased dramatically from 28,882 post offices nationwide to 76,688 post offices in 1900 (David 2007:15). A circa-1892 map of Virginia illustrates a number of post offices in the general vicinity of the project area (Figure 6-7). Rural free delivery came to the county in 1907. This would eliminate the need for the multiple post offices found in crossroads stores. Located at the intersection of Routes 621 and 622 within the project area, the Sycamore Crossroads post office opened in 1886, replacing the earlier Mayfield post office, and operated until it was discontinued in 1917. William Henry (Harry) McClelland was Sycamore Crossroads' first postmaster, in addition to operating a store in the same building set in the front yard of the neighboring Guy Betts House (King 1993:331; Figure 6-8).

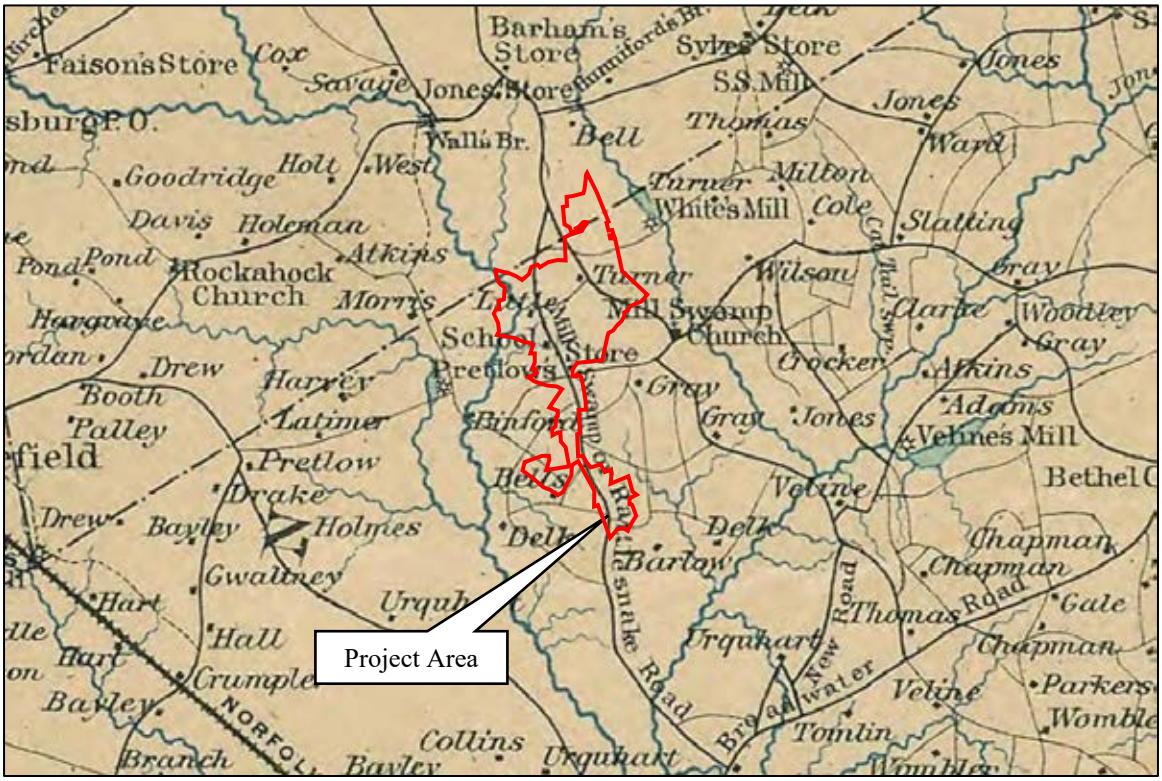


**Figure 6-7: Detail of *Preliminary map of a part of the south side of James River, Va.: from surveys and reconnaissances*, c.1892, depicting the approximate location of the project area in Isle of Wight and Surry counties. Source: Library of Congress**

**Figure 6-8: Detail of *Battlefields of Virginia 1865*, 1900, depicting the approximate location of the project area in Isle of Wight County. Source: Library of Congress**

## WORLD WAR I TO WORLD WAR II (1917 – 1945)

The peanut, lumber, and hog industries in Tidewater Virginia continued as the twentieth century progressed. The peanut industry took a downfall in 1921 when P.D. Gwaltney's factories were destroyed by fire. Although processing of the legume ended in Smithfield, neighboring Suffolk became a major peanut processing hub with the growth of Planters Peanuts (David 2007:18). With the loss of the peanut factories, in Isle of Wight County the primary industry transitioned to meat packing, most notably of ham (Morrison and Gwaltney 2007).

The Surry Lumber Company reached its peak in the 1920s (Apel and Watson 2006:22). However, the supply of trees decreased leading to the closing of mills in 1927 and the termination of the SS&S Railway (Apel and Watson 2006:23).

Among other agricultural endeavors in the county was the dairy industry. Cows had long been important in the region, requiring little attention as they were able to forage in the marshes and swamps. By the 1930s, there were many dairies (King 1993:208).

The two world wars' demanded sacrifices from the Commonwealth's residents while they also prepared the way for new opportunities. Residents of the counties did their part to serve the war effort, either by continuing to produce food and products for use or enlisting in the military.

As farmers faced hardships and the industry became more mechanized, the population in the counties fell. While the population of Isle of Wight County population decreased by seven percent from 14,433 to 13,381 residents; that of Surry County fell by 33 percent from 9,305 to 6,193 inhabitants (USCB). Despite hardships brought on by weather, mechanization, and the Great Depression, agriculture remained the economic mainstay of counties and commercial centers provided processing facilities for the products and access to export goods (David 2007:18).

Despite the fall in population in Isle of Wight and Surry counties, progress continued. By the 1930s, electric and telephone services were expanded into many of the rural areas in Isle of Wight. An Act by the Virginia General Assembly in 1918 provided for the improvement of roads and bridges within the county. Major roads were paved and others were widened to improve and facilitate transportation. Additionally, the prosperity of the 1920s brought the construction of new churches and schools (David 2007:18). One of these early schools was likely McClelland's School, which appears on mid-twentieth century maps, however no other documentation has been located at this time.

A 1919 topographic map depicting the project area shows several buildings within and in the general vicinity of the project area, including the Sycamore Crossroads Post Office (Figure 6-9). Proctor's Bridge, which appears on maps as early as the Civil War though it had been destroyed and rebuilt multiple times by the early twentieth century, is mapped to the west of the project area. The project area itself is comprised of a mix of wooded areas and open fields, with Blackwater River crossing the landscape to its west and Mill Swamp and Rattlesnake Swamp to the east. The crossroads community of Johnsons Corner appears on maps to the west of the project area dating to this time period. The community is located at the intersection of Routes 621 and 616 near the sites of Proctors Mill and the Binford Home, which was later owned by J.F. Johnson (Macon 1938).

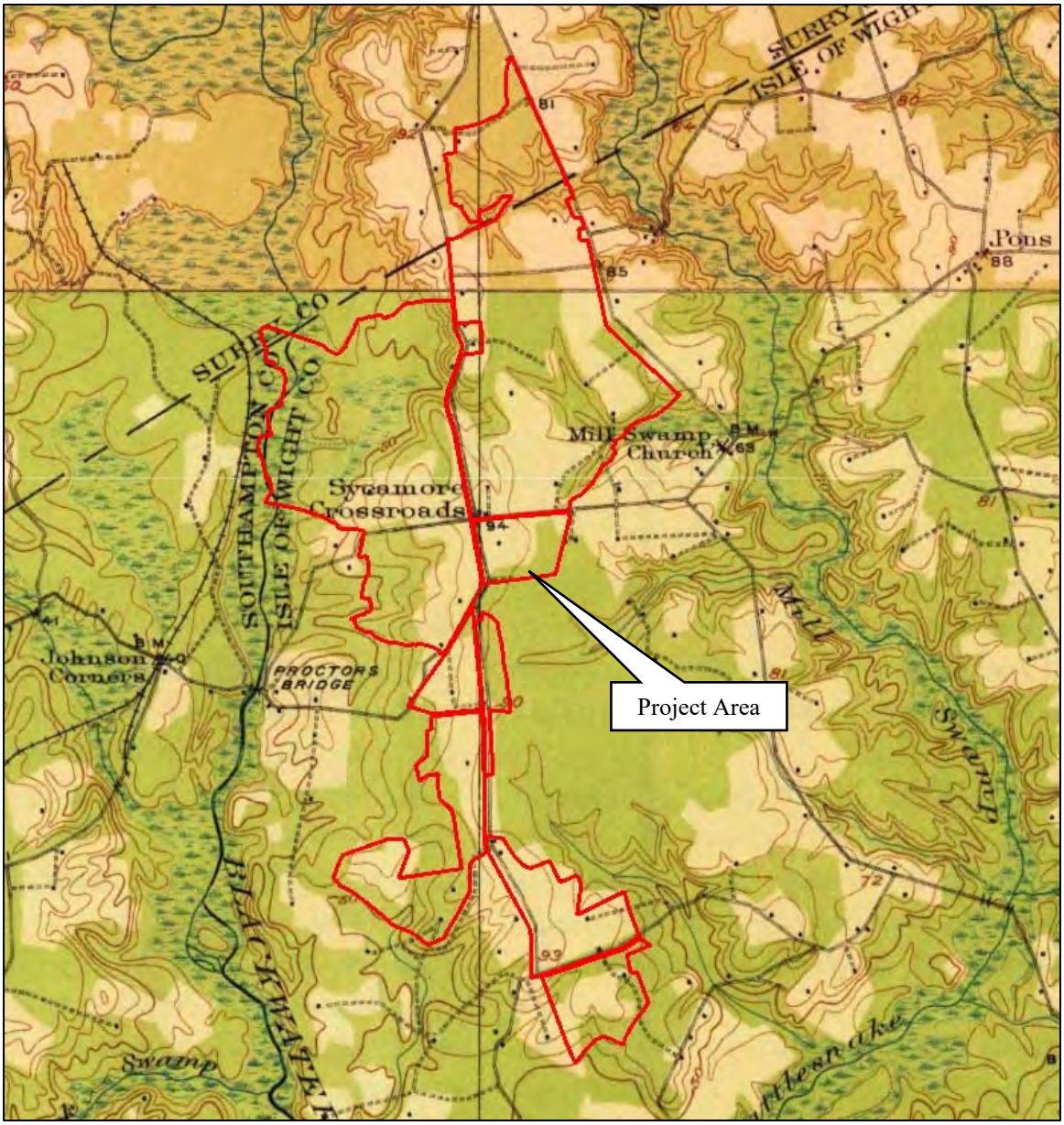


**Figure 6-9: Detail of the 1919 topographic map, *Surry,* and the 1920 topographic map, *Ivor*, depicting the project area. Source: USGS**

## NEW DOMINION (1945 – PRESENT)

The end of World War II brought with it a building boom that would begin to change the character of Virginia as a whole and the counties in which the project area lay, particularly Isle of Wight County. With its proximity to Newport News, Portsmouth, and Norfolk, the county began to become a bedroom community. With the spread of the cities and improved transportation routes, the northern half would be impacted, and more single-family dwellings began to line the roadways shielding the vast open field behind (David 2007:19).

The face of agriculture also began to change. By the end of World War II, Virginia was no longer the leading producer of peanuts. In 2002, the end of government support and allotment forced

many smaller farmers out of business. While peanuts are still a force in Western Tidewater and they continued to be the most reliably profitable crop even for smaller-scale producers, China and Brazil are now the dominant players in the global peanut market (Bearinger n.d.). Over time, the dairies in the region also went out of business (King 1993:209).

Conversely, the meat packing industry of Isle of Wight County and the hog and cattle farms in Surry County would continue to grow, and the timbering industry in the region as a whole contributes to its economy. Isle of Wight County would become home to two Fortune 500 companies: Smithfield Foods and International Paper Company. Because of the significant amount of timbering that has taken place throughout the Commonwealth, in the second half of the twentieth century Virginia Forests, Inc. became active (Rouse 1968:37). Among their work was providing pine seedlings to any landowners willing to plant them in cut-over forests and eroding fields (Rouse 1968:37). In addition to stabilizing the soil it would continue the industry since the trees would be ready for harvesting after a period of twenty years (Rouse 1969:37).

The landscape within and in the general vicinity of the project area continued to be developed. By the mid-twentieth century, major pipelines would cross the landscape to the northwest and southwest of the project area. Construction on Virginia's first nuclear energy plant on Hog Island began in 1971 (Apel and Watson 2006:27). In the early twenty-first century, Beaver Dam Airpark was opened approximately 3.5 miles northeast of the project area along the Isle of Wight-Surry county line. Despite changes in the landscape, agriculture continues to be an economic mainstay in Isle of Wight and Surry counties with important crops being cotton, soy, and, of course, peanuts (Morrison and Gwaltney 2006). The project area remains a mixture of agricultural and forested land with few buildings which would decrease in number over time. Additionally, portions of the project area would be subject to heavy timbering as the industry gained importance in the county. The landscape in the general vicinity of the project area would continue to be developed, with structures mostly consisting of churches and small, roadside homes (Figure 6-10 through Figure 6-14).

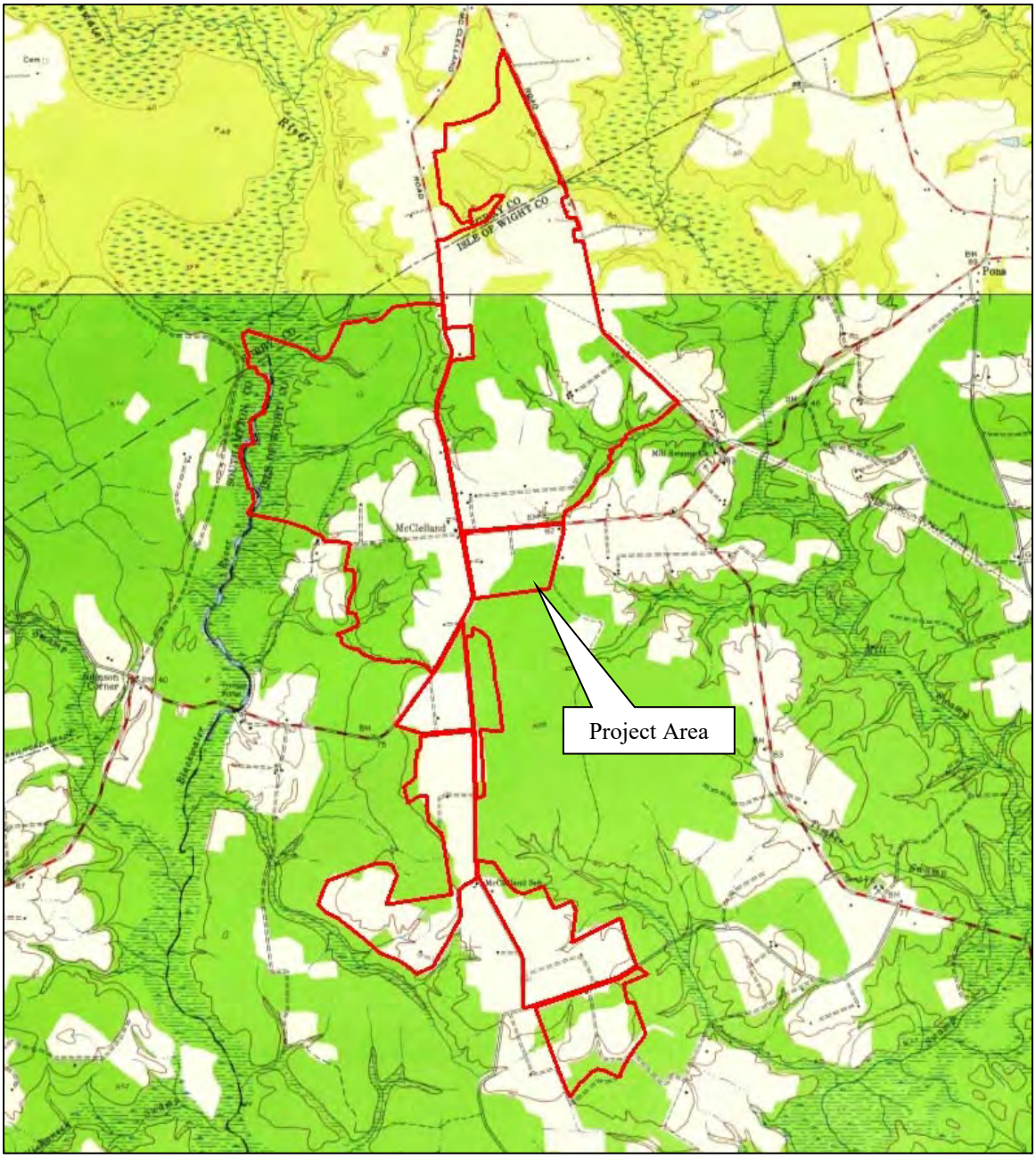


**Figure 6-10: Detail of the 1944 topographic map, *Raynor*, and the 1954 topographic map, *Runnymede,* depicting the project area. Source: USGS**

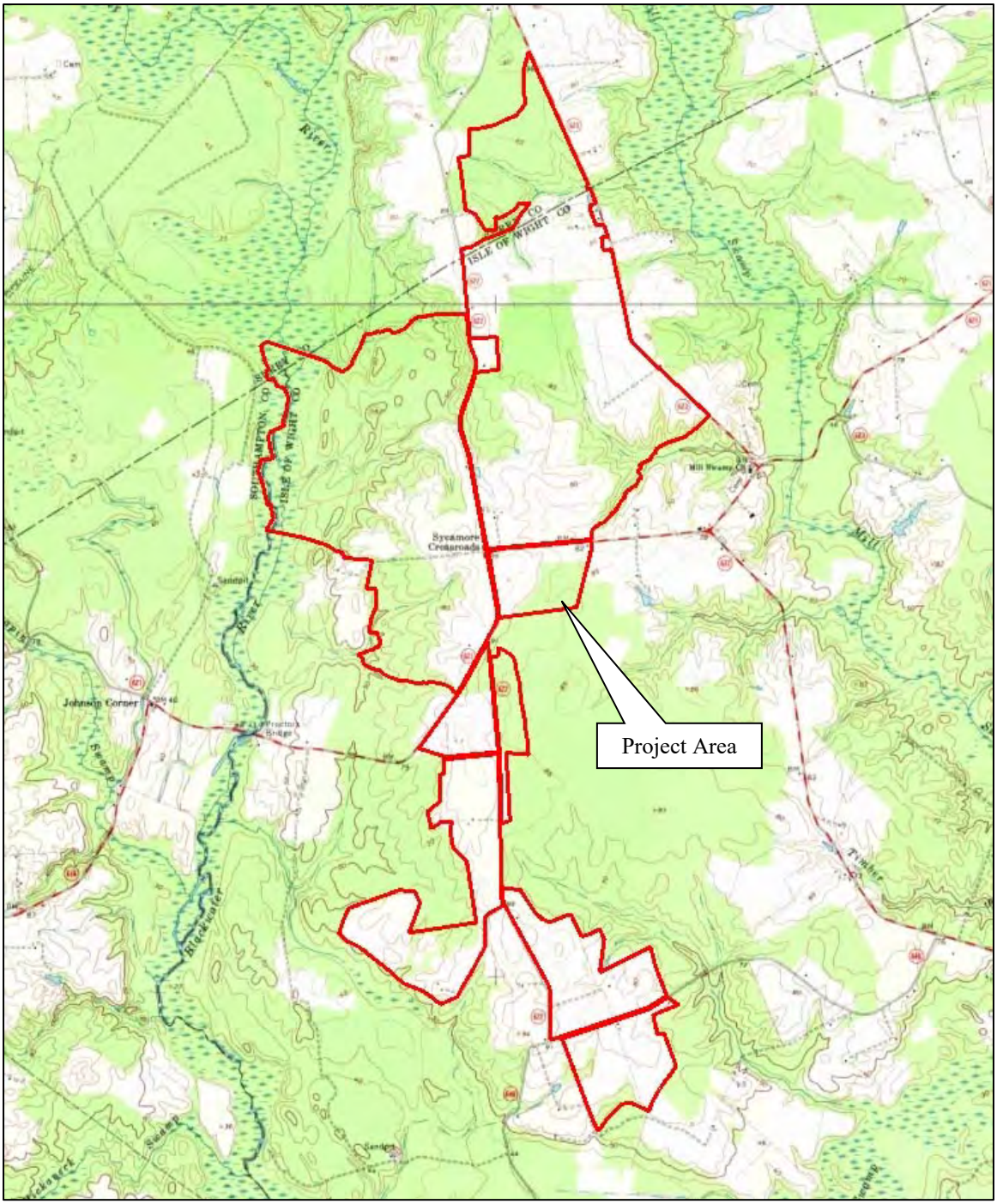


**Figure 6-11: Detail of the 1968 topographic map, *Raynor,* and the 1971 topographic map, *Runnymede*, depicting the project area. Source: USGS**

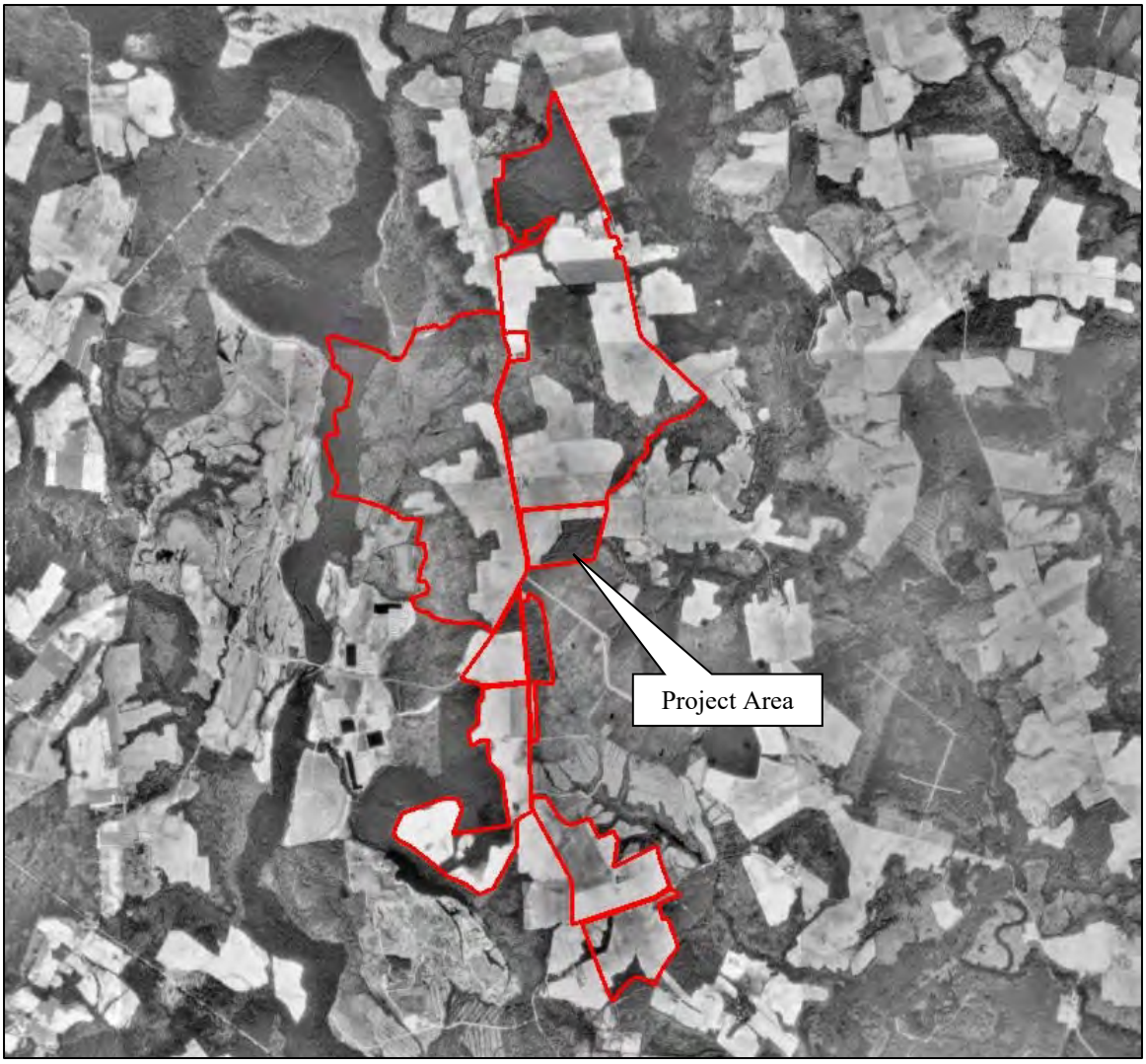


**Figure 6-12: A 1990 aerial depicting the project area. Source: Google Earth**

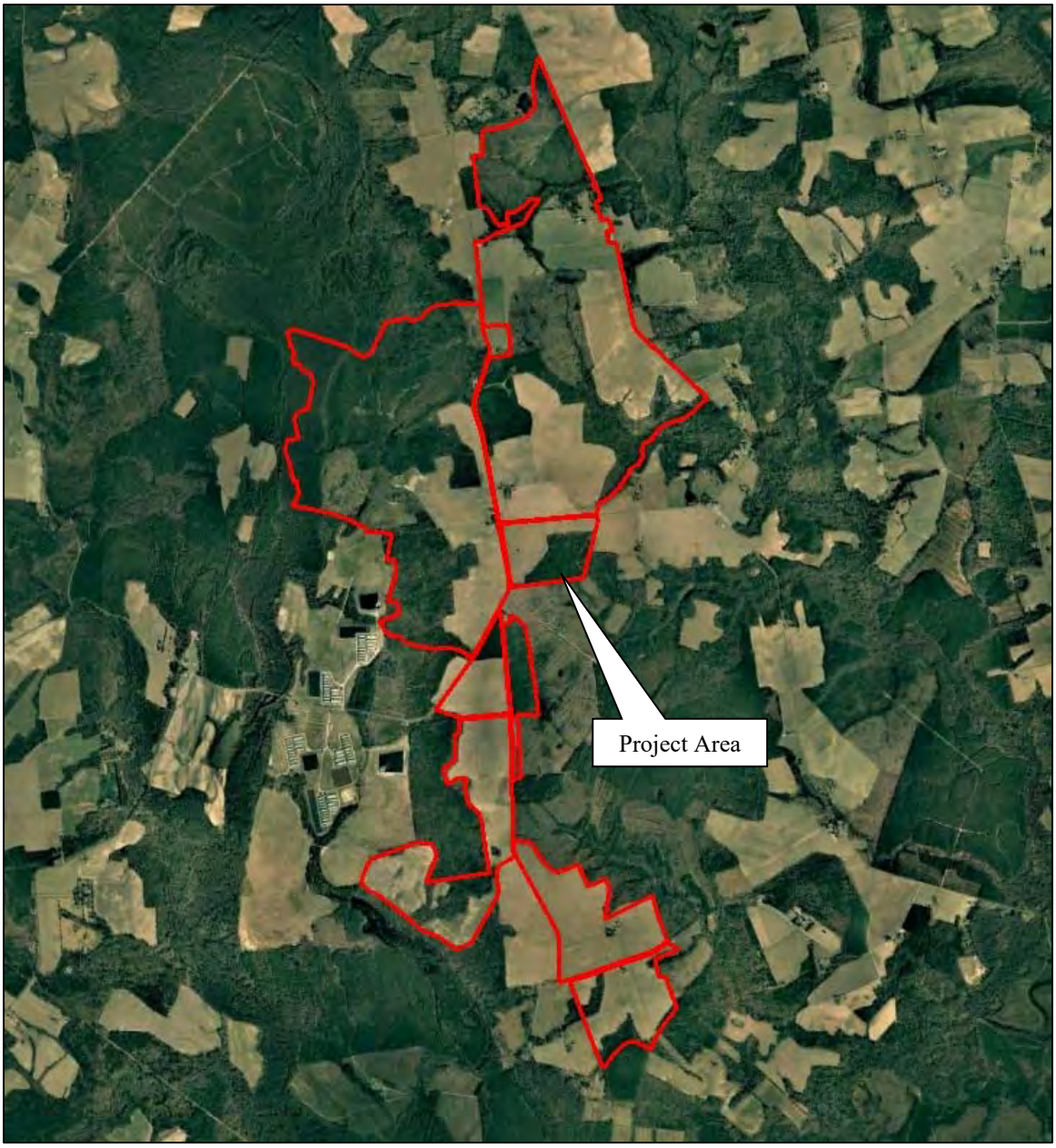


**Figure 6-13: A 2007 aerial depicting the project area. Source: Google Earth**

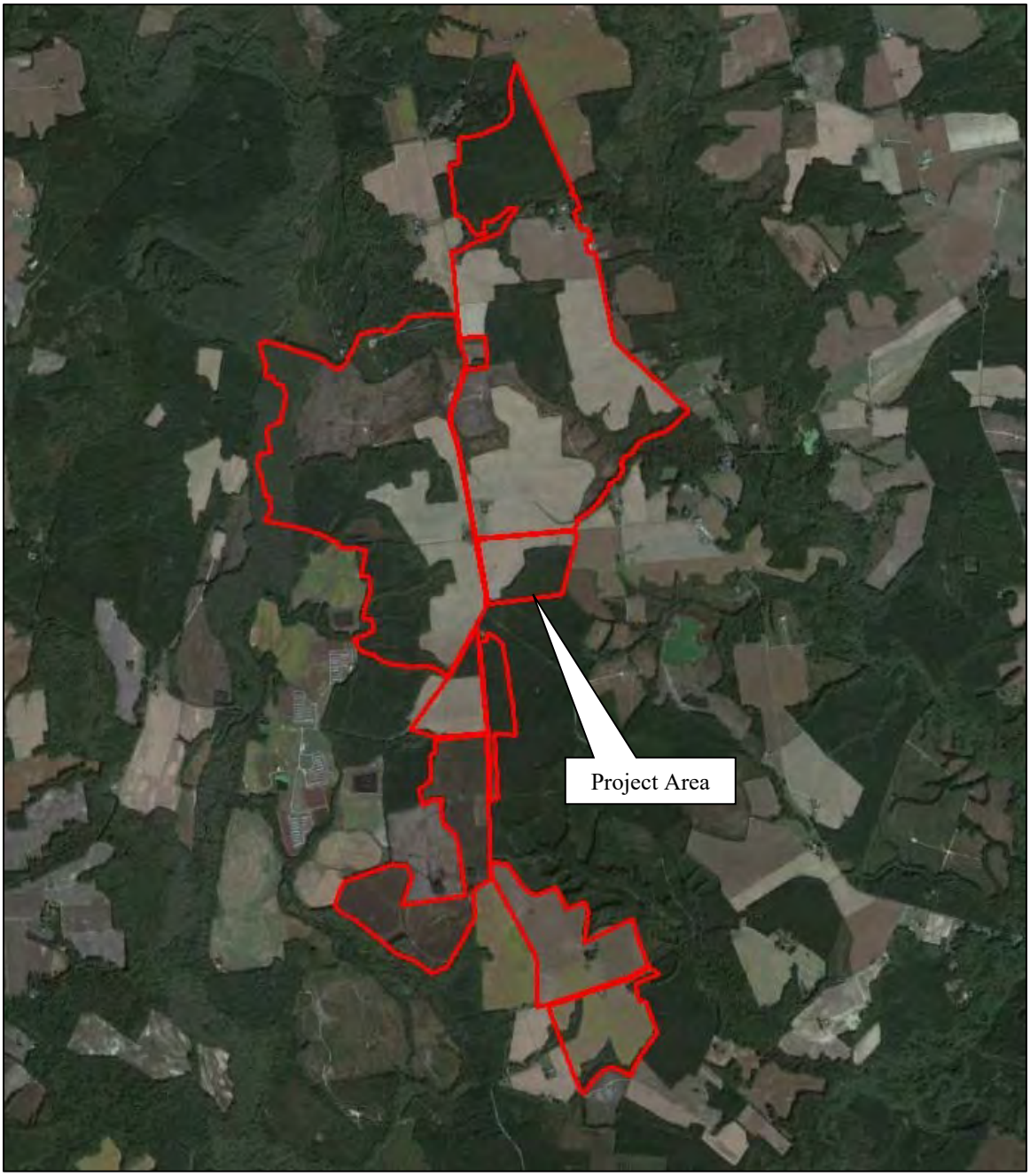


**Figure 6-14: A 2021 aerial depicting the project area. Source: Google Earth**

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# 7. EXPECTED RESULTS

Prior to initiation of fieldwork, D+A submitted a Phase IA cultural resources assessment and testing plan to VDHR for approval. The results of that assessment and testing strategy are presented below.

Analysis of historic maps and aerial photographs from the mid-nineteenth to early-twentieth century reveal a well-established network of roads and a number of dwellings scattered across the project area during that period. Previous cultural resource survey has recorded a number of buildings from that period, although many have since been demolished and the project area is now sparsely developed. Just seven building/building complexes remain extant within the study area, although they range from good condition and occupied to ruinous and abandoned. Several additional homes and building complexes are within or bordering the overall study area limits but are in carve-out parcels excluded from development. Buildings/complexes within the project area include two ruinous early-nineteenth century dwellings, three late-nineteenth century dwellings, a vacant early-twentieth century dwelling, and a mid-twentieth century dwelling. Field inspection revealed evidence of two additional map projected buildings that remain only as sites.

The project area is bordered by Blackwater River and Mill Swamp and crossed by numerous swamps, drainages, and pocosins. These natural resources would have been attractive to prehistoric hunters and gatherers, but the terrain within the project area was not likely to have supported large, permanent settlements. The primary prehistoric resources that are likely to be present are small, temporary procurement camps located above the wetlands, however, no such sites have been previously recorded within the project area limits.

Although the project area contains a number of site-predictive factors, such as the natural resources, a historic road network, and mapped buildings, land use throughout the twentieth and twenty-first centuries has negatively impacted the stratigraphic integrity of the soils. Much of the project area has been used to produce timber for an extended period of time and multiple harvests resulting in multiple episodes of clearcutting, planting, and regrowth. Most of the regrowth has been in the form of trees planted in steeply-banked rows interspersed with deep furrows, and in most cases the topsoil and eluviated layers have been destroyed or displaced. Areas not put to use for timber have been used agriculturally and therefore subject to regular plow and tilling.

Based on the above observations, the locations of the map-projected buildings that were field verified as well as previously recorded architectural resources should be considered high potential for historic sites. Together, these account for an area covering about **34 hectares (85 acres)** total. The map-projected locations of buildings that were not visible through surface reconnaissance but reveal evidence of prior disturbance from logging should be considered moderate potential for historic sites. Landforms bordering Blackwater River should likewise be considered moderate potential for prehistoric sites, in addition to open, well-drained fields that have not been previously disturbed by logging. Together, the moderate potential area covers an area of about **365 hectares (901 acres)** total. A 25% sample of the moderate potential areas should be subjected to targeted subsurface testing. This sample should include the least disturbed landforms that correspond to or share similar characteristics as the locations of buildings depicted on historic maps. The remainder

of the project area that does not lie in wetland should be considered low potential for archaeological resources. A sample constituting 10% of the low-potential area should be subjected to subsurface testing. This 10% should include the least-disturbed terraces overlooking wetlands and intersections of streams to test for prehistoric resources; along the edges of roads and fields depicted on Civil War-era maps to test for early historic sites; and any other areas that appear to be less disturbed in the field. The total low probability area is about **170 hectares (421 acres).** A large tract of land at the northern end of the project area has been subject to recent, approved phase I survey and that area will not require further investigation as part of this effort (Table 7-1 and Figure 7-1 and Figure 7-2).

**Table 7-1: Summary of archaeological potential within the project area.**

| Potential | Reason | STP Sample | Total Area | STP Area |
|---|---|---|---|---|
| **High** | Yard space around extant and map-projected architectural resources | 100% | 34 hectares<br>85 acres | 34 hectares<br>85 acres |
| **Moderate** | Yard space around map-projected architectural resources in areas of documented disturbance. Finger ridges and terraces overlooking Blackwater River and confluences. | 25%, chosen based on field conditions, pedestrian survey of remainder | 365 hectares<br>901 acres | 91 hectares<br>225 acres |
| **Low** | Areas with no site predictors | 10%, chosen based on field conditions, pedestrian survey of remainder | 170 hectares<br>421 acres | 17 hectares<br>42 acres |
| **No Subsurface Testing** | Wetlands, water-saturated soils, slopes greater than 15%, previously surveyed areas | Pedestrian survey where possible | 248 hectares<br>613 acres | Pedestrian survey where possible |
| **Total** | | | **817.46 hectares<br>2,020 acres** | **142 hectares<br>352 acres** |

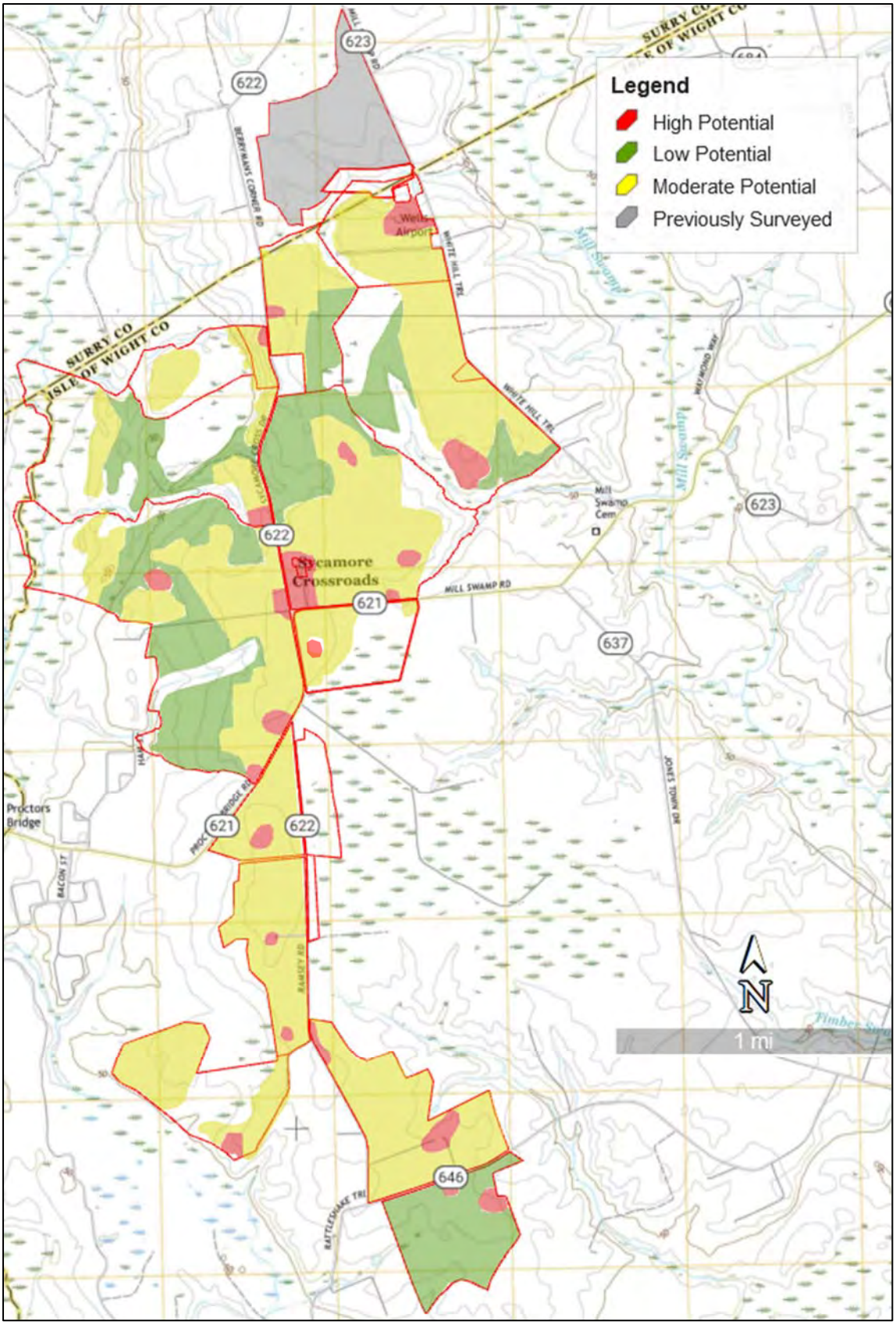



**Figure 7-1: USGS topographic map with project area showing areas of archaeological potential.**

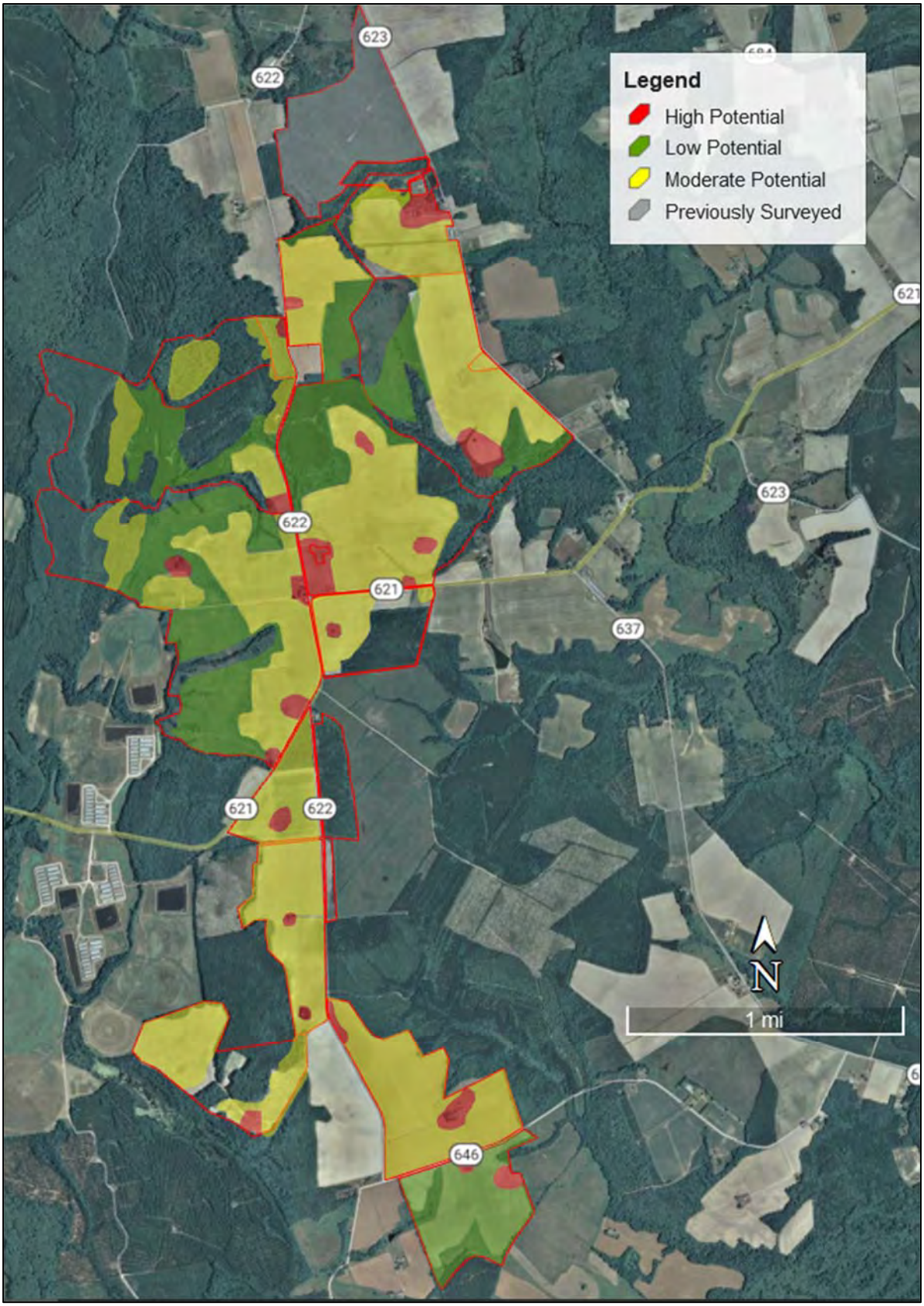



**Figure 7-2: Aerial map with project area showing areas of archaeological potential.**

# 8. FIELD SURVEY RESULTS

Phase I cultural resource survey of the Sycamore Cross Solar project area was conducted from December 2023 through April 2024. The effort included both architectural and archaeological investigations according to the survey methodology outlined in the research design and Phase IA. The results of the survey are summarized below.

### ARCHITECTURAL FIELD RESULTS

The architectural resources survey for the Sycamore Cross Solar Project resulted in the identification and recordation of forty-four (44) architectural resources greater than 50 years of age (constructed in 1974 or earlier) located within the one-half mile architectural survey area. Of the surveyed resources, twenty-five (25) were previously recorded (VDHR# VDHR# 046-0029, 046-0030, 046-0032, 046-0055, 046-0068, 046-5147/5152, 046-5260, 046-5550/5552, 087-5509, 090-5163/5168, and 090-5174) and nineteen (19) were newly recorded during this Phase I Survey (VDHR# 046-5804/5817 and 090-5208/5212). Ten (10) of the previously recorded sites were recently surveyed and determined not eligible for listing in the NRHP by the VDHR within the last five years, and therefore not subject to re-survey as part of this effort (VDHR# 046-5550/5552, 090-5163/5168, and 090-5174) and another previously recorded resource was relocated outside of the survey area and therefore also not subject to re-survey at this time (VDHR# 087-5509). Survey at this time also found that an additional five (5) previously recorded resources have been demolished since they were last updated (VDHR# 046-0029, 046-0030, 046-0032, 046-0055, and 046-5260). VCRIS site file forms were prepared or updated for each resource subject to survey as part of this effort.

The 28 extant resources within the survey area and surveyed as part of this effort consist primarily of domestic buildings and farmsteads from the early-nineteenth to mid-twentieth century. Also surveyed were several twentieth century commercial buildings, a former late-nineteenth century post office, a nineteenth century small family cemetery, and a mid-twentieth century church.

The survey area occupies a large rural area of southern Surry and western Isle of Wight counties, situated roughly eight miles east of Wakefield. There are no incorporated or unincorporated communities within or in the immediate vicinity of the survey area, however, it is centered on the former crossroads community of Sycamore Cross. It is crossed or bordered by several local transportation corridors including Sycamore Cross Road and White Hill Trail that extend generally north-south through the survey area, and Mill Swamp Road and Proctors Bridge Road that extend generally east-west. The landscape of the survey area is characterized by mostly flat to gently rolling terrain that is a mix of open field and woodland bisected by low wetlands, swamps, and creeks. Most of the open and cleared areas are put under agricultural use while the woodlands are a mix of wild growth and planted timber.

Development patterns in the area are diverse, with older homes and farmsteads generally set back from the road on large properties while more recent, twentieth century homes tend to be set in clusters on small lots bordering the roads.

The earliest resources in the survey area are believed to date from the first and second quarters of the nineteenth century, although many of these were found to have been demolished since they were last documented. Four early-nineteenth century homes have been completed demolished and cleared from their sites, while two resources believed to both date circa 1825 remain in ruinous condition with only the brick exterior walls standing. Another four Antebellum homes, dating from c.1830, two c.1850, and 1852 all remain extant and occupied. These homes tend to be Vernacular in nature although one exhibits fairly high-style Federal to Greek Revival transitional architectural influences. There are also several resources that date from the late-nineteenth century, including two homes and a former post office. The homes reflect Folk Victorian influences popular at that time, while the post office reflects a stripped Vernacular example of a rural crossroads building. The vast majority of resources from the twentieth century, including the homes and commercial buildings reflect national trends in building styles of their period including Colonial Revival/Cape Cod, Minimal Traditional, and Ranch.

Of the surveyed resources, four (4) are considered potentially eligible for listing in the NRHP. This includes two Antebellum homes that represent the earliest extant development within the survey area and an important reflection of the architectural evolution of rural Isle of Wight County during that period. The other two resources are a late-nineteenth century post office and associated dwelling that remain as an example of a historically significant aspect of the crossroads community of Sycamore Cross at the turn-of-the-twentieth century. The rest of the surveyed properties generally do not appear to reflect any unique or significant design or historical associations, and as such, are recommended to be not eligible for listing in the NRHP individually or collectively.

Provided in the following pages are a table of all surveyed resources (Table 8-1), a map with the location of each resource surveyed (Figure 8-1), and descriptive narratives and photographs of each of the identified historic resources. Resource narratives include a physical description, discussion of history, integrity, and NRHP-eligibility. For those resources considered NRHP-eligible, an assessment of project impacts is also provided.

**Table 8-1: Architectural resources surveyed. Bold Font denotes resource is NRHP-Eligible. Orange Highlighted resources are located directly within the project area. Green highlight indicates resource was determined not NRHP-eligible within the last five years and not resurveyed at this time.**

| VDHR ID# | Resource Name/Address | Year Built | NRHP Eligibility |
|---|---|---|---|
| 046-0029 | House, 12462 Ramsey Road | c.1800 | D+A: Demolished |
| 046-0030 | Betts House, Proctors Bridge Road | c.1802 | D+A: Demolished |
| 046-0032 | Dudley House and Outbuildings, Ramsey Road | c.1820 | D+A: Demolished |
| 046-0055 | Tenant House, Proctors Bridge Road | c.1800 | D+A: Demolished |
| 046-0056 | Grays' Brick House, Proctors Bridge Road | c.1825 | D+A: Not Eligible (Ruins) |
| 046-0057 | Brick House, Mill Swamp Road | c.1825 | D+A: Not Eligible (Ruins) |
| **046-0068** | **Wilson Hollemon House, 5499 Mill Swamp Road** | **1830** | **D+A: Potentially Eligible** |
| 046-5147 | House, 14385 Rattlesnake Trail | 1850 | D+A: Not Eligible |
| 046-5148 | House, 13407 Ramsey Road | 1880 | D+A: Not Eligible |
| **046-5149** | **Sycamore Cross Post Office, Mill Swamp Road** | **1899** | **D+A: Potentially Eligible** |
| **046-5150** | **House, 11356 Sycamore Cross Drive** | **c.1899** | **D+A: Potentially Eligible** |

| VDHR ID# | Resource Name/Address | Year Built | NRHP Eligibility |
|---|---|---|---|
| 046-5151 | Mill Swamp Baptist Church & Cemetery; Church, 6329 Mill Swamp Road | 1928 | D+A: Not Eligible |
| 046-5152 | Store, 6159 Mill Swamp Road | 1946 | D+A: Not Eligible |
| 046-5260 | Mill Swamp Baptist Church Parsonage | c.1900 | D+A: Demolished |
| 046-5550 | Dwelling, 10126 White Hill Trail | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 046-5551 | Dwelling, 10106 White Hill Trail | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 046-5552 | Dwelling, 10088 White Hill Trail | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 046-5804 | House, 10325 White Hill Trail | 1953 | D+A: Not Eligible |
| 046-5805 | House, 10261 White Hill Trail | 1972 | D+A: Not Eligible |
| 046-5806 | House, 6262 Mill Swamp Road | 1955 | D+A: Not Eligible |
| 046-5807 | Industrial Complex, 11321 Jones Town Drive | 1959 | D+A: Not Eligible |
| 046-5808 | House, 6177 Mill Swamp Road | 1968 | D+A: Not Eligible |
| 046-5809 | Commercial Building, 6143 Mill Swamp Road | c.1970 | D+A: Not Eligible |
| 046-5810 | House, 5498 Mill Swamp Road | 1899 | D+A: Not Eligible |
| **046-5811** | **Betts Farm, 5191 Mill Swamp Road** | **1850** | **D+A: Potentially Eligible** |
| 046-5812 | House, 14195 Rattlesnake Trail | 1950 | D+A: Not Eligible |
| 046-5813 | Commercial Building, 14472 Rattlesnake Trail | c.1950 | D+A: Not Eligible |
| 046-5814 | House, 11235 White Hill Trail | c.1950 | D+A: Not Eligible |
| 046-5815 | House, 13484 Ramsey Road | 1970 | D+A: Not Eligible |
| 046-5816 | House, 12085 Ramsey Road | 1971 | D+A: Not Eligible |
| 046-5817 | Hollemon Cemetery | Pre-1900 | D+A: Not Eligible |
| 087-5509 | Captain Pretlow House, 4071 Proctor's Bridge Road | 1760 | VDHR- Relocated (1988) / D+A: Now outside of survey area |
| 090-5163 | Dwelling, 337 Berrymans Corner Road | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5164 | Dwelling, 3285 Berrymans Corner Road | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5165 | Simmons and Brown Cemetery | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5166 | House, 1122 Berrymans Corner Road | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5167 | House, 1097 Berrymans Corner Road | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5168 | House, 10676 Berrymans Corner Road | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5174 | House, Berrymans Corner Road | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5208 | House, 1314 Berrymans Corner Road | c.1960 | D+A: Not Eligible |
| 090-5209 | House, 1209 Berrymans Corner Road | c.1970 | D+A: Not Eligible |
| 090-5210 | House, 1167 Berrymans Corner Road | c.1970 | D+A: Not Eligible |
| 090-5211 | House, 1141 Berrymans Corner Road | c.1970 | D+A: Not Eligible |
| 090-5212 | House, Berrymans Corner Road | c.1910 | D+A: Not Eligible |

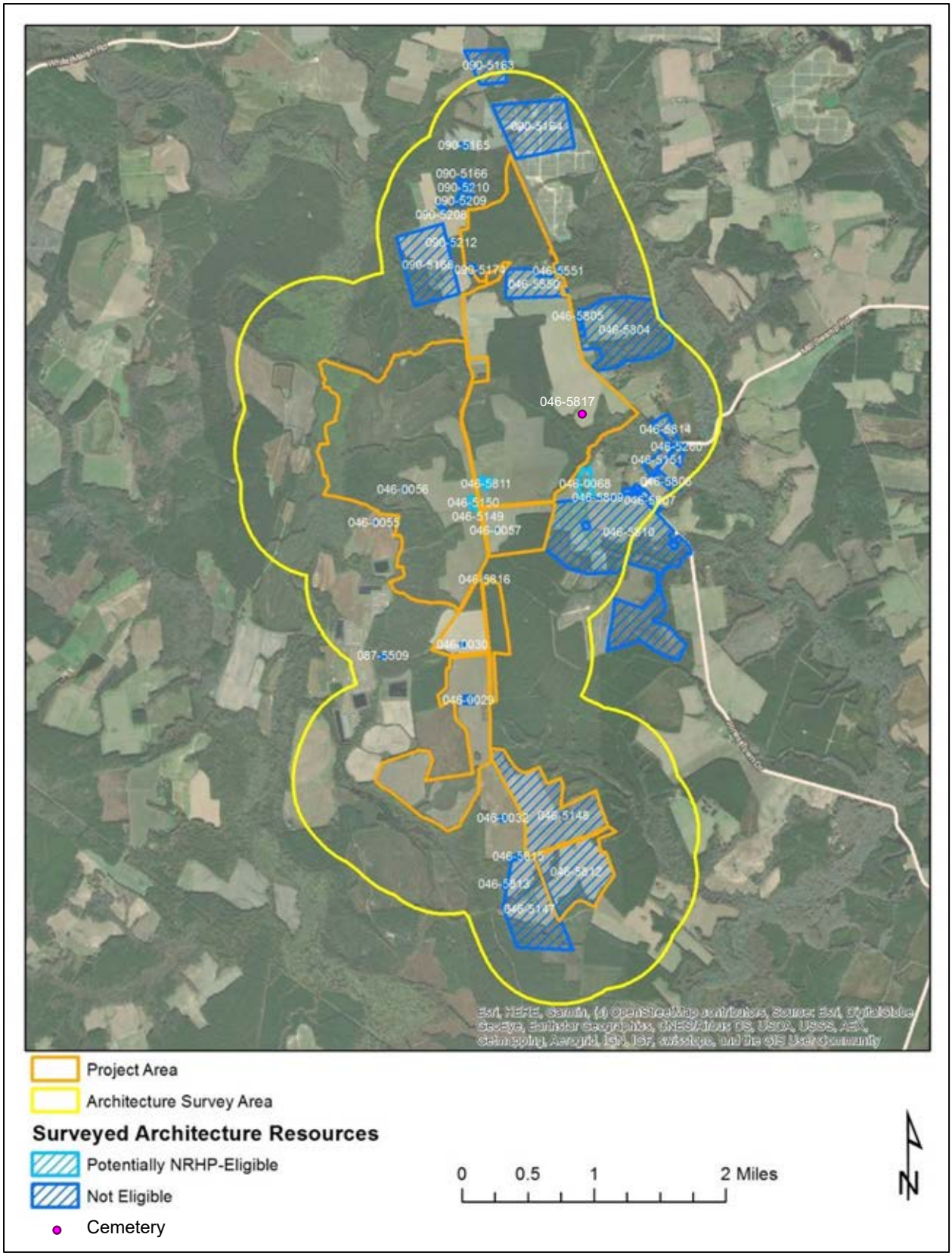



**Figure 8-1: Location of surveyed architectural resources in relation to the project area.**

# RESOURCE NARRATIVES

**VDHR# 046-0029**
**House, 12462 Ramsey Road**

The house at 12462 Ramsey Road was constructed circa 1800 according to a previous survey. According to a previous survey, this structure was a one-and-a-half-story wood frame structure featuring a hall-parlor plan, beaded weatherboard siding, and brick exterior end chimneys laid in an American bond. This structure was not observed at the time of survey and a review of historic aerial imagery reveals that this structure has been demolished and removed from the site.

The site of the demolished resource is located on the west side of Ramsey Road between Proctors Bridge Road and Rattlesnake Trail. The landscape in the general vicinity of the site is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. The former homesite is located at the center of a large agricultural field and is accessed by a long, gravel driveway. The only structure remaining on the property is a dilapidated shed.

As the primary resource is no longer extant, this property is considered ***not eligible*** for listing in the NRHP.

**VDHR# 046-0030**
**Betts House, Proctors Bridge Road**

Betts House, located off of Proctors Bridge Road, was constructed circa 1802 according to a previous survey. According to a previous survey, this house was a one-story wood frame structure with a gable roof and two brick exterior end chimneys. This structure was not observed at the time of survey and inspection of historic aerial imagery indicates that it has been demolished and cleared from the site.

The site of the demolished resource is located on the southeast side of Proctors Bridge Road just south of its intersection with Ramsey Road. The landscape in the general vicinity of the site is gently rolling and characterized by a mix of wooded areas and agricultural fields with relatively light development. The house was previously mapped at the center of what is now a wide, open agricultural field. No outbuildings or other associated resources remain on the property.

As the primary resource is no longer extant, this property is considered ***not eligible*** for listing in the NRHP.

**VDHR# 046-0032**
**Dudley House and Outbuildings, Ramsey Road**

Dudley House, located off of Ramsey Road, was constructed circa 1820 according to a previous study. According to a previous survey, this building was a one-and-a-half-story wood frame structure featuring a hall-parlor plan, dormers on the front slope of its gable roof, and brick exterior end chimneys laid in an American bond. The house was not observed at the time of survey and inspection of historic aerial imagery reveals that the structure has been demolished and cleared from the site.

The site of the demolished resource is located on the west side of Ramsey Road between Proctors Bridge Road and Rattlesnake Trail. The landscape in the general vicinity of the site is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. The former homesite is located at the center of a large agricultural field, however no structures remain on the property.

As the primary resource is no longer extant, this property is considered ***not eligible*** for listing in the NRHP.

**VDHR# 046-0055**
**Tenant House, Proctors Bridge Road**

The tenant dwelling off of Proctors Bridge Road was constructed circa 1800 according to a previous survey. According to a previous survey, this building was a one-story wood frame structure with a hall-parlor plan, a metal-sheathed gable roof, and brick exterior end chimneys. The site was not accessible at the time of survey, however a review of historic aerial imagery suggests that the structure has been demolished and removed from the site.

The site of the demolished resource is located on the north side of Proctors Bridge Road between Old Blackwater Road and the end of Mill Swamp Road. The landscape in the general vicinity of the site is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. The former homesite is located at the center of a large agricultural field, however no structures appear to remain on the property.

As the primary resource is no longer extant, this property is considered ***not eligible*** for listing in the NRHP.

**VDHR# 046-0056**
**Grays' Brick House, Proctors Bridge Road**

The Grays' Brick House ruins, located off of Proctors Bridge Road, was constructed circa 1825 according to a previous survey. Although the home likely exhibited stylistic influences and features, any such detail is no longer extant in its current ruinous condition. All that remains of the structure are the walls of the primary block. The two-and-a-half-story masonry structure is constructed of brick laid in a 5:1 American bond and rests on a continuous foundation of the same construction. Scarring in the exterior brick indicates that it had been topped by a gable roof with a one-story gabled wing on one side, however neither of these features remain. A large, brick chimney laid in a 3:1 American bond is located on one side of the structure. Multiple door and window openings are present on the structure, however none contain their former occupants. On the interior of the structure, remnants of scratch coat plaster remain on the walls in some places.

This property is located on the west side of Proctors Bridge Road near its intersection with Mill Swamp Road. The landscape in the general vicinity of the property is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. The ruins is set far from the road within a densely forested area with no formal access points leading to the structure. No associated structures or other extant resources were observed on the property, however, a variety of evidence on the surrounding landscape is suggestive of archaeological features.

This property represents the remains of an early nineteenth century single dwelling in the region, that now remains in a ruinous condition. As all that remains of the building are the brick exterior walls and all other structural materials and features are gone, the ruins lack historical integrity and are therefore considered ***not eligible*** for listing in the NRHP as an architectural resource, however, warrants further archaeological investigation (recorded as Site 44IW0407).

**VDHR# 046-0057**
**Brick House, Mill Swamp Road**

The brick house ruins off of Mill Swamp Road was constructed circa 1825 according to a previous survey. Although the home likely exhibited stylistic influences and features, any such detail is no longer extant in its current ruinous condition. The two-story structure is constructed of brick laid in a 3:1 American bond and rests on a raised English Basement brick foundation of the same construction. It appears that it was once topped by a gable roof, however the roof is not intact. A large, brick chimney is located on the east side of the ruins, with hearths present on both the first and second floors in the interior of the building. The elevations appear symmetrical, with evenly spaced window openings, however none of the windows remain intact.

The ruins are located on a large, rural lot on the southeast corner of Mill Swamp Road and Proctors Bridge Road. The property is located in the small crossroads community of Sycamore Cross within an otherwise lightly developed area characterized by gently rolling topography and a mix of wooded areas and agricultural fields. The ruins are set far back from the road within a large, open agricultural field and is immediately surrounded by overgrown vegetation in on an otherwise sparsely vegetated lot. There are no formal access points or associated structures on the property.

This property represents the remains of an early nineteenth century single dwelling in the region, that now remains in a ruinous condition. As all that remains of the building are the brick exterior walls and all other structural materials and features are gone, the ruins lack historical integrity and are therefore considered ***not eligible*** for listing in the NRHP as an architectural resource, however, warrants further archaeological investigation (recorded as Site 44IW0424).

**VDHR# 046-0068**
**Wilson Hollemon House, 5499 Mill Swamp Road**

The Wilson Hollemon House, located at 5499 Mill Swamp Road, was constructed in 1830 according to local land records. It remains in good condition and exhibits Georgian style influences. The two-story, five-bay, L-shaped masonry structure is constructed of brick laid in a 3:1 American bond and rests on a continuous foundation of the same construction. It is topped by a half-hipped gable roof sheathed in asphalt shingles and embellished with dentils lining its molded cornice. Three chimneys flank the roof – one on each gable end – and are laid in a 3:1 American bond with corbelled bases. Fenestration on the structure consists of two-over-two double-hung windows set in wood frames with wide, flared lintels. The primary entrance is centered on the symmetrical front (south) elevation and consists of a single door with a transom featuring elliptical filagree. Sheltering part of the façade is a one-story, three-bay porch supported by fluted Ionic columns and pilasters. A central, one-bay balcony rests on the flat roof of the first story porch, being a later addition constructed in 1917. This balcony is sheltered by a pedimented gable roof with the same supports as the first story porch and is enclosed by a wood balustrade with turned balusters.

This property is located on the north side of Mill Swamp Road between Proctors Bridge Road and the end of Jones Town Drive with the crossroads community of Sycamore Crossroads. The landscape in the general vicinity of the property is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields. Set back approximately 250 feet from the road, the house rests on a gently sloping grass lawn and is accessed by a long, gravel driveway. Vegetation surrounding the house includes rows of mature shade trees and some planted shrubs along the edges of the house, along with a garden in the backyard. Several domestic and agricultural outbuildings are clustered behind the house as well as a cemetery.

The Wilson Hollemon House was constructed in 1830 according to previous documentation and functioned as both the Holleman family home and the Mayfield Post Office. Mayfield was one of the earliest post offices in Isle of Wight County and was later replaced by the nearby Sycamore Crossroads Post Office. Wilson Hollemon was both the original owner of the home and the first postmaster at Mayfield (Kind 1993:328-330). The post office was discontinued circa 1886, however the house has been passed down through the generations of the Holleman family and presently remains owned by the family. Additionally, the house represents a remarkably well-preserved example of an early Georgian-style home predating the Civil War in Isle of Wight County, as it has undergone little alteration since its original construction. For its association with Wilson Hollemon and the Mayfield Post Office, as well as its standing as a significant example of historic architecture in Isle of Wight County, this resource will be considered ***potentially eligible for listing in the NRHP*** under Criteria A and C for the purposes of this effort.

As a potentially NRHP-eligible resource within the survey area, an assessment of potential impacts brought about by the project is necessary. Because the property is located outside of the project area and not within the limits of any proposed sitework, this assessment was focused on indirect (visual) impacts. To assess impacts, inspection was performed and photographs taken from representative vantage points within and bordering the property to document existing setting, visibility, and lines of sight.

The Wilson Hollemon House is set on a rural lot on the north side Mill Swamp Road to the east of the project area. Although the rear edge of the property is adjacent to the project limits, the home is set closer to the front of the property and is roughly 515 feet from the project area limits at the nearest point with proposed improvements setback an additional 130 feet. The landscape between the property and the project area is characterized by open agricultural field with a treeline bordering a draw that runs along the edge of the project area.

Inspection from Mill Swamp Road along the front of the property revealed that the treeline extending between it and the project area generally screens views of the portion of the project area on the north side of the road. The treeline is a mix of deciduous trees and low evergreen shrubs, and at generally 250 feet wide, it is anticipated that it would provide screening year-round. The treeline stops short of the road, however, and therefore there is a narrow "window" in which the front edge of the project area along the road is visible, however, project improvements will be setback from the road by a minimum of 100 feet and as such would be mostly screened. While a large, wooded area screens views of the majority of the portion of the project area on the south side of the road, a narrow strip of the development area set between the road and the wooded area is visible.

As such, the project as currently designed has the potential to introduce a change to the viewshed and setting of the property. While the vast majority of the project and associated improvements are anticipated to be screened from view by existing vegetation patterns coupled with project setbacks, there are discrete areas where project components may be visible from the public road along the front of the property, as well as from within the property and in the vicinity of the house. To minimize the potential from views within these areas, supplemental landscape buffer will be planted within the 100-foot project setback. With the proposed setbacks and supplemental landscape buffer, it is D+A's recommendation that the project will be mostly screened from view

from the house and public vantage along the road to the front, and therefore result in no more than a ***minimal impact*** to the Wilson Hollemon House per VDHR's impact characterization.

Figure 8-2 illustrates the location of the Wilson Hollemon House in relation to the project area, along with array layout, setback, and proposed landscape buffer; as well as the location and direction of representative photographs. Figure 8-3 provides a detail pf the proposed supplemental landscape plan and plant list. Figure 8-4 through Figure 8-7 provide representative photographs of and from the resource towards the project area.

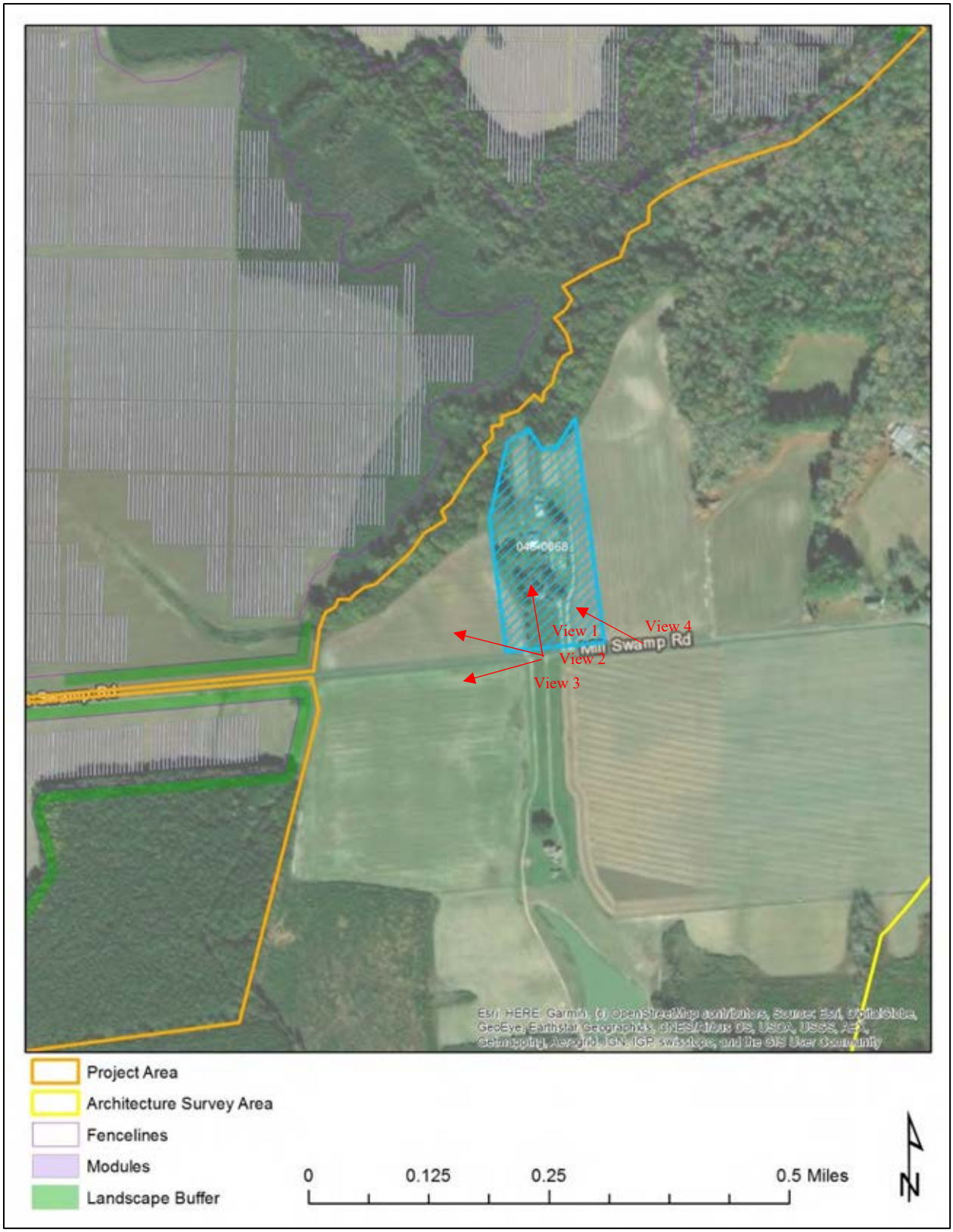
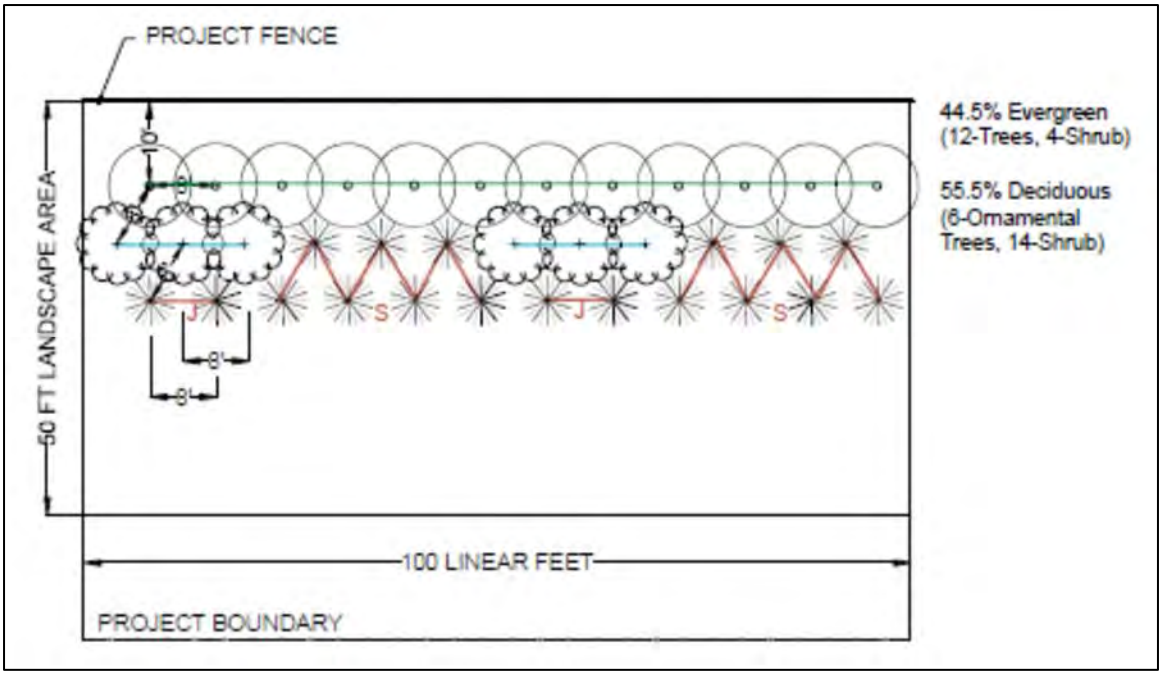



**Figure 8-2: Wilson Hollemon House in relation to the project area with locations and directions of representative photographs.**




| CONCEPT PLANT LIST | | | | |
|---|---|---|---|---|
| Botanical Name | Common Name | Height at Planting | Mature height | Mature Spread |
| EVERGREEN | | | | |
| Ilex X 'Conap' oakleaf | Red Holly/ Oakleaf Holly | 6 FT | 15 FT | 9 FT |
| Ilex X mary nell | Mary Nell Holly | 6 FT | 20 FT | 10 FT |
| Juniperus virginiana 'Brodie' | Eastern Red Cedar | 6 FT | 15 FT | 6 FT |
| Myrica cerifera | Southern Wax Myrtle | 6 FT | 15 FT | 20 FT |
| Thuja Occidentalis 'techny' | Eastern Arborvitae | 6 FT | 15 FT | 10 FT |
| ORNAMENTAL | | | | |
| Amelanchier canadensis | Shadblow serviceberry | 6 FT | 25 FT | 15 FT |
| Chionanthus virginicus | Fringetree | 6 FT | 20 FT | 20 FT |
| Magnolia Virginiana | Sweetbay Magnolia | 6 FT | 20 FT | 20 FT |
| SHRUB | | | | |
| Juniperus communis var. depressa | Juniper | 1.5 FT | 4 FT | 10 FT |
| Lindera benzion | Spicebush | 1.5 FT | 10 FT | 10 FT |

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SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

**Figure 8-3: Supplemental landscape planting schematic and plant list. Source: AES Clean Energy**

**Figure 8-4: View 1 – View from Mill Swamp Road in front of the Wilson Hollemon House looking towards the project area, facing north. (project area not visible – screened by treeline)**

**Figure 8-5: View 2 - View from Mill Swamp Road in front of the Wilson Hollemon House looking towards the project area, facing northwest. (project area mostly screened by treeline; small area visible)**

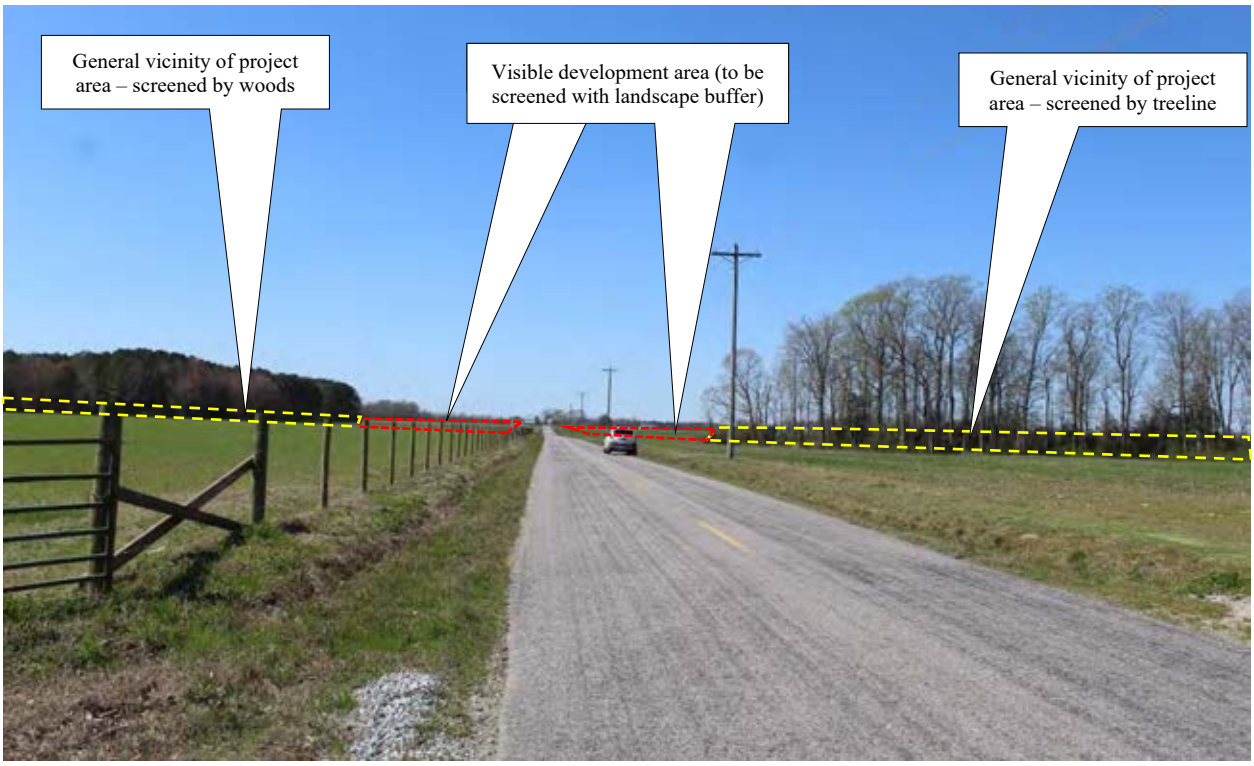



**Figure 8-6: View 3 - View from Mill Swamp Road in front of the Wilson Hollemon House looking towards the project area, facing west. (project area mostly screened with exception of portions near the road that are visible)**

**Figure 8-7: View 4 - View from Mill Swamp Road east of the Wilson Hollemon House looking towards the project area, facing northwest. (project area not visible – screened by treeline)**

**VDHR# 046-5147**
**House, 14385 Rattlesnake Trail**

The house at 14385 Rattlesnake Trail was constructed in 1850 according to local land records. It remains in fair condition and exhibits a Vernacular style. The wood frame structure is comprised of a two-and-a-half-story, three-bay main block with a two-story, two-bay wing on its east side. Both blocks are sheathed in asbestos siding and topped by a gable roof sheathed in standing seam metal. The roof of the primary block is pierced by a brick interior end chimney on its west side and embellished with gable returns. Fenestration on the structure includes four-over-four double-hung sash windows on the main block and six-over-six double-hung sash windows on the west wing. The primary entrance is located on the left side of the front (north) elevation on the main block and consists of a set of double-leaf doors flanked by sidelights. Sheltering the entrance is a one-story, one-bay entry porch with a shed roof supported by metal posts.

This property is located on the southeast side of Rattlesnake Trail adjacent to its intersection with Ramsey Road. The landscape within and around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The house is set far back from the road at the center of a large agricultural field and is accessed by a long, gravel driveway that extends from the road to the south side of the lot. Vegetation surrounding the house includes several mature shade trees as well as rows of boxwoods along the edges of the structure. Parts of the lot are divided by wood and wire fencing, ponds, and thickets of trees. Several domestic and agricultural outbuildings are scattered in the fields to the north, south, and east of the house.

This property is an example of a typical mid-nineteenth century rural home in the region. This building reflects a Vernacular style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and has been subject to a variety of additions and alterations. Reconnaissance-level research revealed no

known significant historical associations and therefore the property is considered ***not eligible*** for listing in the NRHP.

**VDHR# 046-5148**
**House, 13407 Ramsey Road**

The house at 13407 Ramsey Road was constructed in 1880 according to local land records. It remains in poor condition and exhibits Colonial Revival style influences as applied to an I-house form. The two-story, three-bay wood frame structure rests on a continuous brick foundation laid in an American bond and is topped by side gable roof sheathed in asphalt shingles. The roof is pierced by two brick interior central chimneys at its ridge and is embellished with pedimented gable ends. A two-story rear ell topped by a gable roof is attached to the east side of the structure and features a third brick interior central chimney. Piercing the weatherboard siding are six-over-six double-hung sash windows. The primary entrance is centered on the symmetrical front (west) elevation, consisting of a single door with a transom and sidelights. Sheltering the entrance is a two-story, one-bay porch featuring a pedimented gable, square Doric columns, and wood balustrades. A door on the second story of the house leads to the second story balcony.

This property is located on the northeast corner of Ramsey Road and Rattlesnake Trail. The landscape within and around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields. The house is set far back from the road at the center of a wide, open agricultural field. The homesite is surrounded by a wood fence with brick entry posts and vegetated with several mature shade trees and a substantial amount of overgrown shrubbery. The property is accessed by two long, gravel driveways – one that extends from Ramsey Road to the front of the house and one that extends from Rattlesnake Trail to the outbuildings behind the house. Outbuildings on the property include a barn and a vehicle shed located behind the house.

This property is an example of a typical late nineteenth century single dwelling in the region. This building reflects a Colonial Revival style as applied to a Vernacular I-house form. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. Additionally, the structure remains in poor condition and appears to have been vacant for an extended period. Therefore, the resource is considered ***not eligible*** for listing in the NRHP..

**VDHR# 046-5149**
**Sycamore Cross Post Office, Mill Swamp Road**

The Sycamore Cross Post Office, located off of Mill Swamp Road, was constructed in 1899 according to a previous survey. It remains in fair condition and exhibits a vernacular style typical of contemporary rural commercial buildings in southeastern Virginia. The two-story wood frame structure rests on a brick pier foundation and is clad in weatherboard siding. It is topped by a gable roof sheathed in standing seam metal and embellished with gable returns. Extending from the east and west sides of the structure are two one-story, shed-roofed wings. Fenestration on the structure includes six-over-six double-hung sash windows, however few remain on the structure. The primary entrance consists of a single door centered on the symmetrical front (north) elevation and approached by a small, wood stoop.

The Sycamore Cross Post Office is located on the west side of Mill Swamp Road adjacent to its intersection with Proctors Bridge Road. The property is located in the small crossroads community of Sycamore Cross within an otherwise lightly developed area characterized by gently rolling topography and a mix of wooded areas and agricultural fields. The building is set close to the road on a flat, sparsely vegetated grass lawn with a short, chain fence extending along the road. The property is accessed by two short, gravel driveways off of Mill Swamp Road. The only outbuilding on the property is a shed located just south of the post office.

The Sycamore Cross Post Office opened in 1886 as McClelland's Post Office and operated until 1917 with William Henry (Harry) McClelland serving as its first postmaster. Harry McClelland operated the post office out of a store he ran in the yard of the neighboring home, known as the Guy Betts House. The post office was discontinued in 1917 and the mail rerouted to Ivor (King 1993:331). This resource represents a well-preserved example of an early post office in Isle of Wight County and warrants further investigation to determine the extent of its significance within the local community. As such, this property is considered ***potentially eligible for listing in the NRHP***.

As a potentially NRHP-eligible resource within the survey area, an assessment of potential impacts brought about by the project is necessary. Because the property is located directly within the project area, this assessment considered both direct and indirect impacts. To assess impacts, inspection was performed and photographs taken from representative vantage points within and bordering the property to document existing setting, visibility, and lines of sight.

The Sycamore Cross Post Office is situated on a small roadside lot on the west side of Sycamore Cross Road, just across from the intersection with Mill Swamp Road. The entire property is located within the project lease area, however, it is situated within a proposed exclusion area. As such, solar arrays, infrastructure, and other improvements will be made around the resource boundary, although the building and its associated property will be excluded from the development footprint. Therefore, there will be no direct impact to the resource.

As solar arrays will be spread through the area adjoining and bordering the resource, the project also has the potential for indirect, visual impacts to the resource. Project improvements are proposed within the landscape bordering the property to the west, as well as across Sycamore Cross Road on both sides of Mill Swamp Road. In all areas, the fenceline and solar arrays will be setback a minimum of 75 feet from the roads with larger setbacks in some areas. With these setbacks, the project fenceline will be roughly 150 feet from the post office building at the nearest point.

Inspection from the vicinity of the property revealed that the project area and development areas are generally openly visible across open field in all directions. With setbacks and exclusion areas the several other historic buildings that remain within the Sycamore Crossroads community, including the c.1852 dwelling associated with the post office immediately to the north, the c.1850 Betts Farm house, and the c.1825 Brick House ruins will all remain visible from the post office, however, would be seen amongst and bordered by solar arrays. To minimize visibility of the project, supplemental landscape buffers will be planted along portions of the road frontage in the vicinity of the property, as well as within the setback area between the project fenceline and the building complex.

As such, the project as currently proposed would result in a change to the viewshed and setting of and from the property as a result of the introduction of visible solar arrays, however, the visible extent of the project would be reduced through supplemental landscape buffer. Therefore, it is D+A's opinion that because the building and property will be excluded the project will have no direct impact on the resource, but as it will be visible in some directions, the Sycamore Cross Solar Project has the potential to result in a ***moderate impact*** overall to the Sycamore Cross Post Office per VDHR's impact characterization.

Figure 8-8 illustrates the location of the Sycamore Cross Post Office in relation to the project area, along with array layout, setback, and proposed landscape buffer; as well as the location and direction of representative photographs. Figure 8-9 provides a detail pf the proposed supplemental landscape plan and plant list. Figure 8-10 through Figure 8-13 provide representative photographs of and from the resource towards the project area.

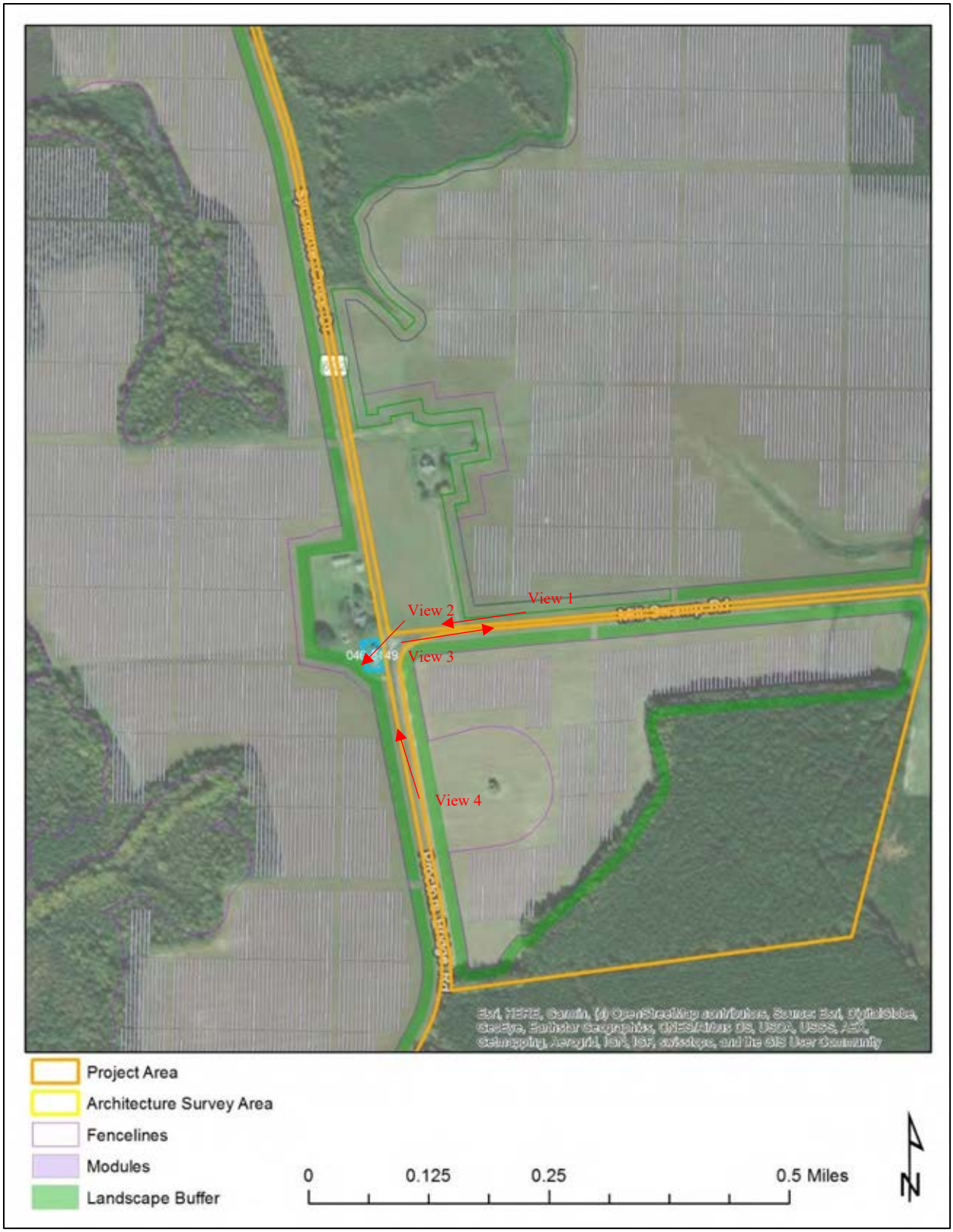
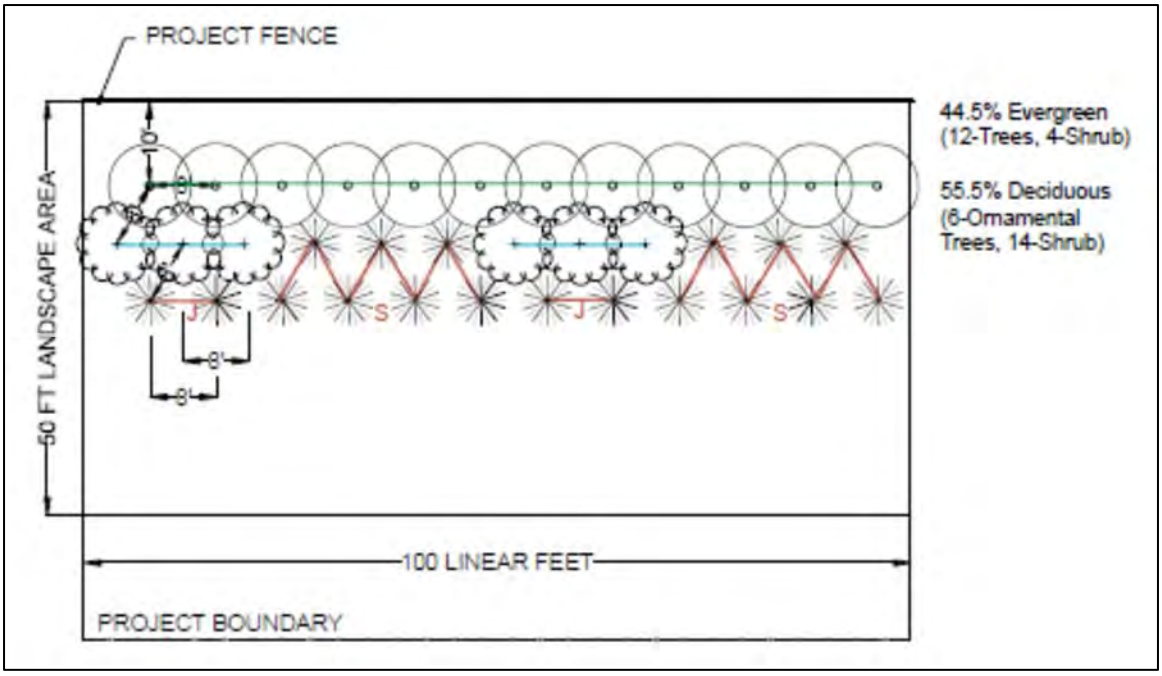



**Figure 8-8: Sycamore Cross Post Office in relation to the project area with locations and directions of representative photographs.**




| CONCEPT PLANT LIST | | | | |
|---|---|---|---|---|
| Botanical Name | Common Name | Height at Planting | Mature height | Mature Spread |
| EVERGREEN | | | | |
| Ilex X 'Conap' oakleaf | Red Holly/ Oakleaf Holly | 6 FT | 15 FT | 9 FT |
| Ilex X mary nell | Mary Nell Holly | 6 FT | 20 FT | 10 FT |
| Juniperus virginiana 'Brodie' | Eastern Red Cedar | 6 FT | 15 FT | 6 FT |
| Myrica cerifera | Southern Wax Myrtle | 6 FT | 15 FT | 20 FT |
| Thuja Occidentalis 'techny' | Eastern Arborvitae | 6 FT | 15 FT | 10 FT |
| ORNAMENTAL | | | | |
| Amelanchier canadensis | Shadblow serviceberry | 6 FT | 25 FT | 15 FT |
| Chionanthus virginicus | Fringetree | 6 FT | 20 FT | 20 FT |
| Magnolia Virginiana | Sweetbay Magnolia | 6 FT | 20 FT | 20 FT |
| SHRUB | | | | |
| Juniperus communis var. depressa | Juniper | 1.5 FT | 4 FT | 10 FT |
| Lindera benzion | Spicebush | 1.5 FT | 10 FT | 10 FT |

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SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

**Figure 8-9: Supplemental landscape planting schematic and plant list. Source: AES Clean Energy**

**Figure 8-10: View 1 – View of Sycamore Cross Post Office from Mill Swamp Road, facing west. (Development area visible along road in foreground and beyond property)**

**Figure 8-11: View 2 - View of Sycamore Cross Post Office from intersection of Sycamore Cross and Mill Swamp Roads, facing southwest. (Development area visible in field beyond property)**

**Figure 8-12: View 3 - View from Sycamore Cross Post Office, facing east. (Development area visible along both sides of Mill Swamp Road)**

**Figure 8-13: View 4 - View of Sycamore Cross Post Office from Sycamore Cross Road, facing north. (Development area visible along both sides of road)**

**VDHR# 046-5150**
**House, 11356 Sycamore Cross Drive**

The house at 11356 Sycamore Cross Drive was likely constructed circa 1899, contemporary to the adjacent Sycamore Cross Post Office with which it was historically associated. It remains in good condition and exhibits Folk Victorian style influences. The two-story, L-shaped building is comprised of a three-bay I-house front block topped by a side gable roof with a rear ell topped by a cross gable. The wood frame structure rests on a continuous foundation and is clad in vinyl siding. The roof is sheathed in asphalt shingles and pierced by a brick interior central chimney and two brick interior end chimneys, as well as a small, central cross gable on its front slope. Fenestration on the structure includes single and paired two-over-two double-hung sash windows. The primary entrance is centered on the symmetrical front (south) elevation and consists of a single door topped by a transom. Sheltering the entrance is a one-story hipped porch that wraps around the east side of the house and is supported by Doric columns.

This house is located on a large, rural lot on the west side of Sycamore Cross Drive adjacent to its intersection with Mill Swamp Road. The property is located in the small crossroads community of Sycamore Cross within an otherwise lightly developed area characterized by gently rolling topography and a mix of wooded areas and agricultural fields. Set back roughly 60 feet from the road, the house rests on a flat grass lawn enclosed by a wood fence and vegetated with several mature shade trees and clusters of planted boxwoods. The property is accessed by a short, gravel driveway that extends from the road to a detached garage. Outbuildings on the property include the garage, a gazebo, a shed, and several agricultural outbuildings.

This property represents an example of a well-preserved rural home featuring a Folk Victorian style. Although the original owner of the property is unknown, historical writings refer to the home as the “Guy Betts House” and thus likely belonged to the Betts family, whose name appears on mid-nineteenth century maps within and in the general vicinity of the project area. Additionally, it appears that this property was historically associated with a neighboring property that functioned

as an early store and post office servicing the Sycamore Crossroads community. As such, this property warrants further study to determine the extent of its significance and is therefore considered ***potentially eligible for listing in the NRHP*** for the purposes of this effort.

As a potentially NRHP-eligible resource within the survey area, an assessment of potential impacts brought about by the project is necessary. Because the property is located directly within the project area, this assessment considered both direct and indirect impacts. To assess impacts, inspection was performed and photographs taken from representative vantage points within and bordering the property to document existing setting, visibility, and lines of sight.

The house is situated on a small roadside lot on the west side of Sycamore Cross Road, just across from the intersection with Mill Swamp Road. The entire property is located within the project lease area, however, it is situated within a proposed exclusion area. As such, solar arrays, infrastructure, and other improvements will be made around the resource boundary, although the building and its associated property will be excluded from the development footprint. Therefore, there will be no direct impact to the resource.

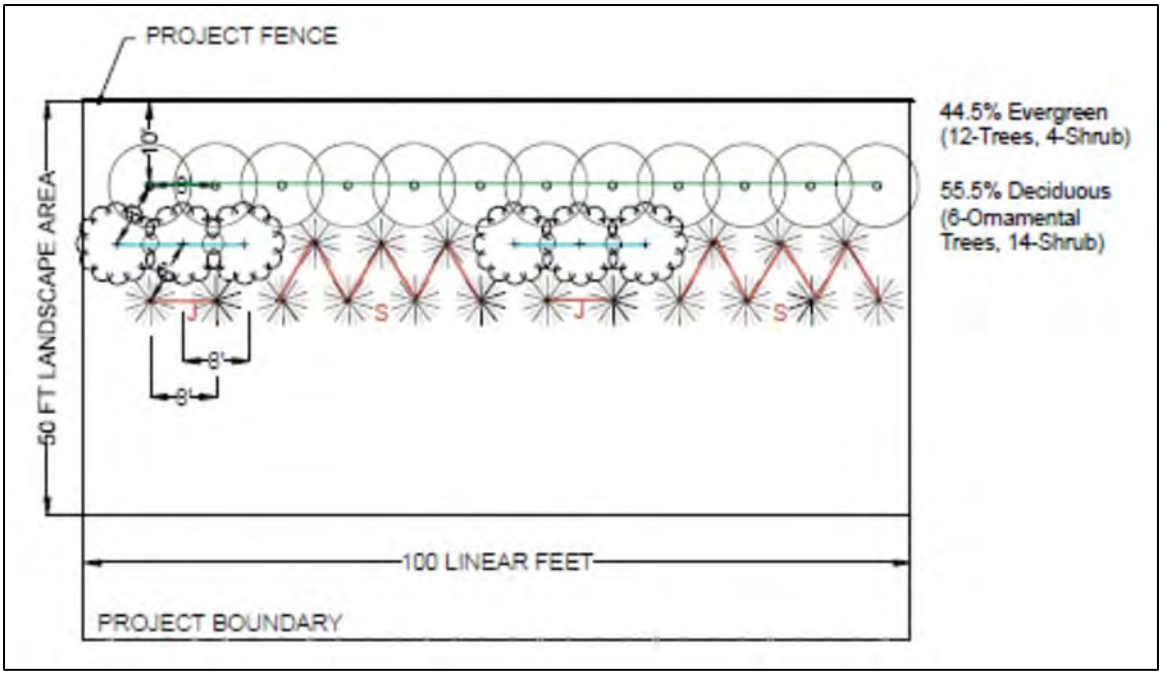
As solar arrays will be spread through the area adjoining and bordering the resource, the project also has the potential for indirect, visual impacts to the resource. Project improvements are proposed within the landscape bordering the property to the west, as well as across Sycamore Cross Road on both sides of Mill Swamp Road. In all areas, the fenceline and solar arrays will be setback a minimum of 75 feet from the roads with larger setbacks in some areas. With these setbacks, the project fenceline will be roughly 275 feet from the house at the nearest point.

Inspection from the vicinity of the property revealed that the project area and development areas are generally openly visible across open field in all directions. With setbacks and exclusion areas the several other historic buildings that remain within the Sycamore Crossroads community, including the c.1899 Sycamore Cross Post Office immediately to the south, the c.1850 Betts Farm house, and the c.1825 Brick House ruins will all remain visible from the Guy Betts House, however, would be seen amongst and bordered by solar arrays. To minimize visibility of the project, supplemental landscape buffers will be planted along portions of the road frontage in the vicinity of the property, as well as within the setback area between the project fenceline and the building complex.

As such, the project as currently proposed would result in a change to the viewshed and setting of and from the property as a result of the introduction of visible solar arrays, however, the visible extent of the project would be reduced through supplemental landscape buffer. Therefore, it is D+A's opinion that because the building and property will be excluded the project will have no direct impact on the resource, but as it will be visible in some directions, the Sycamore Cross Solar Project has the potential to result in a ***moderate impact*** overall to the house at 11356 Sycamore Cross Drive per VDHR's impact characterization.

Figure 8-14 illustrates the location of the house in relation to the project area, along with array layout, setback, and proposed landscape buffer; as well as the location and direction of representative photographs. Figure 8-15 provides a detail pf the proposed supplemental landscape plan and plant list. Figure 8-16 through Figure 8-21 provide representative photographs of and from the resource towards the project area.

**Figure 8-14: House at 11356 Sycamore Cross Drive in relation to the project area with locations and directions of representative photographs.**




| CONCEPT PLANT LIST | | | | |
|---|---|---|---|---|
| Botanical Name | Common Name | Height at Planting | Mature height | Mature Spread |
| EVERGREEN | | | | |
| Ilex X 'Conap' oakleaf | Red Holly/ Oakleaf Holly | 6 FT | 15 FT | 9 FT |
| Ilex X mary nell | Mary Nell Holly | 6 FT | 20 FT | 10 FT |
| Juniperus virginiana 'Brodie' | Eastern Red Cedar | 6 FT | 15 FT | 6 FT |
| Myrica cerifera | Southern Wax Myrtle | 6 FT | 15 FT | 20 FT |
| Thuja Occidentalis 'techny' | Eastern Arborvitae | 6 FT | 15 FT | 10 FT |
| ORNAMENTAL | | | | |
| Amelanchier canadensis | Shadblow serviceberry | 6 FT | 25 FT | 15 FT |
| Chionanthus virginicus | Fringetree | 6 FT | 20 FT | 20 FT |
| Magnolia Virginiana | Sweetbay Magnolia | 6 FT | 20 FT | 20 FT |
| SHRUB | | | | |
| Juniperus communis var. depressa | Juniper | 1.5 FT | 4 FT | 10 FT |
| Lindera benzion | Spicebush | 1.5 FT | 10 FT | 10 FT |

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SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

**Figure 8-15: Supplemental landscape planting schematic and plant list. Source: AES Clean Energy**

**Figure 8-16: View 1 – View of House at 11356 Sycamore Cross Drive from Mill Swamp Road, facing west. (Development area visible along road in foreground and beyond property)**

**Figure 8-17: View 2 - View of House at 11356 Sycamore Cross Drive from intersection of Sycamore Cross and Mill Swamp Roads, facing northwest. (Development area visible in field beyond property)**

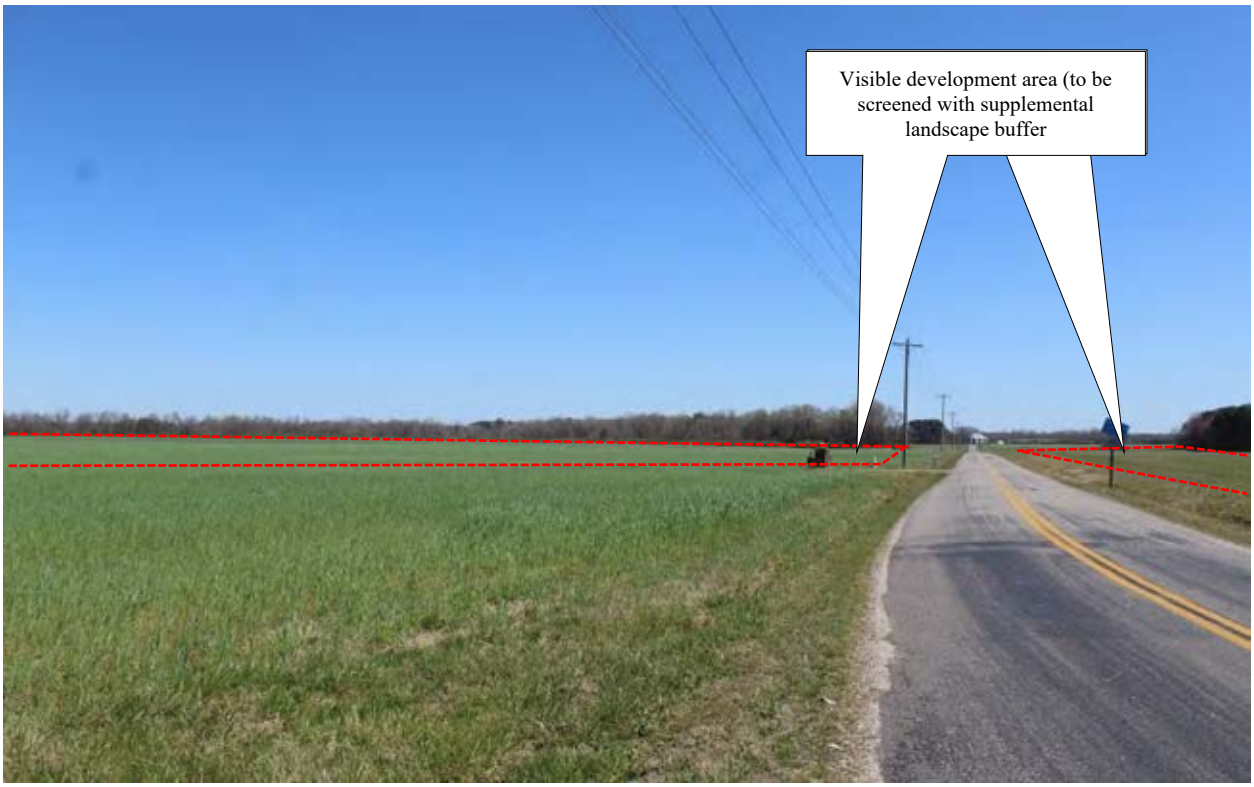



**Figure 8-18: View 3 - View from House at 11356 Sycamore Cross Drive, facing east. (Development area visible along both sides of Mill Swamp Road)**

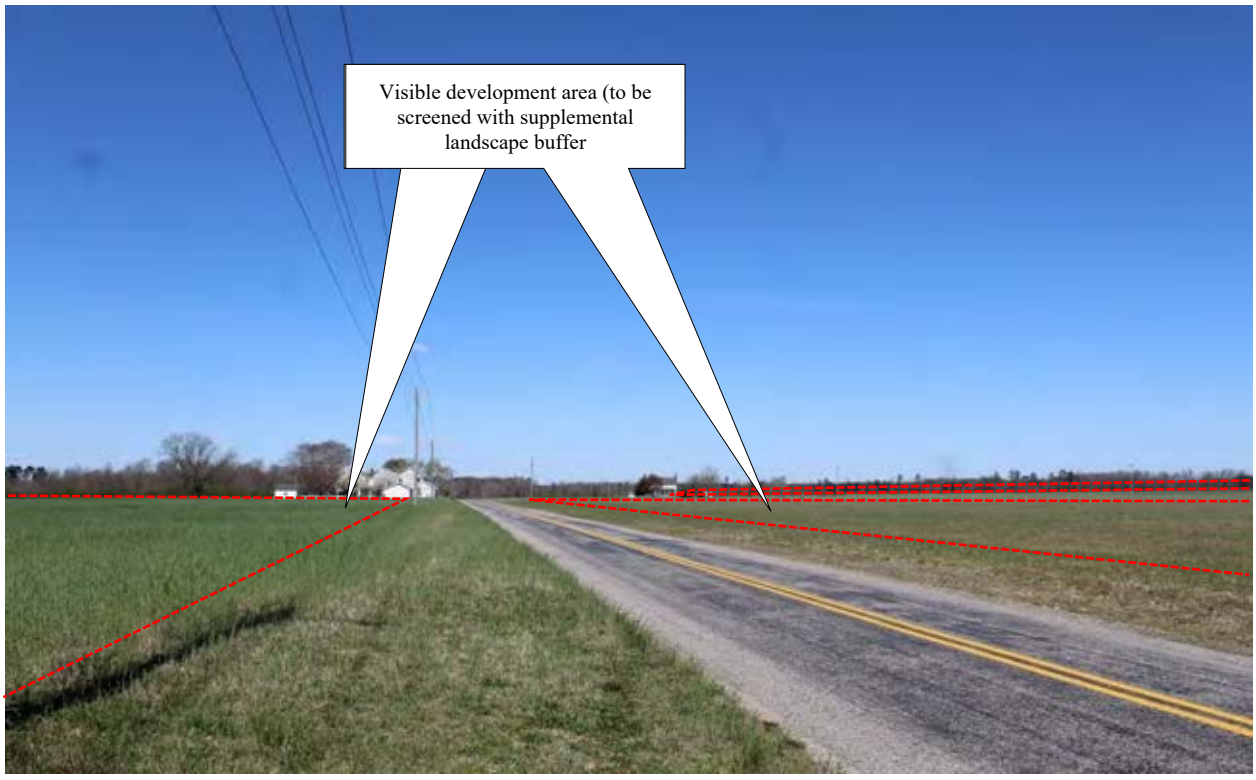



**Figure 8-19: View 4 - View towards House at 11356 Sycamore Cross Drive from Sycamore Cross Road, facing north. (Development area visible along both sides of road)**

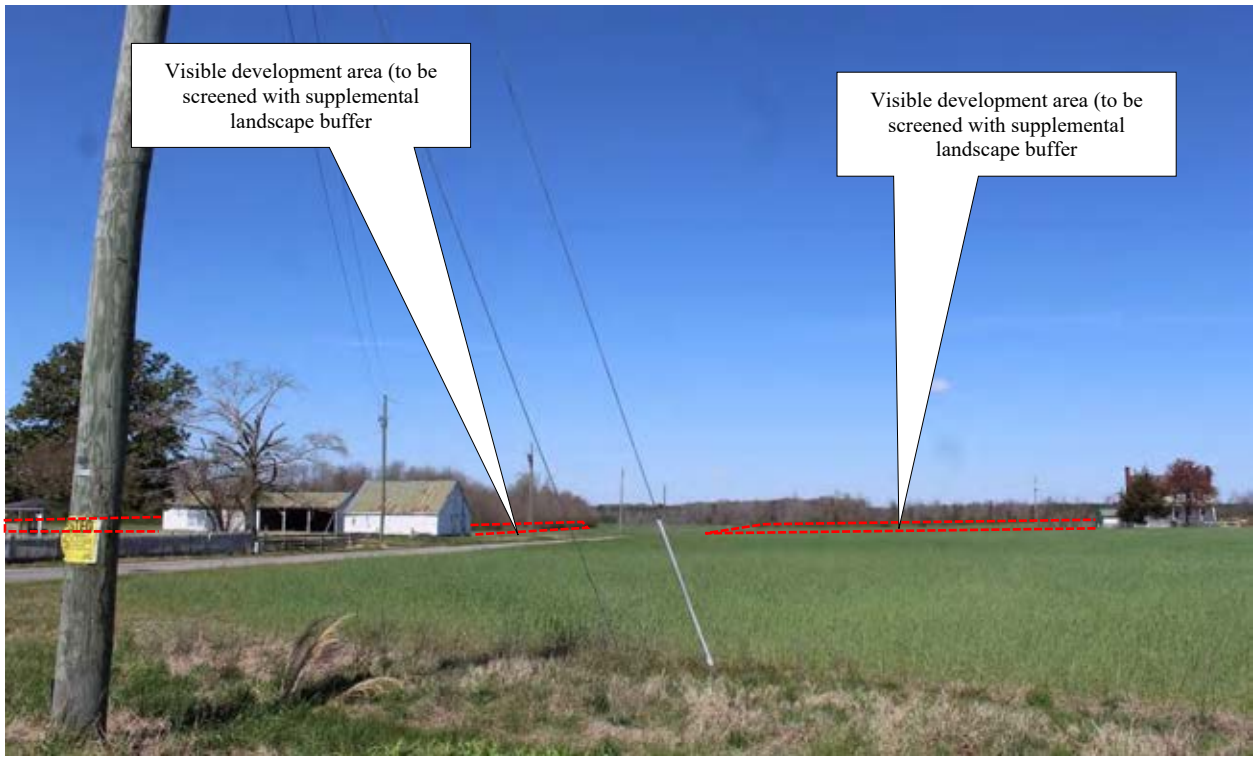



**Figure 8-20: View 5 - View from Mill Swamp Road near the House at 11356 Sycamore Cross Drive, facing northwest. (Development area visible along both sides of Sycamore Cross Road)**

**Figure 8-21: View 6 - View of the House at 11356 Sycamore Cross Drive property from Sycamore Cross Road, facing south. (Development area visible in field bordering the property)**

**VDHR# 046-5151**
**Mill Swamp Baptist Church & Cemetery, 6329 Mill Swamp Road**

Mill Swamp Baptist Church, located at 6329 Mill Swamp Road, was constructed in 1928 according to a previous survey. It remains in good condition and exhibits Colonial Revival style influences. The structure is comprised of a one-story main block topped by a front gable roof with a one-story, T-shaped rear addition topped by a metal-sheathed cross gable roof. The front block rests on a continuous concrete foundation and is clad in a brick veneer. Its roof is sheathed in asphalt shingles and embellished with modillions lining its pedimented gable. Piercing the roof of the primary block is a tall steeple near the front of the structure. Fenestration on the structure includes large stained glass windows on the main block and one-over-one double-hung sash windows on the rear addition. Three entrances are located on the front (south) elevation of the main block, each consisting of a pair of double-leaf, partially-glazed doors topped with a multi-light transom. Sheltering these entrances is a three-bay portico with a pedimented gable supported by fluted Doric columns and approached by a wide set of concrete steps.

This church is located on a rural property on the northwest corner of Mill Swamp Road and White Hill Trail. Around the property, the landscape is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The church is set close to the road at the top of a slight knoll and is surrounded by a large, paved parking lot accessed via driveways off of both Mill Swamp Road and White Hill Trail. Vegetation on the property is limited to sparse landscaping around the church and several mature trees shading the cemetery. To the north and west of the property is a densely forested area. There are no associated structures remaining on the property, however a large cemetery associated with the church is located to its southwest.

This property is an example of a typical early twentieth century church in the region. This building reflects a Colonial Revival style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-

level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5152**
**Store, 6159 Jones Town Road**

The store at 6159 Jones Town Road was constructed in 1946 according to local land records. It remains in poor condition and exhibits a Vernacular style. The one-story, three-bay wood frame structure rests on a continuous concrete block foundation and is clad in vinyl siding. It is topped by a hipped roof sheathed in standing seam metal and pierced by a concrete block interior end chimney. The roof extends past the front elevation creating a porch on the front of the structure supported by wood posts resting on concrete piers. Fenestration on the structure includes one-over-two double-hung sash windows. The primary entrance consists of a single door centered on the symmetrical front (south) elevation.

This structure is located on the northwest side of Mill Swamp Road adjacent to its intersection with Jones Town Drive in a rural portion of Isle of Wight County. The landscape around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The structure is set close to the road and is surrounded by overgrown trees and scrub brush that partially obscures it from view. No outbuildings were observed on the property.

This property is an example of a typical mid-twentieth century rural commercial building in the region. This building reflects a Vernacular style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The

building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5260**
**Mill Swamp Baptist Church Parsonage, 6330 Mill Swamp Road**

The house at 6330 Mill Swamp Road was constructed circa 1900 and historically functioned as the parsonage of the adjacent Mill Swamp Baptist Church according to a previous survey. This structure was previously recorded as a two-story wood frame structure with weatherboard siding and a side gable roof flanked by brick exterior end chimneys. A site visit, coupled with inspection of historic aerial imagery, reveals that this structure has been demolished and removed from the site.

The site of the demolished resource is located on the southeast side of Mill Swamp Road adjacent to its intersection with White Hill Trail. The landscape around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The only remaining structures on the property are a concrete block wellhouse and a garage.

As the primary resource is no longer extant, this resource is considered ***not eligible*** for listing in the NRHP.

**VDHR# 046-5804**
**House, 10325 White Hill Trail**

The house at 10325 White Hill Trail was constructed in 1953 according to local land records. It remains in poor condition and exhibits a Craftsman style. The one-and-a-half-story wood frame structure rests on a continuous foundation clad in a brick veneer and topped by a side gable roof sheathed in asphalt shingles. Piercing the roof is a brick interior central chimney at its ridge as well as a large, gabled dormer on its front slope. The structure is clad in vinyl siding and features six-over-six double-hung sash windows. A one-story screened-in porch supported by square wood posts resting on brick piers spans the full width of the front (west) elevation.

This house is located on a large, rural lot on the east side of White Hill Trail northwest of its intersection with Mill Swamp Road. Around the property, the landscape is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The house is set far back roughly 110 feet from the road on a flat grass lawn vegetated with overgrown trees and scrub brush that partially obscures the structure from view. There are no remaining formal access points on the property. The only outbuilding on the property is a small, dilapidated shed set behind the house.

This property is an example of a typical mid-twentieth century single dwelling in the region. This building reflects a Craftsman style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5805**
**House, 10261 White Hill Trail**

The house at 10261 White Hill Trail was constructed in 1972 according to local land records. It remains in good condition and exhibits a Ranch style. The one-story masonry structure rests on a continuous foundation and is clad in a brick veneer. It is topped by a hipped roof sheathed in asphalt shingles and pierced by a brick interior slope chimney. Fenestration on the structure includes single and paired two-over-two double-hung sash windows as well as a picture window to the left of the entrance. The primary entrance consists of a single door on the front (west) elevation sheltered by the slightly overhanging eaves of the roof and approached by a small brick stoop. The eaves of the roof extend beyond the southwest corner of the structure creating an attached carport.

This house is located on the east side of White Hill Trail northwest of its intersection with Mill Swamp Road. Around the property, the landscape is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. Set close to the road, the house rests on a grass lawn vegetated with several mature evergreen trees and scattered boxwoods. The property is accessed by a paved driveway that extends from the road to the attached carport. The only outbuilding on the property is a small, prefabricated shed located just off the southeast corner of the house.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects a Ranch style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5806**
**House, 6262 Mill Swamp Road**

The house at 6262 Mill Swamp Road was constructed in 1955 according to local land records. It remains in good condition and exhibits a Ranch style. The one-story masonry structure is clad in a brick veneer and topped by a hipped roof sheathed in asphalt shingles. Piercing the roof are two brick interior central chimneys and a single brick interior end chimney at the rear of the structure. Fenestration on the structure includes single and paired six-over-six double-hung sash windows as well as a large picture window to the left of the front entrance. The primary entrance consists of a single door slightly recessed beneath the eaves of the roof on the front (northwest) elevation.

This house is located on the southeast side of Mill Swamp Road just south of its intersection with White Hill Trail. The landscape around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The house is set far back from the road on a grass lawn surrounded by a wood fence. Vegetation on the property includes a variety of shade trees as well as rows of boxwoods along the edges of the house. The property is accessed by a long, unpaved driveway that extends past the side of the house to the detached garage. Outbuildings on the property include the garage as well as a shed located behind the house.

This property is an example of a typical mid-twentieth century single dwelling in the region. This building reflects a Ranch style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5807**
**Industrial Complex, 11321 Jones Town Drive**

The industrial complex at 11321 Jones Town Drive was constructed in 1959 according to local land records. It remains in fair condition and exhibits no discernable style. This complex is comprised of a tall granary surrounded by several large grain silos and a large, adjacent metal barn. Each component of the complex is a metal frame structure clad in metal siding with a metal-sheathed roof. The barn is topped by a gable roof and the silos are topped by conical roofs.

This complex is located on the southeast corner of Jones Town Drive and Mill Swamp Road. Around the property, the landscape is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. The complex is set close to the road at the edge of an open agricultural field and accessed by a short, gravel driveway. Other structures on the property include an office building and a large vehicle shed.

This property is an example of a typical mid-twentieth century commercial granary within a rural setting in the region. The structures reflect no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The structure is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5808**
**House, 6177 Mill Swamp Road**

The house at 6177 Mill Swamp Road was constructed in 1968 according to local land records. It remains in poor condition and exhibits no discernable style. The one-story wood frame structure rests on a continuous concrete block foundation and is clad in asbestos siding. It is topped by a side gable roof sheathed in asphalt shingles and pierced by a concrete block interior chimney on its front slope. Fenestration on the structure includes one-over-one double-hung sash windows as well as a large, fixed window to the left of the front entrance. The primary entrance consists of a single door on the front (southeast) elevation approached by a small concrete stoop.

This house is located on the northwest side of Mill Swamp Road adjacent to its intersection with Jones Town Drive in a rural portion of Isle of Wight County. The landscape around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. Set back roughly 50 feet from the road, the house rests at the top of a berm extending along the road and is surrounded by overgrown trees and shrubbery. Outbuildings on the property include three sheds, a wellhouse, and a vehicle shed.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5809**
**Commercial Building, 6143 Mill Swamp Road**

The commercial building at 6143 Mill Swamp Road remains in fair condition and exhibits no discernable style. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this building was constructed circa 1970. The one-story. L-shaped concrete block structure rests on a continuous concrete block foundation and is topped by a cross gable roof with overhanging eaves and exposed rafters. The roof is sheathed in asphalt shingles and pierced by a brick interior central chimney. Fenestration on the structure includes one-over-one and six-over-six double-hung sash windows. Other bays on the structure include wide loading docks and a single pedestrian entrance on its south elevation.

This structure is located on the northwest side of Mill Swamp Road adjacent to its intersection with Jones Town Drive in a rural portion of Isle of Wight County. The landscape around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. Set close to the road, the building rests on a flat, sparsely vegetated grass lawn. No associated structures or other resources were observed on the property.

This property is an example of a typical late twentieth century commercial building in the region. This building reflects no discernable style with little architectural distinction, and based upon its form, likely functioned as an automotive shop. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5810**
**House, 5498 Mill Swamp Road**

The house at 5498 Mill Swamp Road was constructed in 1899 according to local land records. It remains in good condition and exhibits Folk Victorian style influences as applied to an expanded I-house form. The wood frame structure is comprised of a two-and-a-half-story, five-bay front block topped by a side gable roof with a two-story rear ell and a one-and-a-half-story wing on its east elevation. The entire structure is clad in vinyl siding and both roofs are sheathed in asphalt shingles. Piercing the roof are two brick interior central chimneys and one brick interior end chimney, as well as a small cross gable centered on the front slope of the front roof. Fenestration on the structure includes single and paired two-over-one double-hung sash windows. The primary entrance is centered on the symmetrical front (north) elevation and consists of a single door with sidelights and a transom. Sheltering the entrance is a one-story, full-width hipped porch supported by Doric columns.

This house is set on a large, rural lot on the south side of Mill Swamp Road between Proctors Bridge Road and Jones Town Drive. The property is located in the small crossroads community of Sycamore Cross within an otherwise lightly developed area characterized by gently rolling topography and a mix of wooded areas and agricultural fields. Set far back from the road, the homesite is located at the center of an expansive agricultural field on a grass lawn vegetated only with sparse scattered shrubbery and a single mature shade tree. The property is enclosed by a wire fence extending along Mill Swamp Road and Jones Town Drive and is accessed via a long, gravel driveway that extends from the road directly to the house. Outbuildings on the property include a garage and two sheds set directly behind the house and a barn set along the east edge of the lot.

This property is an example of a typical late nineteenth century commercial building in the region. This building reflects a Folk Victorian style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and

reconnaissance-level research revealed no known significant historical associations. Additionally, any historically significant architectural features have been obscured by modern alteration. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5811**
**Betts Farm, 5191 Mill Swamp Road**

The house at 5191 Mill Swamp Road, known locally as the Betts Farm, was constructed in 1850 according to local land records. It remains in fair condition and exhibits a Federal style as applied to an expanded I-house form. The T-shaped building is comprised of a two-and-a-half-story, five-bay front block topped by a side gable roof with a two-story rear ell and one-story wing attached to the ell, both topped by gable roofs. The wood frame structure rests on a continuous brick foundation and is clad in weatherboard siding. The roofs are sheathed in asphalt shingles and embellished with modillions, gable returns, and cornice skirts. A brick interior end chimney pierces the roof of the rear ell, while two brick exterior end chimneys featuring brick corbelling flank the side of the front block. Fenestration on the structure includes nine-over-nine double-hung sash windows on the first story and six-over-nine double-hung sash windows on the second story. The primary entrance is centered on the symmetrical front (south) elevation and consists of a single door with sidelights and a transom. Sheltering the entrance is a one-story, full-width hipped porch supported by Doric columns and accessed by a small set of concrete steps.

This house is located on a rural lot on the northeast corner of Mill Swamp Road and Proctors Bridge Road. The property is located in the small crossroads community of Sycamore Cross within an otherwise lightly developed area characterized by gently rolling topography and a mix of wooded areas and agricultural fields. The homesite is set far back from the road within a wide, open agricultural field and is enclosed by a wood fence. Vegetation immediately surrounding the house includes scattered shrubs and bushes, as well as a few mature shade trees. The property is

accessed by a long gravel driveway that loops around the house. Outbuildings on the property include a well and shed, a garage, and a domestic outbuilding that appears to have historically functioned as a kitchen or quarters.

This house, referred to locally as the "Betts Farm," represents a rare, well-preserved example of a relatively high-style Federal to Greek Revival transitional style home dating to the mid-nineteenth century within a rural setting in the region. In addition to the primary dwelling, several contemporary outbuildings also remain extant on the property. While reconnaissance-level research did not reveal any notable historical associations, the property warrants further investigation as a rare surviving example of antebellum rural high-style architecture in Isle of Wight County and is therefore considered ***potentially eligible for listing in the NRHP*** for the purposes of this effort.

As a potentially NRHP-eligible resource within the survey area, an assessment of potential impacts brought about by the project is necessary. Because the property is located directly within the project area, this assessment considered both direct and indirect impacts. To assess impacts, inspection was performed and photographs taken from representative vantage points within and bordering the property to document existing setting, visibility, and lines of sight.

The house is situated on a small rural lot that has been partitioned off a larger property occupying the northeast corner of the intersection of Mill Swamp and Sycamore Cross roads. While the home lot and large rural property bordering it is located within the project lease area, the home lot itself is situated within a proposed exclusion area. As such, solar arrays, infrastructure, and other improvements will be made around the resource boundary, but the building and its associated property tract will be excluded from the development footprint. Therefore, there will be no direct impact to the resource.

As solar arrays will be spread through the area adjoining and bordering the resource, the project also has the potential for indirect, visual impacts to the resource. Project improvements are proposed within the landscape adjacent to the property to the north and east, as well as across Sycamore Cross Road to the west and Mill Swamp Road to the south. In all areas, the fenceline and solar arrays will be setback a minimum of 75 feet from the roads and 115 feet from the property. With these setbacks, the project fenceline will be roughly 215 feet from the house at the nearest point.

Inspection from the vicinity of the property revealed that the project area and development areas are generally openly visible across open field in all directions. With setbacks and exclusion areas the several other historic buildings that remain within the Sycamore Cross community, including the c.1825 Brick House ruins across Mill Swamp Road and the c.1899 Sycamore Cross Post Office and house across Sycamore Cross Road will all remain visible from the Betts Farm, however, would be seen amongst and bordered by solar arrays. To minimize visibility of the project, supplemental landscape buffers will be planted along portions of the road frontage bordering the property.

As such, the project as currently proposed would result in a change to the viewshed and setting of and from the property as a result of the introduction of visible solar arrays. The visible extent of the project would be reduced through supplemental landscape buffer bordering the property,

however, the portions of the project located on the adjacent fields would remain visible. Therefore, it is D+A's recommendation that because the building and property will be excluded the project will have no direct impact on the resource, but as it will be visible in the bordering fields, the Sycamore Cross Solar Project will result in a ***moderate impact*** overall to the Betts Farm per VDHR's impact characterization.

Figure 8-22 illustrates the location of the Betts Farm in relation to the project area, along with array layout, setback, and proposed landscape buffer; as well as the location and direction of representative photographs. Figure 8-23 provides a detail pf the proposed supplemental landscape plan and plant list. Figure 8-24 through Figure 8-32 provide representative photographs of and from the resource towards the project area.

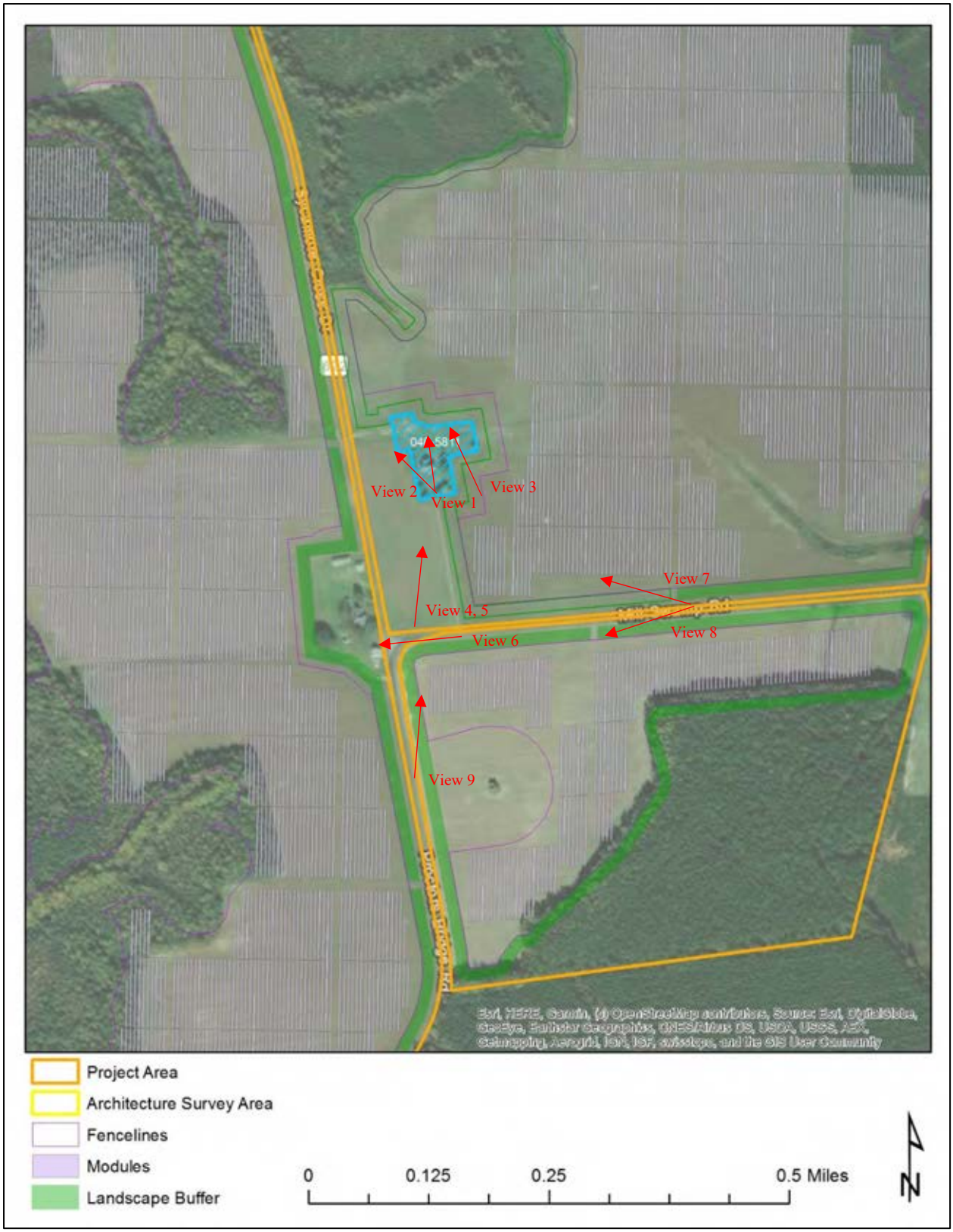
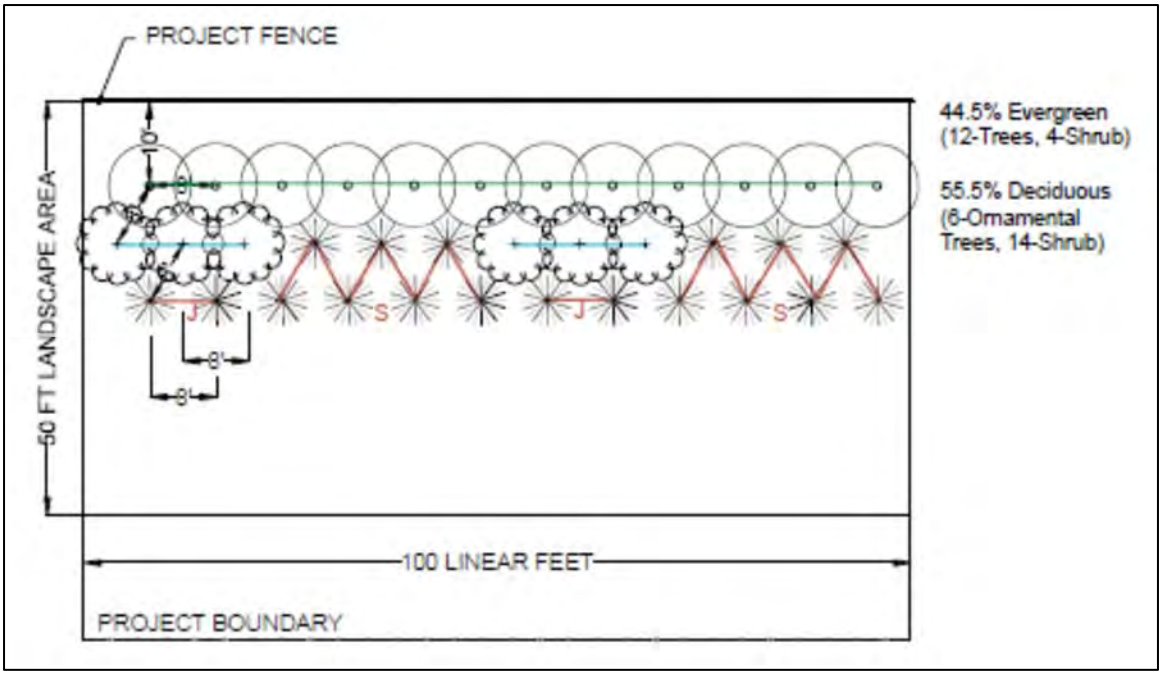



**Figure 8-22: Betts Farm in relation to the project area with locations and directions of representative photographs.**




| CONCEPT PLANT LIST | | | | |
|---|---|---|---|---|
| Botanical Name | Common Name | Height at Planting | Mature height | Mature Spread |
| EVERGREEN | | | | |
| Ilex X 'Conap' oakleaf | Red Holly/ Oakleaf Holly | 6 FT | 15 FT | 9 FT |
| Ilex X mary nell | Mary Nell Holly | 6 FT | 20 FT | 10 FT |
| Juniperus virginiana 'Brodie' | Eastern Red Cedar | 6 FT | 15 FT | 6 FT |
| Myrica cerifera | Southern Wax Myrtle | 6 FT | 15 FT | 20 FT |
| Thuja Occidentalis 'techny' | Eastern Arborvitae | 6 FT | 15 FT | 10 FT |
| ORNAMENTAL | | | | |
| Amelanchier canadensis | Shadblow serviceberry | 6 FT | 25 FT | 15 FT |
| Chionanthus virginicus | Fringetree | 6 FT | 20 FT | 20 FT |
| Magnolia Virginiana | Sweetbay Magnolia | 6 FT | 20 FT | 20 FT |
| SHRUB | | | | |
| Juniperus communis var. depressa | Juniper | 1.5 FT | 4 FT | 10 FT |
| Lindera benzion | Spicebush | 1.5 FT | 10 FT | 10 FT |

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SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

**Figure 8-23: Supplemental landscape planting schematic and plant list. Source: AES Clean Energy**

**Figure 8-24: View 1 - View of front of Betts Farm house, facing north. (Development area visible in field to rear)**

**Figure 8-25: View 2 - View from front of Betts Farm house, facing northwest. (Development area visible in field to rear)**

**Figure 8-26: View 3 - View from front of Betts Farm house, facing northwest. (Development area visible in field to rear)**

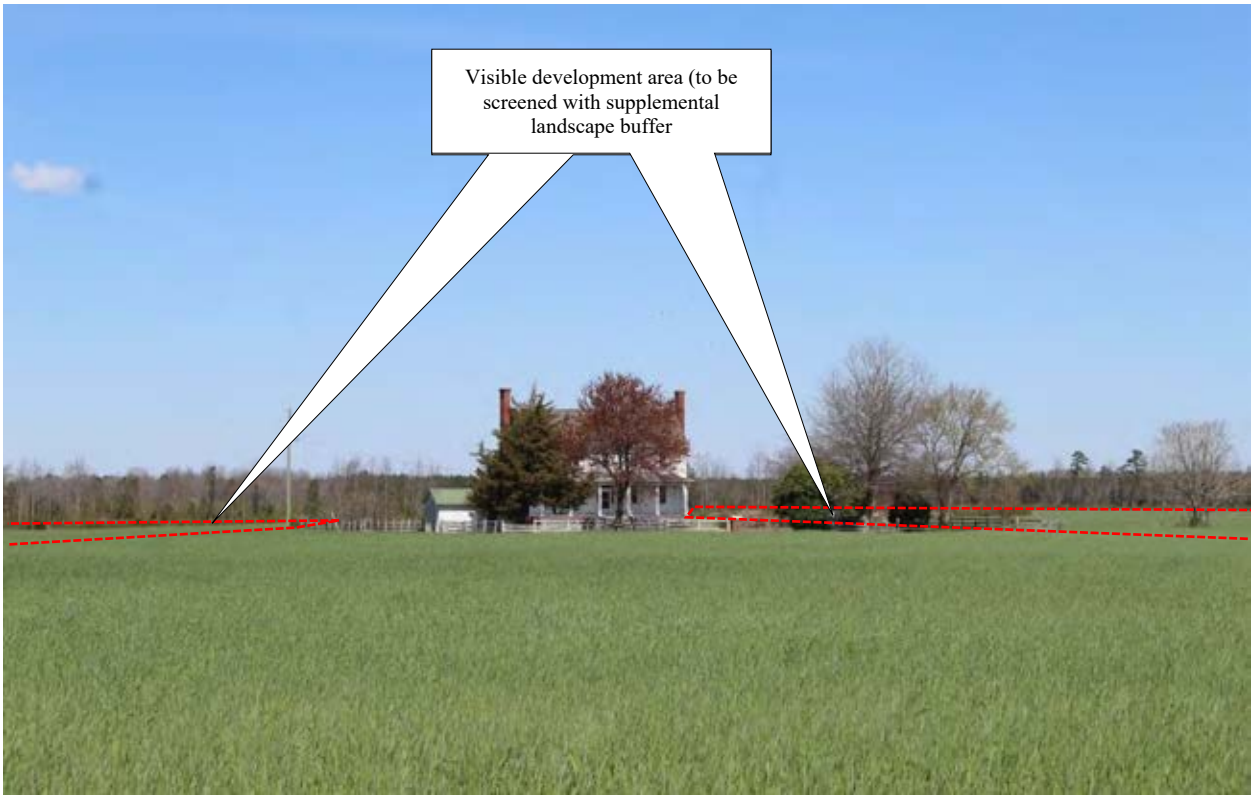



**Figure 8-27: View 4 - View of Betts Farm from Mill Swamp Road, facing northeast. (Development area visible in field to rear and side)**

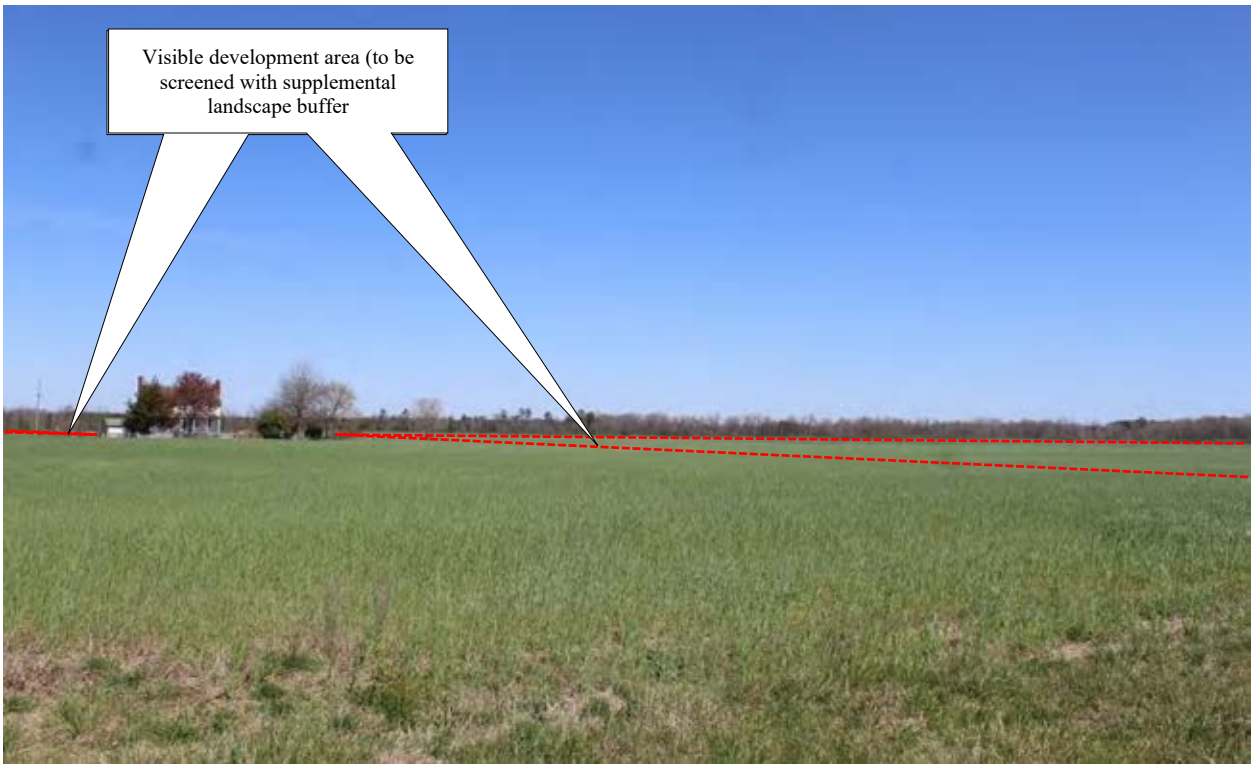



**Figure 8-28: View 5 - View of Betts Farm from Mill Swamp Road, facing northeast. (Development area visible in field to rear and side)**

**Figure 8-29: View 6 – View from Mill Swamp Road in front of Betts Farm, facing west. (Development area visible along road in foreground and beyond property)**

**Figure 8-30: View 7 – View from Mill Swamp Road east of Betts Farm, facing west. (Development area visible along road in foreground and beyond property)**

**Figure 8-31: View 8 – View from Mill Swamp Road east of Betts Farm, facing southwest. (Development area visible along road across from property)**

**Figure 8-32: View 9 - View towards Betts Farm from Sycamore Cross Road, facing north. (Development area visible along both sides of road)**

### VDHR# 046-5812
### House, 14195 Rattlesnake Trail

The house at 14195 Rattlesnake Trail was constructed in 1950 according to local land records. It remains in good condition and exhibits a Vernacular hall-and-parlor form. The one-story, four-bay wood frame structure rests on a continuous concrete block foundation and is clad in vinyl siding.

It is topped by a side gable roof sheathed in standing seam metal and pierced by a brick interior central chimney. Fenestration on the structure includes one-over-one double-hung sash windows. The primary entrance consists of a single door on the front (north) elevation sheltered by a two-bay porch.

This house is located on the south side of Rattlesnake Trail just east of its intersection with Ramsey Road. Around the property, the landscape is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The house is set close to the road at the edge of a wide, open agricultural field. Vegetation around the house is limited to sparse, scattered shrubbery. The only outbuilding on the property is a small wellhouse set behind the house.

This property is an example of a typical mid-twentieth century single Vernacular dwelling in the region. This building reflects no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5813**
**Commercial Building, 14472 Rattlesnake Trail**

The building at 14472 Rattlesnake Trail remains in poor condition and exhibits no discernable style. Although the structure remains vacant, it appears to have historically functioned as a commercial building. As evidenced by its form and construction, this building was constructed circa 1950. The one-story, three-bay concrete block structure rests on a continuous concrete block foundation and is topped by a side gable roof sheathed in standing seam metal. Fenestration on the structure is sparse but consists of large hopper windows on either side of the primary entrance. The

primary entrance consists of a single door centered on the symmetrical front (east) elevation. Remaining wood supports above the door suggest that it was historically sheltered by an awning however the awning no longer remains intact.

This building is located on the west side of Rattlesnake Trail near its intersection with Ramsey Road. The landscape in the general vicinity of the property is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. Set close to the road, the building rests on a flat grass lawn vegetated with overgrown scrub brush and surrounded by a densely forested area. No formal access points or associated structures were observed on the property.

This property is an example of a typical mid-twentieth century commercial building in the region. This building reflects no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. Additionally, the structure remains in poor condition and appears to have been vacant for an extended period. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5814**
**House, 11235 White Hill Trail**

The house at 11235 White Hill Trail remains in good condition and exhibits a Colonial Revival style as applied to a Cape Cod form. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this building was constructed circa 1950. The wood frame structure is comprised of a one-and-a-half-story, three-bay primary block with a one-story, three-bay wing on its east side. Both blocks are sheathed in vinyl siding and topped by gable roofs

sheathed in asphalt shingles. Brick exterior end chimneys are located on the east and west sides of the structure and three gabled dormers pierce the front slope of the primary roof. Fenestration on the structure includes single and paired one-over-one double-hung sash windows. The primary entrance is centered on the symmetrical front (south) elevation of the primary block and consists of a single door. Sheltering the façade of the main block is a one-story, full-width porch supported by battered wood posts resting on brick piers.

This property is located on the northeast side of White Hill Trail just north of its intersection with Mill Swamp Road. Around the property, the landscape is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. Set back roughly 350 feet from the road, the house rests on a sloping grass lawn surrounded by a densely forested area and is accessed by a long, gravel driveway. Vegetation on the property includes several mature shade trees and some planted shrubbery immediately surrounding the house, as well as a line of trees extending along the road and the southwest edge of property. Several outbuildings are scattered around the house, however only some were visible with others obscured by vegetation and topography.

This property is an example of a typical mid-twentieth century single dwelling in the region. This building reflects a Colonial Revival style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5815**
**House, 13484 Ramsey Road**

The house at 13484 Ramsey Road was constructed in 1950 according to site inspection. It remains in good condition and exhibits a Vernacular style. The one-story concrete block structure rests on a continuous concrete block foundation and is topped by a hipped roof sheathed in asphalt shingles. A brick interior chimney pierces the roof near the center of the structure. Fenestration on the structure includes one-over-one and six-over-six double-hung sash windows. The primary entrance consists of a single door centered on the symmetrical front (east) elevation sheltered by a one-bay shed roofed porch.

This house is located on a rural lot on the northwest corner of Ramsey Road and Rattlesnake Trail. The landscape in the general vicinity of the property is gently rolling and characterized by a mix of wooded areas and agricultural fields. Set back roughly 60 feet from the road, the house rests on a grass lawn vegetated with a variety of shade trees and scattered planted shrubbery. The property is accessed by short gravel driveways off of Ramsey Road and Rattlesnake Trail. The only outbuilding on the property is a shed located directly behind the house.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects a Vernacular style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5816**
**House, 12085 Ramsey Road**

The house at 12085 Ramsey Road was constructed in 1971 according to local land records. It remains in good condition and exhibits a Ranch style. The one-story masonry structure rests on a

continuous foundation and is clad in a brick veneer. It is topped by a hipped roof sheathed in asphalt shingles. Piercing the façade are one-over-one double-hung sash windows and a large, fixed window to the left of the entrance. The primary entrance consists of a single door on the front (west) elevation approached by a small, uncovered brick stoop. A one-story sunroom featuring large, fixed windows and a shed roof is attached to the north side of the structure.

This house is located on a rural lot on the southeast corner of Ramsey Road and Proctors Bridge Road. The landscape in the general vicinity of the property is gently rolling and largely rural, characterized by a mis of wooded areas and agricultural fields with light development. Set back roughly 80 feet from the road, the house rests on a flat grass lawn surrounded by a densely forested area. Vegetation on the property includes a row of boxwoods along the edges of the house and small trees and shrubs scattered on the lawn. The property is accessed by a gravel driveway that extends from the road to a parking area next to the house. Outbuildings on the property include three sheds and a mobile home.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects a Craftsman style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5817**
**Hollemon Cemetery, White Hill Trail**

This small family cemetery contains just one memorial with a surname only and no associated dates. The marker is a granite tablet inscribed with “Holleman” which is a surname known to have historically been associated with a home to the south along Mill Swamp Road. Leaning against the

granite tablet is what appears to be an older, displaced footstone inscribed with J.J.H. The cemetery is not enclosed by a fence or any signage.

This cemetery is set on the west side of White Hill Trail roughly 0.6 miles north of the intersection with Mill Swamp Road. It is set back from the road within a copse of trees in the middle of an agricultural field. While there is evidence of relic cedar trees and groundcover, there is no enclosure or other markings.

This small family cemetery represents a typical private burial in a rural setting within the region. The one marked memorial reads the surname "Holleman" which was the family associated with a dwelling to the south along Mill Swamp Road in the mid-nineteenth century. What is believed to be a footstone that is now leaning against the granite marker reads J.J.H. which likely represents an unknown member of Holleman family. Another Holleman Cemetery is known to be located in closer proximity to the Wilson Hollemon House. As this small cemetery does not reflect any distinctive design or physical characteristics and is not known to be associated with people of transcendent significance, it does not meet Criteria Consideration D, and is considered not eligible for listing in the NRHP.

However, as the cemetery is located within the limits of the project area, it should be avoided as part of the project.

**VDHR# 090-5208**
**House, 1314 Berrymans Corner Road**

The house at 1314 Berrymans Corner Road remains in good condition and exhibits a Ranch style. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this house was constructed circa 1960. The one-story masonry structure rests on a continuous

foundation and is clad in a brick veneer. It is topped by a hipped roof sheathed in asphalt shingles and pierced by a brick interior central chimney. Fenestration on the structure includes one-over-one double-hung sash windows as well as a large picture window to the right of the entrance. The primary entrance consists of a single door on the front (south) elevation flanked by sidelights and approached by a small, brick stoop. A large garage door is located on the right side of the façade.

This house is located on the northwest side of Berrymans Corner Road between White Hill Trail and Mill Swamp Road. The property is located in a small cluster of residential properties within an otherwise lightly developed, rural area of Surrey County. Set back roughly 160 feet from the road, the house rests on a grass lawn vegetated with a variety of trees and planted shrubbery. The property is accessed by a gravel driveway that extends from the road to the attached garage. The only outbuilding on the property is a small shed set behind the house.

This property is an example of a typical mid-twentieth century single dwelling in the region. This building reflects a Ranch style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 090-5209**
**House, 1209 Berrymans Corner Road**

The house at 1209 Berrymans Corner Road remains in good condition and exhibits a Ranch style. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this house was constructed circa 1970. The one-story masonry structure rests on a continuous

foundation and is clad in a brick veneer. It is topped by a side gable roof sheathed in asphalt shingles and flanked by a brick exterior end chimney on its southwest side. Fenestration on the structure includes single and paired one-over-one double-hung sash windows. The primary entrance consists of a single door on the front (northwest) elevation approached by a small, brick stoop. An open, wood deck is located on the south side of the house.

This house is located on the southeast side of Berrymans Corner Road between White Hill Trail and Mill Swamp Road. The property is located in a small cluster of residential properties within an otherwise lightly developed, rural area of Surrey County. The house is set close to the road on a sparsely vegetated grass lawn with a densely forested area located to its south and east. The property is accessed by a gravel driveway that extends from the road past the side of the house to the outbuildings behind the house. Outbuildings on the property include a carport and a shed located behind the house.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects a Ranch style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 090-5210**
**House, 1167 Berrymans Corner Road**

The house at 1167 Berrymans Corner Road remains in good condition and exhibits no discernable style. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this house was constructed circa 1970. The one-story, four-bay wood frame structure rests

on a continuous concrete block foundation and is topped by a side gable roof sheathed in asphalt shingles. A brick interior end chimney and a gabled, one-bay wing are located on northeast side of the structure. Piercing the asbestos siding are one-over-one double-hung sash windows, some of which are sheltered by vinyl awnings. The primary entrance consists of a single door on the front (northwest) elevation accessed by a small, uncovered, wood stoop.

This house is located on the southeast side of Berrymans Corner Road between White Hill Trail and Mill Swamp Road. The property is located in a small cluster of residential properties within an otherwise lightly developed, rural area of Surrey County. Set back roughly 90 feet from the road, the house rests on a flat grass lawn vegetated only with a couple mature shade trees in the backyard. The property is accessed by a gravel driveway that extends from the road to a parking area behind the house. Outbuildings on the property include a mobile home, a garage, a shed, and a wellhouse.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 090-5211**
**House, 1141 Berrymans Corner Road**

The house at 1141 Berrymans Corner Road remains in good condition and exhibits a Ranch style. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this house was constructed circa 1970. The one-story masonry structure rests on a continuous

foundation and is clad in brick veneer. It is topped by a side gable roof sheathed in asphalt shingles and pierced by a brick interior end chimney near the center of the front elevation. Fenestration on the structure consists of single and paired one-over-one double-hung sash windows. Two entrances are located on the front (northwest) elevation, each consisting of a single door approached by a small, uncovered brick stoop.

This house is located on the southeast side of Berrymans Corner Road between White Hill Trail and Mill Swamp Road. The property is located in a small cluster of residential properties within an otherwise lightly developed, rural area of Surrey County. Set back roughly 80 feet from the road, the house rests on a flat grass lawn and is accessed by a gravel driveway that extends to a parking lot behind the structure. Vegetation on the property is limited to rows of shrubs and bushes along the edges of the house. Outbuildings on the property include a garage and two carports.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 090-5212**
**House, Berrymans Corner Road**

The house off Berrymans Corner Road exhibits no discernable style and remains in ruinous condition, appearing to have been vacant for an extended period. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this house was constructed

circa 1910. The one-story wood frame structure is clad in weatherboard siding and appears to have been topped by a side gable roof. The roof appears to have collapsed, however two central brick chimneys remain extant. Fenestration on the structure includes three-over-three double-hung sash windows.

This house is located on the east side of Berrymans Corner Road between White Hill Trail and Mill Swamp Road. The landscape in the general vicinity of the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with generally light development. The house is set close to the road at the edge of a densely forested area and is partially obscured by overgrown vegetation. No formal access points or other structures were observed on the property.

This property is an example of a typical early twentieth century single dwelling in the region. This building reflects no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. Additionally, the structure remains in ruinous condition and appears to have been vacant for an extended period. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

### ARCHAEOLOGICAL FIELD RESULTS

Archaeological fieldwork included both systematic pedestrian survey and subsurface testing to determine the presence of archaeological resources. The work was completed in accordance with VDHR guidelines for conducting historic resources survey in Virginia and proceeded according to the approved testing plan laid out in the document *Phase IA Cultural Resource Assessment of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area* (D+A August 2023). For the purposes of survey and reporting, the project area was divided into six areas labeled A through F. These areas were further subdivided into 24 discrete sub-areas for testing, with placement of shovel test grids determined by surface evidence of cultural activity, terrain, disturbance, and environmental considerations (Figure 8-33).

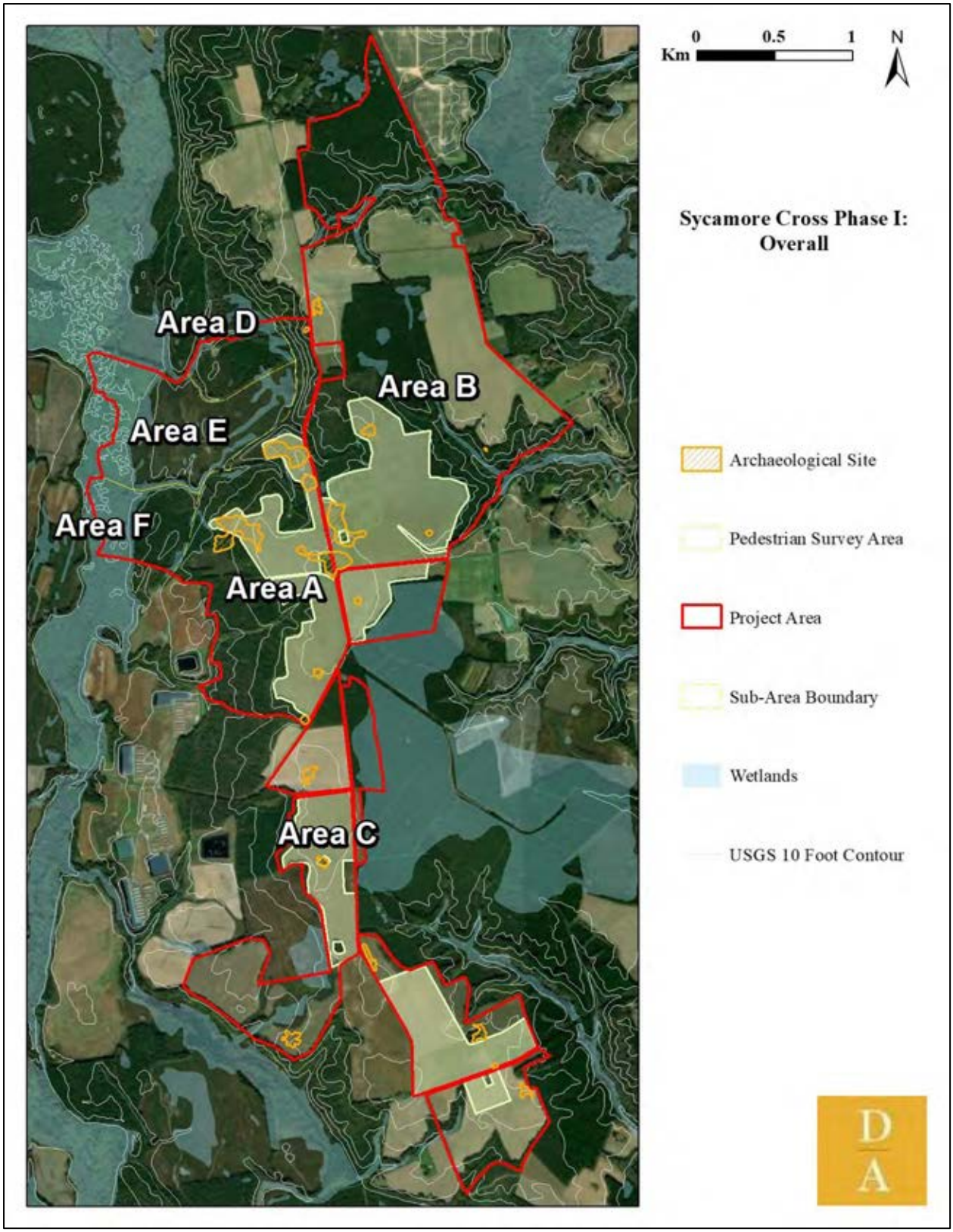



**Figure 8-33: Overall map of testing areas.**

A total of 1,175 shovel tests were systematically excavated throughout the project area, leading to the identification of twenty (20) new archaeological sites (Figure 8-34). The results of both the pedestrian and subsurface testing are provided below by area.

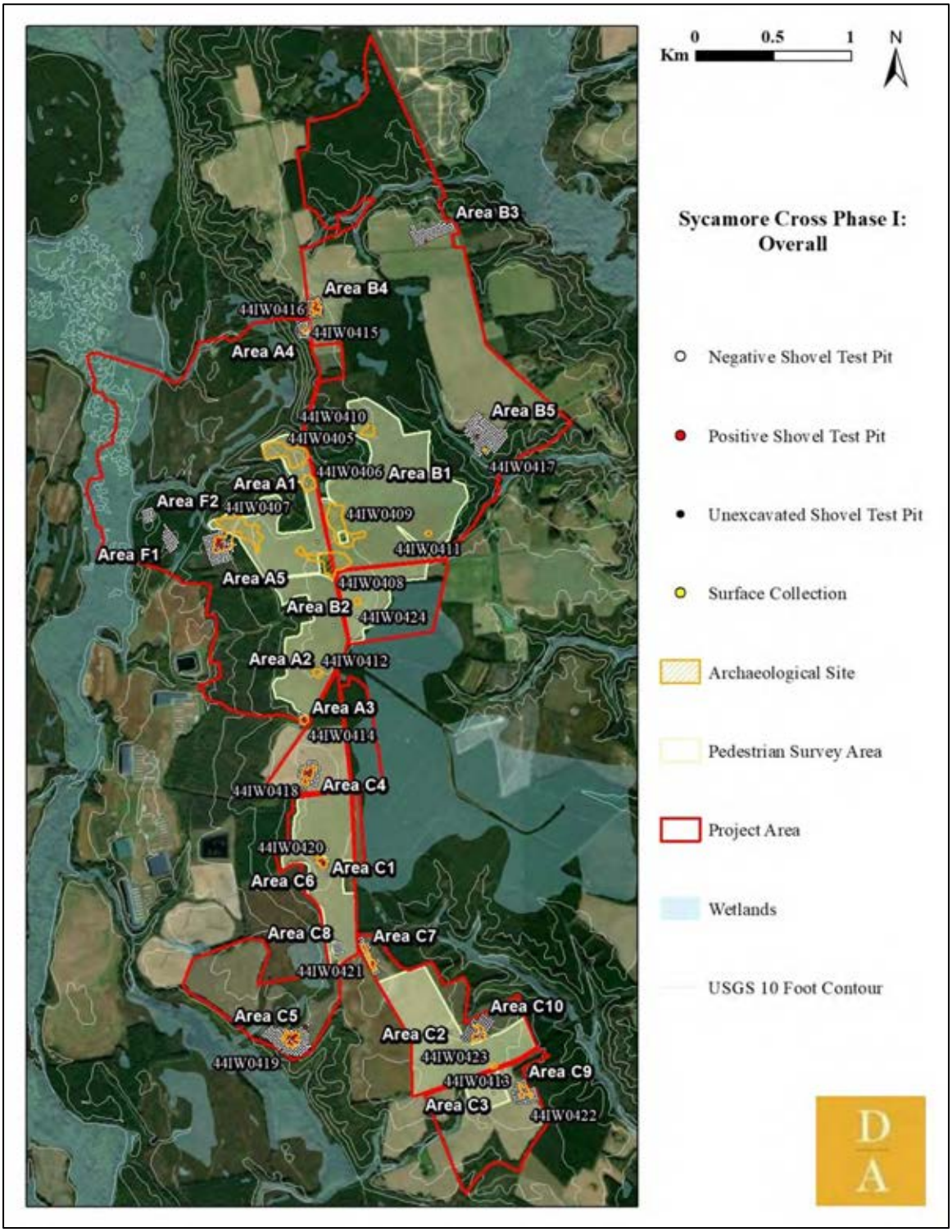



**Figure 8-34: Overall view of project area with testing areas and archaeological sites.**

AREA A

Area A consists of the parcels to the west of Proctors Bridge Road (Route 621) and Sycamore Cross Drive (Route 622) (Figure 8-35). Terrain in this area includes one primary large, irregular finger ridge with numerous drainages and unnamed tributaries down to Blackwater River. These drainages form smaller ridges, knolls, and terraces overlooking the river. Large, harvested agricultural fields cover the tops of the landforms. These fields exhibited excellent surface visibility at the time of survey, and pedestrian surveys were conducted in each, discussed in depth below. Vegetation outside of the agricultural fields consists of mature mixed woodland and pine forest. The narrow corridors around streams and drainages have been avoided by timbering and contain mature mixed deciduous woodland vegetation. Planted pine woodland across the area can be found at different stages of regrowth following the last clearcutting event. Slopes within the project are gentle to moderate.

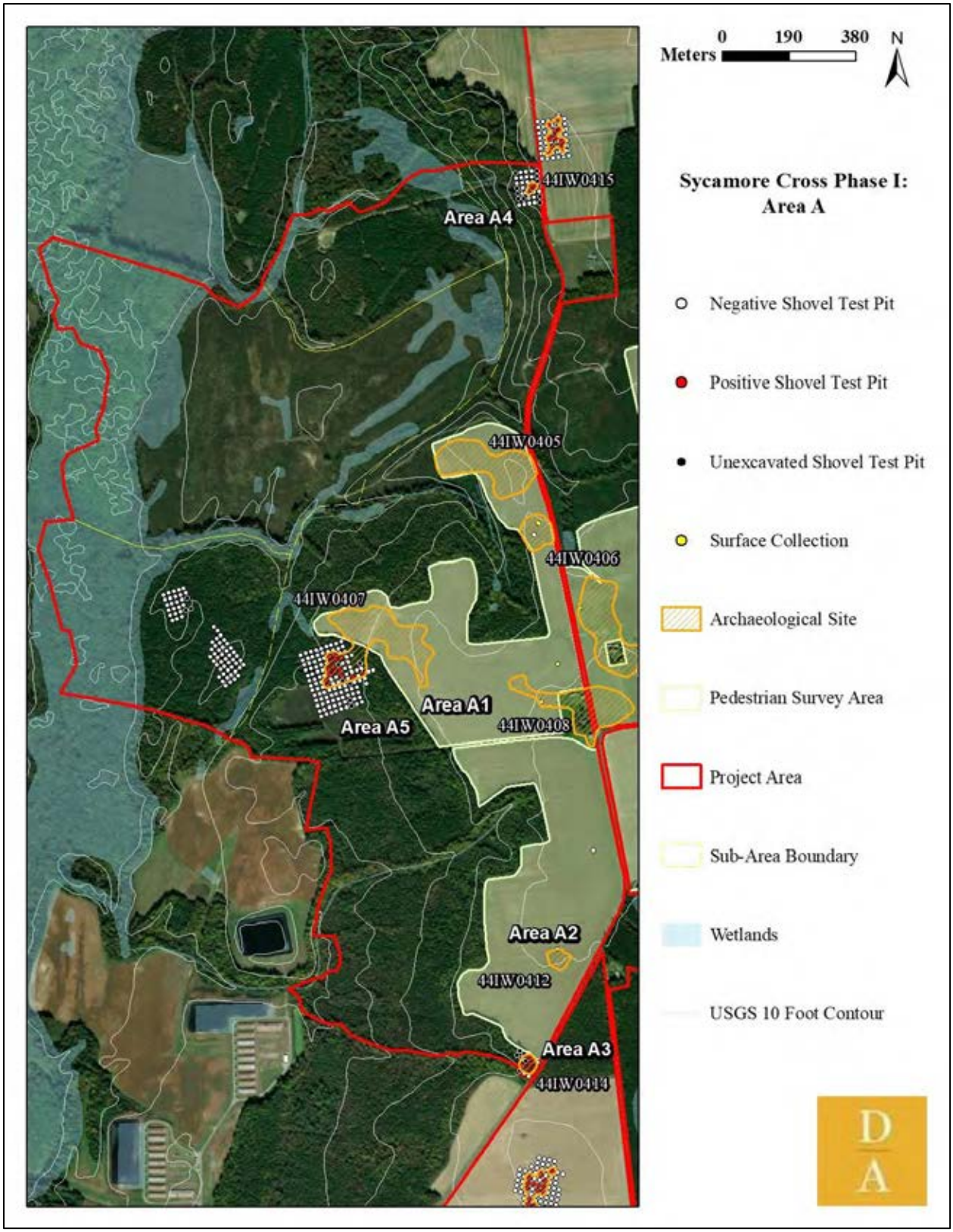



**Figure 8-35: Overall map of Area A.**

*Area A1*

This area consists of the large horseshoe-shaped agricultural field to the northeast of Sycamore Crossroads. This field sits on the north half of the top of the overall Area A landform, overlooking the Blackwater River to the west and bounded by Sycamore Cross Drive (Route 622) to the east. Access is provided by a series of farm roads running east to west off of Sycamore Cross Drive and Mill Swamp Road (Figure 8-36).

**Figure 8-36: Farm road and overview of Area A1 facing east.**

This part of the Area A landform is interrupted by two drainage cuts leading down to Blackwater River, forming one narrow finger ridge and a broad rectangular terrace. Vegetation bordering the agricultural field consists primarily of mature mixed woodland, with common privet and clusters of pine (Figure 8-37). Vegetation in Area A1 at the time of survey consisted of the remains of harvested soy and sparse, short grasses (Figure 8-38). A farm complex and store associated with Architectural Resources #046-5149 and 046-5150 sit at the southeast corner of the area (Figure 8-39).

**Figure 8-37: Vegetation at the edge of the Area A1 agricultural field facing west.**

**Figure 8-38: Overview of Area A1, facing west.**

**Figure 8-39: Architectural Resources #046-5149 and 046-5150, facing southwest.**

Surface exposure in this agricultural field was high, and systematic pedestrian survey was conducted in lieu of shovel test survey (Figure 8-40, Figure 8-41). Transects were walked in 7.5-meter (25-foot) intervals east to west across the entirety of this field. Many artifact fragments were observed, particularly in four dense artifact scatters. These surface concentrations were designated Sites 44IW0405 through 44IW0408, which are described in greater detail below.

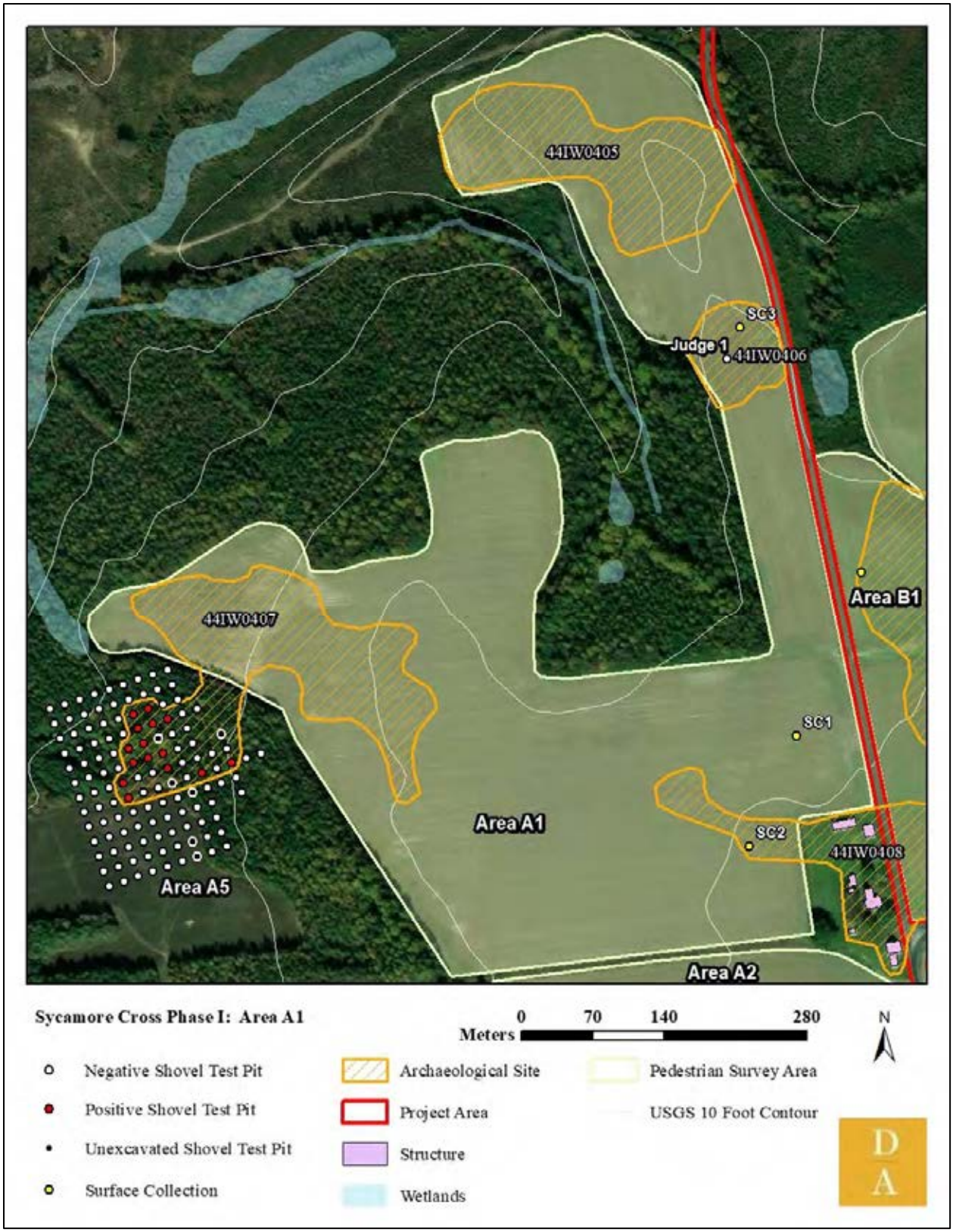



**Figure 8-40: Aerial view of Area A1 survey.**

**Figure 8-41: Surface exposure in Area A1.**

One shovel test was excavated in this artifact scatter to investigate the integrity of the soil strata. This shovel test, labeled Judgmental Shovel Test 1, exhibited a three-stratum profile of plowzone which cuts an intact transition layer over subsoil. Stratigraphy consisted of 2.5Y 3/2 very dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand transition layer (AB horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-42).

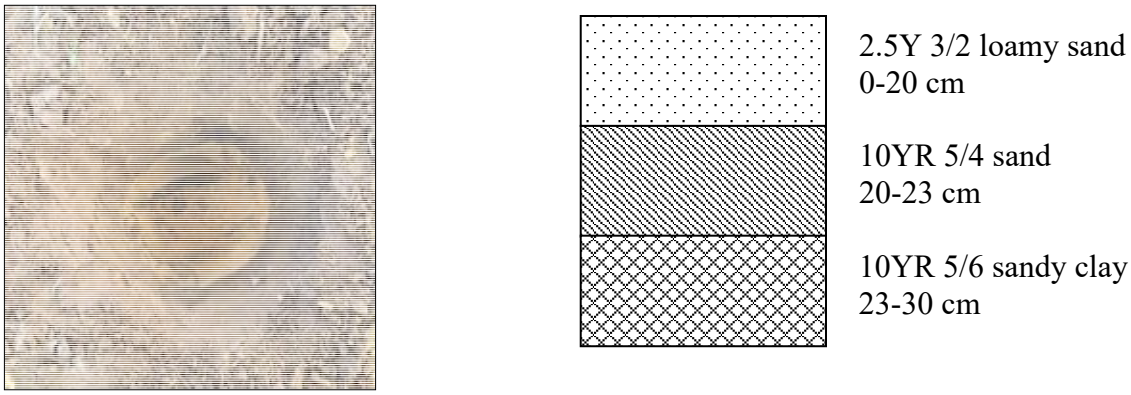



**Figure 8-42: Soil profile of Judgmental Shovel Test 1 in Area A1.**

44IW0405

This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter in the northernmost part of Area A1. No artifacts were collected during the pedestrian survey, but cobalt glass, blue transferware, yellowware, aqua vessel glass, a Prosser button, ironstone, and Bristol stoneware were observed.

44IW0406

This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter in Area A1, south of Site 44IW0405 (Figure 8-43). An aqua bottle finish was the only artifact collected (Figure 8-44). A dwelling is indicated here by historic topographic maps, though no surface features were observed. Artifacts observed here included fragments of ironstone, and colorless and vessel glass.

**Figure 8-43: Artifacts on the surface in Site 44IW0406.**

**Figure 8-44: Aqua vessel finish collected in Site 44IW0406.**

44IW0407

This site was first observed in the western half of Area A1, and later in Area A5 associated with Architectural Resource #046-0056. All artifacts collected are from Area A5 shovel tests; these are representative of those observed in the Area A1 portion of Site 44IW0407 as well (Figure 8-45). This site consists of a late-nineteenth to mid twentieth century domestic artifact scatter. A total of 54 artifacts were recovered from fifteen positive shovel tests, including a milk glass canning jar lid liner, one wire nail, colorless vessel glass, solarized vessel glass, aqua window and vessel glass, oyster shell, and Bristol stoneware.

**Figure 8-45: Artifact summary of Site 44IW0407.**

The ruin is a brick structure with exterior end chimneys and an English basement that was previously recorded as being built circa 1825. In addition to the main dwelling, two rectangular depressions and some areas of brick scatter were observed in association with this site (Figure 8-46; Figure 8-47).

**Figure 8-46: Interior view showing cellar entrance and fireplaces.**

**Figure 8-47: Square depression, facing west.**

44IW0408

This field site was first observed in the southeastern corner of Area A1 and was further delineated in the southwest corner of Area B1. This site surrounds Architectural Resources #046-5149 and 046-5150. It consists of a late nineteenth to early twentieth century domestic artifact scatter. Artifacts observed here included dipped ware, brick fragments, ironstone, colorless vessel glass, terra cotta drain pipe, solarized vessel glass, aqua vessel glass, and porcelain (Figure 8-48).

**Figure 8-48: Dipped ware collected in Site 44IW0408.**

*Area A2*

This area consists of a long irregular agricultural field to the southeast of Sycamore Crossroads. This field is located south of Area A1 and bounded to the east by Proctors Bridge Road (Route 621). Access to this area is provided by Proctors Bridge Road and a farm road to the north. This field covers the southern half of the top of the overall Area A landform. This part of Area A is cut by two drainages, which flow west into an unnamed tributary of the Blackwater River. Vegetation in this area is the same as Area A1 (Figure 8-49).

**Figure 8-49: Overview of Area A2, facing west.**

Surface exposure in this agricultural field was high, and pedestrian survey was conducted in lieu of shovel test survey (Figure 8-50, Figure 8-51). Transects were walked in 7.5-meter (25-foot) intervals east to west across the entirety of this field. Surface artifacts were observed in a scatter in the southern end of the field. These surface observations were designated Site 44IW0412, which is described in greater detail below.

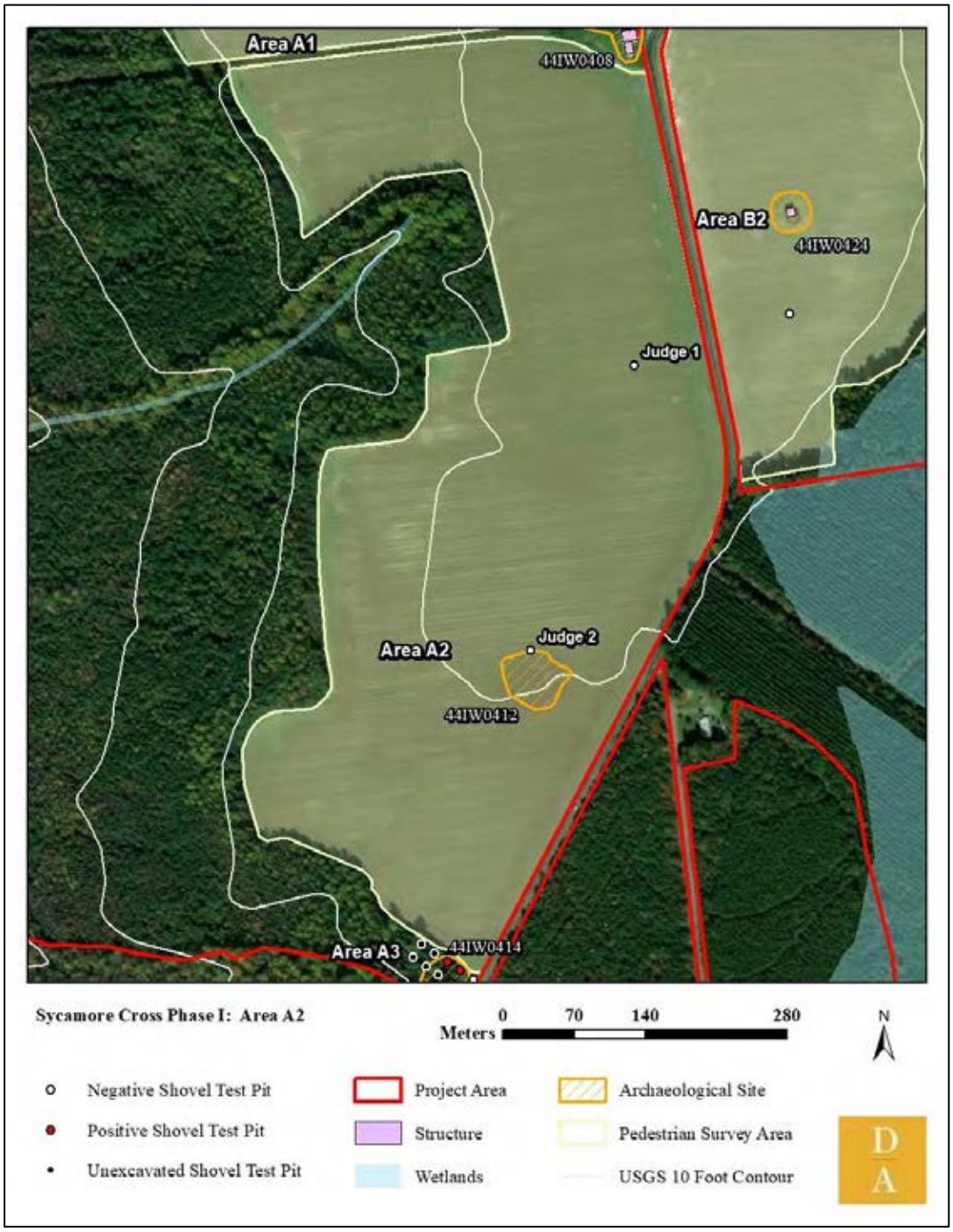



**Figure 8-50: Aerial view of Area A2 survey.**

**Figure 8-51: Surface exposure in Area A2.**

Two judgmental shovel tests were excavated in this area to investigate the integrity of the soil strata. These shovel tests exhibited a three-stratum profile of plowzone which cut an intact transition layer over subsoil. Stratigraphy consisted of 10YR 4/2 dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand transition layer (AB horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-52).

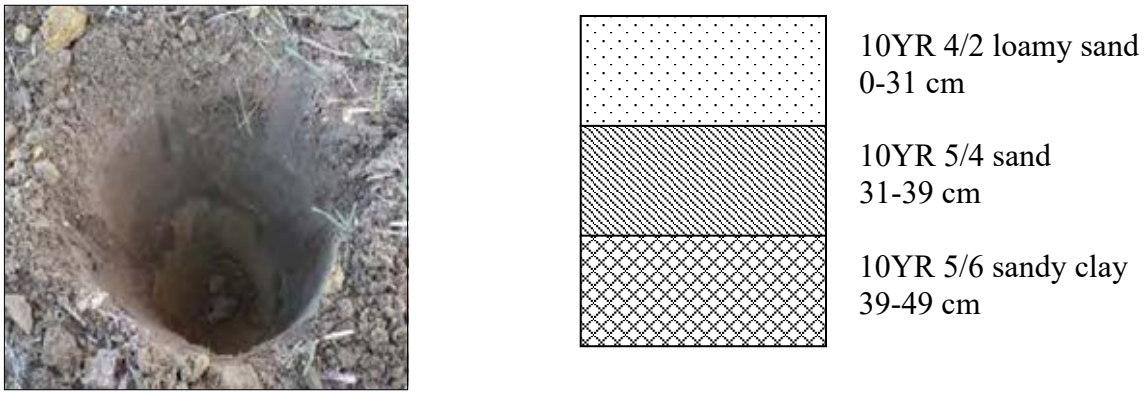



**Figure 8-52: Soil profile of Judgmental Shovel Test 2 in Area A2.**

44IW0412

This field site was observed in the southern part of Area A2, in the same location as a dwelling indicated on historic topographic maps. No surface features were observed; only a domestic artifact scatter was observed. Surface artifacts included yellowware, milk glass, and brick fragments, indicating a date range of early-to-mid-twentieth century.

*Area A3*

This area sits at the southernmost point of the overall Area A, south of the Area A2 field and bounded to the east by Proctors Bridge Road (Route 621). Wetland bounds this area to the northwest (Figure 8-53). Area A3 is located at the head of a draw that drains down to the Blackwater River. This grid was placed to investigate a dwelling that is indicated in this area on historic topographic maps.

**Figure 8-53: Wetland flagging in Area A3, facing southwest.**

Vegetation in this area consists of mature mixed woodland with holly shrubs and vines composing the undergrowth (Figure 8-54). Terrain is flat, with minimal surface evidence of subsurface disturbance. The remains of several cars are scattered throughout the area (Figure 8-55). A scatter of twentieth century trash sits in the middle of the grid (Figure 8-56).

**Figure 8-54: Vegetation in Area A3, facing south.**

**Figure 8-55: Fragments of old cars, facing northwest.**

**Figure 8-56: Twentieth century trash scatter in Area A3, facing southeast.**

A total of sixteen shovel tests were laid out at 15-meter (50-foot) intervals in four transects labeled A through D, six of which could not be excavated due to wetland (Figure 8-57). A total of seven shovel tests were positive for cultural material with fragments of window glass, vessel glass, lantern glass, and iron wire. These positive shovel tests were designated Site 44IW0414, which is described in greater detail, below.

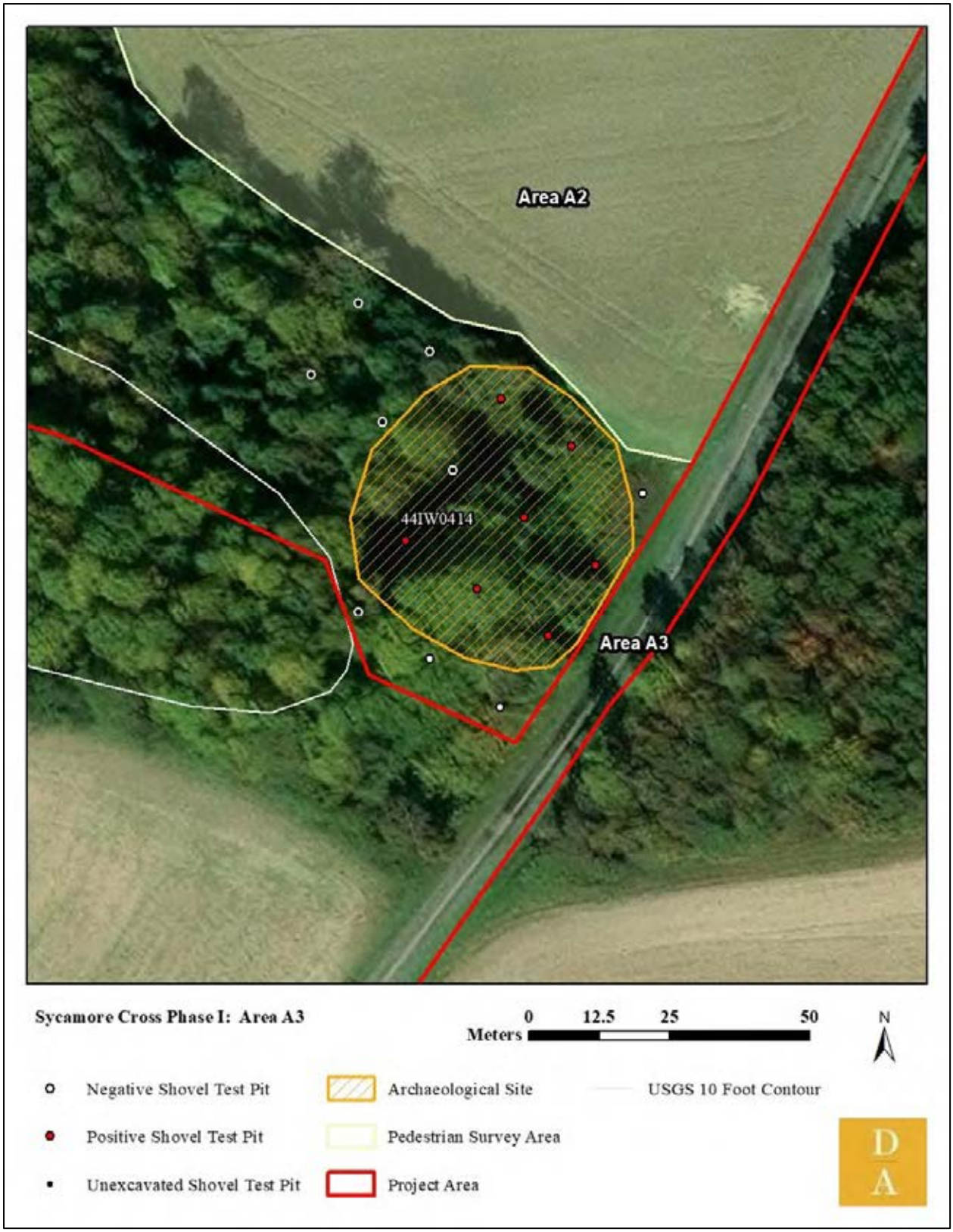



**Figure 8-57: Aerial view of Area A3 shovel test grid.**

Shovel tests in this area exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 10YR 4/4 yellowish brown sandy loam plowzone (Ap horizon) over 2/5Y 7/2 light gray sandy clay subsoil (B horizon) (Figure 8-58).

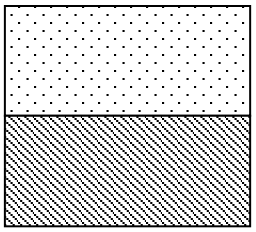



**Figure 8-58: Soil profile of Judgmental Shovel Test 1 in Area A3.**

44IW0414

This site consists of an early-to-mid twentieth century domestic artifact scatter associated with a dwelling indicated here by historic topographic maps. Forty-three artifacts were collected from seven positive shovel tests, including aqua and colorless window glass, lantern glass, colorless and brown vessel glass, milk glass, and wire (Figure 8-59). Vessel glass makes up most of this assemblage, with 26 recovered fragments.

**Figure 8-59: Artifact summary of Site 44IW0414.**

*Area A4*

This area consists of the mixed woodland across Sycamore Cross Drive from Area B4. Access is provided by a deeply eroded logging road (Figure 8-60, Figure 8-61). Terrain is disturbed with pushpiles throughout the grid. It sits on the edge of slope down to wetlands associated with Blackwater River.

**Figure 8-60: Logging road running through Area A4, facing southwest.**

**Figure 8-61: Erosion along logging road through Area A4, facing east.**

Vegetation in Area A4 consists primarily of young deciduous forest with briary undergrowth and occasional pine (Figure 8-62). Pushpile disturbance from past timbering activity is common throughout the grid and prevented the excavation of several shovel tests (Figure 8-63). Soils in this area are also wet, with some shovel tests filling with water.

**Figure 8-62: Vegetation in Area A4, facing west.**

**Figure 8-63: Pushpiles in Area A4, facing north.**

A total of 43 shovel tests were laid out at 15-meter (50-foot) intervals in seven transects labeled A through G, fourteen of which could not be excavated due to pushpile disturbance (Figure 8-64). A total of five shovel tests were positive for cultural material, including fragments of window glass, screws, and other metal hardware fragments. These positive shovel tests were designated Site 44IW0415, which is described in greater detail, below.

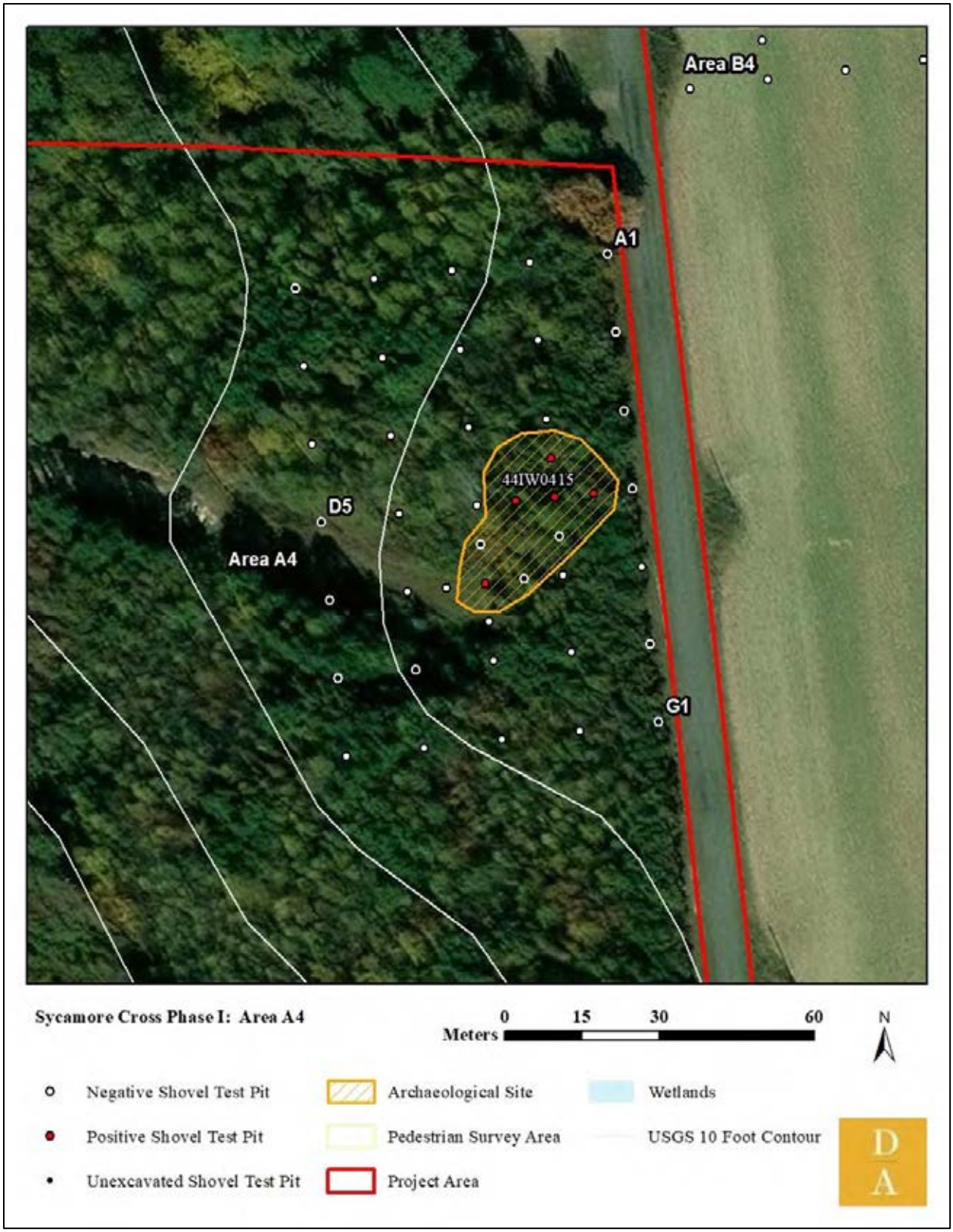



**Figure 8-64: Aerial view of Area A4 shovel test grid.**

Shovel tests in this area exhibited a three-stratum profile of plowzone which cuts an intact topsoil over subsoil. Stratigraphy consisted of 10YR 5/2 grayish brown sandy loam plowzone (Ap horizon) over 10YR 6/4 light yellowish brown sand topsoil (A horizon) over 10YR 7/4 very pale brown sand subsoil (B horizon) (Figure 8-65).

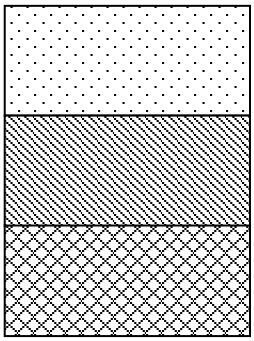



**Figure 8-65: Soil profile of Shovel Test B3 in Area A4.**

44IW0415

This site consists of a dense early-to-mid twentieth century artifact scatter in Area A4. 178 artifacts were recovered from five positive shovel tests including aqua and colorless window glass, washers, screws, wire, terra cotta drain pipe, and colorless vessel glass (Figure 8-66). Window glass and unidentified melted glass make up the majority of this assemblage, with 128 fragments.

**Figure 8-66: Artifact summary of Site 44IW0415.**

*Area A5*

This area covers a round knoll west of the Area A1 pedestrian survey. Access is provided by a series of farm roads. This grid surrounds several large, potentially structural depressions and a three-story brick structure with a large cellar (Figure 8-67). This structure is associated with Architectural Resource #046-0056 (Figure 8-68).

**Figure 8-67: Structural depression in Area A5, facing east.**

**Figure 8-68: Brick structure in Area A5, Architectural Resource #046-0056, facing south.**

Vegetation in this area consists primarily of mature pine forest with common holly and briar undergrowth (Figure 8-69). Terrain in this part of the grid is somewhat disturbed by timbering activities, seen on the surface in the form of subtle windrows. Around the architectural remains, vegetation changes and is primarily deciduous trees with minimal undergrowth (Figure 8-70).

**Figure 8-69: Vegetation in Area A5, facing south.**

**Figure 8-70: Vegetation in Area A5 around structural remains, facing south.**

A total of 128 shovel tests were laid out at 15-meter (50-foot) intervals in nine transects labeled A through J, six of which could not be excavated due to standing water (Figure 8-71). A total of fifteen shovel tests were positive for cultural material with fragments of refined earthenware, wire nails, vessel and window glass, and oyster shell. These positive shovel tests are part of Site 44IW0407, discussed above with Area A1.

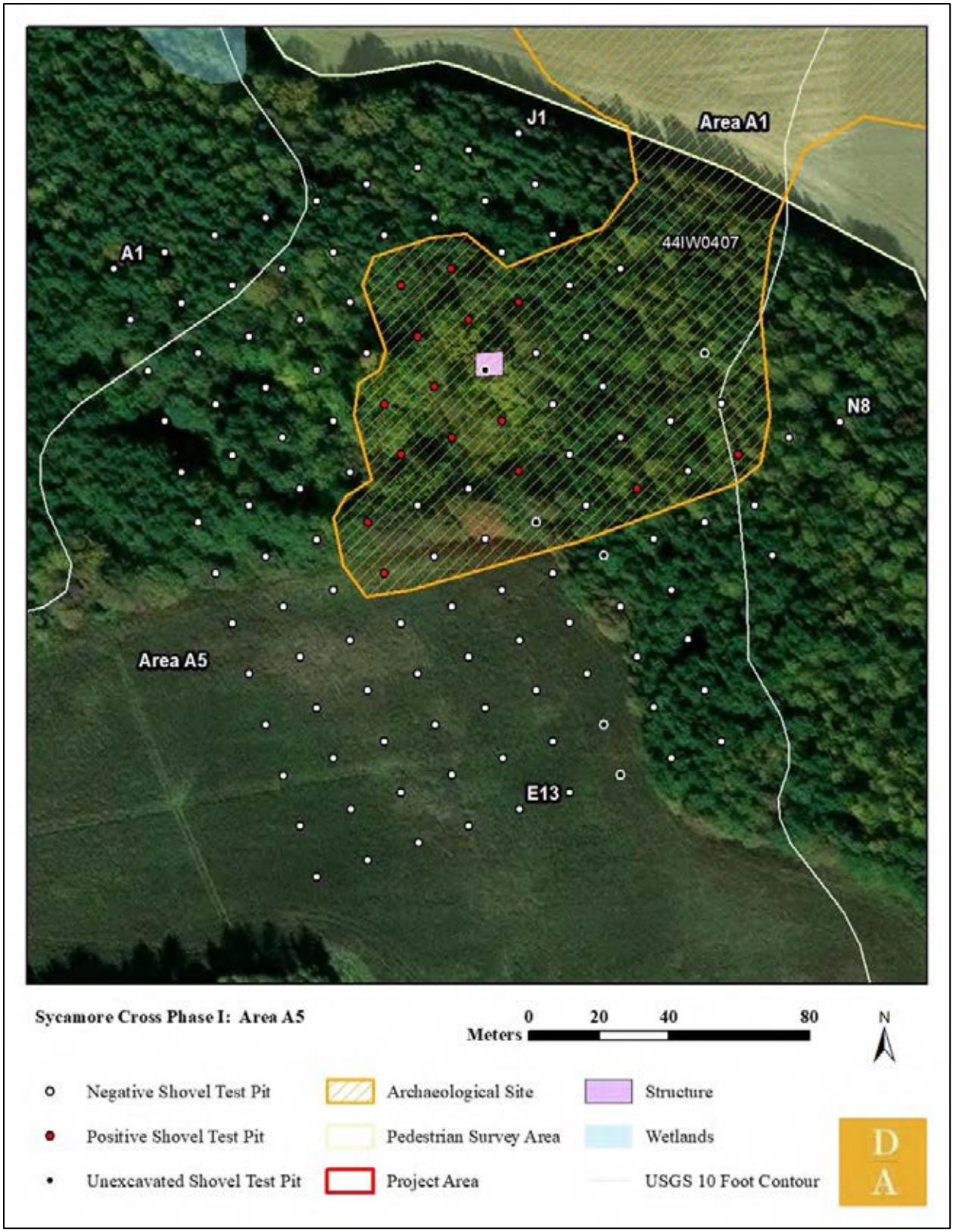



**Figure 8-71: Aerial view of Area A5 shovel test grid.**

Shovel tests in this area exhibited a three-stratum profile of topsoil over transitional layer over subsoil. Stratigraphy consisted of 10YR 3/2 very dark grayish brown sandy loam topsoil (A horizon) over 10YR 6/4 light yellowish brown sand transition layer (AB horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-72).

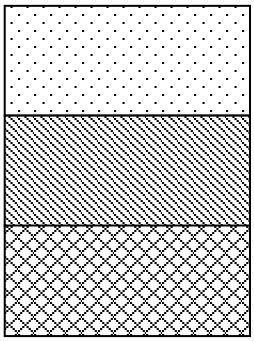



**Figure 8-72: Soil profile of Shovel Test D5 in Area A5.**

AREA B

The overall Area B consists of parcels to the east of Proctors Bridge Road (Route 621) and Sycamore Cross Drive (Route 622), and west of White Hill Trail (Route 623) (Figure 8-73). Terrain in this area includes two primary large, irregular finger ridges with numerous drainages and unnamed tributaries down to Mill Swamp to the east. These drainages form smaller ridges, knolls, and terraces overlooking the swamp. Large, harvested agricultural fields cover the tops of the landforms. These fields have very good surface visibility, and systematic pedestrian surveys were conducted in each, discussed in depth below. Vegetation outside of the agricultural fields consists of mature mixed woodland and pine forest. The narrow corridors around streams and drainages have been avoided by timbering and contain mature mixed deciduous woodland vegetation. Planted pine woodland across the area can be found at different stages of regrowth following the last clearcutting event. Slopes within the area are gentle to moderate. One previously known cemetery, the Hollemon Cemetery (VDHR# 046-5817) sits in the center of Area B5.

**Figure 8-73: Overall map of Area B.**

*Area B1*

This area consists of the large agricultural field northeast of Sycamore Crossroads. This field is located in the southern part of the overall Area B and bounded to the west by Sycamore Cross Drive (Route 622) and to the south by Mill Swamp Road (Route 621). Access to this area is provided by Sycamore Cross Drive and a farm road through the center of the field.

This part of Area B is cut by numerous small drainages as well as one major one, which flows east into an unnamed tributary of Mill Swamp. Vegetation in this area consists of harvested soy remnants and short, sparse grass, with mature mixed woodland and pine forest bordering the agricultural field. A small parcel is excluded from the project area on the interior of Area B1, which encompasses a complex of one dwelling and several outbuildings (Figure 8-74).

**Figure 8-74: Dwelling and outbuildings in parcel cut out in Area B1, facing northwest.**

Surface exposure in this agricultural field was high, and pedestrian survey was conducted in lieu of shovel test survey (Figure 8-75). Transects were walked in 7.5-meter (25-foot) intervals north to south across the entirety of this field. Surface artifacts were observed in a scatter in the southeastern part of the field, and in the southwestern corner. These surface observations were designated Sites 44IW0409 through 44IW0411, which are described in greater detail below.

**Figure 8-75: Aerial view of Area B1 survey.**

**Figure 8-76: Overview and ground cover in Area B1, facing north.**

Two judgmental shovel tests were excavated in this area to investigate the integrity of the soil strata. These shovel tests exhibited a three-stratum profile of plowzone which cut an intact topsoil over subsoil. Stratigraphy consisted of 10YR 4/2 dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand transition layer (AB horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-77).

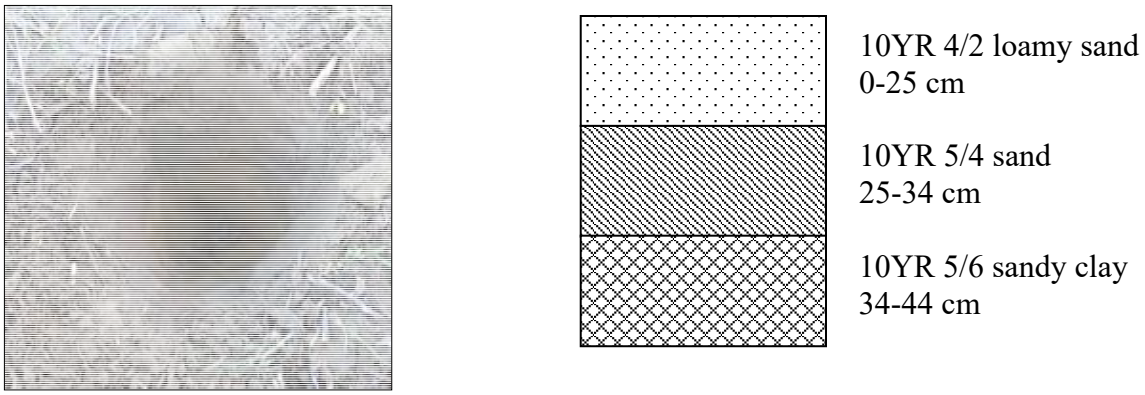



**Figure 8-77: Soil profile of Judgmental Shovel Test 2 in Area B1.**

44IW0409

This field site was observed by pedestrian survey in the western part of Area B1. It consists of a mid-nineteenth to mid-twentieth domestic artifact scatter, including green shell edged earthenware; redware; ironstone; colorless window glass; aqua, colorless, and solarized vessel glass; porcelain; stoneware, brick fragments; and one pipe stem that was the only artifact collected (Figure 8-78). This site is associated with Architectural Resource 046-5811, a circa 1850 standing dwelling.

**Figure 8-78: Pipe stem collected in Site 44IW0409.**

44IW0410

This site consists of a small late-nineteenth to early-twentieth century domestic artifact scatter observed in the northern part of Area B1. A sample of artifacts were collected, and observed artifacts included solarized and colorless vessel glass, aqua window glass, ironstone, and refined earthenware, Bristol and Albany-slip stoneware, and a reed pipe (Figure 8-79).

**Figure 8-79: Artifact sample collected from Site 44IW0410.**

44IW0411

This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter observed in the southeast part of Area B1. Artifacts observed included ironstone, refined earthenware, and aqua and colorless vessel glass (Figure 8-80, Figure 8-81). Artifacts were densely clustered. No artifact samples were collected.

**Figure 8-80: Artifacts flagged during pedestrian survey of Area B1 and delineating Site 44IW0411, facing west.**

**Figure 8-81: Artifacts on the surface in Site 44IW0411.**

*Area B2*

This area consists of the triangular agricultural field southeast of the intersection of Sycamore Cross and Mill Swamp Roads. This field is located in the southern part of the overall Area B and bounded to the west by Proctors Bridge Road (Route 621) and to the north by Mill Swamp Road (also Route 621). In the eastern leg of Area B2, terrain slopes gently to wetland between two drainage cuts, one to the northeast and another to the southeast. Standing water prevented survey in this area. Vegetation in this area consists of harvested cotton remnants and short, sparse grass, with mature mixed woodland and pine forest bordering the agricultural field (Figure 8-82). A brick ruin stands in the western side of the field, previously recorded as Architectural Resource 046-0057. Although no artifacts were observed in association with the ruin, it has the potential for subsurface features and was recorded as an archaeological resource with the temporary designation of Site 44IW0424.

**Figure 8-82: Overview of Area B2 showing Architectural Resource #046-0057, facing north.**

Surface exposure in this agricultural field was high, and pedestrian survey was conducted in lieu of shovel test survey (Figure 8-84). Transects were walked in 7.5-meter (25-foot) intervals east to west across the field. Surface artifacts were observed in a scatter in the southern end of the field. No artifact scatters were observed in this area.

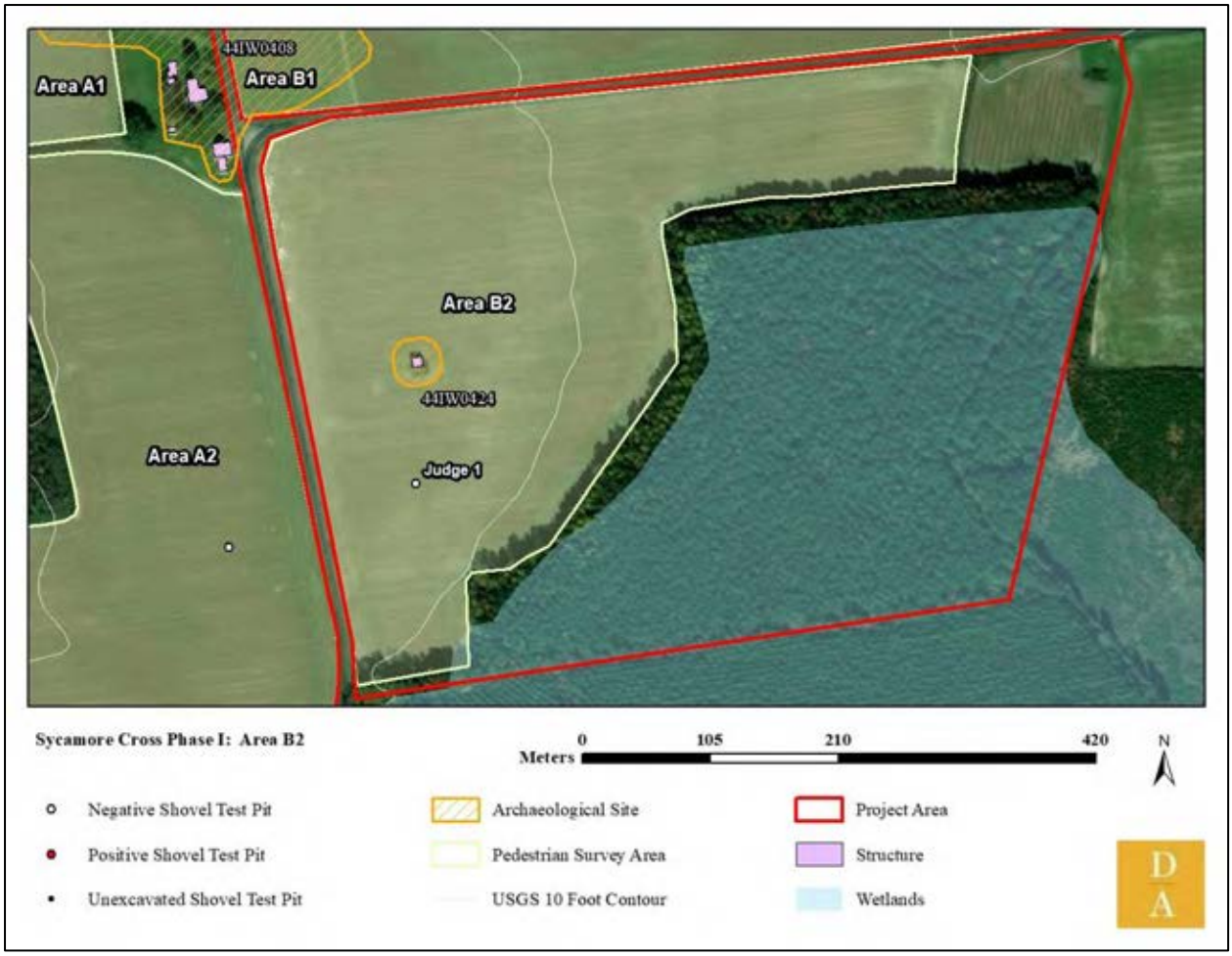
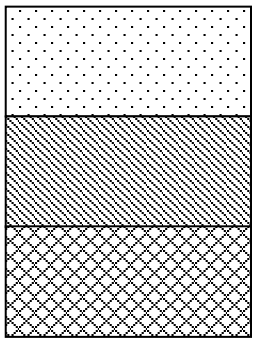



**Figure 8-83: Aerial view of Area B2 survey.**

**Figure 8-84: Surface exposure in Area B2.**

One judgmental shovel test was excavated in this area to investigate the integrity of the soil strata. This shovel test exhibited a three-stratum profile of plowzone which cut an older topsoil or relict plowzone over subsoil. Stratigraphy consisted of 10YR 4/2 dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand topsoil (A horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-85).



10YR 4/2 loamy sand
0-32 cm

10YR 5/4 sand
32-49 cm

10YR 5/6 sandy clay
49-62 cm

**Figure 8-85: Soil profile of Judgmental Shovel Test 1 in Area B2.**

*Area B3*

This area sits at the northern end of the long, irregular agricultural field in the northeastern part of the project area. A farm complex with several dwellings, outbuildings, and a parcel cut-out sit just to the north of this shovel test grid. This farm complex and a nearby dwelling are associated with Architectural Resources #046-5550 and 046-5551 respectively (Figure 8-86). White Hill Trail (Route 623) bounds this area to the east. Runoff from this area drains north into an unnamed tributary of Mill Swamp.

**Figure 8-86: Farm complex (Architectural Resource #046-5550) and driveway in Area B3, facing west.**

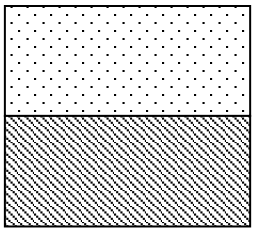
Vegetation in Area B3 at the time of survey consisted of the remains of harvested corn and short grasses (Figure 8-87). Surface visibility was too low for pedestrian survey. Mowed grasses and deciduous trees border the agricultural field.

**Figure 8-87: Overview of Area B3, facing west.**

A total of 97 shovel tests were laid out at 15-meter (50-foot) intervals in six transects labeled A through F, two of which could not be excavated due to road disturbance (Figure 8-88). One shovel test was positive for cultural material with brick. This does not constitute a field site.

**Figure 8-88: Aerial view of Area B3 shovel test grid.**

Shovel tests in this area exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 2.5Y 5/4 light olive brown sandy clay loam (Ap horizon) over 2.5Y 6/8 olive yellow clay subsoil (B horizon) (Figure 8-89).



2.5Y 5/4 sandy clay loam
0-34 cm

2.5Y 6/8 clay
34-44 cm

**Figure 8-89: Soil profile of Shovel Test A4 in Area B3.**

*Area B4*

This area consists of a small part of the agricultural field in the northwest part of the overall Area B. This field sits on the western edge of a large terrace overlooking forest and lowlands to the west. This grid was placed to investigate a dwelling indicated on historic topographic maps.

Vegetation in this area at the time of survey consisted of young winter wheat (Figure 8-90). Surface exposure was too low for pedestrian survey, though brick fragments were observed on the surface. Sycamore Cross Road bounds this grid to the west.

**Figure 8-90: Sycamore Cross Road along the Area B4 baseline, facing north.**

A total of 74 shovel tests were laid out at 15-meter (50-foot) intervals in eight transects labeled A through G (Figure 8-91). A total of 20 shovel tests were positive for cultural material including fragments of vessel glass, refined earthenware, window glass, terra cotta drain pipe, and unidentified nails. These positive shovel tests were designated Site 44IW0416, which is described in greater detail below.

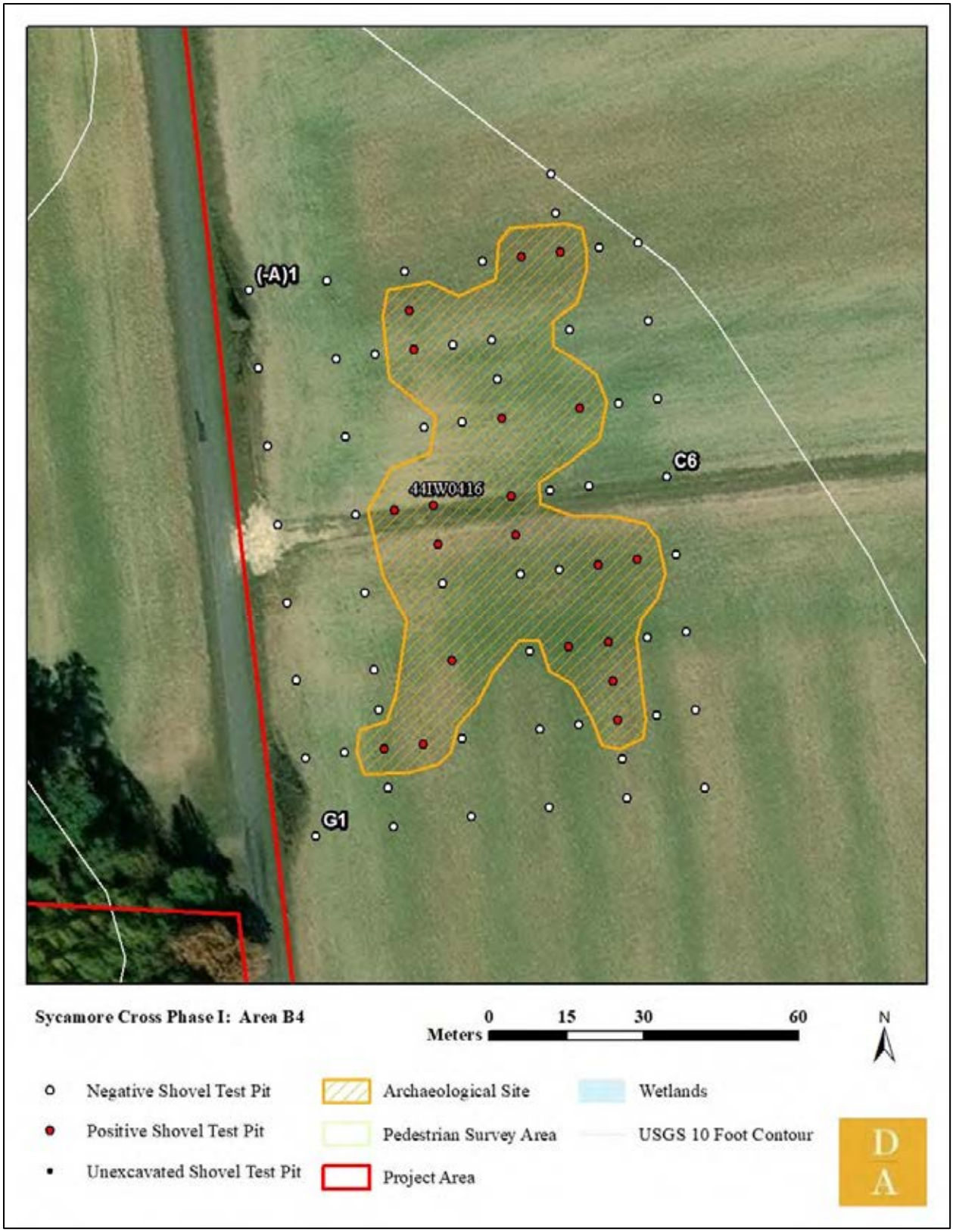



**Figure 8-91: Aerial view of Area B4 shovel test grid.**

Shovel tests in this area exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 10YR 6/4 light yellowish brown sand plowzone (Ap horizon) over 10YR 6/6 brownish yellow compact sandy clay subsoil (B horizon) (Figure 8-92).

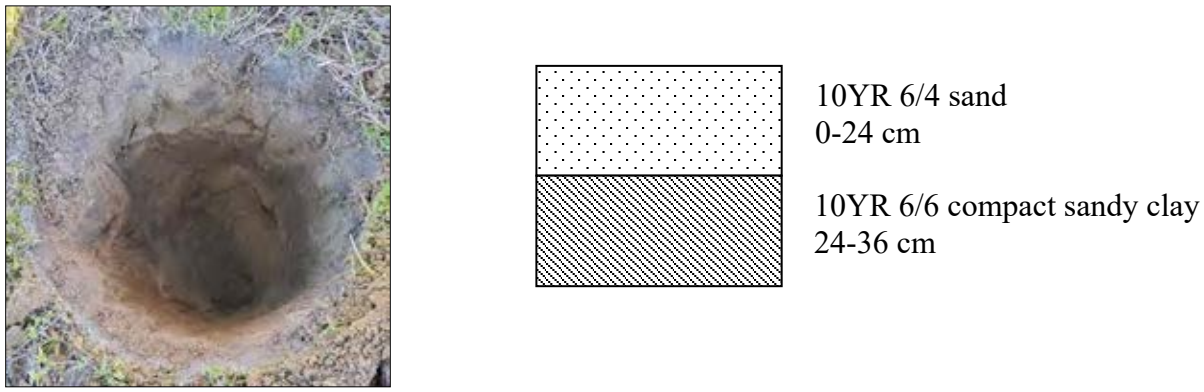



**Figure 8-92: Soil profile of Shovel Test C3 in Area B4.**

44IW0416

This site consists of an early-to-mid twentieth century domestic artifact scatter in Area B4. It is located in the same place as a dwelling indicated on historic topographic maps. A total of 65 artifacts were recovered from 20 positive shovel tests, including brick fragments; colorless vessel glass, milk glass, colorless and aqua window glass, terra cotta drain pipe, molded refined earthenware, a spark plug, and heavily corroded nails (Figure 8-93).

**Figure 8-93: Artifact summary of Site 44IW0416.**

*Area B5*

This area is located in the southeastern part of the overall Area B, bounded to the west and south by wetlands. It covers a portion of agricultural land as well as some woodland. Access is provided by White Hall Trail (Route 623) and by farm roads. A small, previously recorded cemetery sits in the middle of the grid surrounded by agricultural activity, and it contains only one headstone labeled "Holleman" and a displaced footstone labeled "J.J.H." (Figure 8-94). Mature oak, holly, and cedar surround the burial (Figure 8-95).

**Figure 8-94: Head and footstone in Area B5 cemetery.**

**Figure 8-95: Holleman cemetery in Area B5, facing southwest.**

Vegetation in this area varied between the agricultural field and the wooded part of the area. In the agricultural part of the grid vegetation consisted of harvested corn and young winter wheat (Figure 8-96). Vegetation in the woodland consisted of mature deciduous trees with a dense undergrowth of holly (Figure 8-97).

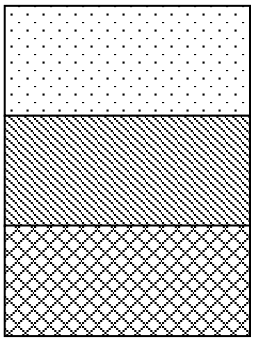
**Figure 8-96: Vegetation in the agricultural field of Area B5, facing north and the Holleman cemetery.**

**Figure 8-97: Vegetation and wetland flagging in the wooded part of Area B5, facing south.**

A total of 205 shovel tests were laid out at 15-meter (50-foot) intervals in seventeen transects labeled A through R, fourteen of which could not be excavated due to wetland (Figure 8-98). A total of three shovel tests were positive for cultural material with fragments of colorless and aqua vessel glass, terra cotta drain pipe, and colorless window glass. These positive shovel tests were designated Site 44IW0417, which is described in greater detail, below.

**Figure 8-98: Aerial view of Area B5 shovel test grid.**

Shovel tests in this area exhibited a three-stratum profile of plowzone which cuts an intact topsoil over subsoil. Stratigraphy consisted of 10YR 5/4 yellowish brown sandy loam plowzone (Ap horizon) over 10YR 4/6 dark yellowish brown sandy clay topsoil (Ab horizon) over 10YR 6/8 brownish yellow clay subsoil (B horizon) (Figure 8-99).



10YR 5/4 sandy loam
0-7 cm

10YR 4/6 sandy clay
7-30 cm

10YR 6/8 clay
30-38 cm

**Figure 8-99: Soil profile of Shovel Test E5 in Area B5.**

44IW0417

This site consists of a small domestic artifact scatter in Area B5. Artifacts recovered include two fragments of aqua vessel glass, two fragments of colorless window glass, and 83 fragments of terra cotta drain pipe (Figure 8-100).

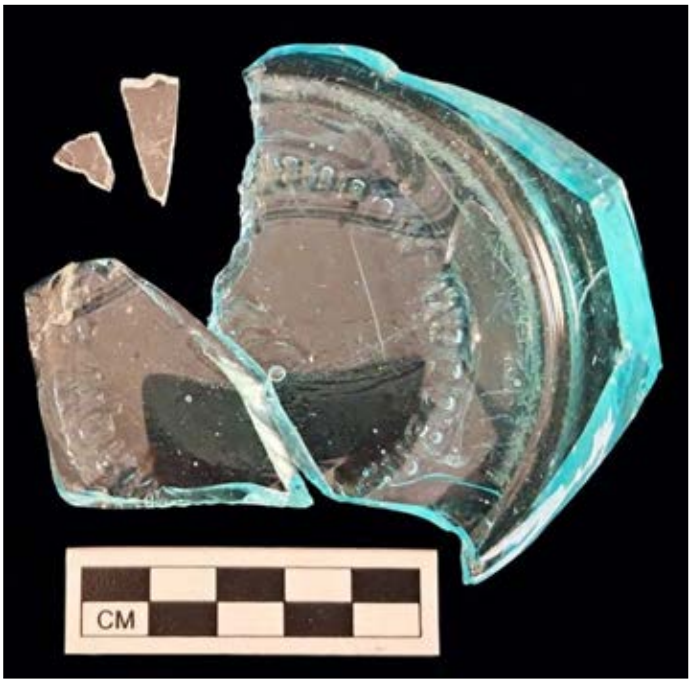



**Figure 8-100: Artifact summary of Site 44IW0417.**

AREA C

The overall Area C consists of the parcels south of Proctors Bridge Road (Route 621) and along Ramsey Road (Route 622) (Figure 8-101). Terrain in this area includes three primary large, irregular finger ridges with numerous drainages and unnamed tributaries down to Blackwater River to the west and Mill Swamp to the east. These drainages form smaller ridges, knolls, and terraces overlooking the wetlands. Large, harvested agricultural fields cover the tops of the landforms. These fields have very high surface visibility, allowing for systematic pedestrian

survey. Vegetation outside of the agricultural fields consists of mature mixed woodland and pine forest. The narrow corridors around streams and drainages have been avoided by timbering and contain mature mixed deciduous woodland vegetation. Planted pine woodland across the area can be found at different stages of regrowth following the last clearcutting event. Slopes within the project are gentle to moderate.

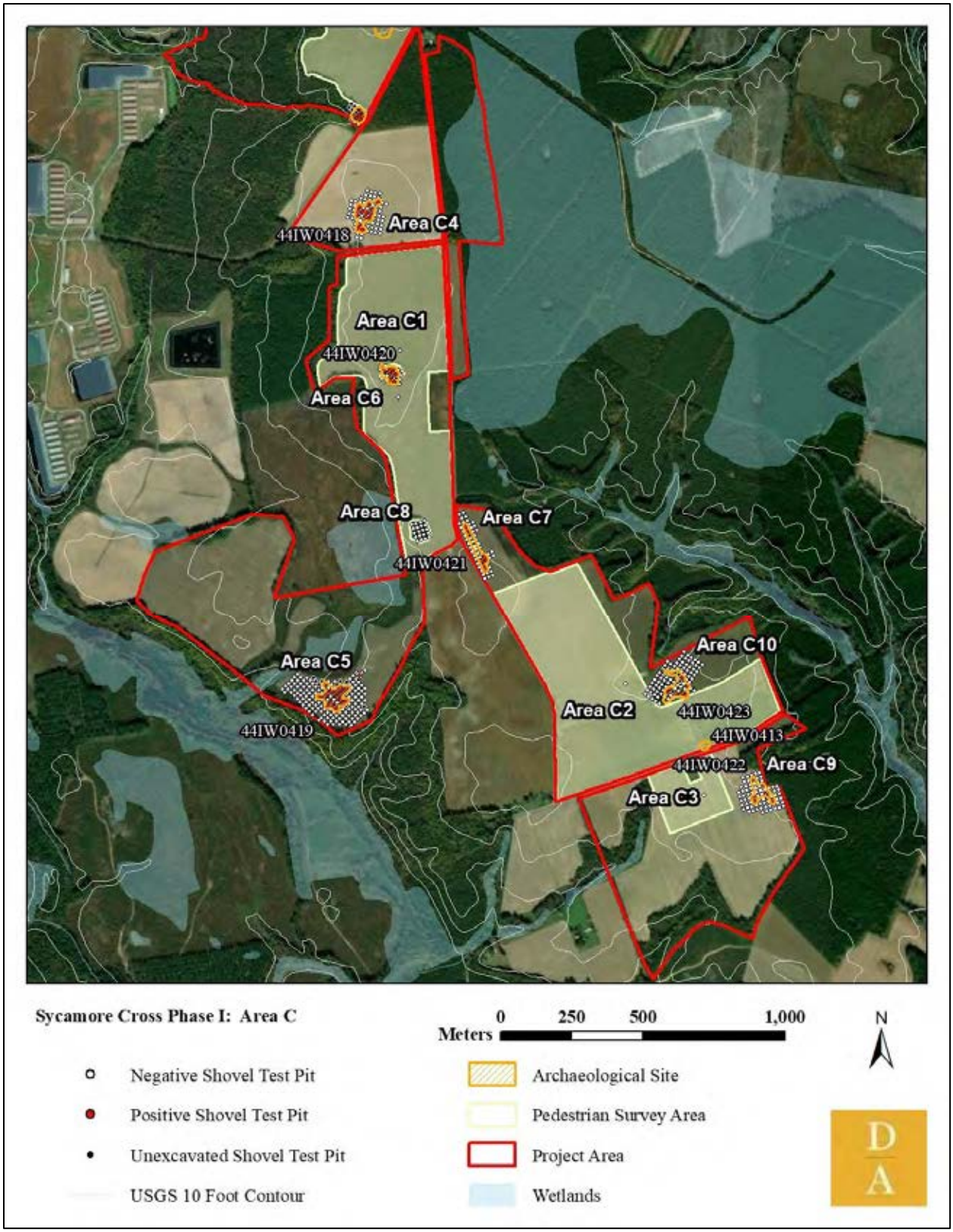



**Figure 8-101: Overall map of Area C.**

*Area C1*

This area consists of a long irregular agricultural field in the northern part of the overall Area C. It is bounded to the east by Ramsey Road (Route 622). Access to this area is provided by a short farm road running east to west in the center of the area. Terrain in this area consists of one long irregular finger ridge. Vegetation consists of harvested soy remnants with mixed woodland at the edges of the field (Figure 8-102). A dwelling is indicated on historic topographic maps, though only a grassy space, several mature trees, an outbuilding, and several utility poles remain on the surface: these surface features are associated with Architectural Resource #046-0029. An evenly rectangular space in the central and eastern part of the field was uncultivated and overgrown, for unknown reasons (Figure 8-103).

**Figure 8-102: Overview of Area C1, showing Architectural Resource #046-0029, facing north.**

**Figure 8-103: Overgrown area in middle of Area C1, facing southeast.**

Surface exposure in this area was high, and pedestrian survey was conducted in lieu of shovel test survey (Figure 8-104, Figure 8-105). Transects were walked in 7.5-meter (25-foot) intervals east to west across the entirety of this field. Only a few surface artifacts were observed across this area, including aqua vessel glass, transferware, blue shell edged refined earthenware.

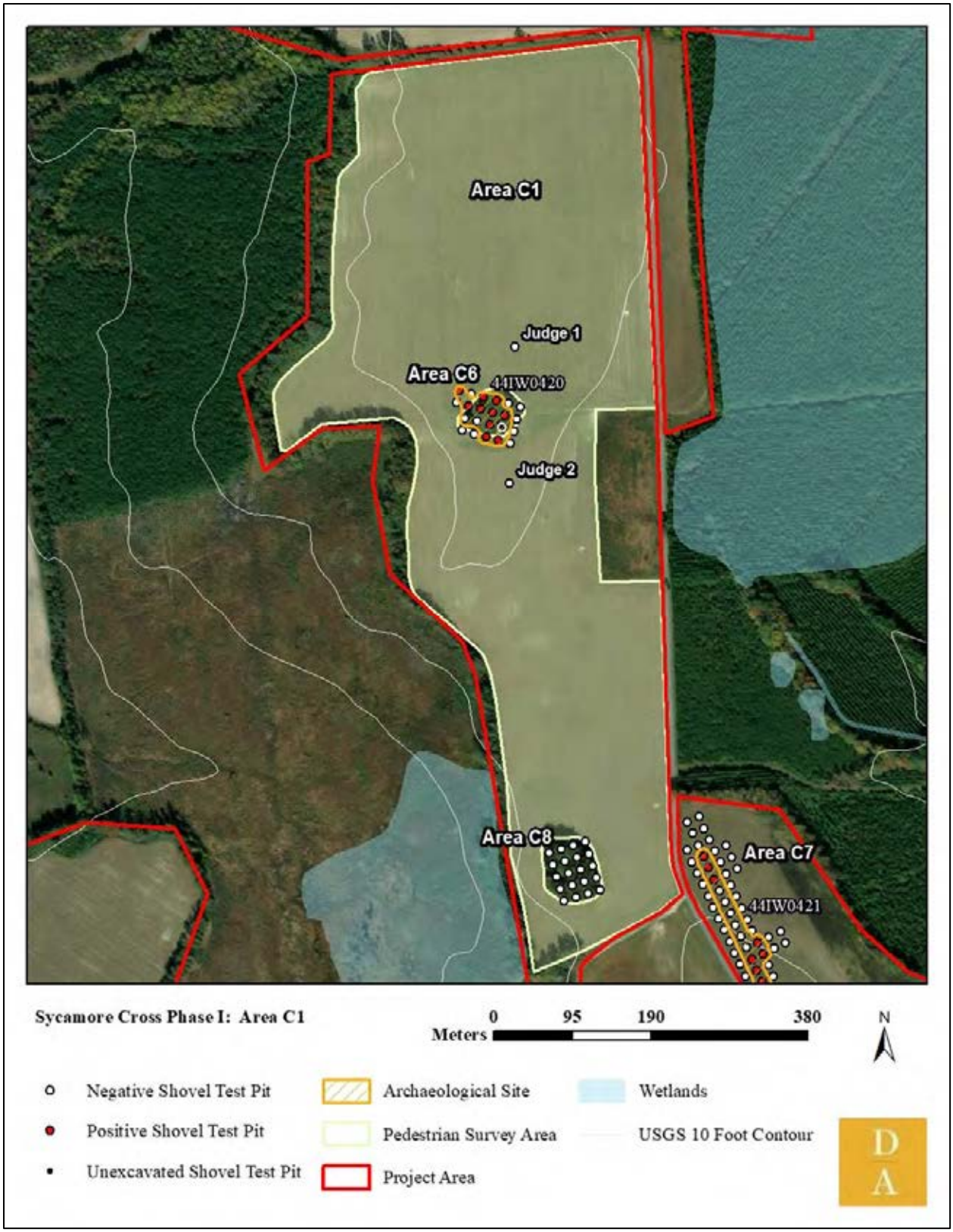



**Figure 8-104: Aerial view of Area C1 survey.**

**Figure 8-105: Surface exposure in Area C1.**

Two judgmental shovel tests were excavated in this area to investigate the integrity of the soil strata. These shovel tests exhibited a three-stratum profile of plowzone which cut an intact topsoil over subsoil. Stratigraphy consisted of 10YR 4/2 dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand transition layer (AB horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-106).

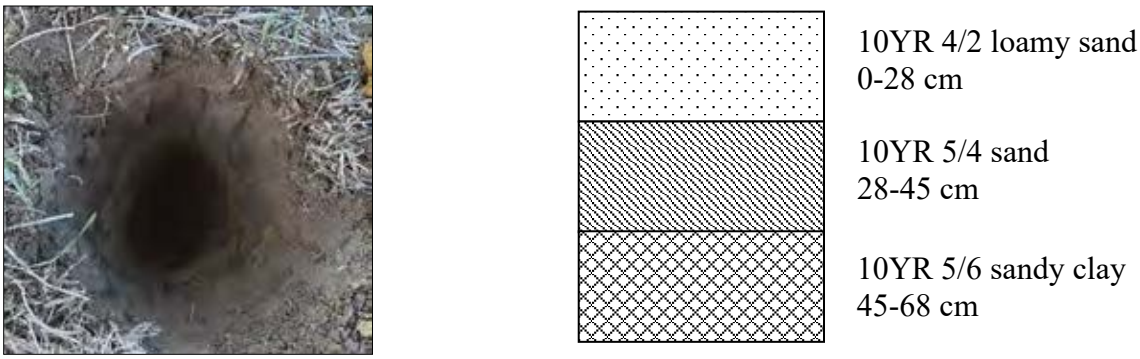



**Figure 8-106: Soil profile of Judgmental Shovel Test 1 in Area C1.**

*Area C2*

This area consists of the "L"-shaped agricultural field in the southern part of the Sycamore Cross project area and is bounded to the west by Ramsey Road (Route 622) and to the south by Rattlesnake Trail (Route 646). Access to this area is provided by farm roads to the east and south (Figure 8-107).

**Figure 8-107: Farm road in Area C2, facing south.**

Terrain in this area consists of two broad, flat finger ridges that overlook an unnamed tributary of Rattlesnake Swamp to the south. Vegetation consists of soy remnants and short, sparse grasses (Figure 8-108). A complex of structures associated with Architectural Resource #046-5148 is located in the southern part of this area (Figure 8-109). This complex includes a dwelling and several outbuildings.

**Figure 8-108: Overview of Area C2, facing northwest.**

**Figure 8-109: Architectural Resource #046-5148 in Area C2, facing north.**

Surface exposure in this agricultural field was high, and pedestrian survey was conducted in lieu of shovel test survey (Figure 8-110, Figure 8-111). Transects were walked in 7.5-meter (25-foot) intervals east to west across the entirety of this field. Surface artifacts were observed in a scatter in the southern end of the field. These surface observations were designated Site 44IW0413, which is described in greater detail below.

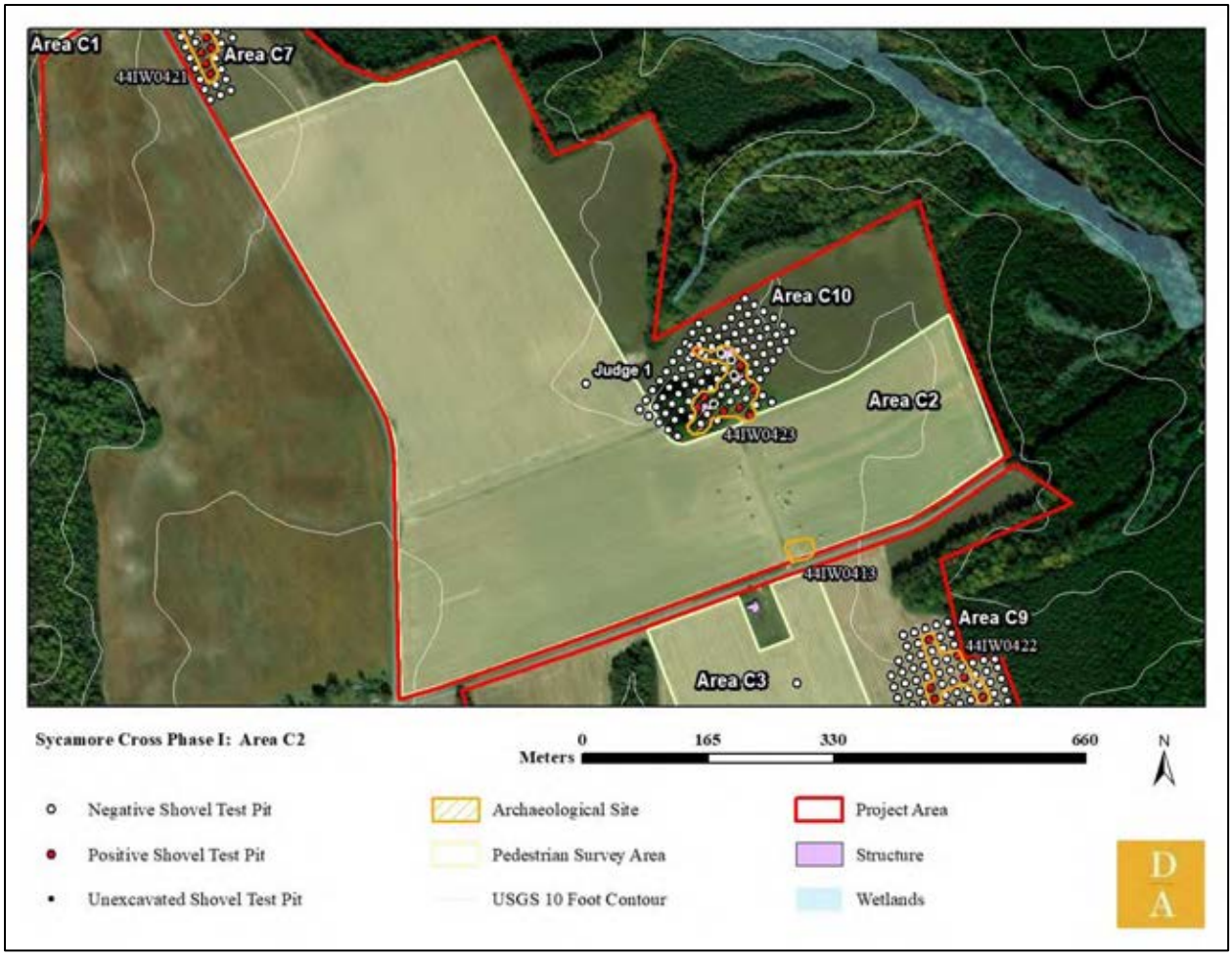



**Figure 8-110: Aerial view of Area C2 survey.**

**Figure 8-111: Surface exposure in Area C2.**

One judgmental shovel test was excavated in this area to investigate the integrity of the soil strata. This shovel test exhibited at least a two-stratum profile of 10YR 4/2 dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand transition (AB horizon), and excavation reached the water table before subsoil could be observed (Figure 8-112).

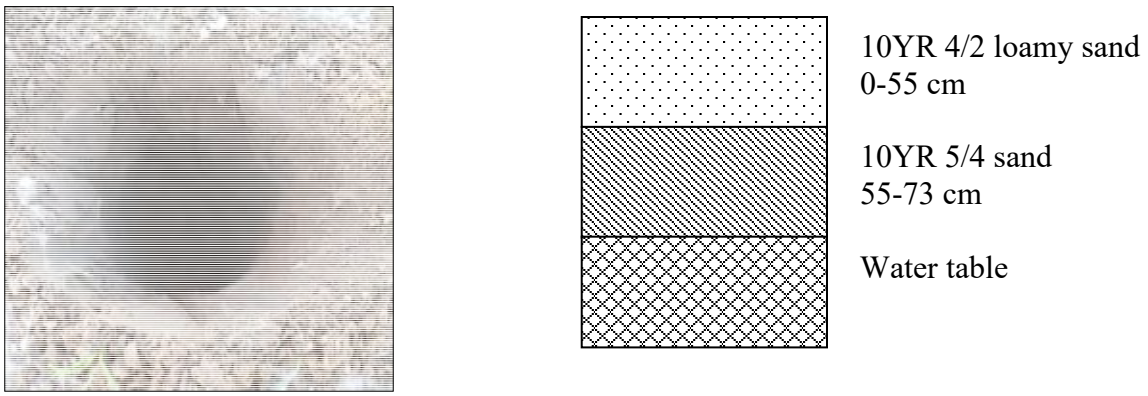



**Figure 8-112: Soil profile of Judgmental Shovel Test 1 in Area C2.**

44IW0413

This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C2. No artifacts were collected, but artifacts observed included aqua and colorless vessel glass, brick fragments, and refined earthenware (Figure 8-113). No surface features were observed.

**Figure 8-113: Artifacts on the surface in Site 44IW0413.**

*Area C3*

This area consists of a smaller rectangular section of a larger agricultural field in the southernmost part of the Sycamore Cross project area (Figure 8-114). This area is south of Area C2 and bounded to the north by Rattlesnake Trail (Route 646). Access to this area is provided by a short drive off of Rattlesnake Trail, in the middle of the area.

**Figure 8-114: Overview of Area C3, facing south.**

Terrain in this area consists of a broad finger ridge overlooking three large drainages to the east and west, which lead to both Blackwater River and Rattlesnake Swamp. Vegetation in this area is the same as that of Area C2. One dwelling stands at the northern edge of the field (Figure 8-115).

**Figure 8-115: Dwelling in Area C3, facing southwest.**

Surface exposure in this agricultural field was high, and pedestrian survey was conducted in lieu of shovel test survey (Figure 8-116, Figure 8-117). Transects were walked in 7.5-meter (25-foot) intervals east to west across the entirety of this field. No artifact scatters were observed.

**Figure 8-116: Aerial view of Area C3 survey.**

**Figure 8-117: Surface exposure in Area C3.**

One judgmental shovel test was excavated in this area to investigate the integrity of the soil strata. This shovel test exhibited a three-stratum profile of plowzone which cut an intact topsoil over subsoil. Stratigraphy consisted of 10YR 4/2 dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand topsoil (Ab horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-118).

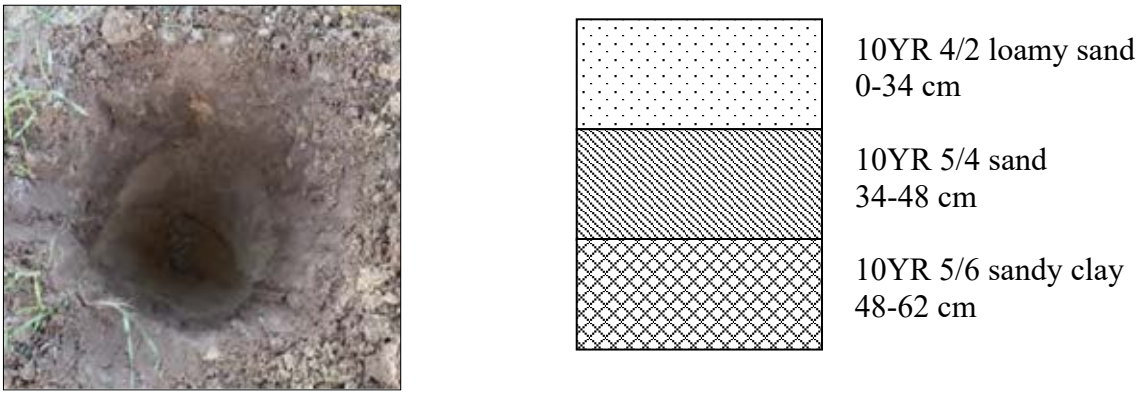



**Figure 8-118: Soil profile of Judgmental Shovel Test 1 in Area C3.**

*Area C4*

This area consists of a large rectangular agricultural field in the northern part of the overall Area C. This field sits on the top of a long, broad finger ridge that makes up much of Area C. It is bounded to the northwest by Proctors Bridge Road (Route 621), to the east by Ramsey Road (Route 622), and to the south by an unnamed farm road (Figure 8-119). This grid was placed where two outbuildings are indicated on historic maps, though no surface features remain. These outbuildings may be associated with Architectural Resource #046-0030, which is no longer standing.

**Figure 8-119: Towards farm road south of Area C4, facing southwest.**

Vegetation in Area C4 at the time of survey consisted of the remains of harvested corn and sparse, short grasses (Figure 8-120). Standing water earlier in the year prevented systematic pedestrian survey. Buried utilities run through the field, indicating at least some surface disturbance by farming activity.

**Figure 8-120: Vegetation and utilities in Area C4, facing north.**

A total of 76 shovel tests were laid out at 15-meter (50-foot) intervals in nine transects labeled -B through G (Figure 8-121). A total of fourteen shovel tests were positive for cultural material with fragments of vessel glass, refined earthenware, oyster shell, nails, brick, and window glass. These positive shovel tests were designated Site 44IW0418, which is described in greater detail below.

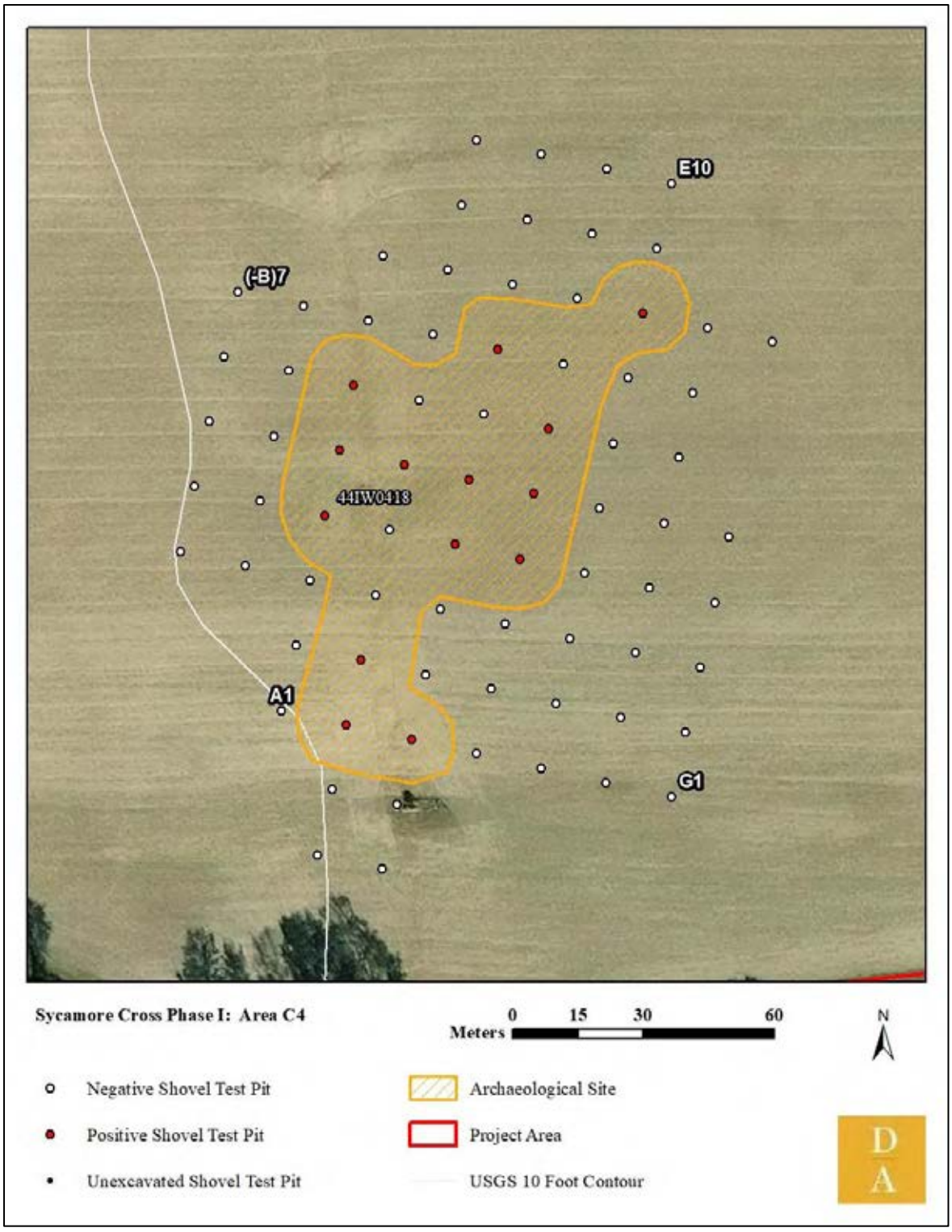



**Figure 8-121: Aerial view of Area C4 shovel test grid.**

Shovel tests in this area exhibited a three-stratum profile of plowzone which cuts an intact topsoil over subsoil. Stratigraphy consisted of 7.5Y 4/3 brown sandy loam plowzone (Ap horizon) over 10YR 6/3 pale brown sandy loam transition layer (AB horizon) over 7.5YR 6/4 light brown sandy clay loam subsoil (B horizon) (Figure 8-122).

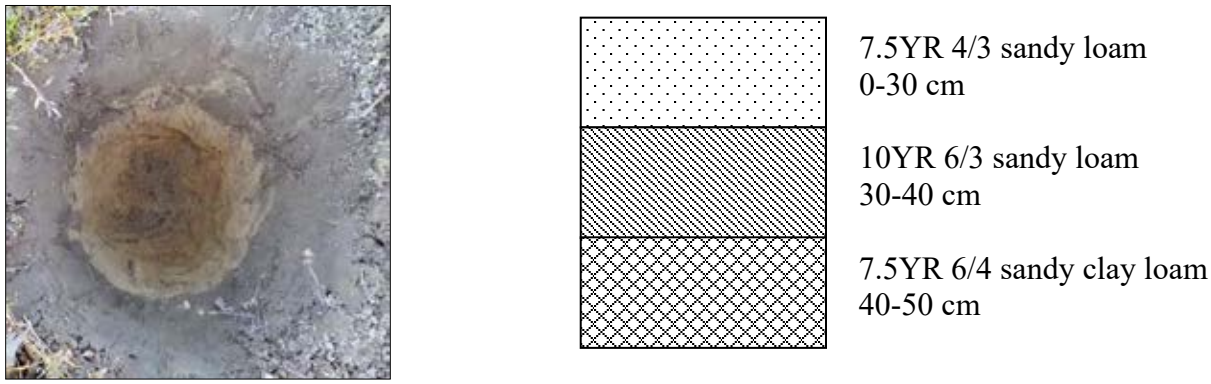



**Figure 8-122: Soil profile of Shovel Test C8 in Area C4.**

44IW0418

This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter associated with Architectural Resource #046-0030. This resource is no longer standing. A total of 89 artifacts were recovered from fourteen positive shovel tests, including refined earthenware, oyster shell, solarized vessel glass, milk glass, green vessel glass, cobalt vessel glass, brick fragments, corroded nails, yellowware, and aqua window glass (Figure 8-123).

**Figure 8-123: Artifact summary of Site 44IW0418.**

*Area C5*

This area consists of the small horseshoe-shaped agricultural field to the southwest of the Sycamore Cross project area. This field sits at the end of a narrow, rectangular finger ridge

overlooking the headwaters of an unnamed tributary of Blackwater River. Slope is gentle and rolling. Access is provided by a farm road that runs along the finger ridge (Figure 8-124).

**Figure 8-124: Farm road in Area C5, facing south.**

Vegetation in Area C5 at the time of survey consisted of young winter wheat (Figure 8-125). Scrubby grasses and mixed woodland border this area. Historic topographic maps show a dwelling and associated outbuilding at the end of this landform. This grid was placed to find evidence of these structures.

**Figure 8-125: Overview of Area C5, facing north.**

A total of 178 shovel tests were laid out at 15-meter (50-foot) intervals in 0 transects labeled A through S, nine of which could not be excavated due to road disturbance and standing water (Figure 8-126, Figure 8-127). A total of 20 shovel tests were positive for cultural material with fragments of vessel glass, lantern glass, refined earthenware, machine cut and wire nails, and copper pipe. These positive shovel tests were designated Site 44IW0419, which is described in greater detail below.

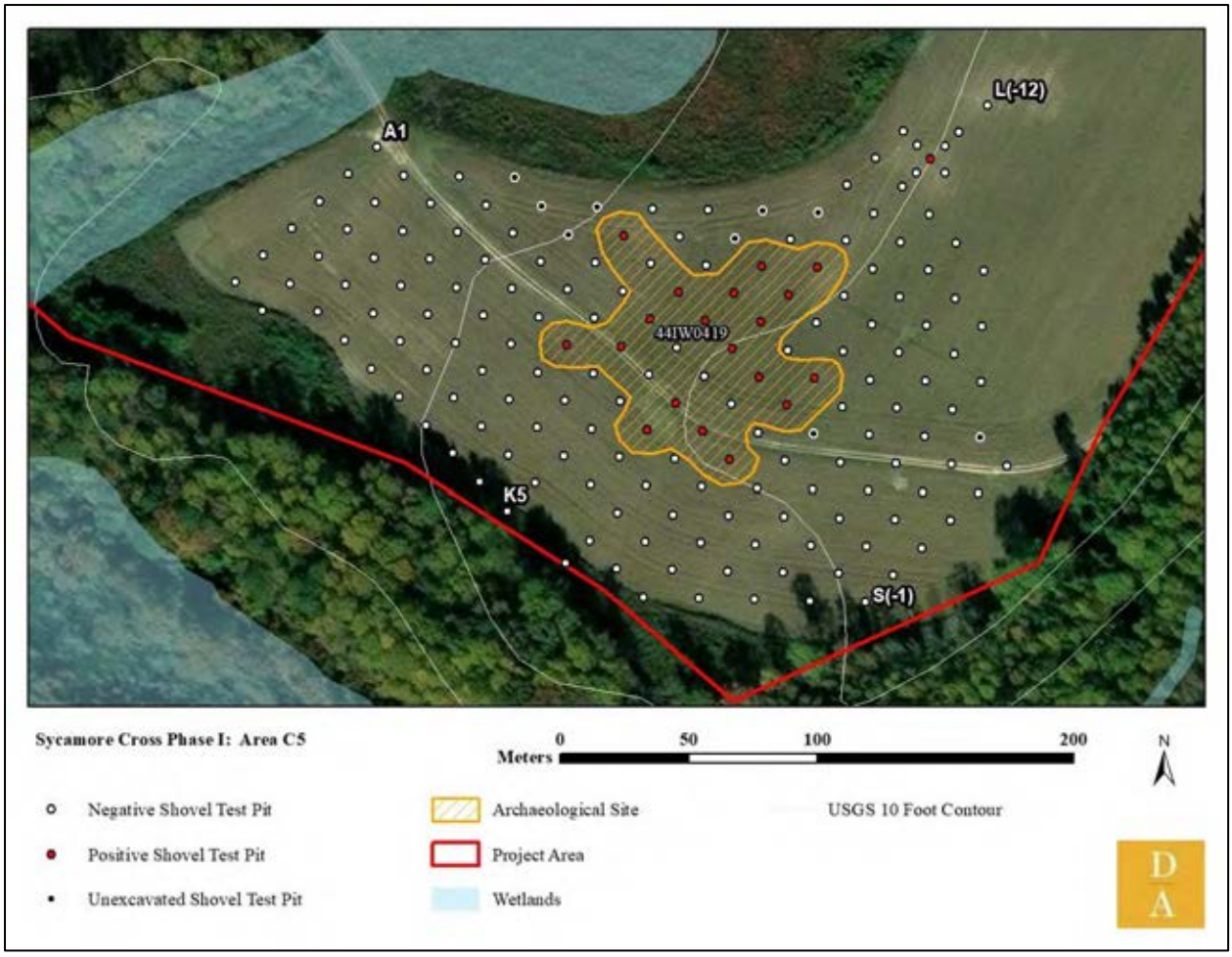
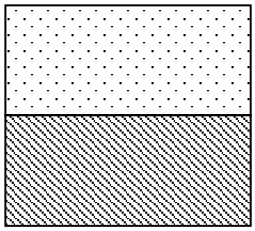



**Figure 8-126: Aerial view of Area C5 shovel test grid.**

**Figure 8-127: Standing water in Area C5.**

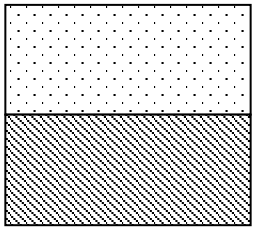
Shovel tests exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 2.5Y 5/4 light yellowish brown sandy clay loam plowzone (Ap horizon) over 10YR 4/6 dark yellowish brown clay subsoil (B horizon) (Figure 8-128). Shovel Test J(-1) encountered an impasse of concrete or mortar at 20 cm below the surface (Figure 8-129).



2.5Y 5/4 sandy clay loam
0-45 cm

10YR 4/6 clay
45-55 cm

**Figure 8-128: Soil profile of Shovel Test N(-4) in Area C5.**



10YR 4/2 sandy loam
0-20 cm

Concrete and mortar impasse
20- cm

**Figure 8-129: Shovel Test J(-1), showing concrete impasse.**

44IW0419

This site consists of a mid-nineteenth to early-twentieth century domestic artifact scatter in Area C5. A total of 51 artifacts were recovered from 20 positive shovel tests, including brick fragments, machine-cut and wire nails, aqua vessel glass, solarized vessel glass, colorless vessel glass, dark green vessel glass, blue shell edged ceramic, industrial porcelain, lantern glass, and a fragment of copper pipe (Figure 8-130).

**Figure 8-130: Artifact summary of Site 44IW0419.**

*Area C6*

This area sits in the center of the long rectangular agricultural field of the Area C1 pedestrian survey. It focuses on a grassy space that could not be systematically pedestrian surveyed and where historic topographic maps indicate one dwelling and one outbuilding. Structural remains, one

standing structure, and farm equipment were observed on the surface (Figure 8-131, Figure 8-132). Vegetation in this area consisted of tall grasses and a few mature shrubs.

**Figure 8-131: Vegetation and outbuilding in Area C6, facing west.**

**Figure 8-132: Structural rubble in Area C6.**

A total of 22 shovel tests were laid out at 15-meter (50-foot) intervals in four transects labeled A through D, one of which could not be excavated due to structural remains (Figure 8-133). A total of ten shovel tests were positive for cultural material with fragments of unidentified farm equipment, window and vessel glass, and refined earthenware. These positive shovel tests were designated Site 44IW0420, which is described in greater detail, below. In order to get negative space around positive shovel tests, a portion of the Area C6 shovel test grid overlaps with the Area C1 pedestrian survey.

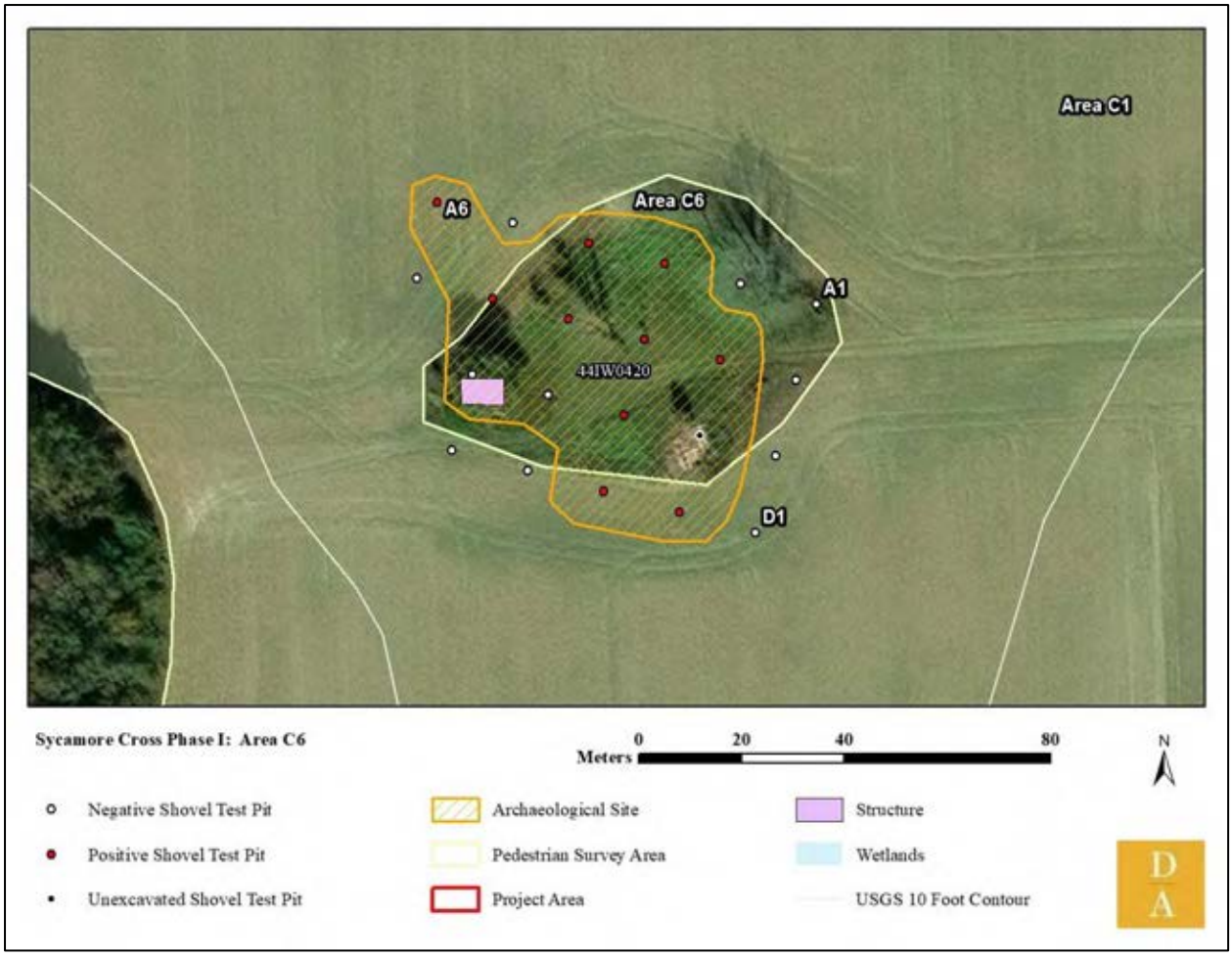
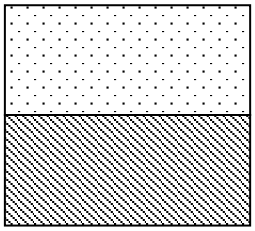



**Figure 8-133: Aerial map of Area C6 shovel test grid.**

Shovel tests in this area exhibited a three-stratum profile of plowzone which cuts an intact topsoil over subsoil. Stratigraphy consisted of 10YR 5/2 grayish brown sandy loam topsoil (A horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-134).



10YR 5/2 sandy loam
0-35 cm

10YR 5/6 sandy clay
35-51 cm

**Figure 8-134: Soil profile of Shovel Test B3 in Area C6.**

44IW0420

This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C6. This grid also overlaps slightly with the Area C1 pedestrian survey. This site is also associated with Architectural Resource #046-0029. A total of 20 artifacts were recovered from ten positive shovel tests, including a length of chain, two fragments of unidentified farm equipment, brown vessel glass, colorless vessel and window glass, aqua vessel glass, brick fragments, and one machine cut nail (Figure 8-135). Colorless vessel glass was most common in this area, with five fragments recovered.

**Figure 8-135: Artifact summary of Site 44IW0420.**

*Area C7*

This area sits in the center of the overall Area C, north of the Area C2 pedestrian survey and bounded on the west by Ramsey Road (Route 622) (Figure 8-136). It sits at the top of a large finger ridge, pinched between drainages to tributaries of the Blackwater River and Mill Swamp. This grid was excavated to find evidence of a dwelling marked on historic topographic maps. Vegetation in this area is primarily short grasses consistent with fallow agricultural fields (Figure 8-137).

**Figure 8-136: Ramsey Road bounding the west of Area C7, facing south.**

**Figure 8-137: Vegetation and overview of Area C7, facing south.**

A total of 56 shovel tests were laid out at 15-meter (50-foot) intervals in five transects labeled A through E (Figure 8-138). A total of eight shovel tests were positive for cultural material with fragments of vessel glass, unidentified nails, refined earthenware, window glass, and a glass marble. These positive shovel tests were designated Site 44IW0421, which is described in greater detail, below.

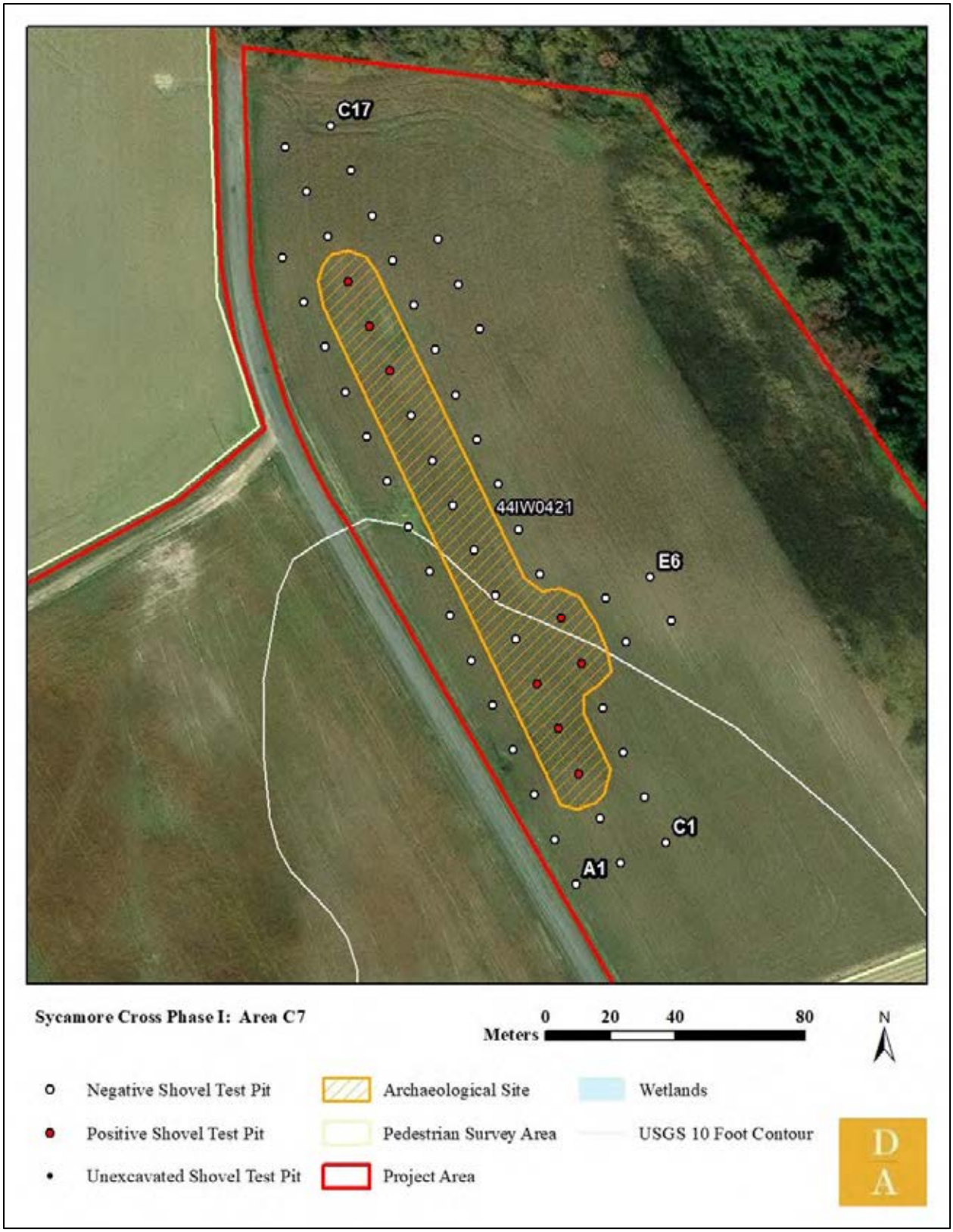
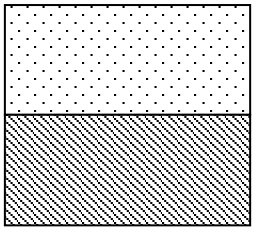



**Figure 8-138: Aerial view of Area C7 shovel test grid.**

Shovel tests in this area exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 10YR 3/2 very dark grayish brown sandy loam plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand subsoil (B horizon) (Figure 8-139).



10YR 3/2 sandy loam
0-31 cm

10YR 5/4 sand
31-50 cm

**Figure 8-139: Soil profile of Shovel Test B12 in Area C7.**

44IW0421

This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C7. Fifty artifacts were recovered from eight positive shovel tests, including corroded nails, aqua vessel glass, colorless vessel and window glass, brown vessel glass, refined earthenware, brick fragments, and a glass marble (Figure 8-140).

**Figure 8-140: Artifact summary of Site 44IW0421.**

*Area C8*

This area covers the copse of trees in the southern end of the agricultural field that constitutes the Area C1 pedestrian survey. This small grid overlooks a large, flat, terraced finger ridge to the west.

Fence posts, sheet metal, farm equipment, and fragments of brick and plaster can be found scattered across the ground surface of this area (Figure 8-141, Figure 8-142).

**Figure 8-141: Fence post in Area C8, facing east.**

**Figure 8-142: Equipment remnants in Area C8, facing south.**

Vegetation in Area C8 at the time of survey consisted of mature deciduous trees ringing a dense briar thicket (Figure 8-143). A thick, loamy humus layer can be found across this area (Figure 8-144). Terrain in this grid is unnatural and bowl-shaped, with trees growing around the "rim" of the "bowl."

**Figure 8-143: Vegetation in Area C8, facing east.**

**Figure 8-144: Shovel Test C4, showing 35 cm humus layer.**

A total of 20 shovel tests were laid out at 15-meter (50-foot) intervals in four transects labeled A through D (Figure 8-145). No cultural material was recovered, and no historic surface features were observed.

**Figure 8-145: Aerial view of Area C8 shovel test grid.**

Shovel tests in this area exhibited a three-stratum profile of topsoil over transitional layer over subsoil. Stratigraphy consisted of 10YR 3/2 very dark grayish brown sandy loam topsoil (A horizon) over 10YR 6/4 light yellowish brown sand transition layer (AB horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-146).

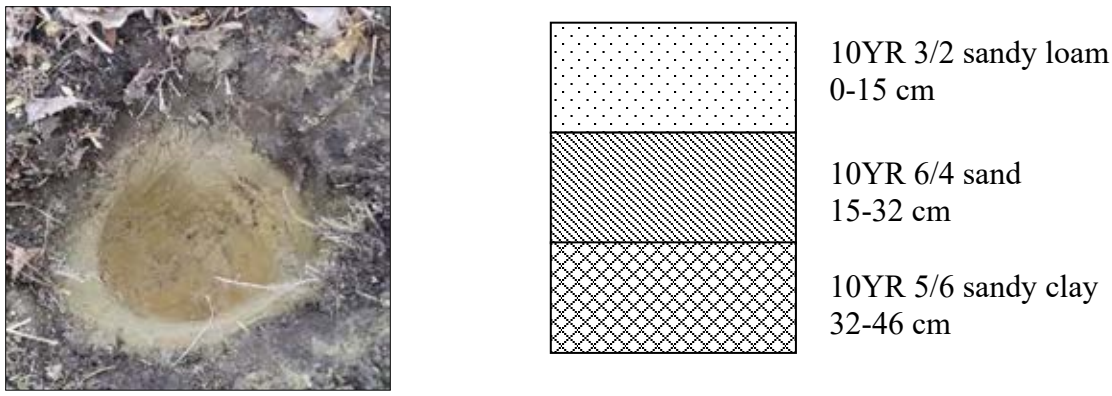



**Figure 8-146: Soil profile of Shovel Test B5 in Area C8.**

*Area C9*

This area consists of a portion of the southernmost agricultural field in Area C9, at the eastern project area boundary. It shares this agricultural field with the Area C3 pedestrian survey, though these areas do not overlap. This area overlooks several broad terraces that themselves overlook drainages down to Mill Swamp. Vegetation in Area C9 at the time of survey consisted of waist-high winter wheat, with mature mixed forest at the edge of the agricultural field (Figure 8-147). Terrain is broad and flat.

**Figure 8-147: Overview of Area C9, facing north.**

A total of 78 shovel tests were laid out at 15-meter (50-foot) intervals in ten transects labeled A through K (Figure 8-148). A total of six shovel tests were positive for cultural material including fragments of vessel and window glass, ironstone, and refined earthenware. These positive shovel tests were designated Site 44IW0422, which is described in greater detail, below.

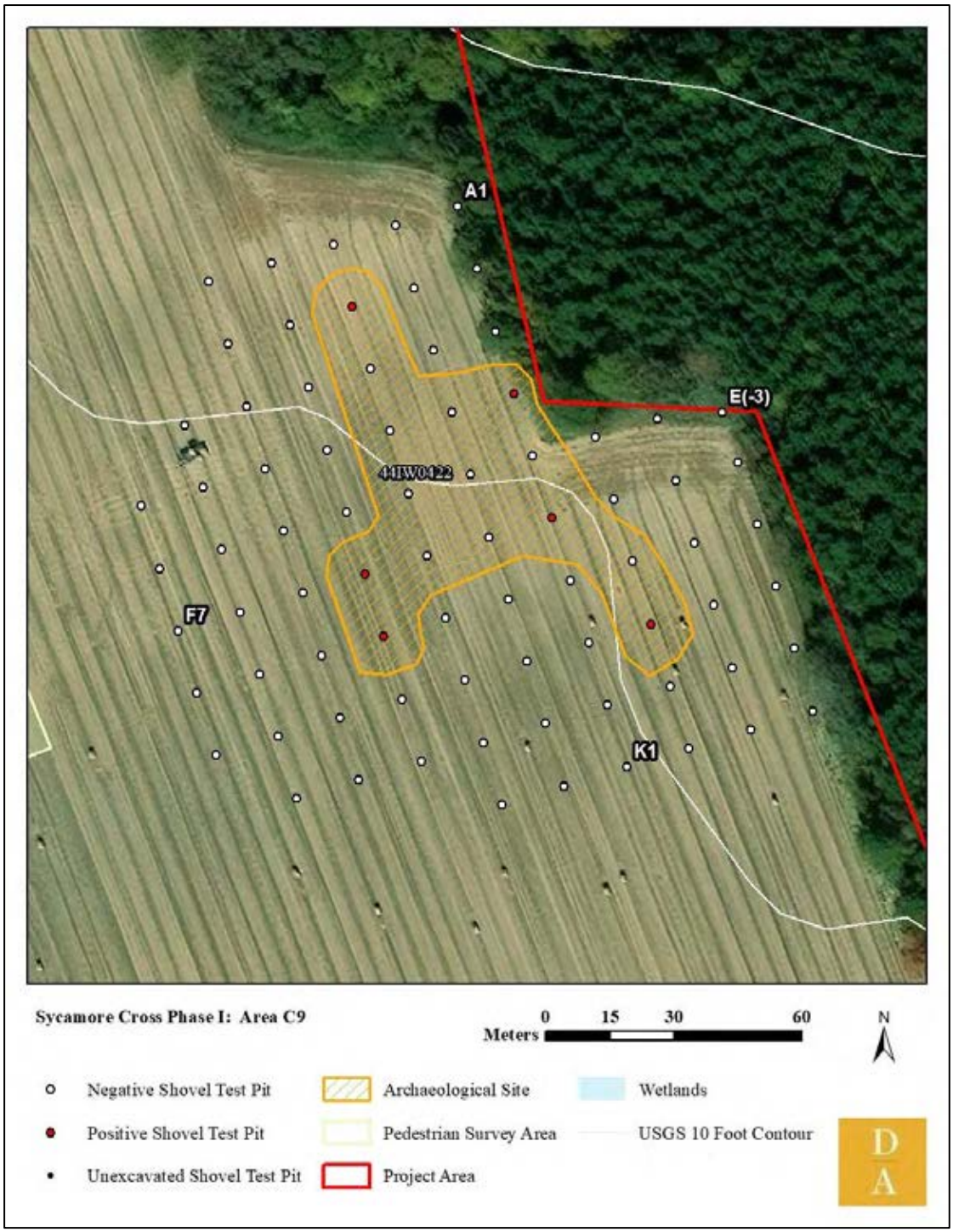



**Figure 8-148: Aerial view of Area C9 shovel test grid.**

Shovel tests exhibited a three-stratum profile of plowzone which cuts an intact topsoil over subsoil. Stratigraphy consisted of 10YR 5/4 yellowish brown sand plowzone (Ap horizon) over 10YR6/4 light yellowish brown sand topsoil (A horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-149).

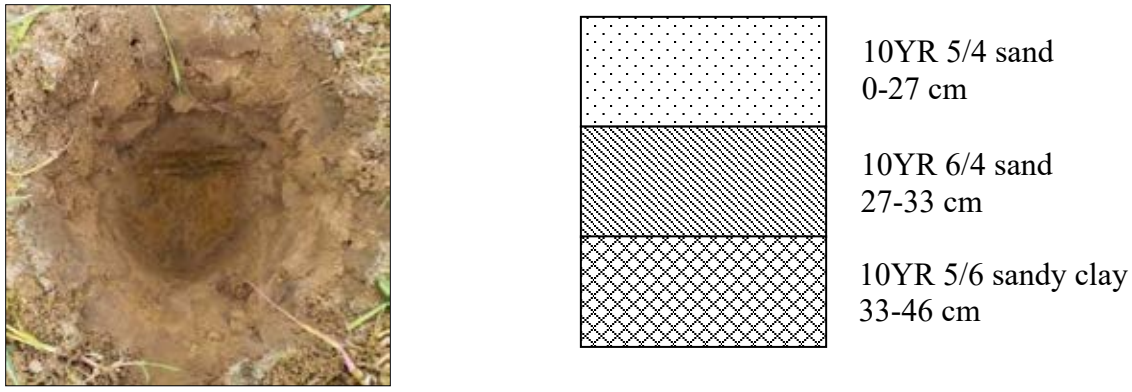



**Figure 8-149: Soil profile of Shovel Test B4 in Area C9.**

44IW0422

This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C9. 13 artifacts were recovered from six shovel tests, including colorless, aqua, cobalt, and solarized vessel glass; ironstone; refined earthenware; and unidentified iron (Figure 8-150). The most common artifact was colorless vessel glass, with four fragments.

**Figure 8-150: Artifact summary of Site 44IW0422.**

*Area C10*

This area rests in the southern part of the overall Area C, bounded by Area C2 to the west and south and by the Sycamore Cross project area boundaries to the north. This area was excavated to investigate a part of the project that could not be systematically pedestrian surveyed due to low surface visibility, as well as its proximity to Architectural Resource #046-5148 (Figure 8-151). It

sits on a narrow finger ridge at the headwaters of an unnamed tributary of Mill Swamp, where human activity has formed a dam and artificial wetland outside of the project area.

**Figure 8-151: View towards an outbuilding associated with Architectural Resource #046-5148, facing east.**

Vegetation in Area C10 at the time of survey varied. In the open field, vegetation consisted of short grasses (Figure 8-152). Around the farm complex, vegetation consisted of tall grasses, woody shrubs, privet, and mature trees (Figure 8-153).

**Figure 8-152: Vegetation in the agricultural field in Area C10, facing west.**

**Figure 8-153: Vegetation around Architectural Resource #046-5148, facing south.**

A total of 101 shovel tests were laid out at 15-meter (50-foot) intervals in fourteen transects labeled A through O, four of which could not be excavated due to proximity to structures (Figure 8-154). A total of eight shovel tests were positive for cultural material with fragments of mortar, unidentified nails, vessel glass, and iron bolts. These positive shovel tests were designated Site 44IW0423, which is described in greater detail, below.

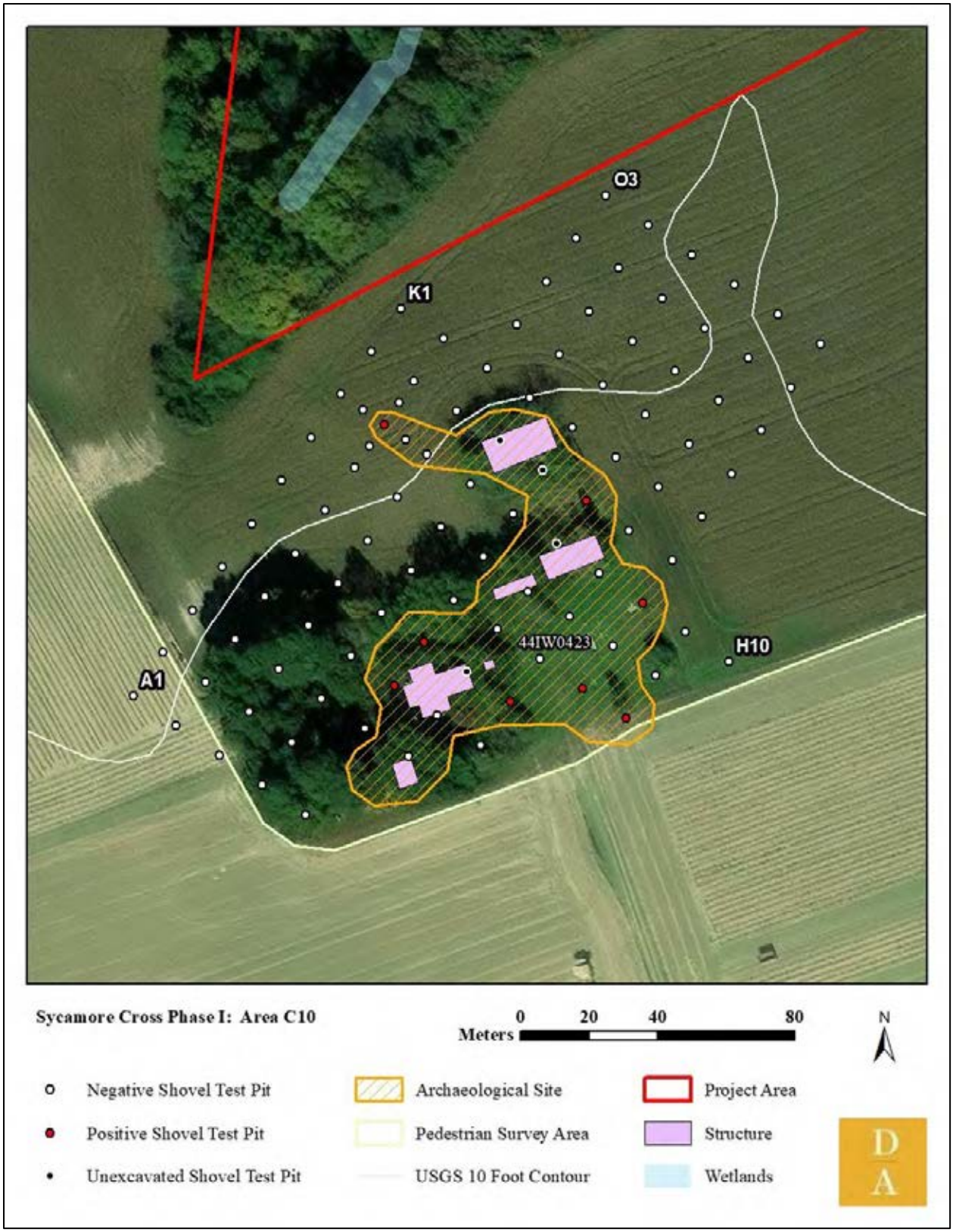



**Figure 8-154: Aerial view of Area C10 shovel test grid.**

Shovel tests in the agricultural field exhibited a three-stratum profile of plowzone which cuts an intact transition layer over subsoil. Stratigraphy consisted of 10YR 4/3 brown sandy loam plowzone (Ap horizon) over 2.5Y 7/4 pale brown sandy clay transition (AB horizon) over 10YR 7/6 yellow clay subsoil (B horizon) (Figure 8-155). Shovel tests in the thicker vegetation around the architectural resource exhibited a three-stratum profile of a disturbed layer over intact topsoil over subsoil. Stratigraphy here consisted of 10YR 6/6 brownish yellow clay disturbance over 10YR 3/3 dark brown sand topsoil (A horizon) over 2.5Y 6/4 light yellowish brown sandy clay subsoil (B horizon) (Figure 8-156).

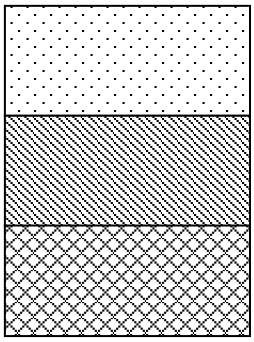



**Figure 8-155: Soil profile of Shovel Test J3 in the agricultural field in Area C10.**

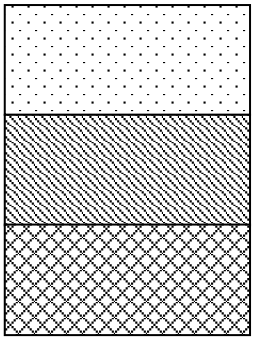



**Figure 8-156: Soil profile of Shovel Test E5 in the domestic part of Area C10.**

44IW0423

This site consists of an early-to-mid twentieth century artifact scatter in Area C10. Eighteen artifacts were recovered from eight shovel tests, including iron bolts, nuts, unidentified and wire nails, colorless and blue vessel glass, and terra cotta drain pipe (Figure 8-157).

**Figure 8-157: Artifact summary of Site 44IW0423.**

AREA D

Area D encompasses the parcel in the northwestern part of the Sycamore Cross project area and west of Area A4 (Figure 8-158). This area was timbered in 2017, which caused extensive disturbance. Field technicians visually inspected the area, but systematic shovel testing was not conducted.

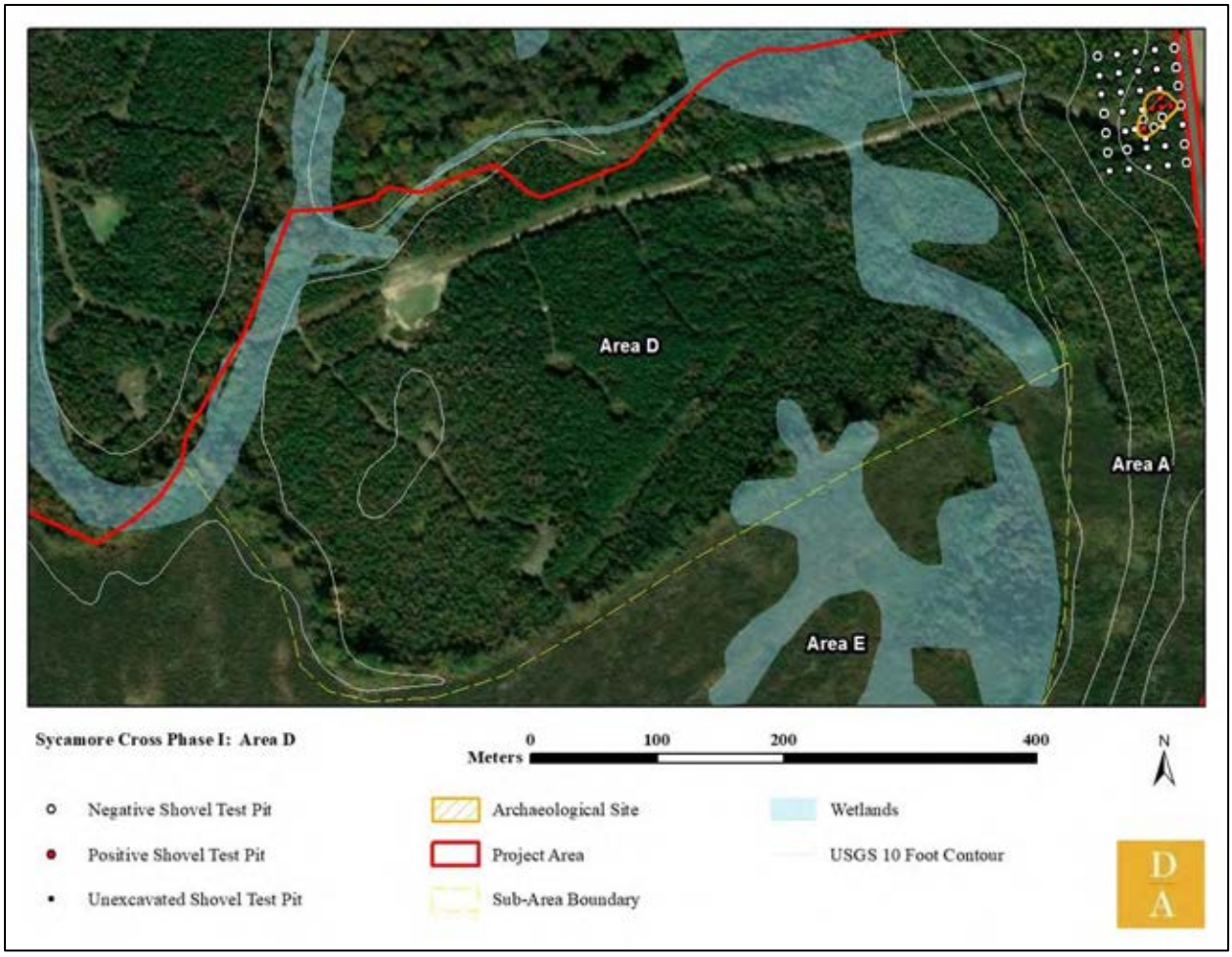



**Figure 8-158: Aerial view of Area D.**

Terrain in this area consists of a broad, low terrace, formed by two drainage cuts and overlooking the Blackwater River. Standing water was common, and the ground surface was disturbed by erosion and logging equipment (Figure 8-159). Vegetation is primarily densely growing young pine, with a thick undergrowth of tall grasses and briars (Figure 8-160).

**Figure 8-159: Standing water in Area D, facing east.**

**Figure 8-160: Vegetation in Area D, facing north.**

AREA E

Area E encompasses the parcel in the western part of the Sycamore Cross project area and northwest of Area A1 (Figure 8-161). This area was timbered in 2021, which caused extensive disturbance. Field technicians visually inspected the area, but systematic shovel testing was not conducted.

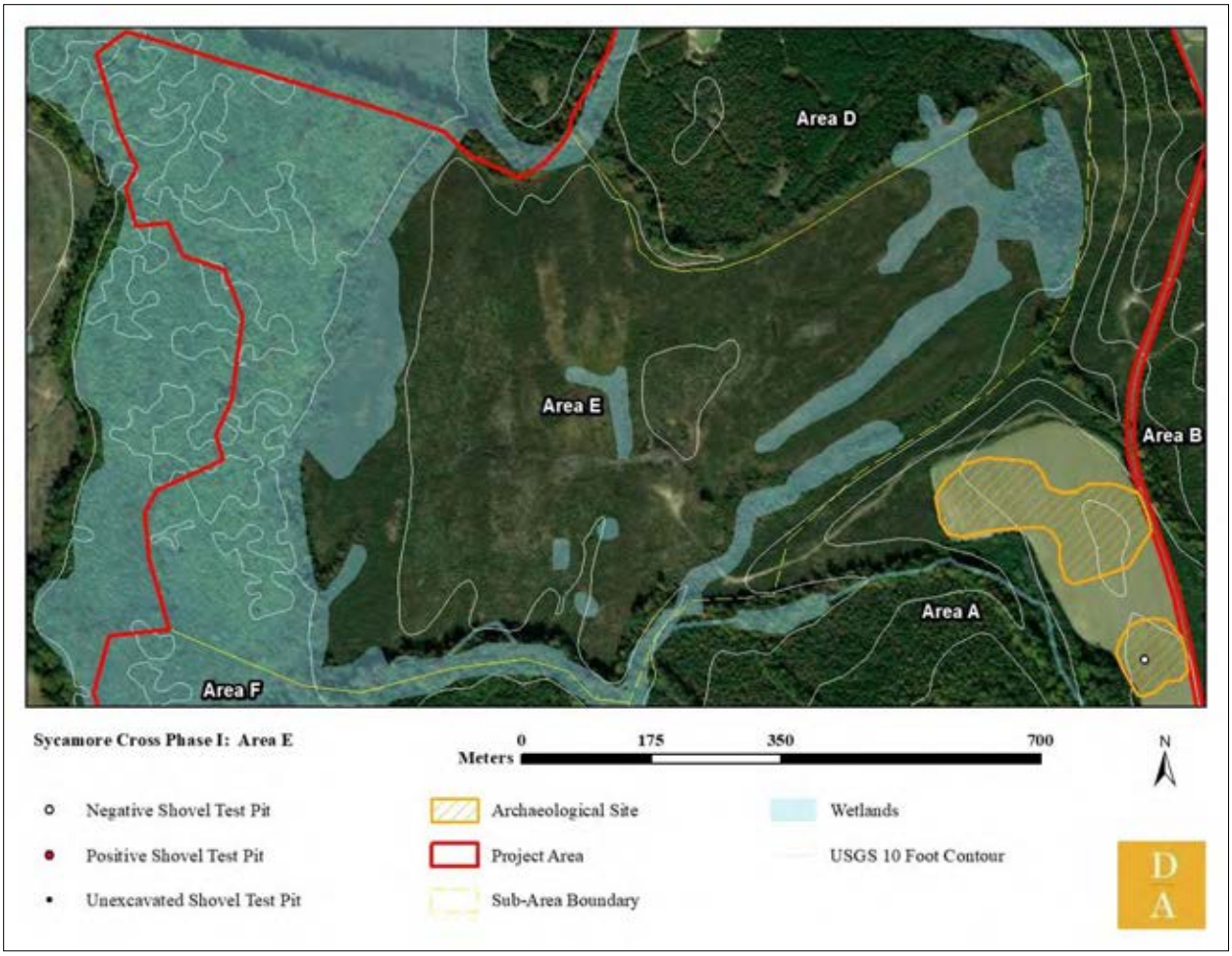



**Figure 8-161: Aerial view of Area E.**

Terrain in this area consists of a broad, low terrace and a series of knolls. Numerous drainages interrupt the landform, which drain west to the Blackwater River. Standing water was common, and the ground surface was disturbed by erosion and logging equipment (Figure 8-162). Vegetation is primarily sparse pine saplings, with briars and shrubs throughout (Figure 8-163). Thick layers of slash are common (Figure 8-164).

**Figure 8-162: Standing water in Area E, facing south.**

**Figure 8-163: Vegetation in Area E, facing east.**

**Figure 8-164: Slash in Area E, facing north.**

AREA F

Area F encompasses the low terrace west of Area A1 that overlooks Blackwater River (Figure 8-165). It is bounded on all sides by wetlands. Parts of this landform were visually inspected but not systematically shovel tested due to dense vegetation and wetlands.

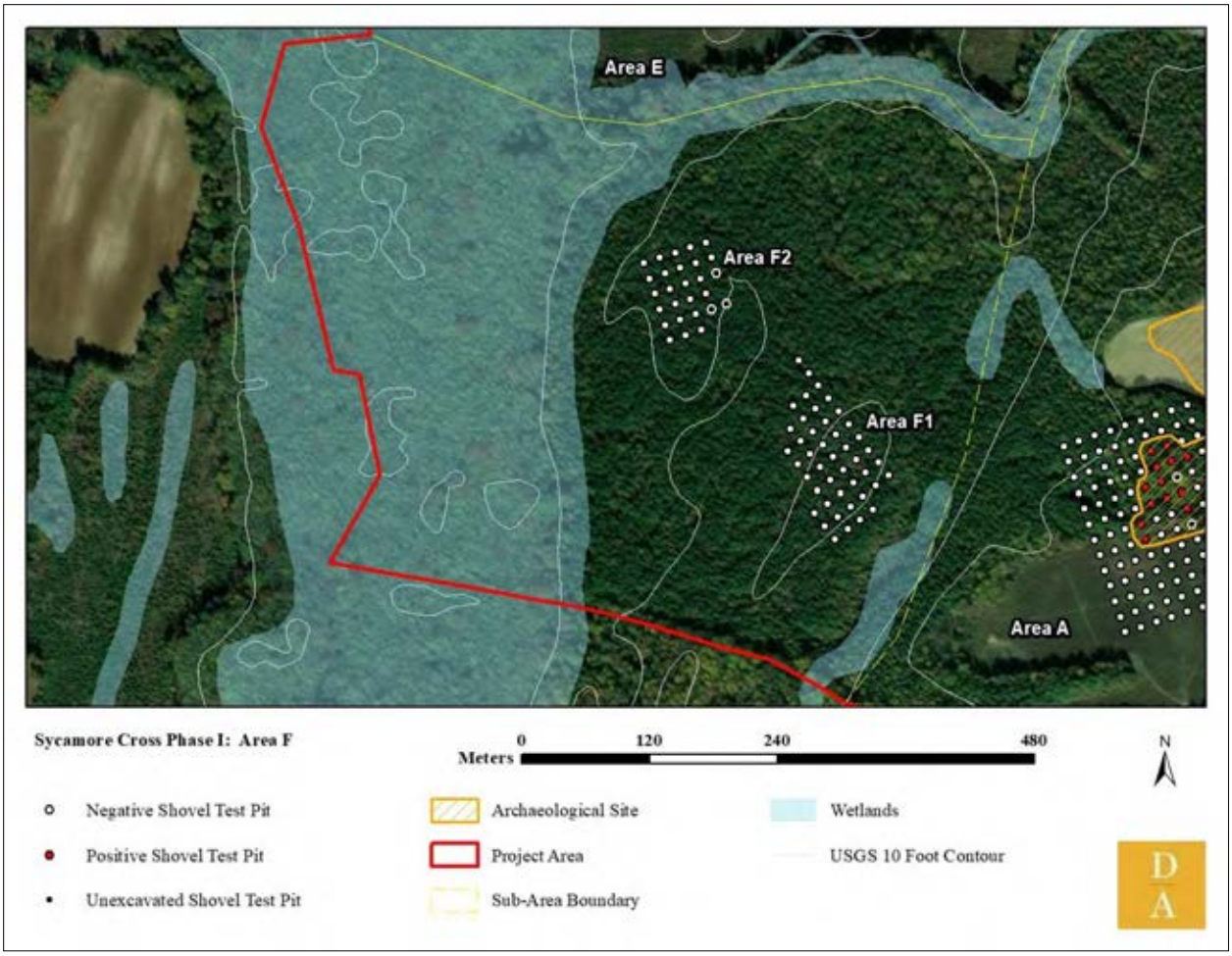



**Figure 8-165: Overall map of Area F.**

Vegetation in these areas ranged from mixed woodland with dense vines and briars, and pine saplings and holly with layers of slash (Figure 8-166, Figure 8-167). Access to shovel test grids was provided by a series of logging roads. Two shovel test grids were placed on the high ground of Area F, labeled F1 and F2.

**Figure 8-166: Thick vegetation preventing shovel test survey in Area F.**

**Figure 8-167: Thick briars in Area F preventing shovel test survey.**

*Area F1*

This area consists of the narrow ridge in the southeastern part of the overall Area F, across a narrow swamp from Area A5, and bounded to the west by wetlands associated with Blackwater River. Terrain ranged from flat to gently sloped and was minimally disturbed by timbering activity.

Vegetation in this area consisted of mature planted pine forest with an open understory of sparse holly shrubs and vines (Figure 8-168). Vegetation in the wetlands around the grid was primarily mature deciduous trees and holly (Figure 8-169).

**Figure 8-168: Vegetation in Area F1 facing north.**

**Figure 8-169: Wetlands south and east of Area F1, facing west.**

A total of 45 shovel tests were laid out at 15-meter (50-foot) intervals in six transects labeled A through F (Figure 8-170). No cultural material was recovered, and no historical features were observed.

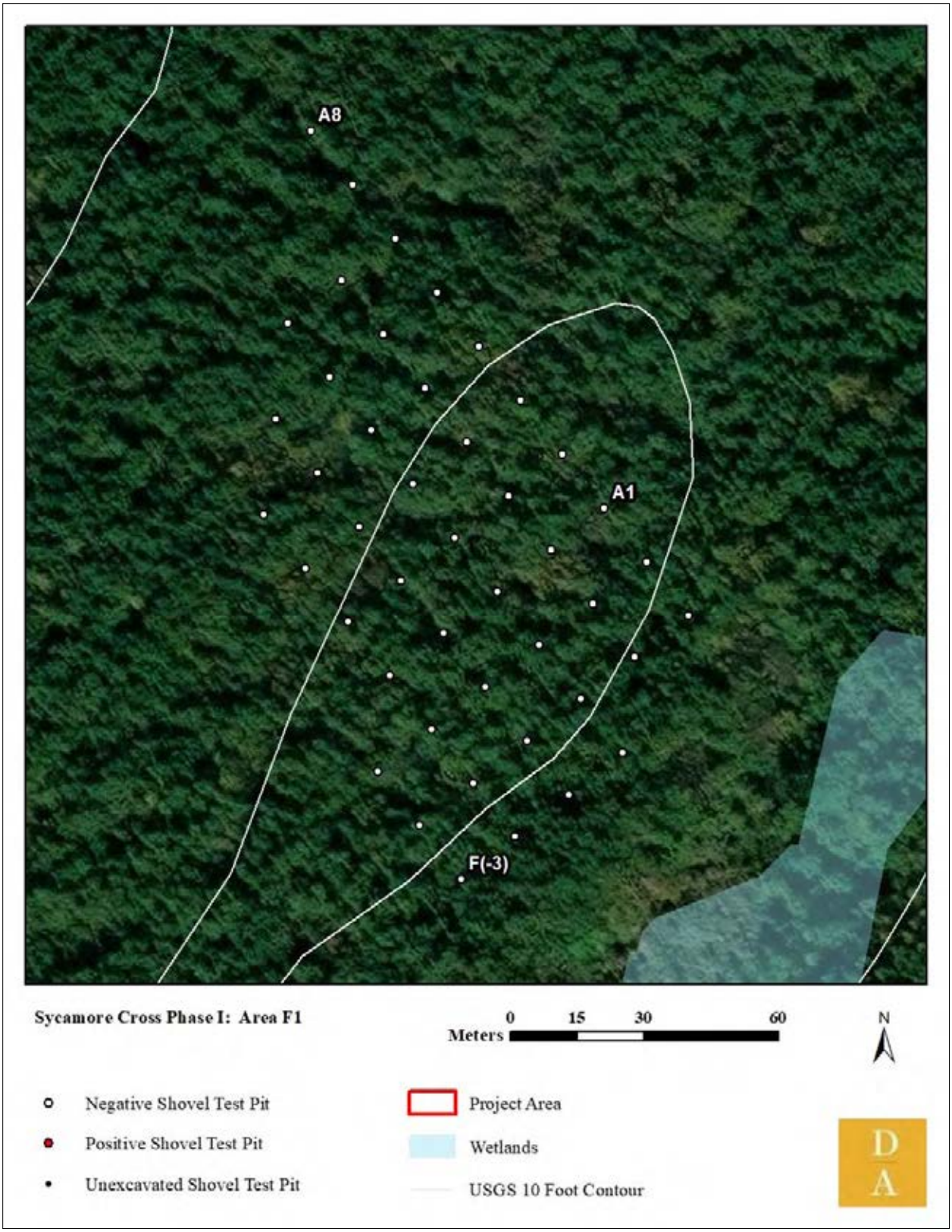



**Figure 8-170: Aerial view of Area F1 shovel test grid.**

Shovel tests in this area exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 10YR 4/3 brown sand topsoil (A horizon) over 10YR 6/6 brownish yellow clay subsoil (B horizon) (Figure 8-171).

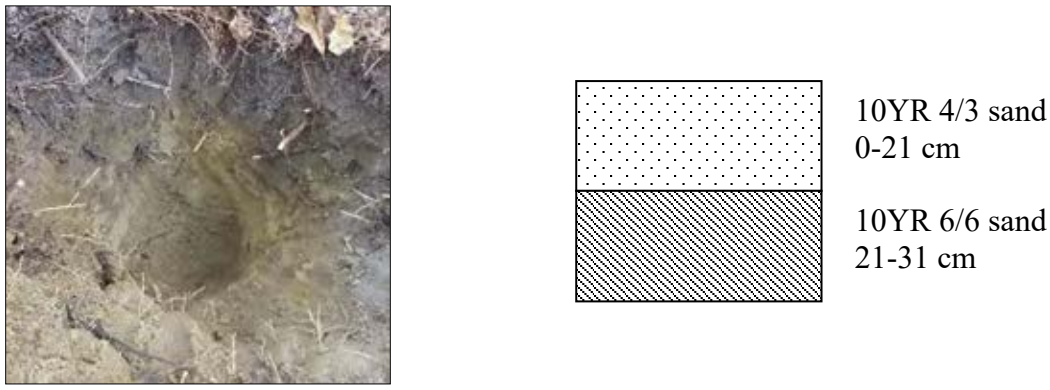



**Figure 8-171: Soil profile of Shovel Test C4 in Area F1.**

*Area F2*

This area consists of a low finger ridge in the northwestern part of the overall Area F, north of Area F1, and south of Area E. Wetlands bound the north and west of the area (Figure 8-172). Terrain was flat with steep slopes at the edge of the grid, and surface disturbance was minimal.

**Figure 8-172: Wetlands and mixed deciduous woodland north of Area F2, facing north.**

Vegetation in this area consisted of mature planted pine forest with an open understory of sparse holly shrubs, vines, and deciduous saplings (Figure 8-173). Vegetation in the wetlands around the grid was primarily mature deciduous trees and holly.

**Figure 8-173: Vegetation in Area F2 facing south.**

A total of 27 shovel tests were laid out at 15-meter (50-foot) intervals in six transects labeled A through F, three of which could not be excavated due to slope (Figure 8-174). No cultural material was recovered, and no historical features were observed.

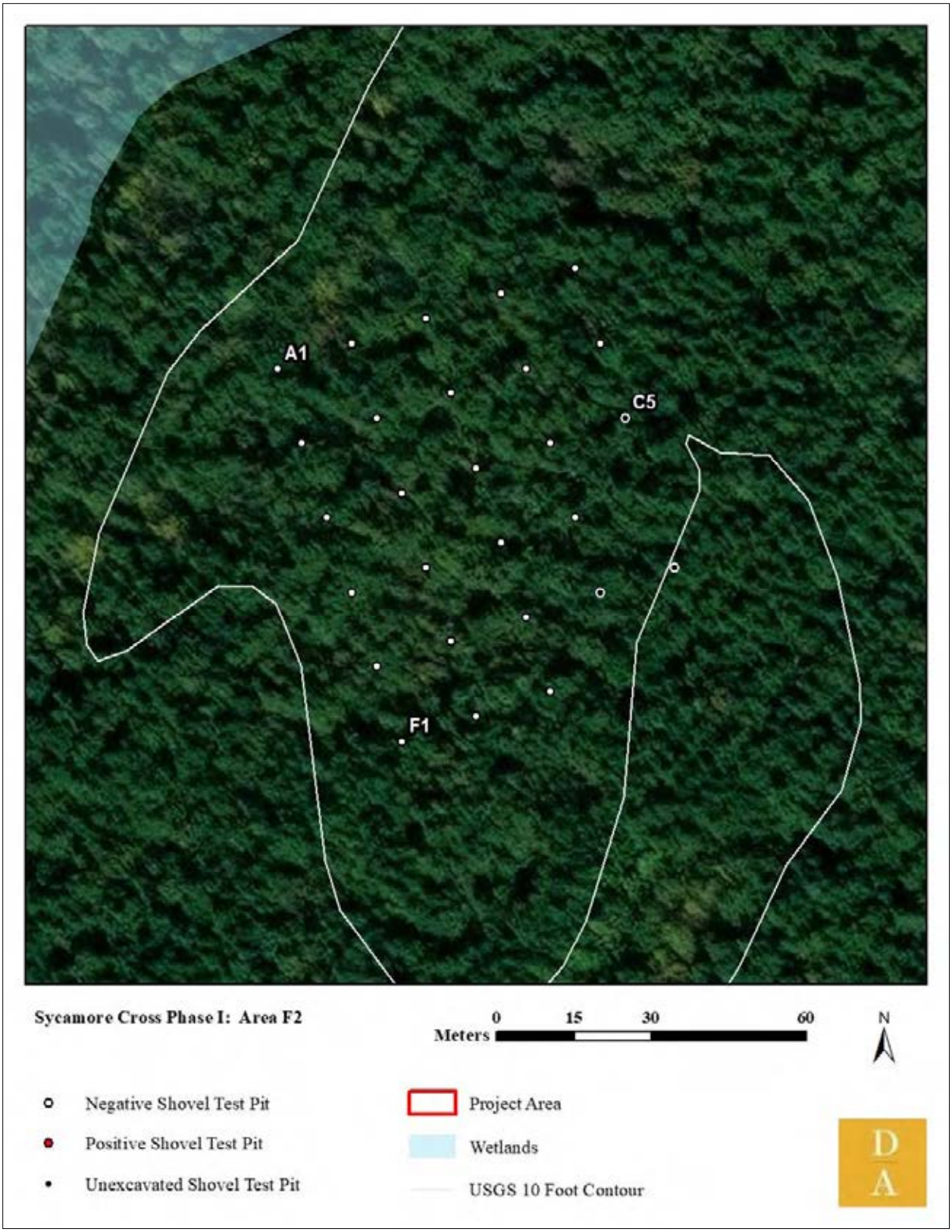



**Figure 8-174: Aerial view of Area F2 shovel test grid.**

Shovel tests in this area exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 2.5Y 5/4 light olive brown sandy clay loam (A horizon) over 2.5Y 6/8 olive yellow clay subsoil (B horizon) (Figure 8-175).

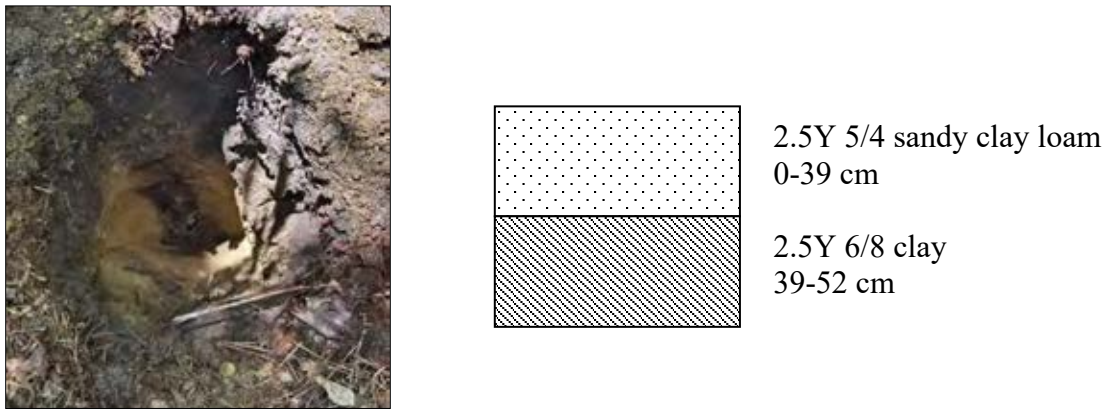



**Figure 8-175: Soil profile of Shovel Test B2 in Area F2.**

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# 9. CONCLUSIONS AND RECOMMENDATIONS

In April 2024, Dutton +Associates, LLC (D+A) completed a Phase I cultural resource survey (Phase I) of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar project area in Isle of Wight and Surry counties, Virginia. Fieldwork for the study was conducted between December 2023 and March 2024. The effort was intended to provide documentation and assessment of cultural resources within the study area to make recommendations as to whether they may be potentially eligible for listing in the National Register of Historic Places (NRHP) and assess those that are considered NRHP-eligible for project impacts. The effort was conducted in support of an application for a Certificate of Public Convenience and Necessity (CPCN) from the Virginia State Corporation Commission (SCC) and serves as a follow-up to the previously coordinated *Phase IA Cultural Resource Assessment of the Sycamore Cross Study Area* (D+A July 2023).

The project involves the development of a solar energy production facility near the border of Isle of Wight and Surry counties generally along Sycamore Cross Road, Ramsey Road, Mill Swamp Road, Rattlesnake Trail, and White Hill Trail. As part of the project, a series of solar arrays will be built throughout the project area.

The architectural resources survey for the Sycamore Cross Solar Project resulted in the identification and recordation of forty-four (44) architectural resources greater than 50 years of age (constructed in 1974 or earlier) located within the one-half mile architectural survey area. Of the surveyed resources, twenty-five (25) were previously recorded (VDHR# VDHR# 046-0029, 046-0030, 046-0032, 046-0055, 046-0068, 046-5147/5152, 046-5260, 046-5550/5552, 087-5509, 090-5163/5168, and 090-5174) and nineteen (19) were newly recorded during this Phase I Survey (VDHR# 046-5804/5817 and 090-5208/5212). Ten (10) of the previously recorded sites were recently surveyed and determined not eligible for listing in the NRHP by the VDHR within the last five years, and therefore not subject to re-survey as part of this effort (VDHR# 046-5550/5552, 090-5163/5168, and 090-5174) and another previously recorded resource was relocated outside of the survey area and therefore also not subject to re-survey at this time (VDHR# 087-5509). Survey at this time also found that an additional five (5) previously recorded resources have been demolished since they were last updated (VDHR# 046-0029, 046-0030, 046-0032, 046-0055, and 046-5260). The surveyed resources consist primarily of domestic buildings and farmsteads from the early-nineteenth to mid-twentieth century. Also surveyed were several twentieth century commercial buildings, a former late-nineteenth century post office, a nineteenth century small family cemetery, and a mid-twentieth century church.

Of the surveyed resources, four (4) are considered potentially eligible for listing in the NRHP. This includes two Antebellum homes that represent the earliest extant development within the survey area and an important reflection of the architectural evolution of rural Isle of Wight County during that period. The other two resources are a late-nineteenth century post office and associated dwelling that remain as an example of a historically significant aspect of the crossroads community of Sycamore Cross at the turn-of-the-twentieth century. The rest of the surveyed properties generally do not appear to reflect any unique or significant design or historical associations, and as such, are recommended to be not eligible for listing in the NRHP individually or collectively.
Each of the four NRHP-eligible resources was subject to an assessment of impacts brought about by the project. Of the eligible resources, three are located directly within the study area, however,

will be excluded by the project development plan and therefore will not be directly impacted by the project. With regards to indirect, visual impacts, field inspection revealed that the generally open nature of the landscape within and bordering the NRHP-eligible properties permits views of the project area that range from partially screened to nearly unobstructed. To minimize the potential for visibility of the project, a variety of measures have been employed including setbacks from roadways and property lines, and supplemental landscape buffers. ***With these measures, it is D+A's recommendation that visibility of the project from one resource, the Wilson Hollemon House (VDHR# 046-0068) will be screened and therefore the Sycamore Cross Solar Project will have no more than a minimal impact to it. With regards to the remaining three resources, the setbacks and landscape screening will reduce visibility of the project but some portions will remain visible. As such, it is D+A's recommendation that the Sycamore Cross Solar Project will result in a moderate impact to the Sycamore Cross Post Office (VDHR# 046-5149), the house at 11356 Sycamore Cross Drive (VDHR# 046-5150), and the Betts Farm (VDHR# 046-5811)*** (Table 9-1).

**Table 9-1: Summary of NRHP-eligible architectural resources within the project survey area and recommendations of project impacts.**

| VDHR ID# | Resource Name/Address | NRHP Eligibility | Proximity to Project | Project Impact |
|---|---|---|---|---|
| 046-0068 | Wilson Hollemon House, 5499 Mill Swamp Road | D+A: Potentially Eligible | Adjacent to Project | Minimal Impact |
| 046-5149 | Sycamore Cross Post Office, Mill Swamp Road | D+A: Potentially Eligible | Within Project Area (in Exclusion Area) | Moderate Impact |
| 046-5150 | House, 11356 Sycamore Cross Drive | D+A: Potentially Eligible | Within Project Area (in Exclusion Area) | Moderate Impact |
| 046-5811 | Betts Farm, 5191 Mill Swamp Road | D+A: Potentially Eligible | Within Project Area (in Exclusion Area) | Moderate Impact |

One (1) cemetery was identified within testing area B5 of the project area, and is an independent resource, not associated with any standing architectural resource (Table 9-2). ***Although the cemetery represents a typical small family cemetery and is considered not eligible for listing in the NRHP, the visual limits of the cemetery should be avoided with a 100-foot avoidance zone, or be subject to further delineation, to ensure protection during and after project construction.***

**Table 9-2: Summary of Cemetery identified within the project area with proximity to project area and recommended avoidance measures.**

| Cemetery # | Name, Location | NRHP Status | Proximity to Project Area | Avoidance/Impacts |
|---|---|---|---|---|
| 046-5817 | Holleman Cemetery, White Hill Trail | D+A: Not Eligible | Within Project Area | 100-foot avoidance zone or further delineation |

Archaeological investigations followed an approved testing model that identified areas of high, moderate, and low archaeological potential. The testing strategy involved a combination of systematic pedestrian survey and shovel testing. A total of 1,175 shovel test pits were excavated throughout the project area. The archaeological survey resulted in the identification of 20 newly recorded sites (Table 9-3).

Of these sites, six are domestic sites associated with standing architectural resources, and fourteen are mid-nineteenth to early-twentieth century sites with no features and a light archaeological signature. Most of these sites offer little new or significant archaeological data and are site types

that are well represented in the region; ***D+A recommends these 18 sites not eligible for inclusion in the NRHP, and no additional work is required.*** However, two sites warrant further investigation: Site 44IW0424 consists of the ruin of a circa 1825 dwelling; and Site 44IW0407 contains surface features and artifacts and is also associated with an early-nineteenth-century house ruin. These two sites have the potential to provide new data about the early nineteenth century history of the area, and ***D+A recommends avoidance with a 50-foot buffer or further investigation of these sites.***

**Table 9-3: Table showing archaeological sites and eligibility recommendations.**

| VDHR ID# | Site Type | Tine Period | NRHP Eligibility | Treatment/ Project Impacts |
|---|---|---|---|---|
| 44IW0405 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0406 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| **44IW0407** | **Farmstead** | **Antebellum Period, Civil War, Reconstruction and Growth, World War I to World War II** | **Potentially Eligible** | **Avoidance with 50-foot buffer/ Phase II Evaluation** |
| 44IW0408 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0409 | Farmstead | Civil War, Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0410 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0411 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0412 | Artifact Scatter | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0413 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0414 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0415 | Artifact Scatter | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0416 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0417 | Artifact Scatter | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0418 | Farmstead | Reconstruction and Growth | Not Eligible | No Impact |
| 44IW0419 | Farmstead | Civil War, Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0420 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0421 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0422 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0423 | Artifact Scatter | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| **44IW0424** | **Single Dwelling** | **Antebellum Period, Civil War, Reconstruction and Growth, World War I to World War II** | **Further Study** | **Avoidance with 50-foot buffer/ Further Study** |

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# APPENDIX A: RESUMES

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ROBERT J. TAYLOR, JR
Principal Investigator
Senior Architectural Historian

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

## Education

Master of Arts, 2009
Historic Preservation
Savannah College of Art and Design
Savannah, Georgia

Bachelor of Arts, 2005
Historic Preservation
University of Mary Washington
Fredericksburg, Virginia

## Awards

Eagle Scout, 2001

Mr. Taylor holds a B.A. in Historic Preservation from University of Mary Washington and a M.A. in Historic Preservation from Savannah College of Art and Design. He has over 15 years of Cultural Resource Management Experience and has taken part in projects in Virginia and throughout the East Coast.

His experience in Cultural Resource Management includes working on both Architectural and Archaeological projects while participating in all phases of compliance from project initiation and development to completion. His work includes conducting field surveys, researching and documenting historic resources, writing survey reports, preparing *NRHP* evaluations and applications for individual resources and historic districts, compiling HABS/HAER documentation packages, and assisting with cultural resource consultation and compliance. He has a thorough understanding of the laws and regulations that govern cultural resources and has assisted with a number of Cultural Resource Management Plans, Programmatic Agreements, and Memorandum of Agreements.

As Principal Investigator and Senior Architectural Historian for Dutton + Associates, Mr. Taylor manages and conducts all aspects of historic and architectural resource projects and studies.

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Dutton + Associates

ROBERT J. TAYLOR, JR
Principal Investigator
Senior Architectural Historian

## Professional Experience

**Dutton + Associates, LLC,** Principal Investigator, Richmond, Virginia, March 2009- present.
Manages cultural resource projects, oversees architectural history team, conducts field survey and investigations, assembles architectural resource documentation, authors cultural resource survey reports, prepares NRHP nominations, prepares HABS/HAER documentation, provides regulatory and compliance consultation.

**Thomas Jefferson Monticello Foundation,** Field Archaeologist, Charlottesville, Virginia, Winter 2008- 2009. Conducted archaeological testing, assisted with site research, performed lab work

**Janus Research, Inc,** Architectural Historian, Tampa, Florida, August 2005- May 2008.
Conducted field surveys, Prepared NRHP and HABS/HAER documentation packages, authored Cultural Resource Assessment Survey Reports

## Example Projects and Publications

*Cultural Resource Management Plans*
Regional Integrated Cultural Resource Management Plan for Naval Installations in Hampton Roads, Virginia
Programmatic Agreement amongst NASA, the VASHPO, and ACHP for the Management of Facilities, Infrastructure, and Sites at the NASA Langley Research Center, Hampton, Virginia

*Cultural Resource Survey and Compliance Reports*
Phase I Cultural Resource Survey of the Southern Virginia Solar Center, Pittsylvania County, Virginia
Phase I Cultural Resource of the Gordonsville-Remington 500 kV Transmission Line Rebuild Project, Orange, Fauquier, and Culpeper County, Virginia
NRHP Evaluations of Two One Room School Houses and a Farmstead in Perrysburg Township, Ohio
Intensive-Level Architectural Survey of the Vice Admiral James H. Doyle Jr, Combat System Engineering Development Site (CSEDS), Moorestown, New Jersey
Review and Evaluation of the Adaptive Rehabilitation of Quarters D&E and G&H at the Norfolk Naval Shipyard, Portsmouth, Virginia
Cultural Resource Assessment Survey (CRAS) of the I-395 Advance Acquisition #2 in Miami-Dade County, Florida
CRAS of the I-4/Crosstown Connector Interchange Design in Hillsborough County, Florida

*NRHP Nominations*
Hermitage Road Historic District, Richmond, Virginia
Old Wythe Historic District, Hampton, Virginia
NASA LaRC Historic District, Hampton, Virginia
Sebrell Rural Historic District, Southampton County, Virginia
Palmetto Beach Historic District, Tampa, Florida
Rosemere Historic District, Orlando, Florida

*Historic American Buildings Survey (HABS) Packages*
NASA Low Turbulence Pressure Tunnel, LaRC, Hampton VA, HABS # VA-118-H
NASA Aircraft Landing Dynamics Facility, LaRC, Hampton, VA, HABS # unassigned
1st Street Bridge update package, Los Angeles, CA HAER # CA-175
Faith Temple Missionary Baptist Church, Tampa, FL, HABS # FL-542
Building 64, Melville Net and Fuel Depot, Naval Station Newport, RI, RIHRA # PORT-0004

*Technical and Research Papers*
"New Use for an Old Gas Station: Rehabilitation Plan and Feasibility Assessment for the Fry's Spring Service Station in Charlottesville, Virginia"
"Historic Structure Report for the Edward Valentine House (Redland Club Building) in Charlottesville, Virginia"
"Historic Linear Resources: Challenges and the Practical Applicability of NRHP Criteria"
"'A Country Doctor for Forty Years' A Historic Structure Report for the Dr. J.E. Wilson House in Haywood County, North Carolina"

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**J. HOPE SMITH**
**Principal Investigator**

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

## Education

PhD, 2017
Anthropology
University of Tennessee
Knoxville, Tennessee

Bachelor of Arts, 2005
Historic Preservation
University of Mary Washington
Fredericksburg, Virginia

## Memberships

Register of Professional Archaeologists

Society for Historical Archaeology

Dr. Smith holds a Ph.D. in Anthropology, concentrating in Historical Archaeology, from the University of Tennessee and a B.A. in Historic Preservation from the University of Mary Washington. Her dissertation research involved creating and interpreting data sets for the Digital Archaeological Archive of Comparative Slavery, and it was focused on the construction of race and identity through material culture on plantations in eighteenth-century Virginia. Her research interests include material culture studies, artifacts of personal adornment, and the intersection of race and gender.

Her experience in Cultural Resource Management includes managing a wide range of projects, including Phase I surveys, Phase II evaluations, and Phase III data recovery, for a variety of clients, including renewable energy, electric transmission, and transportation.

Dr. Smith has over 15 years of experience in archaeology. Prior to Dutton+Associates, she was employed as a Teaching Associate at the University of Tennessee, where she taught archaeology field schools and courses in archaeology, including a course on Cultural Resource Management law and practice. Before pursuing graduate studies, she worked as an archaeologist at James Madison's Montpelier, helping to identify sites associated with that enslaved community and interpret them to the public.

As a Principal Investigator for Dutton + Associates, Dr. Smith manages all aspects of archaeological research, supervising both lab and field work.

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CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

**J. HOPE SMITH**
**Principal Investigator**

## Professional Experience

**Dutton+Associates, LLC**, Project Archaeologist
Richmond, Virginia, 2017
Directs operation of archaeological field and lab work. Manages and conducts archaeological investigations. Prepares research designs and excavation reports.

**University of Tennessee, Knoxville,** Graduate Teaching Associate
Knoxville, Tennessee, 2011-2017
Supervised fieldwork during two archaeological field schools; taught undergraduate-level archaeology courses.

**James Madison's Montpelier** Crew Chief
Montpelier Station, Virginia 2008-2011
Performed fieldwork and supervised students and interns in excavation and survey projects; coauthored site reports and presented research to the public.

**The Louis Berger Group** Field Technician
Richmond, Virginia, 2005-2007.
Performed fieldwork at all levels of excavation on a wide variety of projects.

**The Ottery Group** Field Technician
Silver Springs, Maryland, 2005.
Performed fieldwork on a complex multi-component historic Phase III in Gloucester, Virginia.

## Example Projects and Publications

*Dissertation:*
Adorned Identities: an Archaeological Perspective on Race and Self-Presentation in 18th-Century Virginia

*Phase I Surveys*
Mecklenburg Timber and Prison sites, Mecklenburg Co
Remington to Gordonsville Transmission Line
Montebello Farm, Loudoun Co.
Arbordale, York Co.
Spotsylvania Town Center, City of Fredericksburg
Palmer's Creek, Spotsylvania Co.
Bristers to Chancellor 500kV Transmission Line
Skipjack Solar, Charles City Co

*Phase II Evaluations*
44LD1819, Loudoun Co
44GE0373, Greensville Co
44MC0970, Mecklenburg Co

*Phase III Data Recoveries*
44LD1244, Loudoun Co
44CC0448, Charles City Co
44LD1359, Loudoun Co

*Museum Technical Reports*
Object Report and Museum Purchasing Recommendations, The Montpelier Foundation,

Report of Archaeological Testing at Mount Pleasant, The Montpelier Foundation,

Archaeological Dataset and Context, Digital Archaeological Archive of Comparative Slavery (DAACS)

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**DARA FRIEDBERG**
Architectural Historian

D
A

# Dutton + Associates

CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

## Education

Master of Science, 2004
Historic Preservation
University of Pennsylvania
Philadelphia, Pennsylvania

Bachelor of Arts, 1999
Historic Preservation
Mary Washington College
Fredericksburg, Virginia

Ms. Friedberg holds a M.S. in Historic Preservation, concentrating in Architectural Conservation, from University of Pennsylvania and a B.A. in Historic Preservation from Mary Washington College. She has worked in historic preservation and conservation since 1999 and has taken part in projects in Virginia, Maryland, Pennsylvania, Washington, D.C., South Carolina, Georgia, Connecticut, New York, Illinois, Ohio, and Tennessee.

Her experience in Cultural Resource Management includes conducting field surveys, researching and documenting historic resources, preparing National Register of Historic Places nominations, performing archival research, assisting in Federal Tax Credit projects, and completing material analyses of historic mortar and paint.

Prior to working at Dutton + Associates, she was employed as a conservator. This allowed her to conduct multiple conditions assessments of architecture, monuments, and sculptures as well as provide treatment recommendations and project specifications. She has also physically worked on the conservation of stone, metal, and decorative painting. At the completion of each project she provided thorough documentation of each process undertaken.

As an Architectural Historian for Dutton + Associates, Ms. Friedberg collaborates on all aspects of historic and architectural projects including performing field work, conducting project research, and authoring project reports.

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Dutton + Associates

**DARA FRIEDBERG**
Architectural Historian

## Professional Experience

**Dutton + Associates, LLC,** Architectural Historian, Midlothian, Virginia, 2013-Present
Conducts historic resources surveys, performs background research, develops historic contexts, writes National Register nominations, and authors and formats project reports

**Kreilick Conservation, LLC,** Conservator, Oreland, Pennsylvania, 2006-2012
Completed conditions assessments and treatment recommendations for stone and metal projects, conserved stone and metal architectural elements, monuments, and sculptures, and authored conservation reports.

**Powers & Company, Inc.,** Preservation Associates, Philadelphia, Pennsylvania, 2002-2006
Conducted historic resources surveys, performed background research, assisted with Federal Historic Preservation Tax Credit projects, completed mortar and historic paint analyses, completed conditions assessments and recommendations for buildings, produced reports for large scale restoration projects, and created project specifications.

**Albert Michaels Conservation, Inc.,** Conservation Technician, Harrisburg, Pennsylvania, 2001-2002
Conserved decorative paintings and refinished ornate wood, and authored conservation reports.

**KCI Technologies, Inc.,** Cultural Resource Specialist, Hunt Valley, Maryland, 2000-2001
Conducted historic resources surveys, performed background research, and authored project reports.

**Restoration Concepts,** Restoration Intern, Burlington, Vermont, 1999
Assisted in the restoration of a building.

## Example Projects

*National Register of Historic Places Nominations*
- Tower Building, Richmond
- Lee Medical Building, Richmond
- Fuqua Farm, Chesterfield

*Preliminary Information Forms*
- North Thompson Street Historic District, Richmond
- Virginia Avenue Elementary School, Petersburg

*Interpretive Signs*
- Skiffes Creek Interpretive Signs, multiple counties
- Spring Hill Plantation Interpretive Signs, Chesterfield Co.

*Viewshed Analyses*
- Viewshed Assessment for Fort Evans, Loudoun Co.
- Viewshed Analysis for Ellerslie, Surry Co.

*Military Analyses and Landscape Studies*
- Phase IA Assessment and Military Terrain Analysis of the Plantation Woods Property, Spotsylvania Co.
- Phase I, Viewshed Assessment, and Military Terrain Analysis for the Potato Run Mitigation Bank, Culpeper Co.
- Assessment of Two Core Areas of the Battle of Buckland Mills, Prince William Co.

*Cultural Resource Survey and Compliance Reports*
- Cultural Context and Thematic Study for the Proposed Revitalize RVA Project, Richmond
- Assessment of Fulton Gas Works, Richmond
- Documentary Study of the Cromley Row Project Area, Alexandria
- Study of Washington Boundary Ditches, Fairfax Co.
- Intensive Level Survey for Warehouse No. 3 of the Richmond Intermediate Terminal, Richmond
- Economic Context of Middlesex County and the Palmer House, Middlesex Co.
- Phase I Survey for the Remington-Gordonsville Transmission Line Rebuild Project, multiple counties
- Phase II Archaeological Evaluation of Site 44LD1244, Loudoun Co.

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# APPENDIX B: ARTIFACT INVENTORY

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| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| **Area A1 Pedestrian Survey** | | | | | |
| Surface Collection 1 | Surface | Coarse earthenware, Drain tile | 4 | Body | three fragments glazed on interior and exterior, one only exterior |
| Surface Collection 2 | Surface | Refined earthenware, Dipped ware | 1 | Body | |
| Surface Collection 3 | Surface | Glass, Apothecary | 1 | Neck and finish | bubble inclusions |
| **Area A3 / 44IW0414** | | , | | | |
| B1 | I | Glass, Window, aqua | 4 | Pane | |
| B2 | I | Glass, Vessel, brown | 1 | Base | Embossed stippling |
| B2 | I | Glass, Vessel, colorless | 4 | Body | |
| B2 | I | Glass, Window, colorless | 2 | Pane | |
| B2 | I | Iron, Wire | 1 | Fragment | |
| B2 | I | Synthetic, Hardware, unidentified | 1 | Whole | Plastic cylander with two wires in one end |
| B3 | I | Glass, Vessel, colorless | 1 | Finish | Threaded finish |
| B3 | I | Glass, Vessel, colorless | 2 | Body | |
| B3 | I | Glass, Vessel, opaque | 1 | Body | |
| B3 | I | Glass, Lantern | 2 | Body | |
| B3 | I | Glass, Window, Aqua | 3 | Pane | |
| C1 | I | Glass, Vessel, colorless | 1 | Body | |
| C1 | I | Iron, Wire | 1 | Fragment | |
| C2 | I | Glass, Vessel, colorless | 1 | Base | Embossed, stippled |
| D2 | I | Glass, Vessel, colorless | 1 | Body | |
| D2 | I | Iron, Unidentified | 1 | Fragment | |
| D3 | I | Glass, Vessel, brown | 2 | Body | |
| D3 | I | Glass, Vessel, colorless | 9 | Body | |
| D3 | I | Iron, Bar, unidentified | 1 | Fragment | |
| D3 | I | Glass, Window, aqua | 1 | Pane | |
| D3 | I | Glass, Vessel, colorless | 1 | Body | Embossed, stippled |
| D3 | I | Glass, Vessel, colorless | 1 | Base | Embossed, stippled |
| D3 | I | Glass, Vessel, colorless | 1 | Base | Embossed star |
| **Area A4 / 44IW0415** | | , | | | |
| CD2 | I | Glass, Window, colorless | 5 | Pane | |
| D1.5 | I | Glass, Vessel, colorless | 1 | Body | Bubble inclusions |
| D1.5 | I | Glass, Window, aqua | 8 | Pane | |
| D1.5 | I | Glass, Window, colorless | 29 | Pane | |
| D1.5 | I | Glass, Vessel, aqua | 8 | Body | |
| D1.5 | I | Glass, Vessel, colorless | 1 | Body | plastic film, unidentifiable |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| D1.5 | I | Glass, Unidentified, heat altered | 63 | Fragment | Too melted to tell if vessel or window |
| D1.5 | I | Iron, Washer | 1 | Whole | |
| D1.5 | I | Iron, Screw | 2 | Whole | |
| D1.5 | I | Iron, Nail, wire | 1 | Whole | |
| D1.5 | I | Iron, Nail, unidentified | 2 | Head shank | |
| D1.5 | I | Iron, Hardware, unidentified | 1 | Fragment | Hinge, not for a door. Two bars with one pin |
| D1.5 | I | Iron, Plate and nail, wrought | 1 | Fragment | small rectangular sheet with a short nail |
| D1.5 | I | Iron, Screw, washer, and nut | 1 | Whole | Rusted together |
| D1.5 | I | Iron, Screw and washer | 1 | Fragment | Rusted together and to some unidentified alloy |
| D1.5 | I | Iron, Screw, nut, and hardware | 1 | Fragment | Unidentified hardware fragment |
| D1.5 | I | Lead alloy, Unidentified | 1 | Fragment | |
| D1.5 | I | Lead, Unidentified | 1 | Fragment | |
| D1.5 | I | Alloy, Grommet | 1 | Whole | "UNITED CARR" |
| D1.5 | I | Alloy, Hardware, unidentified | 1 | Fragment | unidentified bracket with two corroded bolts |
| D1.5 | I | Synthetic, Unidentified | 1 | Fragment | |
| D2 | I | Iron, Wire | 1 | Fragment | |
| D2 | I | Iron, Washer | 1 | Whole | |
| D2 | I | Lead alloy, Unidentified | 4 | Fragment | |
| D2 | I | Glass, Window, colorless | 5 | Pane | |
| D2 | I | Glass, Window, aqua | 2 | Pane | |
| D2.5 | I | Glass, Vessel, colorless | 2 | Base | Embossed stippling |
| D2.5 | I | Glass, Vessel, colorless | 13 | Body | Embossed stippling |
| D2.5 | I | Glass, Window, colorless | 16 | Pane | |
| D2.5 | I | Iron, Wire | 1 | Fragment | |
| D2.5 | I | Iron, Bolt | 1 | Whole | nut rusted on to bolt |
| E3 | I | Terra cotta, Drain pipe | 1 | Fragment | Not collected |
| **Area A5 / 44IW0407** | | , | | | |
| D7 | I | Refined earthenware, Undecorated | 1 | Body | |
| D7 | I | Iron, Sheet | 8 | Fragment | small fragments of very thin metal sheets |
| D8 | I | Glass, Vessel, green | 1 | Body | |
| E5 | I | Glass, Vessel, green | 1 | Body | |
| E5 | I | Glass, Window, colorless | 1 | Pane | |
| E6 | I | Refined earthenware, Undecorated | 1 | Body | |
| F3 | I | Shell, Oyster | 1 | Fragment | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| F3 | I | Iron, Nail, wire | 1 | Shank | |
| F3 | I | Iron, Nail, unidentified | 3 | Fragment | |
| F4 | I | Iron, Nail, unidentified | 1 | Shank | |
| F4 | I | Glass, Lid liner | 1 | Rim | |
| F4 | I | Refined earthenware, Undecorated | 2 | Body | |
| F4 | I | Glass, Vessel, solarized | 3 | Body | |
| F4 | I | Glass, Vessel, aqua | 2 | Body | |
| F4 | I | Glass, Window, aqua | 1 | Pane | |
| F5 | I | Refined earthenware, Transfer print | 1 | Body | Diaper pattern |
| F6 | I | Refined earthenware, Undecorated | 1 | Body | |
| F6 | I | Glass, Window, colorless | 1 | Pane | |
| G3 | I | Refined earthenware, Undecorated | 1 | Rim | |
| G3 | I | Glass, Vessel, colorless | 1 | Body | |
| G3 | I | Glass, Window, aqua | 1 | Pane | |
| G4 | I | Refined earthenware, Spall | 2 | Body | |
| G4 | I | Glass, Vessel, solarized | 1 | Body | |
| G4 | I | Glass, Window, aqua | 4 | Pane | |
| G4 | I | Iron, Unidentified | 1 | Fragment | |
| G6 | I | Refined earthenware, Undecorated | 1 | Body | |
| G6 | I | Glass, Vessel, colorless | 2 | Body | |
| G6 | I | Glass, Vessel, opaque | 1 | Body | |
| G7 | I | Stoneware, American, bristol, albany slip | 1 | Body | Bristol glaze exterior, albany slip interior |
| H4 | I | Refined earthenware, Spall | 1 | Body | |
| H4 | I | Refined earthenware, Undecorated | 1 | Body | Buff glaze |
| H4 | I | Glass, Vessel, colorless | 1 | Body | |
| H4 | I | Glass, Window, aqua | 2 | Pane | |
| J8 | I | Glass, Vessel, solarized | 1 | Body | Bubble inclusions |
| L8 | I | Brick, | 1 | Fragment | Not collected |
| **Area B1 Pedestrian Survey / 44IW0409** | | | | | |
| Surface Collection 1 | Surface | Clay, Pipe | 1 | Stem | molded hobnail pattern at edge of stem |
| **Area B1 Pedestrian Survey / 44IW0410** | | | | | |
| Surface Collection 2 | Surface | Glass, Window, aqua | 2 | Pane | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| Surface Collection 2 | Surface | Glass, Vessel, dark green | 1 | Base | |
| Surface Collection 2 | Surface | Refined earthenware, Spall | 1 | Body | |
| Surface Collection 2 | Surface | Stoneware, Bristol | 1 | Body | Bristol exterior, albany slip interior |
| Surface Collection 2 | Surface | Stoneware, Reed Pipe | 1 | Stem | ribbed pattern |
| **Area B1 Pedestrian Survey** | | | | | |
| Surface Collection 3 | Surface | Stoneware, Westerwald | 1 | Body | |
| **Area B3** | | , | | | |
| A11 | I | Brick, | 1 | Fragment | Not collected |
| **Area B4 / 44IW0416** | | , | | | |
| (-A)5 | I | Glass, Vessel, solarized | 1 | Body | |
| (-A)4.5 | I | Iron, Unidentified | 1 | Fragment | heavily corroded |
| (-A)A3 | I | Brick, | 1 | Fragment | Not collected |
| A3 | I | Glass, Vessel, colorless | 1 | Body | |
| B4 | I | Glass, Vessel, green | 1 | Body | |
| B5 | I | Brick, | 1 | Fragment | Not collected |
| C2.5 | I | Glass, Vessel, colorless | 1 | Body | |
| C2.5 | I | Glass, Vessel, opaque | 2 | Body | |
| C3 | I | Refined earthenware, Undecorated | 1 | Handle | |
| C3 | I | Refined earthenware, Spall | 1 | Body | |
| C3 | I | Glass, Window, colorless | 1 | Pane | |
| C3 | I | Iron, Nail, unidentified | 5 | Shank | |
| C4 | I | Brick, | 1 | Fragment | |
| C4 | I | Terra cotta, Drain pipe | 1 | Fragment | |
| C4 | I | Iron, Nail, unidentified | 1 | Shank | |
| C4 | I | Iron, Unidentified | 2 | Fragment | heavily corroded |
| CD3 | I | Brick, | 1 | Fragment | Not collected |
| CD4 | I | Iron, Hardware, unidentified | 1 | Fragment | |
| D5 | I | Glass, Vessel, colorless | 1 | Finish | Threaded finish |
| D5 | I | Glass, Vessel, colorless | 2 | Body | |
| D5 | I | Glass, Window, aqua | 1 | Pane | |
| D5 | I | Composite, Spark plug | 1 | Whole | "CHAMPION N-14Y" heavily corroded |
| D5.5 | I | Iron, Nail, unidentified | 1 | Fragment | |
| E3 | I | Terra cotta, Drain pipe | 6 | Body | DISCARDED |
| E3 | I | Iron, Buckle | 1 | Whole | An iron rectangle with a partial hook on one end, 6x4 cm |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| E4.5 | I | Refined earthenware, Spall | 2 | Body | |
| E4.5 | I | Glass, Window, colorless | 1 | Pane | |
| E4.5 | I | Brick, | 1 | Fragment | |
| E4.5 | I | Glass, Vessel, aqua | 2 | Body | |
| E4.5 | I | Glass, Vessel, colorless | 4 | Body | |
| E4.5 | I | Glass, Vessel, colorless | 1 | Body | Embossed, diamond pattern |
| E4.5 | I | Glass, Vessel, colorless | 1 | Fragment | Melted |
| E5 | I | Glass, Vessel, colorless | 3 | Body | |
| E5 | I | Glass, Vessel, brown | 1 | Body | |
| E5 | I | Brick, | 1 | Fragment | |
| EF5 | I | Glass, Vessel, aqua | 1 | Body | |
| EF5 | I | | | | |
| EF5 | I | Refined earthenware, Molded | 2 | Rim | Mend |
| EF5 | I | Refined earthenware, Molded, royal pattern | 2 | Rim | Mend |
| EF5 | I | Coal, Anthracite | 1 | Fragment | |
| EF5 | I | Brick, | 1 | Fragment | |
| EF5 | I | Iron, Nail, unidentified | 1 | Shank | |
| EF5 | I | Synthetic, Plastic, vessel | 1 | Rim | too small to tell what kind of vessel |
| F2 | I | Iron, Nail, unidentified | 1 | Shank | |
| F2.5 | I | Glass, Vessel, colorless | 1 | Finish | |
| F5 | I | Glass, Vessel, colorless | 1 | Body | |
| F5 | I | Iron, Nail, unidentified | 1 | Shank | |
| **Area B5** | | | | | |
| G9 | I | Glass, Vessel, colorless | 1 | Body | |
| **Area B5 / 44IW0417** | | , | | | |
| N11 | I | Glass, Vessel, aqua | 2 | Base | Mend. Embossed "WOODBU- - ASSWORK-" "2" and one illegible word embossed over the rest |
| NO11 | I | Terra cotta, Drain pipe | 83 | Fragment | DISCARDED |
| NO11 | I | Glass, Window, colorless | 2 | Pane | |
| **Area C4 / 44IW0418** | | , | | | |
| A4 | I | Brick, | 1 | Fragment | DISCARDED |
| A4 | I | Glass, Vessel, colorless | 1 | Base | |
| A4 | I | Glass, Vessel, aqua | 2 | Body | |
| A4 | I | Glass, Window, aqua | 2 | Fragment | |
| A5 | I | Refined earthenware, Undecorated | 2 | Rim | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| A5 | I | Refined earthenware, Undecorated | 2 | Body | |
| A5 | I | Glass, Vessel, green | 1 | Body | |
| A5 | I | Glass, Vessel, solarized | 1 | Body | |
| A5 | I | Glass, Vessel, brown | 3 | Body | |
| A5 | I | Glass, Vessel, colorless | 15 | Body | |
| A5 | I | Glass, Window, aqua | 1 | Pane | |
| A5 | I | Glass, Vessel, colorless | 1 | Finish | Threaded finish |
| A5 | I | Brick, | 6 | Fragment | |
| A5 | I | Shell, Oyster | 1 | Fragment | |
| A5 | I | Iron, Nail, unidentified | 2 | Shank | Heavily corroded |
| A5 | I | Iron, Unidentified | 3 | Fragment | Heavily corroded |
| A6 | I | Glass, Vessel, brown | 1 | Body | |
| A6 | I | Glass, Vessel, colorless | 3 | Body | |
| A6 | I | Refined earthenware, Undecorated | 1 | Rim | |
| A6 | I | Iron, Nail, unidentified | 1 | Shank | |
| A6 | I | Brick, | 4 | Fragment | |
| B1 | I | Glass, Vessel, opaque | 1 | Body | |
| B2 | I | Refined earthenware, Spall | 1 | Body | |
| B5 | I | Refined earthenware, Undecorated | 1 | Body | |
| B5 | I | Glass, Window, aqua | 1 | Pane | |
| C1 | I | Iron, Nail, unidentified | 1 | Shank | |
| C1 | I | Glass, Window, aqua | 1 | Pane | |
| C4 | I | Glass, Vessel, solarized | 1 | Base | |
| C4 | I | Refined earthenware, Molded, royal pattern | 1 | Rim | |
| C4 | I | Refined earthenware, Spall | 1 | Body | |
| C4 | I | Shell, Oyster | 3 | Fragment | |
| C5 | I | Brick, | 1 | Fragment | Not collected |
| C7 | I | Refined earthenware, Yellowware | 1 | Body | buff bodied, buff glazed |
| C7 | I | Glass, Vessel, blue | 1 | Body | Cobalt |
| C7 | I | Glass, Vessel, brown | 1 | Body | |
| C7 | I | Glass, Vessel, aqua | 1 | Body | |
| C7 | I | Glass, Vessel, colorless | 3 | Body | |
| D4 | I | Brick, | 2 | Fragment | |
| D4 | I | Iron, Nail, unidentified | 1 | Shank | |
| D5 | I | Brick, | 1 | Fragment | Not collected |
| D6 | I | Glass, Window, aqua | 1 | Pane | |
| E8 | I | Glass, Vessel, aqua | 1 | Body | |
| **Area C5 / 44IW0419** | | , | | | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| G(-3) | I | Brick, | 1 | Fragment | Not collected |
| H1 | I | Brick, | 1 | Fragment | Not collected |
| J(-1) | I | Brick, | 1 | Fragment | Not collected |
| J(-3) | I | Iron, Nail, unidentified | 1 | Shank | |
| J(-2) | I | Iron, Nail, machine cut | 1 | Shank | |
| J(-2) | I | Iron, Unidentified | 4 | Fragment | small iron fragments |
| K(-5) | I | Glass, Vessel, aqua | 2 | Body | |
| K(-5) | I | Glass, Vessel, colorless | 2 | Body | |
| K(-5) | I | Glass, Lantern | 1 | Body | |
| K(-4) | I | Refined earthenware, Undecorated | 1 | Base | |
| K(-4) | I | Refined earthenware, Undecorated | 1 | Body | |
| K(-4) | I | Glass, Vessel, solarized | 1 | Body | Molded, star and diamond pattern |
| K(-4) | I | Glass, Vessel, colorless | 1 | Base | |
| K(-3) | I | Refined earthenware, Undecorated | 1 | Body | |
| K(-3) | I | Glass, Vessel | 1 | Body | |
| K(-3) | I | Iron, Nail, machine cut | 1 | Whole | |
| L(-6) | I | Iron, Nail, unidentified | 1 | Head shank | |
| L(-5) | I | Glass, Vessel, aqua | 2 | Body | |
| L(-4) | I | Refined earthenware, Twentieth century, undecorated | 2 | Body | |
| L(-4) | I | Iron, Nail, unidentified | 2 | Shank | |
| L(-3) | I | Glass, Vessel, colorless | 2 | Body | |
| L(-3) | I | Refined earthenware, Edge ware, shell edged | 1 | Rim | Curved impressed lines |
| L(-3) | I | Iron, Nail, unidentified | 2 | Shank | |
| L(-3) | I | Brick, | 2 | Fragment | |
| L(-1) | I | Iron, Nail, wire | 1 | Whole | |
| L1 | I | Glass, Vessel, colorless | 1 | Body | |
| L1 | I | Brick, | 1 | Fragment | |
| M(-3) | I | Brick, | 1 | Fragment | |
| M(-3) | I | Iron, Nail, unidentified | 2 | Shank | |
| M(-1) | I | Glass, Vessel, opaque | 1 | Base | molded verticle ribbing |
| M(-1) | I | Glass, Vessel, brown | 1 | Body | |
| M(-1) | I | Brick, | 1 | Fragment | |
| N(-4) | I | Copper, Pipe | 1 | Fragment | |
| N(-3) | I | Glass, Vessel, colorless | 1 | Body | |
| N(-3) | I | Iron, Nail, machine cut | 1 | Shank | |
| N(-3) | I | Brick, | 1 | Fragment | |
| N(-3) | I | Mortar, | 1 | Fragment | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| N(-1) | I | Glass, Vessel, green | 1 | Finish | Dark olive green |
| **Area C5** | | | | | |
| L(-10) | I | Porcelain, Industrial | 1 | Rim | molded |
| **Area C6 / 44IW0420** | | , | | | |
| A3 | I | Iron, Farm equipment, unidentified | 1 | Fragment | Potentially a tooth from unidentified equipment |
| A3 | I | Iron, Farm equipment, unidentified | 1 | Fragment | Potentially mends with above |
| A4 | I | Glass, Vessel, brown | 1 | Base | Embossed stippling, "57" and A.R. Samuel/Mason Fruit Jar Co. makers mark |
| A6 | I | Iron, Nail, machine cut | 1 | Shank | |
| B2 | I | Glass, Vessel, colorless | 2 | Body | |
| B2 | I | Glass, Window, colorless | 1 | Pane | |
| B2 | I | Brick, | 1 | Fragment | |
| B3 | I | Glass, Vessel, colorless | 1 | Body | |
| B4 | I | Glass, Vessel, colorless | 1 | Body | Embossed "-T-" |
| B4 | I | Iron, Chain | 1 | Fragment | 5 links |
| B5 | I | Glass, Vessel, aqua | 2 | Body | |
| B5 | I | Glass, Window, colorless | 1 | Pane | |
| C3 | I | Glass, Vessel, colorless | 1 | Body | |
| C3 | I | Glass, Window, colorless | 1 | Pane | |
| D2 | I | Glass, Vessel, colorless | 1 | Body | Embossed, too small to identify |
| D2 | I | Glass, Vessel, brown | 1 | Body | |
| D3 | I | Refined earthenware, Unidentified | 1 | Body | |
| D3 | I | Refined earthenware, Undecorated | 1 | Body | |
| **Area C7 / 44IW0421** | | , | | | |
| B3 | I | Glass, Vessel, colorless | 1 | Body | |
| B4 | I | Glass, Vessel, aqua | 1 | Base | |
| B4 | I | Glass, Vessel, blue | 1 | Body | |
| B4 | I | Glass, Vessel, colorless | 1 | Body | |
| B4 | I | Iron, Nail, unidentified | 3 | Shank | |
| B4 | I | Brick, | 4 | Fragment | |
| B5 | I | Iron, Nail, unidentified | 1 | Shank | |
| B5 | I | Glass, Marble | 1 | Whole | |
| B12 | I | Glass, Vessel, brown | 2 | Body | Embossed, illegible |
| B12 | I | Glass, Vessel, aqua | 1 | Body | |
| B12 | I | Glass, Window, aqua | 1 | Pane | |
| B12 | I | Iron, Nail, unidentified | 2 | Shank | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| B12 | I | Brick, | 2 | Fragment | |
| B13 | I | Brick, | 1 | Fragment | Not collected |
| B14 | I | Glass, Vessel, colorless | 1 | Body | |
| B14 | I | Glass, Vessel, colorless | 1 | Body | Molded, ribbed |
| B14 | I | Glass, Window, colorless | 1 | Pane | |
| B14 | I | Brick, | 1 | Fragment | |
| B14 | I | Coal, Anthracite | 1 | Fragment | |
| C5 | I | Glass, Vessel, colorless | 9 | Body | |
| C5 | I | Glass, Vessel, colorless | 1 | Rim | |
| C5 | I | Glass, Vessel, aqua | 2 | Body | |
| C5 | I | Glass, Vessel, brown | 1 | Body | |
| C5 | I | Refined earthenware, Undecorated | 1 | Body | |
| C5 | I | Glass, Window, colorless | 1 | Pane | |
| C5 | I | Iron, Nail, unidentified | 3 | Shank | |
| C5 | I | Brick, | 1 | Fragment | |
| C6 | I | Glass, Vessel, aqua | 2 | Body | |
| C6 | I | Glass, Vessel, colorless | 1 | Body | |
| C6 | I | Iron, Nail, unidentified | 1 | Head shank | |
| **Area C9 / 44IW0422** | | , | | | |
| B3 | I | Iron, Unidentified | 1 | Fragment | nail or fragment of barbed wire |
| D1 | I | Glass, Vessel, blue | 2 | Body | Cobalt |
| D1 | I | Glass, Window, colorless | 1 | Pane | |
| F1 | I | Stoneware, Ironstone | 1 | Base | Fragment of makers mark, "-TONE CHIN-" |
| F4 | I | Glass, Vessel, aqua | 1 | Body | |
| F4 | I | Glass, Vessel, solarized | 1 | Body | |
| F4 | I | Glass, Vessel, colorless | 1 | Body | |
| G4 | I | Refined earthenware, Undecorated | 1 | Rim | |
| G4 | I | Refined earthenware, Spall | 1 | Body | |
| G4 | I | Glass, Vessel, colorless | 1 | Body | |
| G4 | I | Glass, Window, aqua | 1 | Pane | |
| H(-1) | I | Glass, Vessel, colorless | 1 | Body | |
| **Area C10 / 44IW0423** | | , | | | |
| D5 | I | Refined earthenware, Undecorated | 1 | Body | |
| E5 | I | Iron, Bolt | 1 | Fragment | nut rusted to it |
| E5 | I | Iron, Washer | 1 | Whole | was on the above bolt, not rusted to it |
| E5 | I | Iron, Nail, unidentified | 1 | Shank | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| E7 | I | Brick, | 1 | Fragment | Not collected |
| F8 | I | Glass, Vessel, colorless | 2 | Body | |
| F8 | I | Glass, Vessel, blue | 1 | Body | Cobalt |
| F8 | I | Iron, Bolt | 1 | Head shank | |
| F8 | I | Iron, Unidentified | 1 | Fragment | unclear if part of wire or nail |
| F9 | I | Iron, Nail, unidentified | 3 | Shank | |
| H2 | I | Glass, Vessel, colorless | 1 | Body | |
| H8 | I | Iron, Nail, unidentified | 1 | Shank | |
| H8 | I | Terra cotta, Drain pipe | 1 | Fragment | |
| J6 | I | Iron, Nail, wire | 1 | Whole | |
| J6 | I | Mortar, | 1 | Fragment | |

# APPENDIX C: V-CRIS FORMS

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## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 6.580
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter in the northernmost part of Area A1. No artifacts were collected during the pedestrian survey, but cobalt glass, blue transferware, yellowware, aqua vessel glass, a prosser button, ironstone, and Bristol stoneware were observed.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 12/27/2023 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** No

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

No Data

**Summary of Specimens Observed, Not Collected:**

No artifacts were collected during the pedestrian survey, but cobalt glass, blue transferware, yellowware, aqua vessel glass, a Prosser button, ironstone, and Bristol stoneware were observed.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 1.770
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter in Area A1, south of Field Site 1. An aqua bottle finish was the only artifact collected. A dwelling is indicated here by historic topographic maps, though no surface features were observed. Artifacts observed here included fragments of ironstone, and colorless and vessel glass.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 12/27/2023 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

An aqua apothecary bottle finish was the only artifact collected.

**Summary of Specimens Observed, Not Collected:**

Artifacts observed here included fragments of ironstone, and colorless and vessel glass.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** 046-0056
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 9.530
**Landform:** Ridge Toe
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site was first observed in the western half of Area A1, and later in Area A5 associated with Architectural Resource #046-0056. All artifacts collected are from Area A5 shovel tests; these are representative of those observed in the Area A1 portion of Field Site 3 as well. This site consists of a late-nineteenth to mid twentieth century domestic artifact scatter. A total of 54 artifacts were recovered from fifteen positive shovel tests, including a milk glass canning jar lid liner, one wire nail, colorless vessel glass, solarized vessel glass, aqua window and vessel glass, oyster shell, and Bristol stoneware.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 12/27/2023 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation, Subsurface Testing, Historic Map Projection

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

All artifacts collected are from Area A5 shovel tests; these are representative of those observed in the Area A1 portion of Field Site 3 as well. This site consists of a late-nineteenth to mid twentieth century domestic artifact scatter. A total of 54 artifacts were recovered from fifteen positive shovel tests, including a milk glass canning jar lid liner, one wire nail, colorless vessel glass, solarized vessel glass, aqua window and vessel glass, oyster shell, and Bristol stoneware.

**Summary of Specimens Observed, Not Collected:**

Artifacts observed in the agricultural field included brick fragments, vessel glass, refined earthenware, and American stoneware.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** Field Site 3 contains surface features and artifacts and is also associated with an early-nineteenth-century house ruin. These two sites have the potential to provide new data about the early nineteenth century history of the area, and, D+A recommends avoidance or further investigation of this site.

**Surveyor's Eligibility Recommendations:** Recommended Potentially Eligible

**Surveyor's NR Criteria Recommendations:** D

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** 046-5149, 046-5150
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 6.180
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This field site was first observed in the southeastern corner of Area A1 and was further delineated in the southwest corner of Area B1. This site surrounds Architectural Resources #046-5149 and 046-5150. It consists of a late nineteenth to early twentieth century domestic artifact scatter. Artifacts observed here included dipped ware, brick fragments, ironstone, colorless vessel glass, terra cotta drain pipe, solarized vessel glass, aqua vessel glass, and porcelain.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 1/3/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

The only diagnostic artifact collected was one sherd of blue, white, and brown dipped ware.

**Summary of Specimens Observed, Not Collected:**

Artifacts observed here included dipped ware, brick fragments, ironstone, colorless vessel glass, terra cotta drain pipe, solarized vessel glass, aqua vessel glass, and porcelain.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1830 - 1860, 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 7.270
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This field site was observed by pedestrian survey in the western part of Area B1. It consists of a mid-nineteenth to mid-twentieth domestic artifact scatter, including green shell edged earthenware; redware; ironstone; colorless window glass; aqua, colorless, and solarized vessel glass; porcelain; brick fragments; and one pipe stem that was the only artifact collected.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 1/3/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

The only diagnostic artifact collected was a white clay pipe stem with a single raised ring of hobnails around the very end.

**Summary of Specimens Observed, Not Collected:**

Observed artifacts consist of a mid-nineteenth to mid-twentieth domestic artifact scatter, including green shell edged earthenware; redware; ironstone; colorless window glass; aqua, colorless, and solarized vessel glass; porcelain; stoneware, brick fragments.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 1.040
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a small late-nineteenth to early-twentieth century domestic artifact scatter observed in the northern part of Area B1. A sample of artifacts were collected, and observed artifacts included solarized and colorless vessel glass, aqua window glass, ironstone, and refined earthenware, Bristol and Albany-slip stoneware, and a reed pipe.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 1/3/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

Collected artifacts include refined earthenware, Bristol glaze and Albany-slip stoneware, a stoneware reed pipe, aqua and colorless window glass, and dark green wine bottle glass.

**Summary of Specimens Observed, Not Collected:**

Artifacts observed but not collected are similar to those collected in the sample: refined earthenware, American stoneware, aqua and colorless window glass, and dark green wine bottle glass.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.250
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a domestic artifact sample observed in the southeast part of Area B1. Artifacts observed included ironstone, refined earthenware, and aqua and colorless vessel glass. Artifacts were densely clustered. No artifact samples were collected

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 1/3/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** No

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

No Data

**Summary of Specimens Observed, Not Collected:**

Artifacts observed included densely clustered ironstone, refined earthenware, and aqua and colorless vessel glass

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.670
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This field site was observed in the southern part of Area A2, in the same location as a dwelling indicated on historic topographic maps. No surface features were observed; only a domestic artifact scatter was observed. Surface artifacts included yellowware, milk glass, and brick fragments, indicating a date range of early-to-mid-twentieth century.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** No

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

No Data

**Summary of Specimens Observed, Not Collected:**

Surface artifacts included yellowware, milk glass, and brick fragments, indicating a date range of early-to-mid-twentieth century

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.210
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C2. No artifacts were collected, but artifacts observed included aqua and colorless vessel glass, brick fragments, and refined earthenware. No surface features were observed.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** No

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

No Data

**Summary of Specimens Observed, Not Collected:**

Artifacts observed included aqua and colorless vessel glass, brick fragments, and refined earthenware.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.500
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century domestic artifact scatter associated with a dwelling indicated here by historic topographic maps. 43 artifacts were collected from seven positive shovel tests, including aqua and colorless window glass, lantern glass, colorless and brown vessel glass, milk glass, and wire. Vessel glass makes up most of this assemblage, with 26 recovered fragments.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Forest | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

43 artifacts were collected from seven positive shovel tests, including aqua and colorless window glass, lantern glass, colorless and brown vessel glass, milk glass, and wire.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.170
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a dense early-to-mid twentieth century artifact scatter in Area A4. 178 artifacts were recovered from five positive shovel tests including aqua and colorless window glass, washers, screws, wire, terra cotta drain pipe, and colorless vessel glass. Window glass and unidentified melted glass make up the majority of this assemblage, with 128 fragments.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Forest | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Subsurface Testing

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

178 artifacts were recovered from five positive shovel tests including aqua and colorless window glass, washers, screws, wire, terra cotta drain pipe, and colorless vessel glass.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR, RUNNYMEDE
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.910
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century domestic artifact scatter in Area B4. It is located in the same place as a dwelling indicated on historic topographic maps. A total of 65 artifacts were recovered from 20 positive shovel tests, including brick fragments; colorless vessel glass, milk glass, colorless and aqua window glass, terra cotta drain pipe, royal-pattern molded refined earthenware, a spark plug, and heavily corroded nails.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Subsurface Testing, Historic Map Projection

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

A total of 65 artifacts were recovered from 20 positive shovel tests, including brick fragments; colorless vessel glass, milk glass, colorless and aqua window glass, terra cotta drain pipe, molded refined earthenware, a spark plug, and heavily corroded nails.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.040
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Indeterminate
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a small domestic artifact scatter in Area B5. Artifacts recovered include two fragments of aqua vessel glass, two fragments of colorless window glass, and 83 fragments of terra cotta drain pipe.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation, Subsurface Testing

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

Artifacts recovered include two fragments of aqua vessel glass, two fragments of colorless window glass, and 83 fragments of terra cotta drain pipe.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

| | |
|---|---|
| **Site Name:** | No Data |
| **Site Classification:** | Terrestrial, open air |
| **Year(s):** | 1830 - 1860, 1861 - 1865, 1866 - 1916, 1917 - 1945 |
| **Site Type(s):** | Artifact scatter |
| **Other DHR ID:** | 046-0030 |
| **Temporary Designation:** | No Data |

**Site Evaluation Status**

## Locational Information

| | |
|---|---|
| **USGS Quad:** | RAYNOR |
| **County/Independent City:** | Isle Of Wight (County) |
| **Physiographic Province:** | Coastal Plain |
| **Elevation:** | No Data |
| **Aspect:** | No Data |
| **Drainage:** | Albemarle-Chowan |
| **Slope:** | No Data |
| **Acreage:** | 1.380 |
| **Landform:** | Ridge Finger |
| **Ownership Status:** | Private |
| **Government Entity Name:** | No Data |

## Site Components

### Component 1

| | |
|---|---|
| **Category:** | Domestic |
| **Site Type:** | Artifact scatter |
| **Cultural Affiliation:** | Indeterminate |
| **Cultural Affiliation Detail:** | No Data |
| **DHR Time Period:** | Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945) |
| **Start Year:** | No Data |
| **End Year:** | No Data |
| **Comments:** | This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter associated with Architectural Resource #046-0030. This resource is no longer standing. A total of 89 artifacts were recovered from fourteen positive shovel tests, including refined earthenware, oyster shell, solarized vessel glass, milk glass, green vessel glass, cobalt vessel glass, brick fragments, corroded nails, yellowware, and aqua window glass. |

## Bibliographic Information

**Bibliography:**

No Data

**Informant Data:**

No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

A total of 89 artifacts were recovered from fourteen positive shovel tests, including refined earthenware, oyster shell, solarized vessel glass, milk glass, green vessel glass, cobalt vessel glass, brick fragments, corroded nails, yellowware, and aqua window glass

**Summary of Specimens Observed, Not Collected:**

Some artifacts were observed on the surface but not collected, including vessel glass, yellowware, brick, refined earthenware, and brick.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1830 - 1860, 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 1.700
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a mid-nineteenth to early-twentieth century domestic artifact scatter in Area C5. A total of 51 artifacts were recovered from 20 positive shovel tests, including brick fragments, machine-cut and wire nails, aqua vessel glass, solarized vessel glass, colorless vessel glass, dark green vessel glass, blue shell edged ceramic, industrial porcelain, lantern glass, and a fragment of copper pipe.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation, Subsurface Testing

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

A total of 51 artifacts were recovered from 20 positive shovel tests, including brick fragments, machine-cut and wire nails, aqua vessel glass, solarized vessel glass, colorless vessel glass, dark green vessel glass, blue shell edged ceramic, industrial porcelain, lantern glass, and a fragment of copper pipe.

**Summary of Specimens Observed, Not Collected:**

Artifacts observed but not collected on the surface include primarily brick fragments, but include the same types as those collected in shovel tests.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** 046-0029
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.770
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C6. This grid also overlaps slightly with the Area C1 pedestrian survey. This site is also associated with Architectural Resource #046-0029. A total of 20 artifacts were recovered from ten positive shovel tests, including a length of chain, two fragments of unidentified farm equipment, brown vessel glass, colorless vessel and window glass, aqua vessel glass, brick fragments, and one machine cut nail. Colorless vessel glass was most common in this area, with five fragments recovered.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

A total of 20 artifacts were recovered from ten positive shovel tests, including a length of chain, two fragments of unidentified farm equipment, brown vessel glass, colorless vessel and window glass, aqua vessel glass, brick fragments, and one machine cut nail.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.990
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C7. 50 artifacts were recovered from eight positive shovel tests, including corroded nails, aqua vessel glass, colorless vessel and window glass, brown vessel glass, refined earthenware, brick fragments, and a glass marble.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Subsurface Testing

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

50 artifacts were recovered from eight positive shovel tests, including corroded nails, aqua vessel glass, colorless vessel and window glass, brown vessel glass, refined earthenware, brick fragments, and a glass marble.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.930
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C9. 13 artifacts were recovered from six shovel tests, including colorless, aqua, cobalt, and solarized vessel glass; ironstone; refined earthenware; and unidentified iron. The most common artifact was colorless vessel glass, with four fragments.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

13 artifacts were recovered from six shovel tests, including colorless, aqua, cobalt, and solarized vessel glass; ironstone; refined earthenware; and unidentified iron.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** 046-5148
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 1.370
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century artifact scatter in Area C10. Eighteen artifacts were recovered from eight artifacts, including iron bolts, nuts, unidentified and wire nails, colorless and blue vessel glass, and terra cotta drain pipe.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation, Subsurface Testing

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

Eighteen artifacts were recovered from eight artifacts, including iron bolts, nuts, unidentified and wire nails, colorless and blue vessel glass, and terra cotta drain pipe.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1790 - 1829, 1830 - 1860
**Site Type(s):** Dwelling, single
**Other DHR ID:** 046-0057
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.310
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Dwelling, single
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Early National Period (1790 - 1829), Antebellum Period (1830 - 1860)
**Start Year:** 1825
**End Year:** No Data
**Comments:** This site consists of a single brick structure recorded as Architectural Resource 046-0057. No artifacts or surface features were observed in association with it.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 1/9/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion, Structural Failure

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** No

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

No Data

**Summary of Specimens Observed, Not Collected:**

Some brick fragments were observed scattered around the structure, but not collected.

**Current Curation Repository:** No Data

**Permanent Curation Repository:** No Data

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site has the potential for associated artifacts and subsurface features, and is recommended for further survey.

**Surveyor's Eligibility Recommendations:** Recommended for Further Survey

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

**Sycamore Cross Solar A and B**
**Recommended Conditions as amended September 11, 2024**

1. Topsoil shall be stockpiled on the site and shall be stored out of view from adjacent properties and public roads.
2. The Applicant shall submit an invasive species management plan as recommended by DCR with the submission of the final site plan.
3. No impacts shall be permitted to the Pouches Swamp stream conservation unit area. The Applicant shall comply with Virginia Department of Conservation and Recreation ("DCR") recommendations regarding the C1-C3 ecological core areas and shall coordinate with Virginia Department of Forestry on efforts to mitigate impact to the priority forestland areas.
4. The Applicant shall submit a seed mix for site groundcover that includes native pollinators blooming in spring/summer as recommended by DCR.
5. The Applicant will work directly with the Isle of Wight County Chamber of Commerce, Paul D. Camp Community College, and the Economic Development Department to ensure inclusion of local contractors in the bidding process.
6. A laminated Emergency Response Poster will be mounted near the front gate. The poster will include a general site plan, evacuation routes and muster points, emergency response chain of command, directions to the closest hospital, coordinates to the closest life flight landing area, and other pertinent information associated with the facility during an emergency response.
7. The facility perimeter fencing will be equipped with gates to permit emergency exits from the facility subject to compliance with applicable requirements, including those of the National Electric Code and the North American Electric Reliability Corporation.
8. Adherence to the approved transportation plan shall be required for all facility traffic during construction of the facility. Oversized vehicle traffic shall be limited only to the approved route as described in in the transportation plan. The Applicant shall coordinate with the Isle of Wight County school administration on school bus pickup and drop-off times and locations for incorporation into the transportation plan.
9. Excluding the bufferyards, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing.
10. Hours of operation for construction (including construction associated with repairs during operation of the facility) shall be limited to Monday through Friday, 7:00 a.m. to 6:00 p.m. and Saturdays from 7:00 a.m. to 5:00 p.m., except in cases of emergency. Except in cases of emergency, no construction is to occur on Sundays by any party involved with the Project. In the event of any emergency event

necessitating divergence from the foregoing hours and days of operation, the Applicant shall notify the zoning administrator as soon as reasonably possible.

11. As part of the site plan review, the Applicant shall provide documentation that the selected panels on-site are “Tier 1” modules, as established by the most recent “PV Module Tier 1 List” issued by Bloomberg NEF or a similar third-party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power-generating equipment initially installed and replaced on the site must qualify, for disposal purposes only, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP).
12. The Applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the Project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil conditions, including depth, density, and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/ Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to substantially similar or better condition as in the baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results.
13. Any recommendations provided by VDHR during site plan review will be adhered to, in addition to requirements in the zoning ordinance.
14. The Property shall be developed in general conformance with the submitted conceptual plan prepared by AES and dated December 12, 2023.
15. During the Project life, the Applicant shall preserve and maintain existing and newly installed buffer landscaping and shall not clear cut live trees within required setbacks or buffer zones except as necessary for access roads, utility crossings, and to avoid shading of solar panels per the approval of the Zoning Administrator.
16. The Applicant shall submit a combined Stormwater Management Plan and a combined Erosion and Sediment Control Plan for Sycamore Cross A and Sycamore Cross B with the submission of the site plan for review by the Virginia Stormwater Management Program authority having jurisdiction at the time of submission.
17. The Applicant shall submit a combined Unanticipated Discovery Plan for Sycamore Cross A and Sycamore Cross B prior to final site plan approval. The

plan shall include emergency protection protocols, curation processing of cultural materials, disposition of cultural materials, and a contact list including an on-call archaeologist, Project contacts, and state/regional contacts.

18. Applicant will coordinate with landowners and the Zoning Administrator to install enhanced landscape buffers in proximity to occupied residential properties as needed to mitigate potential viewshed impacts.
19. The Applicant shall submit an initial combined Transportation Plan, as referenced in Condition 8 of Staff Recommended Conditions, for Sycamore Cross A and Sycamore Cross B with the first submission of the site plan. The final Transportation Plan shall address traffic control measures, an evaluation of the condition of the public roads along delivery routes prior to construction, and a plan to address repairs to public roads that may be needed due to damages attributable to Project construction. The Applicant shall obtain Isle of Wight County approval of the final Transportation Plan prior to approval of the site plan. Additionally, the Transportation Plan shall include each of the following:
    i. Third party enforcement of the approved transportation plan.
    ii. Prior to the start of construction, reinforcement of shoulders, clearing of roadside drainage ways, and road improvement where permissible through coordination with the applicable Virgina Department of Transportation (VDOT) office.
    iii. Limit construction traffic on White Hill Trail (State Route 623).
    iv. Upon commencement of construction, Applicant will engage a Project Liaison to facilitate communication between citizens, construction crews, maintenance teams, and the Applicant. The contact information for the Project Liaison will be posted at each permanent site gate, published on the Project's website, and provided to Isle of Wight County Staff. A Project Liaison will remain in place until completion of construction.
    v. A detailed description of what types of vehicles and activities are subject to the Transportation Plan and a definition of "material non-compliance" with the Transportation Plan.
    vi. Penalties for material non-compliance with the Transportation Plan in accordance with the following:
        a) First Violation: A written warning may be issued to the Applicant.
        b) Second Violation: A monetary penalty of $10,000 may be imposed.
        c) Third Violation: A monetary penalty of $20,000 may be imposed.
        d) Subsequent Violations: For each subsequent violation, a monetary penalty of $50,000 may be imposed.
        e) In no event shall monetary penalties assessed under the Transportation Plan exceed a total of $500,000, however, nothing contained herein shall preclude the Zoning Administrator from

enforcement of the conditions of the permit in accordance with the Zoning Ordinance.

20. The Applicant will commit to agricultural uses on site, including, but not limited to, sheep grazing and forage crops. The Applicant will develop and submit as part of the site plan review process a Farming Plan for such agricultural uses on site, which will require a performance bond to secure Applicant's obligations under the Farming Plan.
21. The Applicant will commit at least eight (8) acres of land to agricultural community support. The Applicant will develop a program to manage the land identified for agricultural community support.
22. Pursuant to Va. Code 15.2-2209.1:2, the Applicant must commence construction of the Project within three years from the date of approval of this Conditional Use Permit, unless otherwise extended by the Board of Supervisors or applicable law.
23. This Conditional Use Permit, including these conditions, shall run with the land and shall not be affected by a change in ownership of the Applicant or the Project.

**Sycamore Cross Solar A and B**
**Recommended Conditions as amended September 11, 2024**

1. Topsoil shall be stockpiled on the site and shall be stored out of view from adjacent properties and public roads.
2. The Applicant shall submit an invasive species management plan as recommended by DCR with the submission of the final site plan.
3. No impacts shall be permitted to the Pouches Swamp stream conservation unit area. The Applicant shall comply with Virginia Department of Conservation and Recreation ("DCR") recommendations regarding the C1-C3 ecological core areas and shall coordinate with Virginia Department of Forestry on efforts to mitigate impact to the priority forestland areas.
4. The Applicant shall submit a seed mix for site groundcover that includes native pollinators blooming in spring/summer as recommended by DCR.
5. The Applicant will work directly with the Isle of Wight County Chamber of Commerce, Paul D. Camp Community College, and the Economic Development Department to ensure inclusion of local contractors in the bidding process.
6. A laminated Emergency Response Poster will be mounted near the front gate. The poster will include a general site plan, evacuation routes and muster points, emergency response chain of command, directions to the closest hospital, coordinates to the closest life flight landing area, and other pertinent information associated with the facility during an emergency response.
7. The facility perimeter fencing will be equipped with gates to permit emergency exits from the facility subject to compliance with applicable requirements, including those of the National Electric Code and the North American Electric Reliability Corporation.
8. Adherence to the approved transportation plan shall be required for all facility traffic during construction of the facility. Oversized vehicle traffic shall be limited only to the approved route as described in in the transportation plan. The Applicant shall coordinate with the Isle of Wight County school administration on school bus pickup and drop-off times and locations for incorporation into the transportation plan.
9. Excluding the bufferyards, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing.
10. Hours of operation for construction (including construction associated with repairs during operation of the facility) shall be limited to Monday through Friday, 7:00 a.m. to 6:00 p.m. and Saturdays from 7:00 a.m. to 5:00 p.m., except in cases of emergency. Except in cases of emergency, no construction is to occur on Sundays by any party involved with the Project. In the event of any emergency event

necessitating divergence from the foregoing hours and days of operation, the Applicant shall notify the zoning administrator as soon as reasonably possible.

11. As part of the site plan review, the Applicant shall provide documentation that the selected panels on-site are “Tier 1” modules, as established by the most recent “PV Module Tier 1 List” issued by Bloomberg NEF or a similar third-party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power-generating equipment initially installed and replaced on the site must qualify, for disposal purposes only, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP).
12. The Applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the Project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil conditions, including depth, density, and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/ Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to substantially similar or better condition as in the baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results.
13. Any recommendations provided by VDHR during site plan review will be adhered to, in addition to requirements in the zoning ordinance.
14. The Property shall be developed in general conformance with the submitted conceptual plan prepared by AES and dated December 12, 2023.
15. During the Project life, the Applicant shall preserve and maintain existing and newly installed buffer landscaping and shall not clear cut live trees within required setbacks or buffer zones except as necessary for access roads, utility crossings, and to avoid shading of solar panels per the approval of the Zoning Administrator.
16. The Applicant shall submit a combined Stormwater Management Plan and a combined Erosion and Sediment Control Plan for Sycamore Cross A and Sycamore Cross B with the submission of the site plan for review by the Virginia Stormwater Management Program authority having jurisdiction at the time of submission.
17. The Applicant shall submit a combined Unanticipated Discovery Plan for Sycamore Cross A and Sycamore Cross B prior to final site plan approval. The

plan shall include emergency protection protocols, curation processing of cultural materials, disposition of cultural materials, and a contact list including an on-call archaeologist, Project contacts, and state/regional contacts.

18. Applicant will coordinate with landowners and the Zoning Administrator to install enhanced landscape buffers in proximity to occupied residential properties as needed to mitigate potential viewshed impacts.
19. The Applicant shall submit an initial combined Transportation Plan, as referenced in Condition 8 of Staff Recommended Conditions, for Sycamore Cross A and Sycamore Cross B with the first submission of the site plan. The final Transportation Plan shall address traffic control measures, an evaluation of the condition of the public roads along delivery routes prior to construction, and a plan to address repairs to public roads that may be needed due to damages attributable to Project construction. The Applicant shall obtain Isle of Wight County approval of the final Transportation Plan prior to approval of the site plan. Additionally, the Transportation Plan shall include each of the following:
    i. Third party enforcement of the approved transportation plan.
    ii. Prior to the start of construction, reinforcement of shoulders, clearing of roadside drainage ways, and road improvement where permissible through coordination with the applicable Virgina Department of Transportation (VDOT) office.
    iii. Limit construction traffic on White Hill Trail (State Route 623).
    iv. Upon commencement of construction, Applicant will engage a Project Liaison to facilitate communication between citizens, construction crews, maintenance teams, and the Applicant. The contact information for the Project Liaison will be posted at each permanent site gate, published on the Project's website, and provided to Isle of Wight County Staff. A Project Liaison will remain in place until completion of construction.
    v. A detailed description of what types of vehicles and activities are subject to the Transportation Plan and a definition of "material non-compliance" with the Transportation Plan.
    vi. Penalties for material non-compliance with the Transportation Plan in accordance with the following:
        a) First Violation: A written warning may be issued to the Applicant.
        b) Second Violation: A monetary penalty of $10,000 may be imposed.
        c) Third Violation: A monetary penalty of $20,000 may be imposed.
        d) Subsequent Violations: For each subsequent violation, a monetary penalty of $50,000 may be imposed.
        e) In no event shall monetary penalties assessed under the Transportation Plan exceed a total of $500,000, however, nothing contained herein shall preclude the Zoning Administrator from

enforcement of the conditions of the permit in accordance with the Zoning Ordinance.

20. The Applicant will commit to agricultural uses on site, including, but not limited to, sheep grazing and forage crops. The Applicant will develop and submit as part of the site plan review process a Farming Plan for such agricultural uses on site, which will require a performance bond to secure Applicant's obligations under the Farming Plan.
21. The Applicant will commit at least eight (8) acres of land to agricultural community support. The Applicant will develop a program to manage the land identified for agricultural community support.
22. Pursuant to Va. Code 15.2-2209.1:2, the Applicant must commence construction of the Project within three years from the date of approval of this Conditional Use Permit, unless otherwise extended by the Board of Supervisors or applicable law.
23. This Conditional Use Permit, including these conditions, shall run with the land and shall not be affected by a change in ownership of the Applicant or the Project.

**ISSUE:**

Application (CUP-5-24) of Sycamore Cross Solar , LLC, Applicant, for a for a Conditional Use Permit to Allow the Expansion of an Existing Major Utility Service, Specifically a Six MW Utility-Scale Solar Energy Generation Facility and Associated Six Medium Voltage Lines Known as Sycamore Cross B, on approximately 240 Acres Located on Jones Drive (Rte. 626), Burwells Bay Road (Rte. 621), Mill Swamp Road (Rte. 621) and James Wilson Way

**BACKGROUND:**

Application (CUP-5-24) of Sycamore Cross Solar , LLC, applicant, for a for a conditional use permit to allow the expansion of an existing major utility service, specifically a six MW utility-scale solar energy generation facility and associated six medium voltage lines known as Sycamore Cross B, on approximately 240 acres located on tax parcel numbers 10-01-017, 11-01-015, 10-01-023, 10-01-025, 10-01-027, 10-01-028A, 10-01-030, and 11-01-005 located on Jones Drive (Rte. 626), Burwells Bay Road (Rte. 621), Mill Swamp Road (Rte. 621) and James Wilson Way.

The project site includes properties that are part of the existing Cavalier Solar facility as well as one new property with tax map numbers 10-01-028A that will be crossed by an easement only for a proposed medium voltage transmission line. The conditional use permit would allow the expansion of the existing facility on the existing Cavalier parcels with tax map numbers 10-01-017 and 11-01-015 by up to 240 acres. The other existing Cavalier parcels associated with this application will be crossed by medium voltage transmission lines.

The project site is generally bounded by Surry County on the north, James Wilson Way on the west, and Stallings Creek to the east and south. The project has road frontage on Jones Drive (Rte. 626), Burwells Bay Road (Rte. 621), Mill Swamp Road (Rte. 621) and James Wilson Way. The site lies adjacent to agricultural, forestal, and dispersed single-family residential uses.

Property location and proximity maps are attached to this staff report.

All of the properties that are part of the application with the exception of 10-10-028A are part of the existing Cavalier solar facility. At its meeting on May 20, 2021, the Isle of Wight County Board of Supervisors approved Cavalier (CUP-3-19) to allow a Utility Scale Solar Energy Facility for up to 500 acres. This

application would allow the expansion of the utility scale solar energy generation facility use on two of the properties to up to 240 acres. Most of the Cavalier facility has been constructed and is awaiting final landscaping inspection and permit approval.

According to County records, the new property with tax map number 10-01-028A located at 9621 Burwells Bay Road is 75.24 acres and has historically been used for agriculture. County real estate records show an existing dwelling built in 1933 along with several outbuildings and a cemetery. The applicant plans to install a medium voltage transmission line to serve the new solar facility on the property.

The Sycamore Cross B solar facility application was submitted in conjunction with the accompanying Sycamore Cross A solar project application which lies approximately 2.5 miles away. Sycamore Cross A consists of 13 project parcels parcel totaling 1,795 acres, includes one medium voltage easement only parcel and will account for approximately 214 MWac. The Sycamore Cross B project will consist of two parcels with panels totaling 240 acres accounting for approximately 6 MW and six medium voltage easement only parcels.

The project will consist of solar photovoltaic modules on a single axis tracker system and associated electrical equipment. The project will utilize an existing substation location shared with the Cavalier Solar facility.

New 34.5kV feeder lines will interconnect the various solar generation equipment comprising Sycamore Cross A to the project's collector substation. The Sycamore Cross project is using the same utility corridor as Cavalier Solar. The project will use an existing 500 kV gen-tie line that was constructed for the Cavalier Solar facility and that will interconnect the project's substation with the VEPCO Septa 500 kV Substation. The applicant states that no improvements will be required to the VEPCO substation or the 500 kV gen-tie. These improvements are being completed as part of the Cavalier facility. As part of the site construction activities, one house is proposed for demolition at 14195 Rattlesnake Trail which was built in 1950. The applicant states that other structures may be considered for demolition to accommodate the final design of the solar facility, although none have been specifically identified in this application.

The Project will serve the PJM (Pennsylvania-Jersey-Maryland) wholesale market. The final interconnection service agreement identifying the transmission capacity was executed on April 3, 2023. The maximum facility output is 240 MW for projects, which is also referred to as the "installed capacity", and the total project has rights to inject the full 240 MW into the grid. A redacted version of the

interconnection service agreement is attached to the staff report.

The application anticipates construction of the Project to begin in Spring 2025 and completed by the end of 2026. Construction activity is proposed between the hours of 7 a.m. and 7 p.m., Monday through Saturday.

The applicant submitted the required the supporting studies in support of both the Sycamore Cross A and B projects. Staff assessed the application for its consistency with the County's plans and ordinances as well as potential impacts to natural and cultural resources, public facilities and services. Unless otherwise noted, the following analysis is for both projects. The following is a summary of the projected benefits, potential impacts and any mitigation measures proposed by the applicant.

**Public Facility Impacts:**

The impacts of the proposed facility on public roads will occur primarily during construction and will be minimal once the use is established. In establishing the use, the enjoyment of neighboring properties may also be temporarily impacted by construction traffic and noise generation.

The applicant has provided a proposed construction transportation route which has been reviewed by the Virginia Department of Transportation (VDOT), and they stated they had no concerns. The construction traffic route alternative plan is attached to the staff report.

The applicant has submitted three options for proposed construction traffic routes, each of which includes escorted heavy haul routes, a delivery route, and anticipated employee commuter routes. Sycamore Cross has suggested a preferred delivery route using Proctor's Bridge (Rte. 616) from Route 460 in Southampton County to Proctor's Bridge (Rte. 621) in Isle of Wight to a main staging area within the project site. From the staging area, deliveries will be escorted to various project areas on the local road network and back to the staging area. Factors used to determine Sycamore Cross Solar’s preferred routing includes traffic counts, road characterizations as defined by VDOT, bridge capacities, road widths, current road conditions, challenges based on superelevation, and proximity to residences. The applicant states that construction activities and associated construction traffic for the Cavalier Solar project are expected to be completed and end before construction starts for the Sycamore Cross Project.

Staff expressed concerns to the applicant in regard to the narrowness of all three

proposed routes as well as bridge capacity, lack of shoulders or passing areas, and proximity to residences. The roads surrounding the project site are not well suited to construction traffic. In addition, staff recommends that no construction should occur on Sundays by any party involved with the project, to include the solar developer, its contractors, and Dominion Energy contractors and that deliveries and hauling activities should occur outside of school bus traffic times.

**Environmental Assessment:**

The project lies within the Blackwater River watershed area and contains several types of sensitive environmental features, including wetlands, streams, and floodplains. According to the information the Department of Conservation and Recreation (DCR), the Pouches Creek Stream Conservation Unit is located within the project site. Stream Conservation Units (SCUs) identify stream reaches that contain aquatic natural heritage resources, including 2 miles upstream and 1 mile downstream of documented occurrences, and all tributaries within this reach. SCUs are also given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain. The Pouches Creek SCU has been given a biodiversity ranking of 83, which represents a site of high significance.

A wetland delineation performed by the applicant shows 2,281 linear feet of streams, 36 acres of wetlands, and 0.39 acres of open water features located within the fenced area of the project. The applicant states they will continue to avoid and minimize impacts to these features through the site plan design phase of the project.

Review comments from DCR reveal there is a potential for rare and threatened species such as the Barking treefrog and the Eastern Big Eared Bat to occur in the project area. The proposed project will impact one or more ecological cores with very high (C2) to outstanding (Cl) ecological integrity.

Ecological core areas are classified into five categories of ecological integrity: C1 – Outstanding; C2 – Very High; C3 – High; C4 – Moderate; and C5 – General. Scores are enhanced if the core or habitat fragment is part of a larger complex of natural lands. Scores also increase for those cores and habitat fragments that contribute to water quality enhancement. In general, larger, more biologically diverse areas are given higher scores. DCR recommends avoidance of impacts to cores. However, when avoidance cannot be achieved, DCR recommends minimizing the area of impacts overall and concentrating the impacted area at the edges of cores, so that the most interior remains intact.

According to the applicant, approximately 77 acres of very high value ecological cores, 32 acres of high value ecological cores, 3.3 acres of moderate value ecological cores, and 423.7 acres of general value ecological cores may be impacted by the Project. The Project does not intersect any outstanding value ecological cores. The applicant states that they have made a concerted effort to minimize impacts wherever possible.
Further investigation of these impacts is recommended and DCR-ONH can conduct a formal impact analysis upon request. This analysis would estimate impacts to cores and habitat fragments, providing an estimate of the total acreage of direct and indirect impacts of the project. A copy of DCR's review comments are attached to this letter.

The applicant's environmental assessment also identified the project's potential impacts to important forestland in the area. The Forest Conservation Value (FCV) model was designed by the Virginia Department of Forestry to identify forestland with the highest priority for conservation within Virginia with the intent to maximize the conservation efforts to the highest quality, most productive, and most vulnerable forestland within Virginia (DCR 2021). The classifications of the values range from average to outstanding, indicating the value of forestlands for conservation (DCR 2021). The DCR FCV model indicated that approximately 1,254 acres of the Project study area were mapped as forest with approximately 213 acres categorized as outstanding priority for conservation, 293 acres as very high, and 384 acres categorized as high priority forestland for conservation.

Based on the current design of the project, approximately 32 acres of outstanding priority forestland will be impacted, approximately 63 acres of very high priority, and approximately 139 acres of high priority forestland may be impacted. The applicant states they will consult with DCR in connection with the potential impact of outstanding, very high, and high value forestland.

When considering soil classifications inside the fence of the project, the project's environmental assessment states the USDA NRCS Web Soils Survey was queried to identify soils classified as prime approximately 895 acres of prime farmland soils were identified, an additional 433 acres are classified as prime farmland if drained, and approximately 109 acres of farmland of statewide importance were identified within the Project study area.

Based on the current design of the project, approximately 614 acres of prime farmland (26% of the Project study area), 236 acres (10%) of prime farmland if drained, and 35 acres (1.5%) of farmland of statewide importance may be

impacted.

Staff has concerns with regard to the potential impacts to highly important environmental resources such as the Pouches Swamp stream conservation unit area and ecological core areas. Staff would recommend that no impacts be permitted to the stream conservation unit area, the C1-C3 ecological core areas, or the priority forest areas. In addition, staff would recommend that the applicant be required to conduct a formal impact analysis within the project area with DCR as recommended. A copy of the environmental impact assessment is attached to this report.

**Historical Resources Assessment**:

The applicant conducted a Phase IA archeological assessment of the project area, and it is attached to this report. Review comments from both the County's historic resources staff at the Isle of Wight County Museum as well as the Virginia Department of Historic Resources (VDHR) are also attached. Both agencies recommend that additional investigation is needed for the project site due to the high probability of archeological resources in the vicinity and known archeological and architectural resources in the area.

As of the date of this staff report, the applicant confirmed that their cultural team has wrapped up field work and are working on a Phase IB report. The Phase IB survey is used to determine the presence or absence of cultural resources in the probable impact areas. The areas to be subjected to testing are selected on the basis of the data gathered in the Phase IA evaluation and the probable locations of ground disturbing activities. They have stated that they will share it with County staff, County Museum staff, and SCC staff along with submitting the report to VDHR for concurrence on findings and mitigating measures. They likely won't have that final report for another few weeks, so it is not possible to determine impacts to historical resources at this time.

**Economic Impact Assessment:**

According to the applicant's economic impact analysis, both Sycamore Cross A and Sycamore Cross B together encompass approximately 1,030 acres of active project area. The economic impact assessment states the projects will generate seven direct and indirect jobs in both Isle of Wight and Surry Counties, however, the report does not state whether they are permanent or full time jobs.

The report states that the project would involve an investment of $402.5 million in

capital equipment and improvements to the existing property within Isle of Wight County. Both Sycamore Cross Solar projects would generate approximately $15.2 million (from taxation on capital investments) or $20.1 million with the siting agreement in cumulative county revenue over the facility's anticipated 35-year operational life, as compared to approximately $520,000 in cumulative county revenue in the property's current use, representing a 29- to 39-fold increase over current use revenues. This is assuming the actively used, fenced-in acreage in Isle of Wight County would be removed from the land use program and reassessed at $15,000 per acre.

The applicant states that the 891 acres, or 35.8% of the project site, is currently used for crop production. This includes 221 acres of corn, 40 acres of cotton, 433 acres for soybeans, and 197 acres for peanuts.

According to the 2022 Census of Agriculture (USDA-NASS), Isle of Wight County has 212 farms totaling 80,316 aces of land. The average farm size is 379 acres. The average annual market value of agricultural products sold per farm is $346,011. Using the same data to derive market values for crops cultivated on 891 acres within the fenced area of this project, the farmland generates an estimated $813,483 in market value.

Currently, agriculture and silviculture are two of the County's top industries. Both Sycamore Solar facilities together would be the tenth solar energy generation facility in the County and represents a subtraction of approximately 1.28% of the County's cultivated land (USDA-NASS, 2017). A table showing the previously approved and proposed solar energy facilities is attached to the staff report.

**Viewshed Analysis**:

The applicant provided several viewshed renderings comparing how the existing site looks currently to what it would look immediately after the landscaping buffers are planted and again at the time of maturity. The analysis includes perspectives from each of the project's road frontages. Current ordinance requirements include three rows of staggered landscaping along all street frontages and adjacent to residential properties and properties with historical and cultural significance. The viewshed perspective renderings are included as an attachment to the staff report.

A full analysis of the consistency of the application with County Plans and Ordinances is included in the attached Planning Commission staff report. After performing the analysis, staff identified the following strengths and weaknesses of

the application:

Strengths:

1. The proposed use will generate additional nonresidential tax revenue for needed public services and facilities.

Weaknesses:

1. The proposed use would remove agricultural land from production.
2. Temporary impact to residential development in the area from construction traffic and noise is expected during the construction phase.
3. The project may create impacts to archeological and architectural resources pending final study.
4. The project will impact identified ecological core areas, priority forest land, and prime farm soils.
5. Approval of the project would result in a multiplicity and saturation of similar uses other solar energy generation facilities nearby.
6. With no to minimal shoulders and deep ditches at several points along the proposed transportation route there may be safety issues that arise as construction vehicles meet along the route.
7. Due to poor transportation route alternatives and impacts to environmentally sensitive areas, the project's proposed location is not well suited and therefore is not consistent with the recommendations of the Comprehensive Plan.

**Project Update as of August 5, 2024**:

Following the July 11, 2024, regular meeting, the Board of Supervisors continued their discussion of the application until the next available regular meeting in order to obtain additional information on the ongoing noise study results, feedback from the Smithfield Volunteer Fire Department, proposed restrictions on construction traffic during school pick up and drop off times, and the component materials of the solar panels to be used onsite. The applicant will provide this information at the August 15, 2024, Board meeting.

The Board also requested that both staff's recommended conditions as well as the suggested changes from the applicant be combined in one document. The revised conditions dated August 7, 2024, are attached to this staff report.

The applicant submitted a Phase I archeological and architectural study on July 26, 2024. The new study is attached to this staff report.

Of the surveyed architectural resources, four are considered potentially eligible for listing in the NRHP. This includes two Antebellum homes that represent the earliest extant development within the survey area and an important reflection of the architectural evolution of rural Isle of Wight County during that period. The other two resources are a late-nineteenth century post office and associated dwelling that remain as an example of a historically significant aspect of the crossroads community of Sycamore Cross at the turn-of-the-twentieth century.

Of the surveyed archeological resources, two sites warrant further investigation: Site 44IW0424 consists of the ruin of a circa 1825 dwelling; and Site 44IW0407 contains surface features and artifacts and is also associated with an early-nineteenth-century house ruin. These two sites have the potential to provide new data about the early nineteenth century history of the area

The study recommends screening and buffering to minimize visual impacts and disturbance for these resources. The report has been submitted to VDHR for review and concurrence. Any components of the proposed solar facility will require a 250 foot setback from any architectural and archeological resources that are potentially eligible for listing or require additional investigation. VDHR will make the final determination of which resources are eligible for listing or are recommended for additional investigation.

**Project Update as of September 11, 2024**

The applicant submitted new conditions imposing monetary penalties for violations of the approved transportation plan. A copy of the revised conditions is attached to this staff report.

**BUDGETARY IMPACT:**

TBD

**RECOMMENDATION:**

The Planning Commission voted to recommend denial of the application by a a vote of eight in favor of the recommendation and two against the recommendation (8-2) at their May 28, 2024, regular meeting.

Based on the identified weaknesses, staff recommends denial of the Conditional Use Permit request. However, should the CUP and withdrawal be approved staff

recommends the following conditions:

1) Topsoil shall be stockpiled on the site and shall be stored out of view from adjacent properties and public roads.
2) The applicant shall submit an invasive species management plan as recommended by DCR with the submission of the final site plan.
3) No impacts shall be permitted to the Pouches Swamp stream conservation unit area, the C1-C3 ecological core areas, or the priority forestland areas. The applicant shall submit a formal ecological core impact assessment with DCR as recommended.
4) The applicant shall submit a seed mix for site groundcover that includes native pollinators blooming in spring/summer as recommended by DCR.
5) The applicant will work directly with the Isle of Wight County Chamber of Commerce, Paul D. Camp Community College, and the Economic Development Department to ensure inclusion of local contractors in the bidding process.
6) A laminated Emergency Response Poster will be mounted near the front gate. The poster will include a general site plan, evacuation routes and muster points, emergency response chain of command, directions to the closest hospital, coordinates to the closest life flight landing area, and other pertinent information associated with the facility during an emergency response.
7) The facility perimeter fencing will be equipped with push bar pedestrian gates to permit emergency exits from the facility.
8) Adherence to the proposed transportation plan shall be required for all facility traffic. Truck traffic shall be limited to only to the preferred route as described in in the transportation plan. No other local routes in Isle of Wight County may be used. The applicant shall coordinate deliveries outside of school bus pickup and drop-off times.
9) Excluding the bufferyards, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing.
10) Hours of operation for construction and post-construction operation shall be limited to Monday through Friday, 7:00 a.m. to 6:00 p.m. Saturdays from 7:00 a.m. to 5:00 p.m. No construction is to occur on Sundays by any party involved with the project.
11) As part of the site plan review, the applicant shall provide documentation that the selected panels and all power-generating equipment on-site are “Tier 1” modules, as established by the most recent “PV Module Tier 1 List” issued by Bloomberg NEF or a similar third party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power-generating equipment initially installed and replaced on the site must qualify, for

disposal purposes only, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP).

12) The applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil conditions, including depth, density, and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to at least baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results.

13) Any recommendations provided by VDHR during site plan review will be adhered to, in addition to requirements in the zoning ordinance.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Planning Commission Staff Report | Backup Material | 7/1/2024 |
| Sycamore Cross B application | Backup Material | 5/21/2024 |
| Project Narrative | Backup Material | 5/21/2024 |
| Sycamore Cross B Location Map | Backup Material | 5/21/2024 |
| Sycamore Cross A and B Proximity Map | Backup Material | 5/21/2024 |
| Concept Plan A and B | Backup Material | 5/21/2024 |
| Environmental Assessment | Backup Material | 5/21/2024 |
| DCR comments | Backup Material | 5/21/2024 |
| Phase IA Historical Resources Survey | Cover Memo | 5/21/2024 |
| VDHR comments | Backup Material | 5/21/2024 |
| Isle of Wight Museum Comments | Backup Material | 5/21/2024 |
| Economic Analysis | Backup Material | 5/21/2024 |
| Commissioner of Revenue Comments | Backup Material | 5/21/2024 |
| Viewshed Impact Perspectives | Backup Material | 5/21/2024 |
| Solar Table | Cover Memo | 5/21/2024 |
| Ordinance | Ordinance | 7/1/2024 |

| | | |
|---|---|---|
| Phase I historic resource study | Backup Material | 8/5/2024 |
| Conditions of Approval Redline rev 9/11/24 | Backup Material | 9/11/2024 |
| Conditions of Approval Final rev 9/11/24 | Backup Material | 9/11/2024 |

# PLANNING REPORT

**APPLICATION:**

Application (CUP-5-24) of Sycamore Cross Solar , LLC, applicant, for a for a conditional use permit to allow the expansion of an existing major utility service, specifically a six MW utility-scale solar energy generation facility and associated six medium voltage lines known as Sycamore Cross B, on approximately 240 acres located on tax parcel numbers 10-01-017, 11-01-015, 10-01-023, 10-01-025, 10-01-027, 10-01-028A, 10-01-030, and 11-01-005 located on Jones Drive (Rte. 626), Burwells Bay Road (Rte. 621), Mill Swamp Road (Rte. 621) and James Wilson Way

**ELECTION DISTRICT:**

D5

**LOCATION:**

The project site includes properties that are part of the existing Cavalier Solar facility as well as one new property with tax map numbers 10-01-028A that will be crossed by an easement only for a proposed medium voltage transmission line. The conditional use permit would allow the expansion of the existing facility on the existing Cavalier parcels with tax map numbers 10-01-017 and 11-01-015 by up to 240 acres. The other existing Cavalier parcels associated with this application will be crossed by medium voltage transmission lines.

The project site is generally bounded by Surry County on the north, James Wilson Way on the west, and Stallings Creek to the east and south. The project has road frontage on Jones Drive (Rte. 626), Burwells Bay Road (Rte. 621), Mill Swamp Road (Rte. 621) and James Wilson Way. The site lies adjacent to agricultural, forestal, and dispersed single-family residential uses.

Property location and proximity maps are attached to this staff report.

**BACKGROUND:**

All of the properties that are part of the application with the exception of 10-10-028A are part of the existing Cavalier solar facility. At its meeting on May 20, 2021, the Isle of Wight County Board of Supervisors approved Cavalier (CUP-3-19) to allow a Utility Scale Solar Energy Facility for up to 500 acres. This application would allow the expansion of the utility scale solar energy generation facility use on two of the properties to up to 240 acres. Most of facility has been constructed and is awaiting final landscaping inspection and permit approval.

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voltage transmission line to serve the new solar facility on the property.

**DESCRIPTION:**

The Sycamore Cross B solar facility application was submitted in conjunction with the accompanying Sycamore Cross A solar project application which lies approximately 2.5 miles away. Sycamore Cross A consists of 13 project parcels parcel totaling 1,795 acres, includes one medium voltage easement only parcel and will account for approximately 214 MWac. The Sycamore Cross B project will consist of two parcels with panels totaling 240 acres accounting for approximately 6 MW and six medium voltage easement only parcels.

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Ecological core areas are classified into five categories of ecological integrity: C1 – Outstanding; C2 – Very High; C3 – High; C4 – Moderate; and C5 – General. Scores are enhanced if the core or habitat fragment is part of a larger complex of natural lands. Scores also increase for those cores and habitat fragments that contribute to water quality enhancement. In general, larger, more biologically diverse areas are given higher scores. DCR recommends avoidance of impacts to cores. However, when avoidance cannot be achieved, DCR recommends minimizing the area of impacts overall and concentrating the impacted area at the edges of cores, so that the most interior remains intact.

According to the applicant, approximately 77 acres of very high value ecological cores, 32 acres of high value ecological cores, 3.3 acres of moderate value ecological cores, and 423.7 acres of general value ecological cores may be impacted by the Project. The Project does not intersect any outstanding value ecological cores. The applicant states that they have made a concerted effort to minimize impacts wherever possible.
Further investigation of these impacts is recommended and DCR-ONH can conduct a formal impact analysis upon request. This analysis would estimate impacts to cores and habitat fragments, providing an estimate of the total acreage of direct and indirect impacts of the project. A copy of DCR's review comments are attached to this letter.

The applicant's environmental assessment also identified the project's potential impacts to important forestland in the area. The Forest Conservation Value (FCV) model was designed by the Virginia Department of Forestry to identify forestland with the highest priority for conservation within Virginia with the intent to maximize the conservation efforts to the highest quality, most productive, and most vulnerable forestland within Virginia (DCR 2021). The classifications of the values range from average to outstanding, indicating the value of forestlands for conservation (DCR 2021). The DCR FCV model indicated that approximately 1,254 acres of the Project study area were mapped as forest with approximately 213 acres categorized as outstanding priority for conservation, 293 acres as very high, and 384 acres categorized as high priority forestland for conservation.

Based on the current design of the project, approximately 32 acres of outstanding priority forestland will be impacted, approximately 63 acres of very high priority, and approximately 139 acres of high priority forestland may be impacted. The applicant states they will consult with DCR in connection with the potential impact of outstanding, very high, and high value forestland.

When considering soil classifications inside the fence of the project, the project's environmental assessment states the USDA NRCS Web Soils Survey was queried to identify soils classified as prime approximately 895 acres of prime farmland soils were identified, an additional 433 acres are classified as prime farmland if drained, and approximately 109 acres of farmland of statewide importance were identified within the Project study area.

Based on the current design of the project, approximately 614 acres of prime farmland (26% of the Project study area), 236 acres (10%) of prime farmland if drained, and 35 acres (1.5%) of farmland of statewide importance may be impacted.

Staff has concerns with regard to the potential impacts to highly important environmental resources such as the Pouches Swamp stream conservation unit area and ecological core areas. Staff would recommend that no impacts

be permitted to the stream conservation unit area, the C1-C3 ecological core areas, or the priority forest areas. In addition, staff would recommend that the applicant be required to conduct a formal impact analysis within the project area with DCR as recommended. A copy of the environmental impact assessment is attached to this report.

**Historical Resources Assessment**:

The applicant conducted a Phase IA archeological assessment of the project area, and it is attached to this report. Review comments from both the County's historic resources staff at the Isle of Wight County Museum as well as the Virginia Department of Historic Resources (VDHR) are also attached. Both agencies recommend that additional investigation is needed for the project site due to the high probability of archeological resources in the vicinity and known archeological and architectural resources in the area.

As of the date of this staff report, the applicant confirmed that their cultural team has wrapped up field work and are working on a Phase IB report. The Phase IB survey is used to determine the presence or absence of cultural resources in the probable impact areas. The areas to be subjected to testing are selected on the basis of the data gathered in the Phase IA evaluation and the probable locations of ground disturbing activities. They have stated that they will share it with County staff, County Museum staff, and SCC staff along with submitting the report to VDHR for concurrence on findings and mitigating measures. They likely won't have that final report for another few weeks, so it is not possible to determine impacts to historical resources at this time.

**Economic Impact Assessment:**

According to the applicant's economic impact analysis, both Sycamore Cross A and Sycamore Cross B together encompass approximately 1,030 acres of active project area. The economic impact assessment states the projects will generate seven direct and indirect jobs in both Isle of Wight and Surry Counties, however, the report does not state whether they are permanent or full time jobs.

The report states that the project would involve an investment of $402.5 million in capital equipment and improvements to the existing property within Isle of Wight County. Both Sycamore Cross Solar projects would generate approximately $15.2 million (from taxation on capital investments) or $20.1 million with the siting agreement in cumulative county revenue over the facility's anticipated 35-year operational life, as compared to approximately $520,000 in cumulative county revenue in the property's current use, representing a 29- to 39-fold increase over current use revenues. This is assuming the actively used, fenced-in acreage in Isle of Wight County would be removed from the land use program and reassessed at $15,000 per acre.

The applicant states that the 891 acres, or 35.8% of the project site, is currently used for crop production. This includes 221 acres of corn, 40 acres of cotton, 433 acres for soybeans, and 197 acres for peanuts.

According to the 2022 Census of Agriculture (USDA-NASS), Isle of Wight County has 212 farms totaling 80,316 aces of land. The average farm size is 379 acres. The average annual market value of agricultural products sold per farm is $346,011. Using the same data to derive market values for crops cultivated on 891 acres within the fenced area of this project, the farmland generates an estimated $813,483 in market value.

Currently, agriculture and silviculture are two of the County's top industries. Both Sycamore Solar facilities together would be the tenth solar energy generation facility in the County and represents a subtraction of approximately 1.28% of the County's cultivated land (USDA-NASS, 2017). A table showing the previously approved and proposed solar energy facilities is attached to the staff report.

**Viewshed Analysis**:

The applicant provided several viewshed renderings comparing how the existing site looks currently to what it would look immediately after the landscaping buffers are planted and again at the time of maturity. The analysis includes perspectives from each of the project's road frontages. Current ordinance requirements include three rows of staggered landscaping along all street frontages and adjacent to residential properties and properties with historical and cultural significance. The viewshed perspective renderings are included as an attachment to the staff

historical and cultural significance. The viewshed perspective renderings are included as an attachment to the staff report.

**COMPREHENSIVE LAND USE PLAN:**

The future recommended land use designation for these properties is Rural Agricultural Conservation (RAC) and Environmental Conservation (EC) under the adopted Comprehensive Plan. Appropriate uses for the RAC land use designation include agriculture, horticulture, forest lands, and scattered low-density residential uses. Other uses such as resource extraction and utility-scale solar facilities are also permitted when appropriately sited. Appropriate uses for the EC land use designation include wetlands, farms, forest uses, open space, and limited park facilities.

Solar Energy facilities are considered compatible with the RAC land use when properly sited and with the application of appropriate development criteria. The area designated as EC should be preserved due to environmental constraints unless site-specific analysis demonstrates there are no environmental concerns in a specific area.

Staff has concerns about the appropriate siting of this facility due to the lack of suitable roads for construction traffic as well as impacts to agricultural land and sensitive environmental features.

**ORDINANCE REVIEW:**

The zoning district classification for the subject properties is Rural Agricultural Conservation (RAC). The RAC

zoning district is intended to preserve an protect areas of the County that are predominantly in agricultural and forestall use and to maintain the existing land base to support those activities.

The applicant proposes to establish a 240 MW solar energy facility with both projects, which is classified as a major utility serve use type in the Zoning Ordinance. These facilities are permitted as conditional uses in the RAC, RR, and GC zoning districts and may be considered compatible with appropriate conditions to mitigate any potential negative impacts on the surrounding community.

Section 1-1017 of the Zoning Ordinance provides standards for review of a conditional use application that the Planning Commission and Board of Supervisors shall consider before granting a conditional use permit. They are as follows:

1. That the establishment, maintenance, and operation of the conditional use will not be detrimental to or endanger the public health, safety, and general welfare;
2. That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially impair the use of other property within the immediate proximity;
3. That adequate utilities, water, sewer or septic system, access roads, storm drainage and/or other necessary public facilities and improvements have been or will be provided;
4. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion on the public streets;
5. That the proposed conditional use is not contrary to the goals and objectives of the Isle of Wight County Comprehensive Plan;
6. That the conditional use shall, in all other respects, conform to the applicable regulations of the zoning district classification in which it is located and to the special requirements established for the specific use; and
7. That the use(s) at the location proposed will not result in a multiplicity or saturation of similar uses in the same general neighborhood of the proposed use

In addition to the standards and other guidelines described in the Zoning Ordinance, the Board may impose conditions or limitations on any approval, including the posting of performance guarantees. Such conditions may include, but are not necessarily limited to:

1. The number of persons living or working in the immediate area and the proposed hours of operation, as may

applicable;
2. Traffic conditions, including facilities for pedestrians, such as sidewalks and parking facilities; the access of vehicles to roads; peak periods of traffic; and proposed roads, but only if construction of such roads will commence within the reasonably foreseeable future;
3. The orderly growth of the neighborhood and community and the fiscal impact on the County;
4. The effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise upon the use of surrounding properties;
5. Facilities for police, fire protection, sewerage, water, trash and garbage collection and disposal, and the ability of the County or persons to supply such services;
6. The degree to which the development is consistent with generally accepted engineering and planning principles and practices;
7. The structures in the vicinity such as schools, houses of worship, theaters, hospitals, and similar places of public use;
8. The purposes set forth in this ordinance, the County's Comprehensive Plan, and related studies for land use, roads, parks, schools, sewers, water, population, recreation, and the like;
9. The environmental impact, the effect on sensitive natural features, and opportunities for recreation and open space; and
10. The preservation of cultural and historic resources of landmarks.

Should the CUP be approved, the applicant will be required to submit a site plan for review and approval in accordance with Zoning Ordinance requirements and conditions of approval.

**AGENCY REVIEW:**

- Fire Rescue: All concerns have been addressed in the application.
- Commissioner of the Revenue: Comments are attached separately.
- Sheriff's Department: Similar to the Moonlight project, there will be an increase in patrol during the construction phase and the traffic impacts on proposed transportation routes. These are primarily secondary roads with no to minimal shoulders and are also shared with farm vehicles. During the construction phase they will be bringing in heavy equipment and large vehicles which will require escorts or even road closures. Also, there being multiple sites there is a concern of the operation of heavy equipment on the roads from one parcel to another.
- County Attorney: Only include conditions that go above what is now required under the zoning ordinance.
- VDOT: All concerns have been addressed in the application.
- Isle of Wight County Museum: Comments are attached separately.

Please note that, should this CUP be approved, it will be subject to review and approval from all associated agencies during site plan review. The project will be required to comply with all Zoning Ordinance requirements in effect at the time of site plan submittal.

**STAFF CONCLUSIONS:**

Strengths:
1. The proposed use will generate additional nonresidential tax revenue for needed public services and facilities.

Weaknesses:
1. The proposed use would remove agricultural land from production.
2. Temporary impact to residential development in the area from construction traffic and noise is expected during the construction phase.
3. The project may create impacts to archeological and architectural resources pending final study.
4. The project will impact identified ecological core areas, priority forest land, and prime farm soils.
5. Approval of the project would result in a multiplicity and saturation of similar uses other solar energy generation facilities nearby.
6. With no to minimal shoulders and deep ditches at several points along the proposed transportation route there may be safety issues that arise as construction vehicles meet along the route.

7. Due to poor transportation route alternatives and impacts to environmentally sensitive areas, the project's proposed location is not well suited and therefore is not consistent with the recommendations of the Comprehensive Plan.

**STAFF RECOMMENDATION:**

Based on the identified weaknesses, staff recommends denial of the Conditional Use Permit request. However, should the CUP and withdrawal be approved staff recommends the following conditions: 1) Topsoil shall be stockpiled on the site and shall be stored out of view from adjacent properties and public roads. 2) The applicant shall submit an invasive species management plan as recommended by DCR with the submission of the final site plan. 3) No impacts shall be permitted to the Pouches Swamp stream conservation unit area, the C1-C3 ecological core areas, or the priority forestland areas. The applicant shall submit a formal ecological core impact assessment with DCR as recommended. 4) The applicant shall submit a seed mix for site groundcover that includes native pollinators blooming in spring/summer as recommended by DCR. 5) The applicant will work directly with the Isle of Wight County Chamber of Commerce, Paul D. Camp Community College, and the Economic Development Department to ensure inclusion of local contractors in the bidding process. 6) A laminated Emergency Response Poster will be mounted near the front gate. The poster will include a general site plan, evacuation routes and muster points, emergency response chain of command, directions to the closest hospital, coordinates to the closest life flight landing area, and other pertinent information associated with the facility during an emergency response. 7) The facility perimeter fencing will be equipped with push bar pedestrian gates to permit emergency exits from the facility. 8) Adherence to the proposed transportation plan shall be required for all facility traffic. Truck traffic shall be limited to only to the preferred route as described in in the transportation plan. No other local routes in Isle of Wight County may be used. The applicant shall coordinate deliveries outside of school bus pickup and drop-off times. 9) Excluding the bufferyards, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing. 10) Hours of operation for construction and post-construction operation shall be limited to Monday through Friday, 7:00 a.m. to 6:00 p.m. Saturdays from 7:00 a.m. to 5:00 p.m. No construction is to occur on Sundays by any party involved with the project. 11) As part of the site plan review, the applicant shall provide documentation that the selected panels and all power-generating equipment on-site are “Tier 1” modules, as established by the most recent “PV Module Tier 1 List” issued by Bloomberg NEF or a similar third party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power-generating equipment initially installed and replaced on the site must qualify, for disposal purposes only, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP). 12) The applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil conditions, including depth, density, and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to at least baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results. 13) Any recommendations provided by VDHR during site plan review will be adhered to, in addition to requirements in the zoning ordinance.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Sycamore Cross B application | Backup Material | 5/21/2024 |
| Project Narrative | Backup Material | 5/21/2024 |
| Sycamore Cross B Location Map | Backup Material | 5/21/2024 |
| Sycamore Cross A and B Proximity Map | Backup Material | 5/21/2024 |
| Concept Plan A and B | Backup Material | 5/21/2024 |
| Environmental Assessment | Backup Material | 5/21/2024 |

| | | |
|---|---|---|
| DCR comments | Backup Material | 5/21/2024 |
| Phase IA Historical Resources Survey | Cover Memo | 5/21/2024 |
| VDHR comments | Backup Material | 5/21/2024 |
| Isle of Wight Museum Comments | Backup Material | 5/21/2024 |
| Economic Analysis | Backup Material | 5/21/2024 |
| Commissioner of Revenue Comments | Backup Material | 5/21/2024 |
| Viewshed Impact Perspectives | Backup Material | 5/21/2024 |
| Solar Table | Cover Memo | 5/21/2024 |

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF PLANNING AND ZONING

# APPLICATION FOR CONDITIONAL / SPECIAL USE PERMIT

This application should be used to petition for a permit for certain uses which, because of their unique characteristics or potential impacts on adjacent land uses, are not generally permitted in certain zoning districts as a matter of right, but which may, under the right set of circumstances and conditions be acceptable in certain specific locations. The following application requirements are consistent with the procedures set forth in Section 1-1017, *Conditional Uses,* and Section 1-1018, *Special Use Permits for Uses Not Provided For,* of the Isle of Wight County Zoning Ordinance, as amended.

**A. APPLICATION FOR (CHECK ALL THAT APPLY):**

[X] Conditional Use Permit (Are applicant proposed conditions attached?): X Yes _____ No

The proposed use or activity is listed as a conditional use in the RAC zoning district as per Section 4-2003 in Article IV of the Isle of Wight County Zoning Ordinance.

[ ] Special Use Permit (Are applicant proposed conditions attached?): _____ Yes _____ No

Proposed Use or Activity: Civic Use (Utility/Major) Solar Farm

**B. PROJECT DESCRIPTION:**

Project Name: Sycamore Cross B

Property Address (if any): See Exhibit F

Election District: D5 (formerly Carrsville)

Comprehensive Plan Designation: Environmental Conservation and RAC

The use permit will apply to 240 acres out of 2036 total acres

Tax Parcel Identification # See Attached Number of acres to be effected: _____

Tax Parcel Identification # _____ Number of acres to be effected: _____

Tax Parcel Identification # _____ Number of acres to be effected: _____

Proposed Utilities (check all that apply): Public Water _____ Private Well _____

Public Sewer _____ Private Septic _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): Sycamore Cross Solar, LLC

Address: 2180 South 1300 East, Suite 600

City, State, Zip Code: Salt Lake City, Utah 84106

Phone No.: 804-334-9882 Email: gregory.creswell@aes.com Fax No.:

Property Owner(s) Name(s): See Exhibit E

Address:

City, State, Zip Code:

Phone No.: Email: Fax No.:

4/29/24

**Applicant Signature** **Date**

See Exhibit G of Sycamore Cross A application

**Owner Signature *if different*** **Date**

**NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.**

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

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**FOR OFFICE USE ONLY:**

Complete Application Received On: 5/2/2024 Fees Paid: $1,200.00

Tax Query: [X] Current [ ] Delinquent Distribution Date: 5/2/2024 (PREVIOUS SUBMITTALS REVIEWED - APP FOR B ONLY)

Posted/Date to Post: 5/15/2024

**AGENCIES REFERRALS:**

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: Amy M. Brin Date: 5/2/2024

## Sycamore Cross Part B, Parcels Within Project Boundaries

| Tax Parcel Identification Number | Parcel Acres | Property Owner Name | Property Owner Address |
|---|---|---|---|
| 10-01-017 | 145 | MILL SWAMP ROAD HOLDINGS LLC | 804 GENERAL PICKETT DRSUFFOLK VA 23434 |
| 11-01-015 | 95 | BATTEN MITCHELL DELK | 11231 MILL SWAMP RDSMITHFIELD VA 23430 |

## Anticipated Medium Voltage Easement Only Parcels, Isle of Wight Only

| Tax Parcel Identification Number | Parcel Acres | Property Owner Name | Property Owner Address |
|---|---|---|---|
| 10-01-023 | 120 | SEWARD MICHAEL A & EMILY B | 9310 JONES DRIVE SMITHFIELD VA 23430 |
| 10-01-025 | 120 | BARCROFT JEAN E SOLE TRUSTEE JEAN E BARCROFT LIVING TRUST | 11470 MODEST NECK RD IVOR VA 23866 |
| 10-01-027 | 130 | SEWARD MICHAEL A | 9310 JONES DRIVE SMITHFIELD VA 23430 |
| 10-01-028A | 75 | THACKER SHELTON L & ANN | 11073 MILL SWAMP RD SMITHFIELD VA 23430 |
| 10-01-030 | 129 | MILL SWAMP ROAD HOLDINGS LLC | 804 GENERAL PICKETT DR SUFFOLK VA 23434 |
| 11-01-005 | 448 | 476, LLC | 632 HAMPTON HIGHWAY 632 HAMPTON HIGHWAY |

## SUBMITTAL CHECKLIST FOR CONDITIONAL / SPECIAL USE PERMIT APPLICATIONS

In conjunction with Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Uses Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended, the following information shall be submitted for a Conditional / Special Use Permit Application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for a Conditional / Special Use shall be certified as complete unless the following information is provided. **The required number of copies may be reduced with permission of the Zoning Administrator.**

- ☑ Application: Ten (10) copies of the original, executed application, one (1) digital copy of all application documents, and one (1) original executed application. Both the applicant(s) and the property owner(s) must have their signature(s) notarized on page 3 of the application.
- ☑ The appropriate fees have been submitted with the application. Checks should be made payable to: Treasurer, Isle of Wight County.
- ☑ Ten (10) copies of a statement of the reasons for seeking such permit and if applicable, a statement of conditions.
- ☑ Ten (10) copies of a narrative description of the property which shall include the Tax Parcel Identification
- ☑ Ten (10) copies of a concept plan of the property showing all existing and proposed physical improvements and such other information as is necessary to clearly indicate to the Planning Commission and Board of Supervisors that adequate provisions shall be made for compliance with all standards for that particular use and the extent of the property to be so used on a given parcel or parcels. Such document shall be drawn to scale and shall include the following information:
  - A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
  - Title of drawing
  - Date of drawing
  - Existing wood line
  - North arrow
  - Scale bar
  - Current zoning of parcel(s) to be rezoned, including tax map number(s) and owner(s)
  - Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
  - Street names including route number and width(s) of the right-of-way(s)
  - Ten (10) full size copies, with one (1) reduced 11-inch X 17-inch copy and a digital copy shall be submitted

- Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process to **review the application and prepare the staff reports for the Planning Commission and Board of Supervisors more effectively**.

✓ Ten (10) copies of such supplemental material as may be necessitated by the proposal itself or the district in which located or proposed to be located, and in accordance with Section 5-5000, *Supplementary Use Regulations,* of the Isle of Wight County Zoning Ordinance.

N/A A WQIA (Water Quality Impact Assessment) if located in the Chesapeake Bay Preservation Area.

✓ All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal will be refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete and correct information available. I understand that any section not completed in its entirety may delay processing of this application and the date of the Planning Commission public hearing and that the submittal of a complete application does not guarantee the application will be placed on the next available Planning Commission agenda.

Ben Saunders

Printed or Typed Name

Signature

4/29/24

Date

# COUNTY OF ISLE OF WIGHT
## DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant Sycamore Cross Solar, LLC

Address 2180 South 1300 East, Suite 600
Street

Salt Lake City — Utah — 84106
City — State — Zip

### REAL ESTATE HOLDINGS TO BE AFFECTED

| Location or Address | Description |
|---|---|
| See Attached | |
| | |
| | |
| | |

### OTHER OWNERS OF AFFECTED REAL ESTATE
(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

| Name of Individuals Corporation/Partnership Business Association | Address |
|---|---|
| See Attached | |
| | |
| | |
| | |

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes[ ] No[X]
If yes, names of members:

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct, and true.

Applicant: Ben Saunders (Printed or Typed Name) Applicant: _____ (Signature) Date: 4/29/24

Commonwealth of Virginia
County of Isle of Wight

Subscribed and sworn to before me Mary L. Hall,
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this 29th day of April, 2024.

_____
Notary Public

My Commission Expires 12.31.24

MARY LEON HALL
NOTARY PUBLIC
REGISTRATION # 7858674
COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES
DECEMBER 31, 2024

April 30, 2024

Central Permitting Office
c/o Amy Ring, AICP
Director, Planning and Zoning
Department of Community Development, Isle of Wight County
17140 Monument Circle, Suite 101
Isle of Wight, VA 23397

Re: Conditional Use Permit Application for the Sycamore Cross Solar Project, Fourth Submittal for Sycamore Cross A, Creation of and First Submittal for Sycamore Cross B

Dear Ms. Ring,

At your request, the Sycamore Cross Solar Project has been split into separate project areas, each requiring its own Conditional Use Permit (CUP). These two areas are referenced as Sycamore Cross A and Sycamore Cross B, and together are the entirety of Sycamore Cross Solar, the "Project."

Please find enclosed Sycamore Cross Solar, LLC's fourth submittal for a CUP application which has been amended to represent Sycamore Cross A and the first submittal for a CUP application for Sycamore Cross B, which together comprise a photovoltaic solar generation facility of up to 240 megawatts located in Isle of Wight and Surry Counties. All documentation for Sycamore Cross A and Sycamore Cross B can be found in previous Sycamore Cross A application submittals with the exception of the documentation in this submittal.

The following list of documents have been updated and supplied with this submittal to support previously submitted CUP application components and to create the required CUP application for Sycamore Cross B:

- Project Narrative (updated to reflect 2 project areas and 2 CUPs)
- Attachment A: Conditional Use Permit Application Packages
  - Amended CUP Application Package For Sycamore Cross A: Fourth Submittal
  - CUP Application Package For Sycamore Cross B: First Submittal
- Attachment C: Revised Proposed Conditions (to reflect two project areas and to add a condition to address Unanticipated Discoveries)
- Attachment D: Updated Conceptual Plan of Development (to delineate Sycamore Cross A from Sycamore Cross B)
- Attachment J: Visual Impact Assessment: Visual Simulations

Thank you for your guidance and assistance in bringing the project to this point. We look forward to working with you and your staff further to answer questions and offer any needed clarity as you complete your review. The AES team is available to meet or talk at your convenience. I can be reached using the contact information provided in the signature below.

Sincerely,

*Gregory S. Creswell*

Greg Creswell
Senior Project Development Manager
804-334-9882
Gregory.Creswell@aes.com

# Project Narrative

## PROJECT OVERVIEW

Sycamore Cross Solar, LLC, a subsidiary of AES Clean Energy (AES), is proposing to build a photovoltaic solar generation facility of up to 240 megawatts to be located in Isle of Wight and Surry Counties, Virginia (the "Project").

The total Project study area is approximately 2,488 acres across all or portions of 18 parcels in Isle of Wight and Surry Counties. The Project study area is shown on the orthoimagery and U.S. Geological Survey Project Location Maps (Figures 1 and 2). Within Isle of Wight County, the Project study area comprises portions of 15 project parcels totaling approximately 2,036 acres of predominantly undeveloped and agricultural land zoned RAC: Rural Agricultural Conservation. The RAC zoning district allows utility-scale solar facilities with approval of a Conditional Use Permit. The adjacent and adjoining properties represent similar land use to the Project study area, including agriculture, forested, historically managed area for silviculture use and residential use. The proposed Project satisfies the goals and objectives of the Isle of Wight County Comprehensive Plan. This is further discussed in Section 3 of this application.

At the request of Isle of Wight County, the project portions located in Isle of Wight have been split into two separate applications: Sycamore Cross A and Sycamore Cross B. Sycamore Cross A consists of 13 project parcels parcel totaling 1,795 acres, includes one medium voltage easement only parcel and will account for approximately 214 MWac. Sycamore Cross B consists of two project parcels totaling 240 acres, includes six medium voltage easement only parcels and will account for approximately 6 MWac. Tables showing which parcels are included with Sycamore Cross A and Sycamore Cross B are included with each application package (Attachment A). These two applications comprise the Isle of Wight portions of the Project.

The Conditional Use Permit application packages (Attachment A) and associated fees (Attachment B) are being submitted to Isle of Wight County in accordance with Section 1-1017, Conditional Uses and Section 5-5003, Supplementary use regulations for civic use types. Additionally, a list of proposed Conditional Use Permit conditions for the Project are included in Attachment C and further detailed throughout this document.

## PROJECT APPLICANT

Sycamore Cross Solar, LLC is wholly owned by AES Clean Energy (AES). Since 1981, AES has been headquartered in the Commonwealth of Virginia. Our commitment is to provide clean and reliable energy in a way that benefits every Virginian. Currently, we operate 660 megawatts (MW) of renewable energy in Virginia, with an additional 240 MW of renewable energy permitted and in a phase of construction. These projects bring extensive economic benefits to their respective communities through the creation of hundreds of construction jobs at each site, stimulus of the local economy when we provide employment and buy from area businesses, and substantial tax

revenue generation that helps fund county services such as emergency response, public education, and the deployment of broadband.

Within Virginia, renewable energy development is critical to fulfill the promise of the Virginia Clean Economy Act of 2020 to transition the Commonwealth's electric grid to 100% clean energy by 2050. AES remains committed to working with our stakeholders to co-create and deliver the smarter, greener energy solutions that meet their needs, benefiting the local community and economy.

## DESIGN

The Project will consist of solar photovoltaic modules on a single axis tracker system and associated electrical equipment and materials necessary to collect the energy produced. The system will be comprised of UL-listed components and installed according to the National Electric Code. The maximum panel height will be less than 15 feet above grade at maximum tilt in accordance with Article V Sec. 5-5003 of the Isle of Wight zoning ordinance. The facility will be secured by a 6-foot-tall chain link fence with 1-foot of barbed wire. Sound from the solar panels will not exceed 60 dBA in normal circumstances in accordance with Sec. 5-5003. Setback lines will comply with Sec. 5-5003. Due to setbacks, sound at property lines will likely be much lower than 60 dBA. Areas under the panels will be planted with local grasses and forbs, non-panel areas will be planted with wildlife- and pollinator-friendly vegetation to the extent practicable, and wildlife corridors will be maintained as shown in the Conceptual Plan of Development (Attachment D).

The Project will utilize an existing substation location shared with the Cavalier Solar project, which location is identified on Attachment D. The existing substation location pad has been built as part of the Cavalier Solar project. Additional civil work is not expected to complete the project substation for the Sycamore Cross project. Further, the interconnect with the Dominion Septa substation has been approved and will also be built as part of the Cavalier Solar project.

As of this submittal of the CUP applications, no operations or maintenance buildings are contemplated in the design. If included prior to a final design, all operations and maintenance buildings and related structures will incorporate materials, colors, textures, screening, and landscaping that will blend the facilities to the natural setting and surrounding structures. No signage of any type will be placed on the facility other than notices, warnings, and identification information required by law or as approved by the Zoning Administrator. Construction parking and staging signs will be clearly placed at ingress and egress points to direct traffic to the proper location. Appropriate warning signage will be placed on all towers, electrical equipment, and Project site ingress and egress points. Signs will be clearly marked at the Project site for emergency vehicle ingress and egress.

Consideration is being made for the potential demolition of structures to accommodate the design of Sycamore Cross Solar and to use the land most efficiently within the project area. As of this submittal of the CUP applications, the only improvement anticipated to be demolished is at the address 14195 Rattlesnake Trail on parcel 27-01-003. A photo of the structure can be found in Figure 6-46 of the Cultural Resource Assessment dated August 2023. In the event additional

structures are considered for demolition, a thorough review will be completed, and the required information submitted to Isle of Wight updating this list of properties for consideration. Additionally, prior to any demolition, Sycamore Cross Solar, LLC will elicit concurrence from VDHR on our architectural survey findings. Should any buildings be found to be of significance, avoidance and mitigation measures will be taken.

## INTERCONNECTION

The Project will serve the PJM wholesale market. The final interconnection service agreement identifying the transmission capacity was executed on April 3, 2023. Our maximum facility output is 240 MW, which is also referred to as the "installed capacity", and the Project has rights to inject the full 240 MW into the grid. A redacted version of the interconnection service agreement is included in Attachment E.

New 34.5kV feeder lines will interconnect the various solar generation equipment comprising the Project to the Project's collector substation. Siting of the Sycamore Cross project is using the same utility corridor as Cavalier Solar to limit any additional impact to view sheds. The project will use an existing 500 kV gen-tie line that was constructed for the Cavalier Solar Project and that will interconnect the Project's substation with the VEPCO Septa 500 kV Substation. It should be noted that no improvements will be required to the VEPCO substation or the 500 kV gen-tie. Said improvements are being completed and certificated as part of the Cavalier project.

## LAND USE AND ZONING

The Project is located off Mill Swamp Road (State Rte. 621) on approximately 2,488 acres of 18 parcels in Isle of Wight and Surry Counties. Within Isle of Wight County, the Project study area comprises portions of 15 parcels totaling approximately 2,036 acres of predominantly undeveloped and agricultural land zoned RAC: Rural Agricultural Conservation. The fenced Project area will consist of 1,030 acres of the total Project study area acreage. The adjacent and adjoining properties are also zoned as RAC: Rural Agricultural Conservation and represent similar land use to the Project study area, including agriculture, forested, and land historically managed for silvicultural use (Attachment D).

The RAC zoning district allows utility-scale solar facilities with approval of a Conditional Use Permit. Furthermore, the proposed use fulfills the intent of the RAC district by preserving land which may be used in the future for additional agricultural and silvicultural activities. While in use by the proposed solar facility, the land cannot be sold for development of residential or commercial use, and the quality of the soil will likely be improved over the projected 35-year life of the Project as the land lays fallow.

Landowners for each participating parcel, as described in Attachment F, within the Project Site have provided Owner's Authority Letters (Attachment G). The Applicant has fulfilled the requirements of Section 1-1017 and 4-2003 of the Isle of Wight Zoning Ordinance by providing a copy of the property deeds for participating parcels (Attachment H) and a copy of the county tax records for the participating parcels (Attachment I).

## VISUAL IMPACT

A Visual Impact Analysis was performed by Tetra Tech and is provided in Attachment J. This analysis determined that based on the proposed mitigating measures including landscaping and screening, the Project will have little to no impact on the existing viewshed. To ensure minimal viewshed impacts, the Project has implemented setbacks from adjoining parcels and residences in accordance with the County Ordinance; furthermore, the Conceptual Plan of Development (Attachment D) includes proposed landscaping and screening to be established and maintained within these buffers, as shown in the visual simulations included in Attachment I. This screening will be maintained and supplemented as necessary throughout the life of the Project.

## TRAFFIC IMPACT

The Project anticipates construction of the Project to begin in Q2 2025 and is forecasted to be completed by Q4 2026. Construction will take place between the hours of 7 a.m. and 7 p.m., Monday through Saturday. Construction and decommissioning of the Project may cause temporary impacts to traffic flow in the direct vicinity of the Project site but will not adversely impact traffic during the normal operation phase of the Project.

Sycamore Cross Solar has been working in conjunction with Isle of Wight Planning and Zoning, Isle of Wight Transportation, and the VDOT Franklin Residency to develop a Construction Traffic Management Plan. Sycamore Cross has submitted three options for proposed construction traffic routes, each of which includes escorted heavy haul routes, a delivery route, and anticipated employee commuter routes. Mapping is included in Attachment K. Sycamore Cross has suggested a preferred delivery route using Route 616 to Route 621 from Ivor to a main staging area within the project site. From the staging area, deliveries will be escorted to various project areas and back to the staging area. Factors used to determine Sycamore Cross Solar's preferred routing includes traffic counts, road characterizations as defined by VDOT, bridge capacities, road widths, current road conditions, challenges based on superelevation, and proximity to residences.

Sycamore Cross Solar will refine and finalize the details of the Construction Traffic Management Plan in coordination with both the Virginia Department of Transportation (VDOT) Franklin residency and the County Transportation Department prior to Site Plan Approval. Construction activities and associated construction traffic for the Cavalier Solar project are expected to be completed and end before construction starts for the Sycamore Cross Project.

## ECONOMIC IMPACT

The current zoning of the Project is RAC and the use is generally agricultural or timber. According to information obtained from participating landowners, 891 acres or 35.8% of the project site is currently used for crop production. This includes 221 acres (8.9%) that are being used for corn production, 40 acres (1.6%) used for cotton production, 433 acres (17.4%) used for soy

production, and 197 acres (7.9%) used for peanut production. No parcels are currently being used for livestock.

The Project will generate tax revenue for the County without increasing demand for public utilities or services, allowing increased investment in services and infrastructure. An Economic Impact Assessment was completed in September 2023 by Mangum Economics using the IMPLAN model. This assessment provides fiscal impacts based on taxation of capital investment and on the potential use of a Revenue Share Ordinance. Depending on the tax revenue stream the County chooses to pursue, the Project may provide between approximately $15.2 million and $20.1 million in tax revenue for Isle of Wight County. This is a 29 to 39 fold increase to County revenue versus current use revenue. Additionally, construction of the Project will create approximately 197 direct, indirect, and induced jobs during construction and 7 direct, indirect, and induced jobs during the operational phase. The Economic Impact Analysis assumes a commercial operation date of Q4 2026. A full Economic Impact Analysis is included in Attachment L.

## ENVIRONMENTAL RESOURCES

The Project will avoid and mitigate any potential impacts to natural and cultural resources to the greatest extent possible. A summary of potential Project interactions with environmental resources is provided below. A full Environmental Resource Impact Analysis with further details is included in Attachment M.

### Water Resources

Tetra Tech performed a wetland delineation of the Project site through several field surveys in October 2022 through June 2023. The project will minimize impacts to wetlands and floodplain to the extent reasonably possible. A 50-foot buffer area around water resources will be implemented, to the extent practicable, as shown for the majority of resources in the current Conceptual Plan of Development, Attachment B. In the event development is to occur within any wetland or floodplain, these areas will be designed and permitted to be compliant with all local, state, and federal requirements. AES acknowledges several project areas shown in the conceptual plan of development are within the FEMA 100-year floodplain. This design is conceptual and will be refined as additional studies are completed and regulatory coordination is finalized. All resources will be delineated and clearly flagged for avoidance during construction in areas where avoidance is possible.

Construction of the Project may cause temporary water quality impacts in the form of increased sediment runoff during land disturbing activities; however, best management practices will be implemented to avoid and minimize impacts to surface water features. Ultimately, the Project will likely lead to improved water quality in the area because runoff of pesticides and other inputs to or byproducts of farming will be reduced or eliminated. Soil testing will be performed prior to construction, after completion of construction, and every five years thereafter; results will be provided to the County Planning Department per Article V, Sec. 5-5003.M.4.f.

### Threatened and Endangered Species

An initial desktop assessment performed by Tetra Tech identified several protected species as having the potential to occur within the Project study area. Field surveys of the Project study area were conducted in October 2022 through April 2023. These surveys identified potential presence of six protected species – the bald eagle *(Haliaeetus leucocephalus),* red-cockaded woodpecker *(Picoides borealis),* northern long-eared bat *(Myotis septentrionalis),* Rafinesque's eastern big-eared bat *(Corynorhinus rafinesquii macrotis)*, tri-color bat *(Perimyotis subflavus)*, and the yellow lance *(Elliptio lanceolata)*. Both the bald eagle and red-cockaded woodpecker were determined to be unlikely to be adversely affected by the Project. Suitable habitat was found on site for the other four species, and agency consultation was recommended. Additional presence/absence surveys have been conducted and coordination with federal and state agencies is ongoing to determine best avoidance, minimization, and mitigation measures.

### Ecological Cores

Based on the current design, approximately 77 acres of very high value ecological cores, 32 acres of high value ecological cores, 3.3 acres of moderate value ecological cores, and 423.7 acres of general value ecological cores may be impacted by the Project. The Project does not intersect any outstanding value ecological cores. Ecological core data with the classification of high, very high, and outstanding have the greatest value of ecological biodiversity. Per the recommendations of the Department of Conservation and Recreation, potential impacts to ecological cores have been avoided and minimized to the extent practicable. Where unavoidable, potential impacts were limited to the edges of identified ecological cores.

## HISTORICAL AND CULTURAL RESOURCES

A Phase 1A Cultural Resource Assessment and early coordination was completed by Dutton + Associates, LLC in August 2023. This analysis indicated that no National Register of Historic Places (NRHP) listed resources are present within the fenced Project area. There are three desktop mapped potential resources that are located within the fenced Project area. The Historical and Cultural Resources Report is included in Attachment N.

This report was submitted to Virginia Department of Historic Resources (VDHR) for concurrence on the predictive modeling and the proposed Phase 1b survey methodology on August 2, 2023. The VDHR provided comments regarding the proposed survey methodology August 14, 2023; to which the report was revised, finalized, and resubmitted on August 24, 2023, and the VDHR concurrence letter dated August 28, 2023 is included in Attachment Q.

The Phase 1B fieldwork, in accordance with the guidance provided by VDHR and outlined methodology in the Phase 1A assessment, was initiated in December 2023 and is ongoing at the time of this submittal of the CUP applications. The final Phase 1B will be provided to VDHR for concurrence on findings and recommendations.

AES will create an Unanticipated Discovery Plan which will be used during construction of the project to address any unexpected cultural discoveries on site. This plan will include emergency protections protocols, curation processing of cultural materials, disposition of cultural materials,

and a contact list including an on-call archaeologist, project contacts, and state/regional contacts.

## LANDSCAPE STANDARDS

According to Isle of Wight County Code of Ordinances Appendix B Zoning Article VIII. Landscape and Screening Standards Section 8-1005-Landscaping Zones, there is a certain minimum number of required landscape points that vary based on the landscape zone assigned to an area, which include the: frontage zone, buffer zone, parking zone, foundation zone, and screening zone. The zone use type for the areas surveyed for this Project are likely categorized as a buffer zone, which requires the installation of a minimum of 45 points of landscaping per 500 square feet of buffer zone for civic use types. A tree canopy assessment was conducted to identify mature tree stands that would meet the requirements for tree preservation point credits. The project will provide approximately 2.8 million landscape points. The full Tree Canopy Survey Assessment is included in Attachment O.

## DECOMMISSIONING

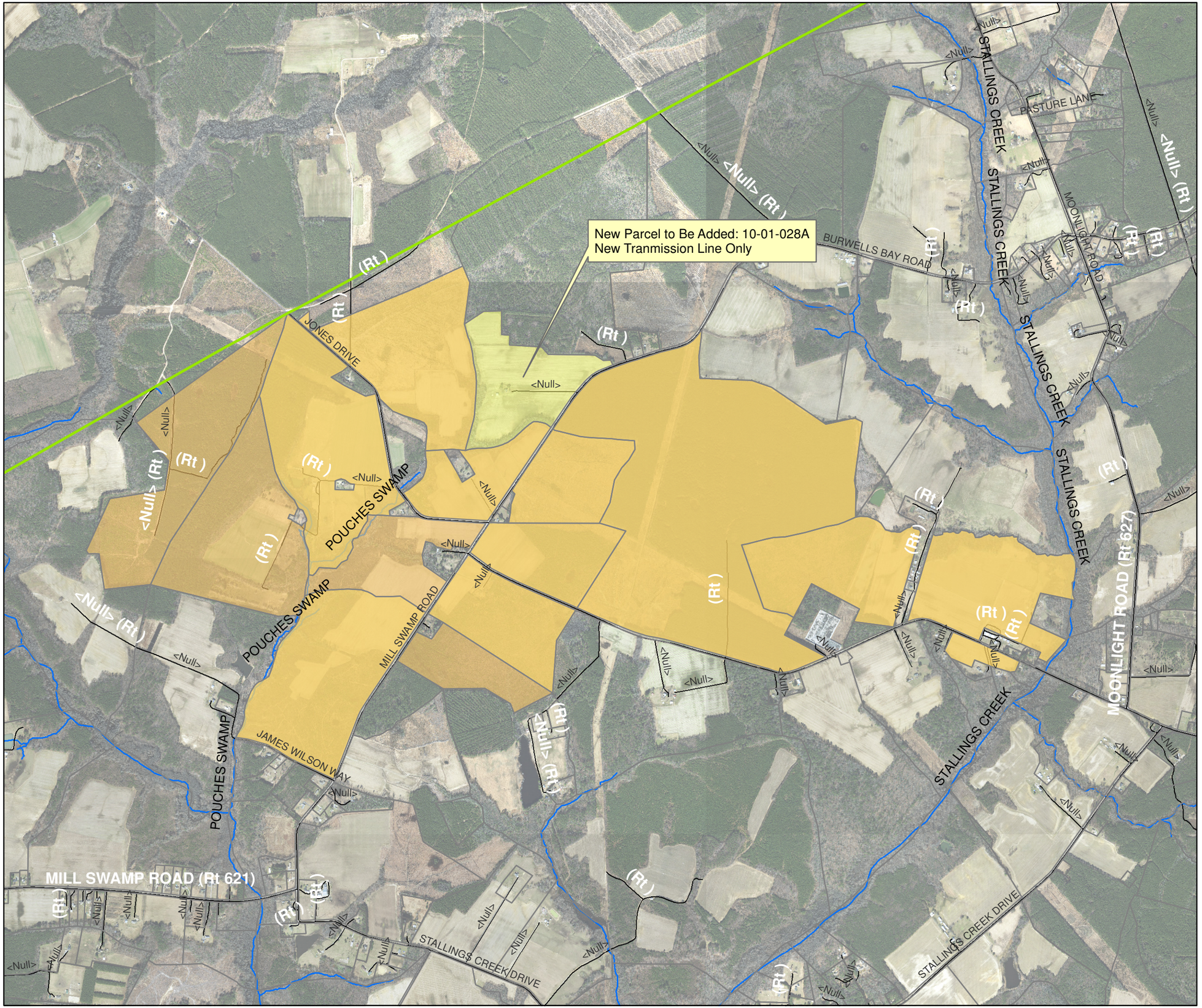
The operating period of the Project is anticipated to be approximately 35 years. At the end of the useful life of the Project, Sycamore Cross Solar, LLC, will be responsible for decommissioning the Project. Prior to final site plan approval, Sycamore Cross Solar, LLC will finalize and submit to the County a decommissioning plan and associated written agreement to decommission the Project equipment, facilities, and devices. The decommissioning security amount will be determined and posted based on an estimate provided in operational year 1 by a qualified third-party engineering firm. The decommissioning plan and associated security will not include a deduction for salvage value.

**CUP-5-24**
**Sycamore Cross B**
**Solar Energy Generation Facility**
**Location Map**

## Legend

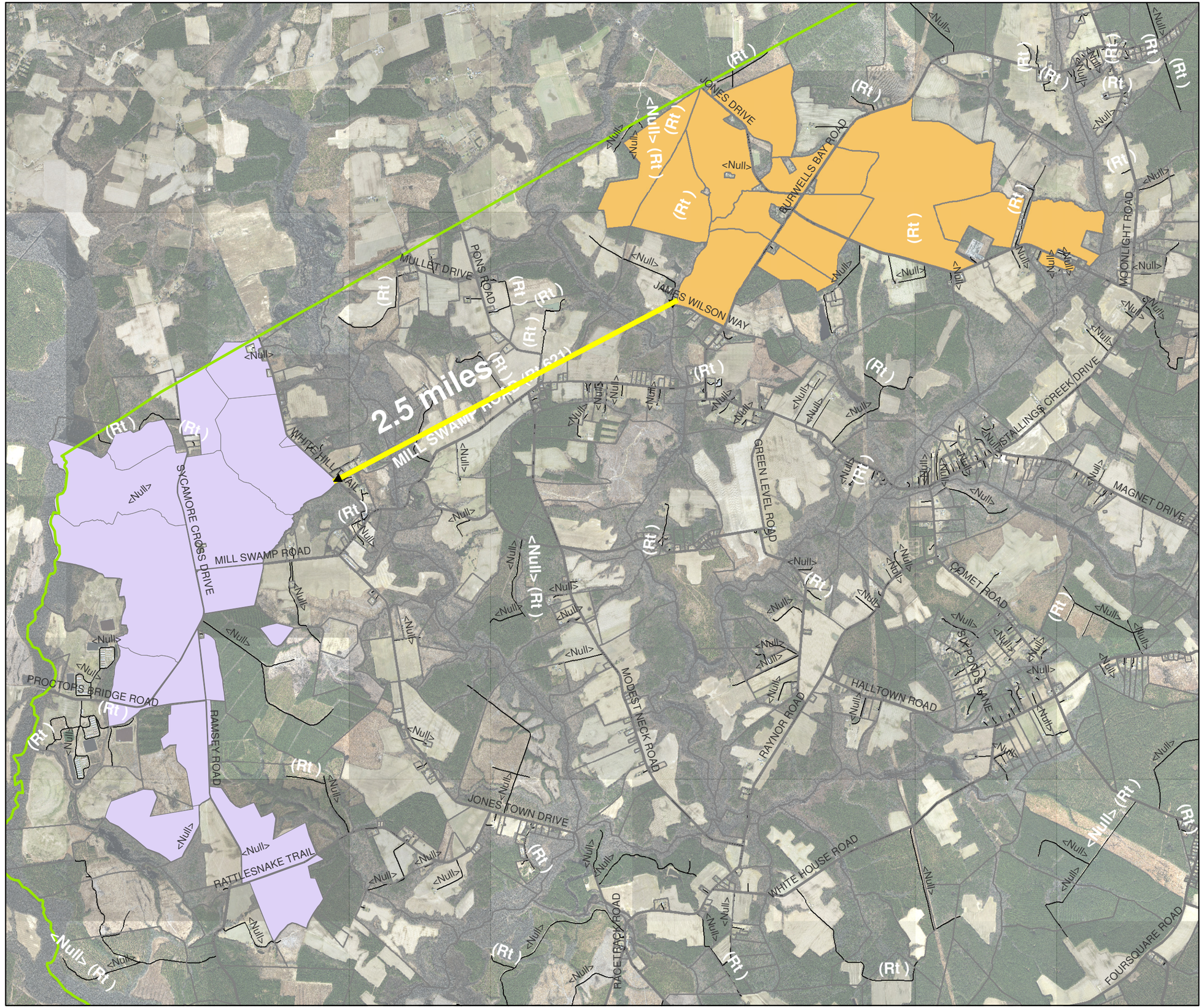
- Parcels
- Existing Cavalier Solar Parcels

N

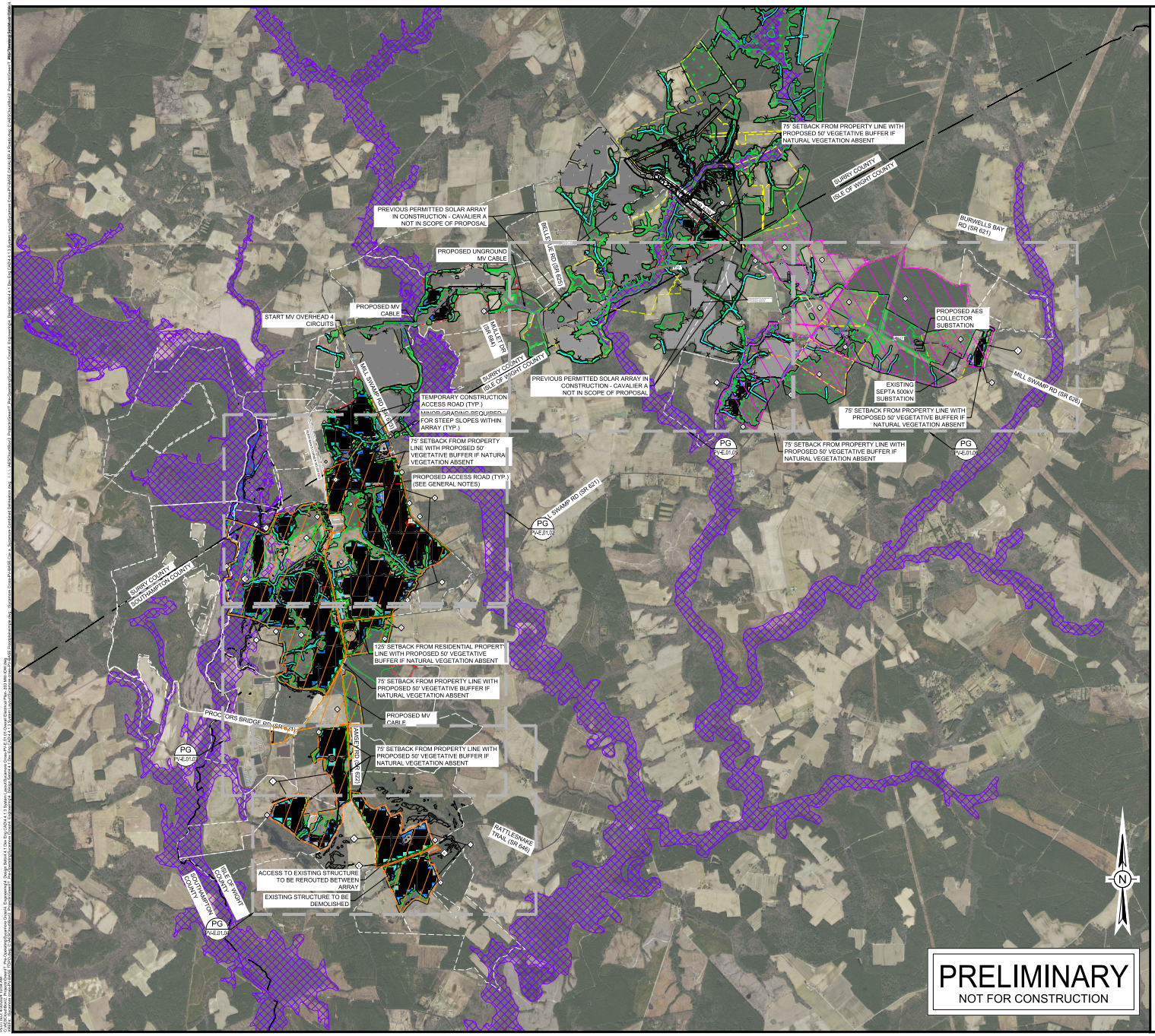


## Legend

- Sycamore Cross A
- Parcels
- Cavalier




N




## GENERAL NOTES

1. THIS DRAWING IS PRELIMINARY AND FOR ESTIMATING PURPOSES ONLY. IT IS NOT FOR CONSTRUCTION.
2. LOCATION OF ALL EXISTING ITEMS IS APPROXIMATE AND MUST BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION.
3. ALL SPECIFIED EQUIPMENT IS PRELIMINARY. FINAL EQUIPMENT SELECTION SHALL BE APPROVED BY OWNER.
4. 75' EQUIPMENT SETBACK FROM ALL PROPERTY LINES
5. 125' EQUIPMENT SETBACK FROM ALL RESIDENTIAL PARCELS
6. EXISTING WOOD LINE, EASEMENTS, ROW'S TO BE PROVIDED ONCE ALTA SURVEY COMPLETED.
7. ALL SITE ENTRANCES SHALL BE 20' WIDE AND TAPER TO 16' INTERNAL ACCESS ROADS

## SHEET NOTES

- E — SITE ENTRANCE
- I — ISLE OF WIGHT COUNTY PARCELS
- C — WILDLIFE CORRIDOR
- # — PARCEL ID

## LEGEND

### EXISTING

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT PROPERTY LINE
- MAJOR PUBLIC ROAD
- ROAD RIGHT-OF-WAY
- APPROXIMATE WETLAND
- WASH / DRAINAGE
- 100 YEAR FLOOD PLAIN
- SLOPE KEEPOUT AREAS
- CAVALIER SITE FENCE
- CAVALIER SITE PV PANELS

### PROPOSED

- MERGED SETBACK
- FENCE
- PROVISIONS FOR 2' DEEP WATER QUALITY MANAGEMENT
- OH-500 / OH-500 — EXISTING 500kV GEN-TIE
- OH-MV / OH-MV — 34.5kV OVERHEAD MV COLLECTION LINE
- LAYDOWN/ PARKING AREA
- PROPOSED VEGETATIVE BUFFER
- SYCAMORE CROSS SOLAR A
- SYCAMORE CROSS SOLAR B
- MV / MV / MV — MV UNDERGROUND LINE
- 60' MV LINE EASEMENT
- SYCAMORE CROSS PV PANELS

**PARCELS WITHIN PROJECT BOUNDARIES**

| SHEET NOTE NUMBER | PARCEL TYPE | APPLICATION AREA | PARCEL ID | OWNER NAME |
|---|---|---|---|---|
| **SYCAMORE CROSS SOLAR - A** | | | | |
| 1 | PROJECT | A | 16-01-003 | BLUE SKY ENDEAVORS LLC |
| 2 | PROJECT | A | 27-01-003 | BLUE SKY ENDEAVORS LLC |
| 3 | PROJECT | A | 27-01-004 | GORDON KATHLEEN H |
| 4 | PROJECT | A | 16-01-009 | BLUE SKY ENDEAVORS LLC |
| 5 | PROJECT | A | 16-01-008 | BLUE SKY ENDEAVORS LLC |
| 6 | PROJECT | A | 16-01-002 | EVERETS PROPERTIES INC |
| 7 | PROJECT | A | 17-01-001 | GORDON KATHLEEN H |
| 8 | PROJECT | A | 17-01-011 | HOLLEMAN WILLIAM JOSEPH |
| 9 | PROJECT | A | 16-01-002A | SEWARD JEFFREY A & MELANIE D |
| 10 | PROJECT | A | 09-01-001 | WELLS CHRISTINE LORENZO |
| 11 | PROJECT | A | 17-01-003 | BLUE SKY ENDEAVORS LLC |
| 12 | PROJECT | A | 17-01-003C | BLUE SKY ENDEAVORS LLC |
| 13 | EASEMENT ONLY | A | 16-01-005 | CARROLLS FOOD OF VIRGINIA LLC |
| 14 | PROJECT | A | 17-01-002 | GORDON KATHLEEN H |
| **SYCAMORE CROSS SOLAR - B** | | | | |
| 15 | PROJECT | B | 10-01-017 | MILL SWAMP ROAD HOLDINGS LLC |
| 16 | PROJECT | B | 11-01-015 | BATTEN MITCHELL DELK |
| 17 | EASEMENT ONLY | B | 11-01-005 | 476 LLC |
| 18 | EASEMENT ONLY | B | 10-01-025 | BARCROFT JEAN E SOLE TRUSTEE JEAN E BARCROFT LIVING TRUST |
| 19 | EASEMENT ONLY | B | 10-01-030 | MILL SWAMP ROAD HOLDINGS LLC |
| 20 | EASEMENT ONLY | B | 10-01-028A | THACKER SHELTON L & ANN |
| 21 | EASEMENT ONLY | B | 10-01-027 | SEWARD MICHAEL A |
| 22 | EASEMENT ONLY | B | 10-01-023 | SEWARD MICHAEL A & EMILY B |

aes
2180 South 1300 East, Suite 600
Salt Lake City, UT 84106-2749
(801) 679 - 3500

PE STAMP:

KEY PLAN:

REVISIONS:

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 0 | 12/28/2022 | INITIAL 5% LAYOUT |
| 8 | 07/24/2023 | REVISED 5% LAYOUT |
| 9 | 12/12/2023 | REVISED 5% LAYOUT |
| 10 | 4/6/2023 | REVISED 5% LAYOUT |
| 4 | 4/17/2023 | REVISED 5% LAYOUT |
| 5 | 4/28/2023 | REVISED 5% LAYOUT |
| 6 | 5/25/2023 | REVISED DC:AC RATIO |
| 7 | 6/23/2023 | ADDITIONAL PARCEL INVESTIGATION |

PROJECT TITLE:

SYCAMORE CROSS

PROJECT LOCATION:

MILL SWAMP ROAD,
SMITHFIELD, VA 23430
37.0180,-76.7358

SHEET TITLE & DESCRIPTION:

OVERALL ELECTRICAL PLAN

UP TO 240 MWAC

| | |
|---|---|
| PROJ NUM: | |
| DES: | A. PEÑAS |
| DWN: | F. MIRANDA |
| CHK: | C. SANCHEZ |
| APV: | |
| DATE: | 12/28/2022 |

SCALE AT 24" x 36":
0 1.000' 2.000' 3.000' 4.000'
1" = 2,000'

SHEET NO: PV-E.01.01
REV: 10

# Environmental Resource Impact Analysis

## Sycamore Cross Solar Project
## Isle of Wight and Surry Counties, Virginia

**April 2023**

**Prepared for**

AES Clean Energy Development, LLC
4200 Innslake Drive, Suite 302
Glen Allen, Virginia 23060

**Prepared by**

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4101 Cox Road, Suite 120
Glen Allen, Virginia 23060

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# Acronyms and Abbreviations

| | |
|---|---|
| AMSL | Above Mean Sea Level |
| AES | AES Clean Energy Development, LLC |
| AJD | Approved Jurisdictional Determination |
| AMSL | Above Mean Sea Level |
| BECA | Bald Eagle Concentration Area |
| BGEPA | Bald and Golden Eagle Protection Act |
| CBPA | Chesapeake Bay Protection Area |
| CCB | Center for Conservation Biology |
| FEMA | Federal Emergency Management Act |
| FCV | Forest Conservation Value |
| FIRM | Flood Insurance Rate Map |
| IPaC | Information for Planning and Consultation |
| NHD | National Hydrography Dataset |
| NHDE | Natural Heritage Data Explorer |
| NLEB | northern long-eared bat |
| NRCS | Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| NWI | National Wetland Inventory |
| PJD | Preliminary Jurisdictional Determination |
| Project | Sycamore Cross Solar Project |
| RPA | Resource Protection Area |
| T&E | threatened and endangered |
| USACE | U.S. Army Corps of Engineers |
| USDA | United States Department of Agriculture |
| USEPA | U.S. Environmental Protection Agency |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| SSURGO | Soil Survey Geographic Database |
| Tetra Tech | Tetra Tech, Inc |
| VaFWIS | Virginia Fish and Wildlife Information Services |
| VDCR | Virginia Department of Conservation and Recreation |

| | |
|---|---|
| VDEQ | Virginia Department of Environmental Quality |
| VDWR | Virginia Department of Wildlife Resources |
| VMRC | Virginia Marine Resource Commission |

# 1.0 PROJECT DESCRIPTION

Sycamore Cross Solar, LLC, a subsidiary of AES Clean Energy (AES), is conducting due diligence for a proposed commercial solar energy project, the Sycamore Cross Solar Project (Project), on approximately 2,226 acres of agricultural and undeveloped forested land (Project study area). Sycamore Cross Solar, LLC is proposing to utilize approximately 1,195 acres of the Project study area in connection with the Project (Fenceline Area) to generate up to 240 megawatts (MWac) of solar energy. The Project is located in Isle of Wight and Surry Counties, Virginia, as shown on the orthoimagery and topographic Project location maps (Figures 1 and 2, respectively). The Project is in the Blackwater Watershed (Hydrologic Unit Code 03010202; USGS 2022).

Sycamore Cross Solar, LLC, is pursuing a Conditional Use Permit (CUP) from Isle of Wight and Surry Counties in accordance with Section 5-5003.M.4 of the Isle of Wight County, Virginia, and Section 10-122 of the Surry County, VA, Code of Ordinances. A desktop Environmental Resource Impact Analysis was conducted to identify potential impacts to environmental and wildlife resources within the Project Area and applicable buffers from the Project study area to comply with Section 5-5003.M.4.vi of the Isle of Wight County Zoning Ordinance and to help support the Surry County CUP application.

Resources considered include watershed preservation areas, forest conservation, ecological cores, floodplains, wetlands, surface water, and federal and state listed threatened and endangered species. This impact assessment was based on preliminary site plans and avoidance and minimization measures that are anticipated to be implemented.

# 2.0 ENVIRONMENTAL RESOURCES

## 2.1 Terrestrial and Aquatic Resources

### 2.1.1 Federal and State Protected Lands

Based on a desktop review of data provided by Virginia Department of Conservation and Recreation (VDCR), no federal or state protected lands, including national or state forests or parks, wildlife management areas or recreational areas, are located within the Fenceline Area of the Project study area. Two conservation easements are mapped within a one-mile radius of the Project study area, including one Virginia Department of Forestry/VDCR managed easement located approximately 350 feet southwest of the southwestern portion of the Project study area and one National Resources Conservation Service (NRCS) managed easement located approximately 0.20 miles north of the eastern portion of the Project study area (VDCR 2023a). Additionally two designated conservation areas were identified approximately 0.65 miles southwest of the southwestern portion of the Project study area, including one conservation area managed by The Nature Conservancy, named Blackwater River and one conservation area managed by VDCR, named Blackwater Sandhills (VDCR 2023a). No additional conservation easements or areas were identified within a one-mile radius of the Project study area.

### 2.1.2 Chesapeake Bay Preservation Area

**Existing Conditions**

The Project is located within Isle of Wight and Surry Counties, which are both considered one of Virginia's 29 coastal counties and independent cities deemed "Tidewater Virginia" as outlined in 9VAC25-830-80; however, based on Appendix B-1, Article 3 of the Isle of Wight County Code of Ordinances, the Isle of Wight County Chesapeake Bay Preservation Area (CPBA) Mapper, Section 3-1400 of the Surry County Code of Ordinances, preliminary correspondence with the Surry County Planning and Community Development Department and preliminary correspondence with the Isle of Wight Planning and Zoning department, the Project study area is located within the Albemarle-Chowan watershed. Therefore, the Project is not subject to CBPA Resource Protection Areas.

**Potential Impacts**

The Project is not located within the Chesapeake Bay watershed and therefore, not subject to CBPA regulations.

### 2.1.3 Forest Conservation Value

**Existing Conditions**

The Forest Conservation Value (FCV) model was designed by the Virginia Department of Forestry to identify forestland with the highest priority for conservation within Virginia with the intent to maximize the conservation efforts to the highest quality, most productive, and most vulnerable forestland within Virginia (VDCR 2021). The classifications of the values range from average to outstanding, indicating the value of forestlands for conservation (VDCR 2021). The VDCR FCV model indicated that approximately 1,254 acres of the Project study area were mapped as forest with approximately 213 acres categorized as outstanding priority for conservation, 293 acres as very high, and 384 acres categorized as high priority forestland for conservation. VDCR FCV located within the Project study area are depicted as Figure 4

**Potential Impacts**

Based on the current design of the Project and the Fenceline Area, approximately 32 acres of outstanding priority forestland will be impacted, approximately 63 acres of very high priority, and approximately 139 acres of high priority forestland may be impacted. A map depicting the FCV model within the Project study area is represented as Figure 4. Consultation with VDCR will be undertaken in connection with the potential impact of outstanding, very high, and high value forestland.

### 2.1.4 Ecological Cores

**Existing Conditions**

The VDCR developed ecological cores that classify lands based on environmental and species diversity, patch characteristics and context, and water quality benefits (VDCR 2018). The classifications of ecological cores range from general to outstanding based on a determination of ecological importance and characteristics (VCDR 2018). Ecological core data with the classification of high, very high, and outstanding have the greatest value of ecological biodiversity (VDCR 2018). VCDR ecological cores data indicates that approximately 357 acres of the Project study area are classified as very high, and approximately 162 acres are classified as high. No portion of the Project study area is classified as outstanding. The remaining portions of the Project study area are classified as either

general or is unclassified. Ecological cores located within the Project study area are depicted as Figure 5

**Potential Impacts**

Based on the current design of the Project and the Fenceline Area, approximately 94 acres of ecological cores classified as very high value will be impacted, and approximately 32 acres of high value ecological cores may be impacted. Wildlife corridors will be implemented in Project site design in order to reduce adverse impacts to these ecological cores. A map depicting the ecological core classifications within the Project study area is represented as Figure 5. Consultation with VDCR will be undertaken in connection with the potential impact of very high and high value ecological cores.

### 2.1.5 Floodplains

**Existing Conditions**

The floodplain data for the Project were obtained from Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Number 51093C00653, effective December 2, 2015; 51093C0125E, effective December 2, 2015; 51093C0050E, effective December 2, 2015 and 51181C0225E, effective April 6, 2022 (FEMA 2015a, b, c, 2022). According to the FEMA FIRMs, Blackwater River, located on the western portion of the Project study area, is mapped as Zone A, with a one-percent annual chance flood hazard. The Project is in the Blackwater River – Terrapin Swamp (12-digit Hydrologic Unit Code [HUC] 030102020301), and Rattlesnake Swamp (HUC 030102020303) watershed. FEMA floodplain data is depicted on Figure 6.

**Potential Impacts**

There are no anticipated impacts to floodplains based on the current design of the Project. These areas will be included in Project design considerations as design evolves and will continue to be avoided to the greatest extent practicable. Additionally, any potential impacts will be permitted through the appropriate authorities having jurisdiction.

### 2.1.6 Topography and Soils

**Existing Conditions**

The topography within the Project study area is relatively flat, ranging from 50 feet above mean sea level (amsl) to 95 feet amsl (Figure 2). Very minimal steep slopes were identified, with slopes exceeding 25 percent mapped in small areas throughout the Project study area (Figure 7).

A review of the U.S. Department of Agriculture (USDA) NRCS Web Soil Survey was conducted to determine the erosivity of soils within the Project study area. The K factor is an index which quantifies the relative susceptibility of the soil to sheet and rill erosion. Values range from 0.02 for the least erodible soils to 0.64 for the most erodible, with any K factor value equal to or greater than 0.32 being considered moderately erodible. The USDA NRCS soil survey data indicates that approximately 23.7 percent of the Project study area is composed of moderate to highly erodible soils (Appendix A). A figure depicting the USDA NRCS soil series classification within the Project study area is attached as Figure 10.

The USDA NRCS Web Soils Survey was also queried to identify soils classified as prime farmland within the Project study area. Approximately 895 acres of prime farmland soils were identified, an additional 433 acres are classified as prime farmland if drained, and approximately 109 acres of farmland of statewide importance were identified within the Project study area. The remaining portions of the Project study area were not classified as prime farmland or farmland of statewide importance (Figure 9).

**Potential Impacts**

Construction of the Project may result in impacts on soil resources within the facility footprint. Ground-disturbing activities would include vegetation clearing and grubbing; excavating for foundations and footings; pile driving; stockpiling excavated material for backfilling; drilling rock to set foundations and footings; drilling and installing groundwater supply wells; grading for roads and staging and laydown areas; and installing stormwater best management practices (BMPs). The construction of other facilities, such as electrical substations and storage of equipment and parts, also would have the potential to result in adverse impacts on soil resources, because they involve some degree of ground disturbance. Soil contamination could also result from the release of contaminants related to the use of trucks and mechanical equipment, from improper storage and handling, and from the application of chemical stabilizers to control fugitive dust emissions. The extent of impact would depend on the size and design of the project and on site-specific factors, such as soil properties, slope (e.g., along gullies and on alluvial fan surfaces), vegetation, weather, and distance to surface water. The implementation of erosion and sediment control BMPs would minimize soil erosion and impacts to on-site and off-site resources.

Based on the current design of the Project and the Fenceline Area, approximately 614 acres of prime farmland (26% of the Project study area), 236 acres (10%) of prime farmland if drained, and 35 acres (1.5%) of farmland of statewide importance may be impacted.

Impacts to prime farmland soils are expected from the Project, as the areas of Prime Farmland soil on the site are centrally located where development activities will be concentrated. However, these impacts will be temporary in nature and beneficial to the quality of the soil. Over the life of the Project these soils will lay fallow, allowing reaccumulation of vital nutrients and organic matter; after the Project is decommissioned, the land may be converted into cropland that would benefit from this soil resting period. However, since the Project is not being completed by a Federal agency or with assistance from a Federal agency and will not irreversibly convert farmland to a nonagricultural use, the Project will not be subject to the Farmland Protection Policy Act (FPPA). Therefore, no form AD-1006 Farmland Conversion Impact Rating will be required.

### 2.1.7 Wetlands, Surface Waters, and Open Waters

**Existing Conditions**

A field wetland delineation was performed for the Project study area in January and April 2020, October 27, 2022, November 2-4, 2022, December 2, 9, 14-15, 20-21, 27-29, 2022, January 9-13, March 22-24 and 28-30, 2023 for wetland, stream, and open water features. 30,281 linear feet of streams features, 415 acres of wetlands, and 1.08 acres of open water features, including ponds, were identified within the Project study area. A portion of the delineated features in the northwestern

portion of the Project study area were confirmed for jurisdiction in the form of a USACE Preliminary Jurisdictional Determination (PJD) and an Approved Jurisdictional Determination (AJD) (NAO-2019-01204) in 2022 The remaining delineated water features identified within the Project study area were not confirmed for jurisdiction with the U. S. Army Corps of Engineers (USACE) and the Virginia department of the Environmental Quality (VDEQ), and/or Virginia Marine Resources Commission (VMRC) at the time of submittal of this analysis report. The Project plans to confirm all delineated features within the Project study area in the form of a USACE PJD and/or AJD. A figure depicting the delineated features within the Project study area is attached as Figure 8.

**Potential Impacts**

A utility-scale solar project can affect surface water and groundwater in several ways, including the use of water resources, modification of the natural surface water and groundwater flow systems, alteration of the interactions between groundwater and surface waters, contamination of aquifers, wastewater treatment either on- or off-site, and water quality degradation by runoff or excessive withdrawals, as well as from leaks and spills of chemicals used for the project. While some impacts on water resources (e.g., water use) are dependent upon the solar technologies themselves, impacts on water resources associated with land disturbance and construction activities would be expected to occur regardless of the type of solar technology used.

There are 2,281 linear feet of streams, 36 acres of wetlands, and 0.39 acres of open water features located within the Fenceline Area. Through continued engineering and site design, the Project will avoid and minimize impacts to wetlands, surface waters, and open waters to the greatest extent practicable. Any impacts to wetlands, surface waters, and open waters will be permitted through the appropriate authorities having jurisdiction.

The Project has been designed to avoid and minimize impacts to wetlands and streams as they are currently mapped within the Fenceline Area and Project study area to the greatest extent practicable. A portion of the Project study area's delineated water resources delineation results have been confirmed by the USACE and VDEQ in the northeastern portion of the Project study area in the form of a Preliminary Jurisdictional Determination and an Approved Jurisdictional Determination (NAO-2019-01204) in 2022. The remaining water resources delineated within the Project study area have not yet been confirmed by the USACE, VDEQ, and/or the VMRC and are subject to change. Federal and state confirmation of the remaining unconfirmed water resources within the Project will be planned in the form of a USACE jurisdictional determination. Pending any changes to mapped features, impacts to jurisdictional features will be permitted through the USACE, VDEQ, and/or VMRC, and any requisite mitigation measures will be incorporated into the project.

Through the use of stormwater BMPs and erosion and sedimentation controls during construction, as well as routine stormwater inspections, no impacts to adjacent water resources are expected from the Project.

## 2.2 Wildlife Resources

Field visits at the Project study area were conducted on October 27, 2022; November 2–4, 2022; December 2, 9, 14–15, 20-21, 27–29, 2022; January 9–13, 2023; March 22–24, 28–30, 2023; and April 3, 2023. The results of this evaluation identified the potential presence of the following:

- One species protected by BGEPA and a listed bird species: bald eagle (*Haliaeetus leucocephalus*) and red-cockaded woodpecker (*Picoides borealis)*;
- Three species of bats: NLEB, Rafinesque's eastern big-eared bat *(Corynorhinus rafinesquii macrotis),* and tri-colored bat *(Perimyotis subflavus)*; and
- One mollusk species: yellow lance *(Elliptio lanceolata)*.

Potential impacts to these species as a result of implementation of the Project are discussed below.

### 2.2.1 Bald Eagle

**Existing Conditions**

The bald eagle is protected under the Bald and Golden Eagle Protection Act (BGEPA). Bald eagles prefer to nest in mature or old growth trees, snags, or cliffs near rivers, coastlines, lakes, and streams large enough to serve as a substantial food supply (USFWS 2007).

Several large bodies of water were identified on the USGS topographic map, specifically in the USFWS NWI and USGS NHD layers in the surrounding areas of the Project study area, and were noted during the site visit within the surrounding areas of the Project study area. Areas noted included Blackwater River, Mill Swamp, and an unnamed pond located in the western, eastern, and center portions of the Project study area, respectively (Figures 2 and 3).

Based on a review of the CCB Bald Eagle Nest Locator, the closest known bald eagle nest is approximately 7.1 miles south of the Project study area A, and 3.03 miles away from Project study area B. The USFWS BECA map did not indicate a bald eagle concentration area within the Project study area. During the January 2023 field survey, two adult bald eagles and one juvenile were observed feeding on carrion adjacent to the pond located in the northwestern portion of the Project study area.

**Potential Impacts**

Based on the observation of bald eagles, a "may effect-not likely to adversely affect" status was determined for the bald eagle in connection with the Project study area. Consultation with USFWS and VDEQ will be initiated; a subsequent bald eagle nest survey will be conducted if construction is anticipated to be conducted during the breeding season (October 1 through May 15). The appropriate buffers will be provided per the USFWS 2007 National Bald Eagle Management Guidelines (USFWS 2007).

### 2.2.2 Red-Cockaded Woodpecker

**Existing Conditions**

IPaC indicates that the red-cockaded woodpecker, which is a federally endangered and state endangered species, has the potential to occur within the Project study area (USFWS 2023a). The red-

cockaded woodpecker commonly inhabits mature pine trees that are generally 80 years old or older and are devoid of underbrush (USFWS 2023d).

Upon a review of aerial orthoimagery presented in Figure 1 and field verification of habitat, forested communities within the Project study area consist of mostly silviculture with pine plantations that are younger than 80 years old, as well as deciduous hardwood forests in riparian areas. During the January and March field surveys, pine trees were observed within the Project study area, however, the trees were observed to be less than 80 years of age.

**Potential Impacts**

Given the lack of suitable habitat, red-cockaded woodpecker constitutes a "no effect" status in connection with the Project study area.

### 2.2.3 Northern Long Eared Bat

**Existing Conditions**

The IPaC database (USFWS 2023a) indicated that the NLEB, a federally endangered and state-threatened species, has the potential to occur within the Project study area. The NLEB spend winters hibernating in caves and mines; during the summer, they roost singly or in colonies underneath bark, in cavities, or in crevices of trees both live and dead (USFWS 2023e). Foraging occurs on forested hillsides and ridges, occasionally over forest clearings, over water, and along tree-lined corridors. Mature forests may be an important habitat type for foraging. The VDWR NLEB mapping application shows that there are no known NLEB winter hibernacula or roost trees in the vicinity of the Project study area (VDWR 2023a). The nearest winter hibernacula and roosting habitat is located approximately 43.7 miles southeast of the Project study area and 40.1 miles southeast of Project study area B (VDWR 2023a). However, forested areas within the Project study area, especially along riparian corridors, provide potential suitable roosting and foraging habitat for the NLEB. Suitable trees were identified within forested areas in the Project study area during the field survey.

**Potential Impacts**

Given the suitable habitat on site, consultation with USFWS and VDWR will be initiated, and additional bat presence/absence surveys will be conducted (i.e., acoustic or mist netting) prior to tree clearing for construction activities if deemed necessary by agencies.

### 2.2.4 Rafinesque's Eastern Big-eared Bat

**Existing Conditions**

The VDWR VaFWIS indicated that there are confirmed occurrences of the Rafinesque's eastern big-eared bat, which is a state endangered species, within the Project study area and a ±2-mile radius from the Project study area boundary (VDWR 2023c). The Rafinesque's eastern big-eared bat is known to roost in hollow trees and old buildings in the southeastern United States along the coast and in caves and mines within the Appalachian Mountains (VDWR 2022a) Additionally, the VDCR NHDE identified this species as possibly occurring within the following Project study area watersheds:

Blackwater River – Terrapin Swamp (12-digit Hydrologic Unit Code [HUC] 030102020301), and Rattlesnake Swamp (HUC 030102020303) (VDCR 2023b).

**Potential Impacts**

Given the suitable habitat on site, consultation with VDWR and VDCR will be initiated, and additional bat presence/absence surveys will be conducted (i.e., acoustic or mist netting) prior to tree clearing for construction activities if deemed necessary by agencies.

### 2.2.5 Tri-colored Bat

**Existing Conditions**

The VDWR VaFWIS indicated that there are confirmed occurrences of the state endangered tri-colored bat within the Project study area and a ±2-mile radius from the Project study area boundary (VDWR 2023b). It should be noted that the tri-colored bat was proposed on September 14, 2022 by the USFWS to be federally reclassified as endangered however, the rule has yet to be finalized at the completion of this report (87 FR 56381)(USFWS 2023f). The tri-colored bat is known to inhabit caves but is also known to inhabit hollow trees during the summer (VDWR 2022b). VDWR mapping shows that the nearest winter hibernacula and roosting habitat are located approximately 133.1 miles northwest of the western Project study area and 136.4 miles northwest of eastern Project study area. The wooded areas located within the Project study area, however, could provide suitable foraging and roosting habitat for the tri-colored bat between summer and fall.

**Potential Impacts**

Given the suitable habitat on site, consultation with VDWR and VDCR will be initiated, and additional bat presence/absence surveys will be conducted (i.e., acoustic or mist netting) prior to tree clearing for construction activities if deemed necessary by agencies.

### 2.2.6 Yellow Lance

**Existing Conditions**

The VDWR VaFWIS indicated confirmed occurrences of the yellow lance, which is a state threatened species, within the Project study area and a ±2-mile radius from the Project study area boundary (VDWR 2023c). The yellow lance is known to inhabit clean, coarse to medium-sized sandy substrate but can occasionally be located within gravel substrate; can be found in waters from main channels down to small streams (North Carolina Wildlife Resources Commission 2022). Based on a review of NHD and NWI data, depicted in Figure 3, Terrapin Swamp, Blackwater River, Mill Swamp, Stallings Creek, Pouches Swamp, and several unnamed tributaries were identified within the Project study area, which could be potential habitat for yellow lance.

**Potential Impacts**

Given the suitable habitat on site, consultation with VDWR and VDCR will be initiated, and additional species presence/absence surveys will be conducted prior to construction activities if deemed necessary by agencies.

### 2.2.7 Candidate Listed Species

**Existing Conditions**

The IPaC system identified the monarch butterfly (*Danaus plexippus*), a candidate species at the federal level, as having the potential to occur within the Project study area. Monarch butterflies migrate to temperate climates in eastern and western North America during the fall and breed at overwintering sites in February to March. Additionally, VaFWIS identified the Spotted Turtle (*Clemmys guttata*), a federal candidate species, as having the potential to occur within the Project study area. Spotted Turtles are found in shallow aquatic areas with vegetation (USFWS 2023d). Suitable habitat was observed on site, and a spotted turtle was observed in the Project study area- photos of which are included in the photolog (Attachment C).

**Potential Impacts**

At time of this analysis, both species above are listed as candidate species. As candidate species are not subject to review under the Endangered Species Act, presence of these species is not anticipated to be a constraint to the Project. Impacts to potential habitat, such as streams and riparian corridors, will be avoided to the greatest practicable extent. Should the two species be listed as state or federally threatened or endangered in the future, further measures to avoid or mitigate potential impacts to the two species will be enacted.

No federally listed critical habitat was documented on the USFWS Critical Habitat for Threatened and Endangered Species Mapper as occurring within the proposed Project study area or the vicinity. The western Project study area is approximately 44.5 miles southeast of the closest mapped critical habitat. The eastern Project study area is approximately 50.4 miles southeast of the closest mapped critical habitat.

## 2.3 Cultural and Aesthetic Resources

### 2.3.1 Cultural and Historic Resources

**Existing Conditions**

Dutton + Associates, LLC (Dutton) prepared a Phase IA Cultural Resource Assessment report dated March 2023 and a Phase I Cultural Resources Survey dated September 2019 for and area which includes the Project study area and Fenceline Area in which Dutton utilized desktop resources and limited field reconnaissance to identify potential resources and areas of historic and cultural potential within the Project study area and the adjacent properties. One previously identified archaeological site is present on a southwestern parcel within the Project study area, and seven dilapidated buildings and complexes remain extant in the Project study area but have not been assessed for eligibility for listing on the National Register of Historic Places (NRHP) or on the Virginia Landmark Register. Based on the information from the desktop assessment and field reconnaissance conducted by Dutton, areas of historic resource potential were identified within the Project study area. Approximately 123 acres were determined to be areas with high potential for historic resources; an additional 272 acres were identified as areas with moderate potential.

Additional information on cultural resources is included in the Desktop Cultural Resources Report.

**Potential Impacts**

Based on the preliminary review of cultural resources, coordination with VDHR will be conducted prior to Project construction activities (e.g. ground clearing or leveling) to determine the significance of dilapidated buildings and sensitive archaeological areas within the Project study area. Implementation of the Project would not have an adverse impact on any archaeological or architectural resources that are eligible or potentially eligible for listing on the NRHP; and no further work is expected to be necessary within the Project area. Many of the extant buildings and building complexes are excluded from the Project area with carve-out parcels, and the previously identified archaeological site will be avoided in Project design and construction. Consultation with the VDHR will be conducted to confirm that no additional archaeological or historic investigation are required for the Project.

### 2.3.2 Aesthetic Resources

**Existing Conditions**

The landscape surrounding the Project site is characterized by broad plains of terraces, sandy ridges, and broad but shallow valleys. The elevation within the Project site averages around 80 feet, and local relief is less than 30 feet. Mixed forest vegetation covers most undeveloped or non-agricultural areas, often limiting views to the immediate foreground (i.e., within half a mile of the viewer). Land use is primarily small agricultural fields and rural residences interspersed with large, forested areas. Views surrounding the Project area are dominated by cultivated open agricultural fields, dense woodlands, and scattered residences and agricultural buildings.

Additional detail is provided in the Conditional Use Permit application as Attachment J.

**Potential Impacts**

The Project would introduce low vertical, geometric elements that are gray in color (e.g., solar panels, fencing) into a rolling terrain landscape dominated by green vegetation and large patches of dense trees. Visual impacts would vary depending on several factors, such as the distance of the viewer from the Project and whether views toward the Project are unobstructed or screened by vegetation, terrain, or development. The views can be vastly different from one location to another, even in proximity, because of the rolling terrain and dense vegetation. Viewers in proximity to the Project may have unobstructed or partially screened views (primarily along Sycamore Cross Drive, Mill Swamp Road, and Beechland Road). The solar arrays and fencing would be installed in both existing cultivated and open fields, as well as within areas currently covered by pine timber lands which would be cleared for the Project. Therefore, tree removal would be a noticeable effect of the Project, in addition to direct views of Project components. Large-scale silviculture harvest is assumed to be a frequent occurrence in the area, and viewers are assumed to be familiar with the changes to views resulting from a timber stand being cleared.

No visual impacts would occur to identified designated scenic resources, and although the Sycamore Cross Solar facility would introduce new views of solar infrastructure from public roadways and a small number of private residents immediately adjacent to the Project site, visual effects are not expected to occur from viewpoints away from the immediate Project area. Additionally, the Project

will install landscape buffers consisting of trees and shrubs along rights of way and abutting residential parcels, per the Isle of Wight zoning code Section B. Article V. § 5-5003 Part 4e.

## 3.0 CONCLUSIONS

This Environmental Resource Impact Assessment identified the following environmental resources and associated potential impacts:

- 2,281 linear feet of streams, 36 acres of wetlands, and 0.39 acres of open water features may be impacted by the are located within the Fenceline Area, however, no impacts to wetlands, streams or waterbodies are anticipated with the current Project design. These features will be included in the Project site plan and will be avoided to the greatest extent practicable. Any unavoidable impacts will be permitted through the proper regulators prior to construction.
- The western portion of the Project study area, along Blackwater River, is located within a FEMA flood zone with a one percent chance annual flood hazard. No impacts to floodplains are anticipated based on current Project design.
- Based on the current design of the Project and the Fenceline Area, approximately 32 acres of outstanding priority forestland will be impacted, approximately 63 acres of very high priority, and approximately 139 acres of high priority forestland may be impacted.
- Based on the current design of the Project and the Fenceline Area, approximately 94 acres of ecological cores classified as very high value will be impacted, and approximately 32 acres of high value ecological cores will be impacted. Wildlife corridors will be implemented in Project design to mitigate potential habitat fragmentation.
- Based on the current design of the Project and the Fenceline Area, approximately 614 acres (26%) of prime farmland, 236 acres (10%) of prime farmland if drained, and 35 acres (1.5%) of farmland of statewide importance may be temporarily impacted. However, following decommissioning of the Project, the land may be returned to agricultural use with improved soil quality due to the resting of these soils over the life of the Project.
- Bald eagles were identified as potentially present within the Project study area and were observed during site visits; however, no recorded nests were identified within the Project study area or direct vicinity. Additional nest surveys will be conducted if construction is anticipated to occur within the breeding season, and appropriate buffers will be implemented as necessary.
- No suitable habitat is present within the Project study area for the red cockaded woodpecker, and no impacts to this species are anticipated.
- Suitable habitat is present within the Project study area for three listed bat species- NLEB, Rufinesque's bat, and tricolor bat. Agency coordination will be conducted; additional species presence surveys, such as acoustic surveys or mist-net surveys, will be conducted if deemed necessary prior to any tree-clearing activities.
- The yellow lance mussel is potentially present within the Project study area and direct vicinity in stream channels. Avoidance of streams will be implemented to the greatest extent

practicable; if any impacts to streams are unavoidable, agency coordination will be initiated and additional species presence surveys will be conducted prior to construction activities.

- Approximately 23.7 percent of the Project study area contains moderate to highly erodible soils. The implementation of erosion and sediment control BMPs would minimize soil erosion and impacts to on-site and off-site resources.

Additionally, the Environmental Resources Impact Analysis identified NLEB as federally-listed endangered and state-listed threatened, red-cockaded woodpecker as federally-listed endangered, eastern big-eared as state-listed endangered, tri-colored bat as state-listed endangered and federally proposed endangered, and yellow lance as federally-listed threatened and state-listed threatened species that have the potential to occur within and in the vicinity of the Project study area.

Potential impacts to threatened and endangered species and their habitats will be reduced by avoiding and minimizing Project impacts, including but not limited to excavation, tree removal, and fill activities, to potential habitat areas including wetlands, forested areas, streams, and riparian corridors. The Project plans to avoid these resources to the maximum extent possible and coordinate with USFWS, VDWR, and VDCR to determine the potential for further site-specific surveys.

The Project plans to avoid and minimize impacts to aquatic features to the greatest practicable extent. Coordination and permitting with the U.S. Army Corps of Engineers, Virginia Department of Environmental Quality, and the Virginia Marine Resources Commission will be undertaken for planned potential impacts to aquatic features. Methods including utilizing temporary matting, staging of equipment in upland areas, and using best management practices during construction will be planned to avoid and minimize potential impacts to aquatic features.

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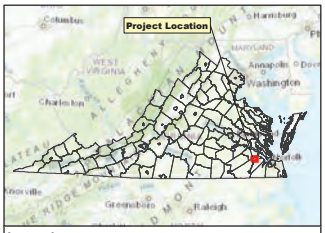
VDWR. 2023b. Little Brown Bat and Tri-Colored Bat Winter Habitat and Roosts Application. Accessed March 29, 2023. Available online at: https://dwr.virginia.gov/wildlife/bats/little-brown-bat-tri-colored-bat-winter-habitat-roosts-application/.

VDWR. 2023c. Virginia Fish and Wildlife Information Service (VaFWIS). Accessed March 29, 2023. Available online at: https://vafwis.dgif.virginia.gov/fwis/.

# FIGURES




**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary

N
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0 0.25 0.5 1 Miles

**Figure 1**
Orthoimagery Project Location Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

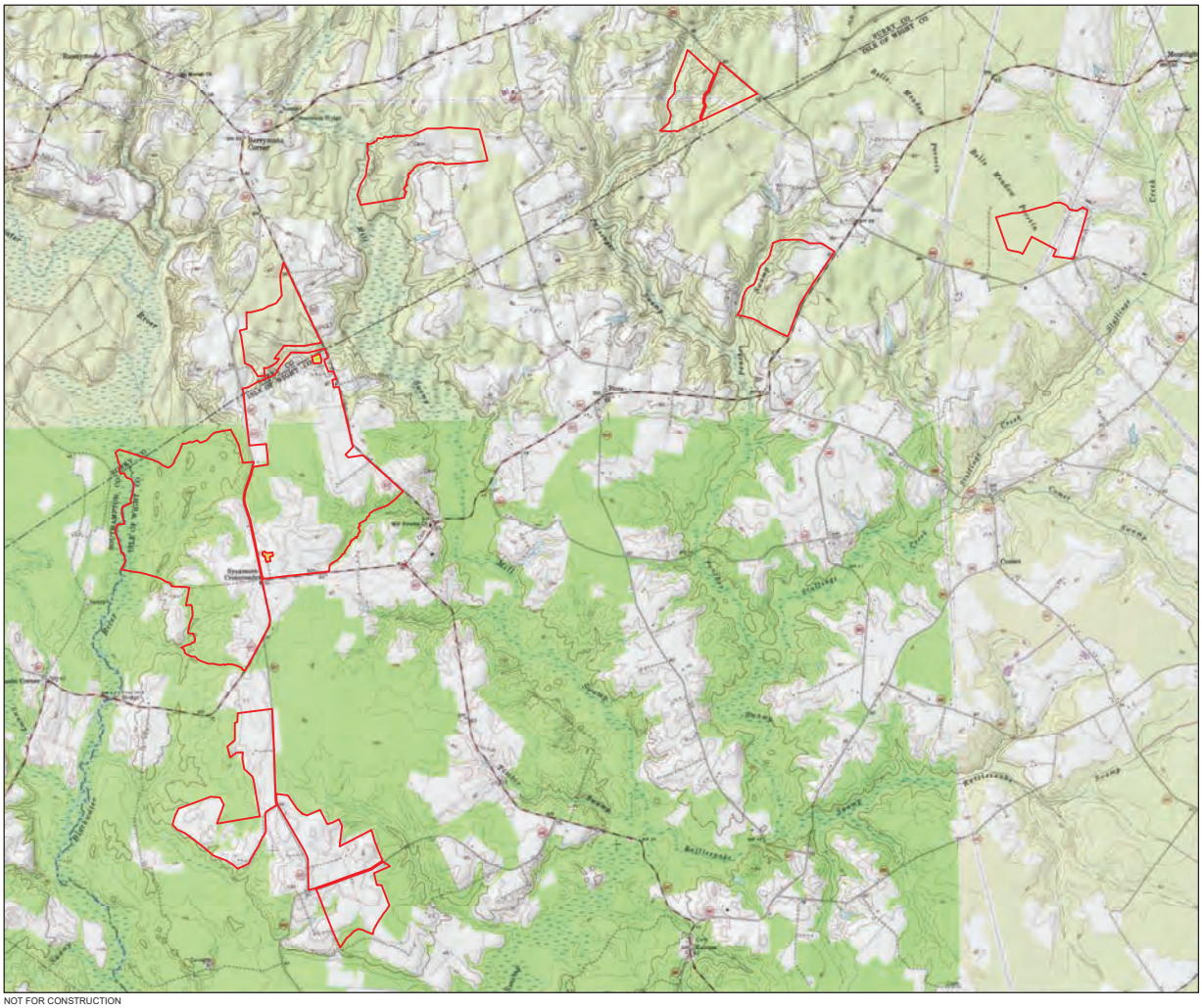
Date: 4/12/2023

Source: Esri, et. al., 2022; AES, 2022; Virginia Open Data Portal, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

AES Sycamore_Cross_Solar\GIS\Spatial\MXD\20230412_Envir_Resource_Invest_Report\Figure_1_Sycamore_Cross_Solar_Orthoimagery_Project_Location_Map.mxd



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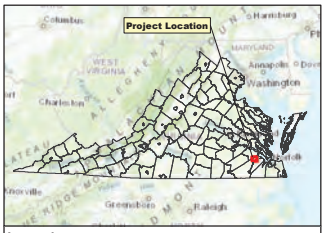


**Legend**

- Project Study Area
- Outside Project Study Area

N
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0 0.25 0.5 1 Miles

**Figure 2**
Topographic Project Location Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

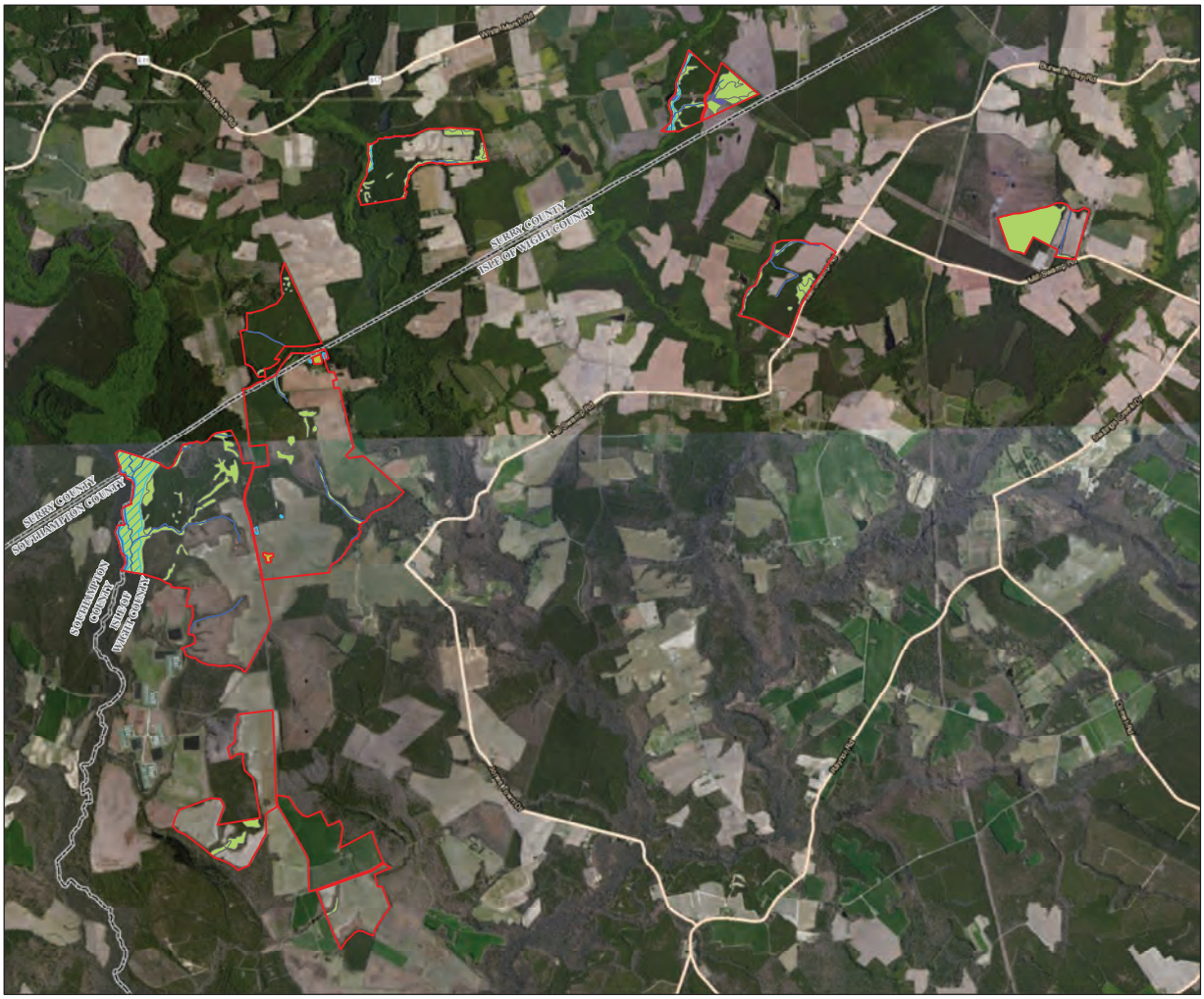
Prepared By: TETRA TECH

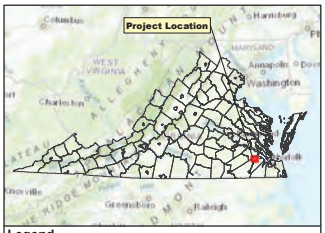
Date: 4/12/2023

Source: Esri, et. al., 2022; AES, 2022; Virginia Open Data Portal, 2022; USGS Topo Quads - Dendron, Runnymede, Ivor, Raynor, 2023.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

AES Sycamore_Cross_Solar\GIS\Spatial\MXD\2023\04\12_Envir_Resource_Invest_Report\Figure_2_Sycamore_Cross_Solar_Topographic_Project_Location_Map.mxd




**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- NHD Flowlines
- NHD Waterbodies

**NWI Wetland Type**

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

N
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0 0.25 0.5 1 Miles

**Figure 3**
NHD and NWI Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

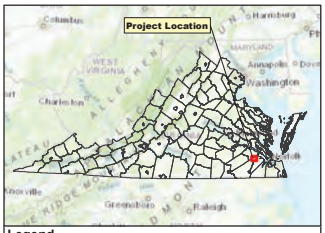
Date: 4/12/2023

Source: Esri, et. al., 2022; AES, 2022; NHD, 2022; NWI; 2022; Virginia Open Data Portal, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

AES\Sycamore_Cross_Solar\GIS\Spatial\MXD\2023\12_Env_Resource_Invest_Report\Figure_3_Sycamore_Cross_Solar_NHD_NWI_Map.mxd




**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary

**Forest Conservation Value**

- 1: Average
- 2: Moderate
- 3: High
- 4: Very High
- 5: Outstanding

N
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0 0.25 0.5 1 Miles

**Figure 4**
VDCR Forest Conservation Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; VDCR, 2020.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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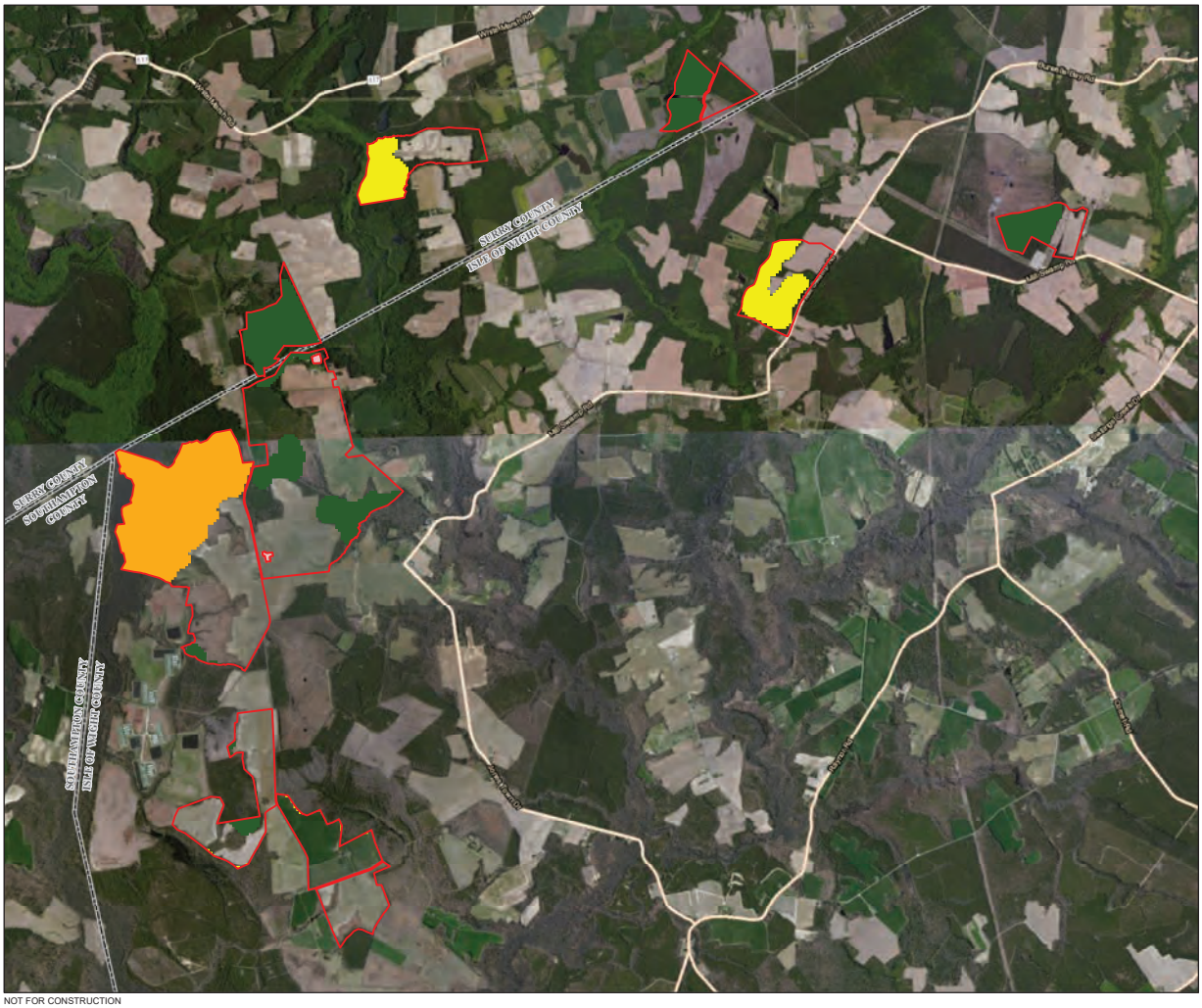


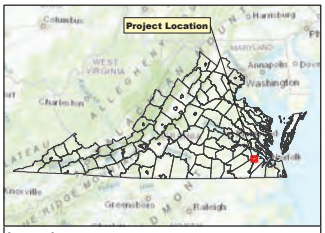


**Legend**

- Project Study
- Outside Project Study
- County Boundary

**Core Rank**

- C2: Very High
- C3: High
- C5: General

N
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0 0.25 0.5 1 Miles

**Figure 5**
VDCR Ecological Cores Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

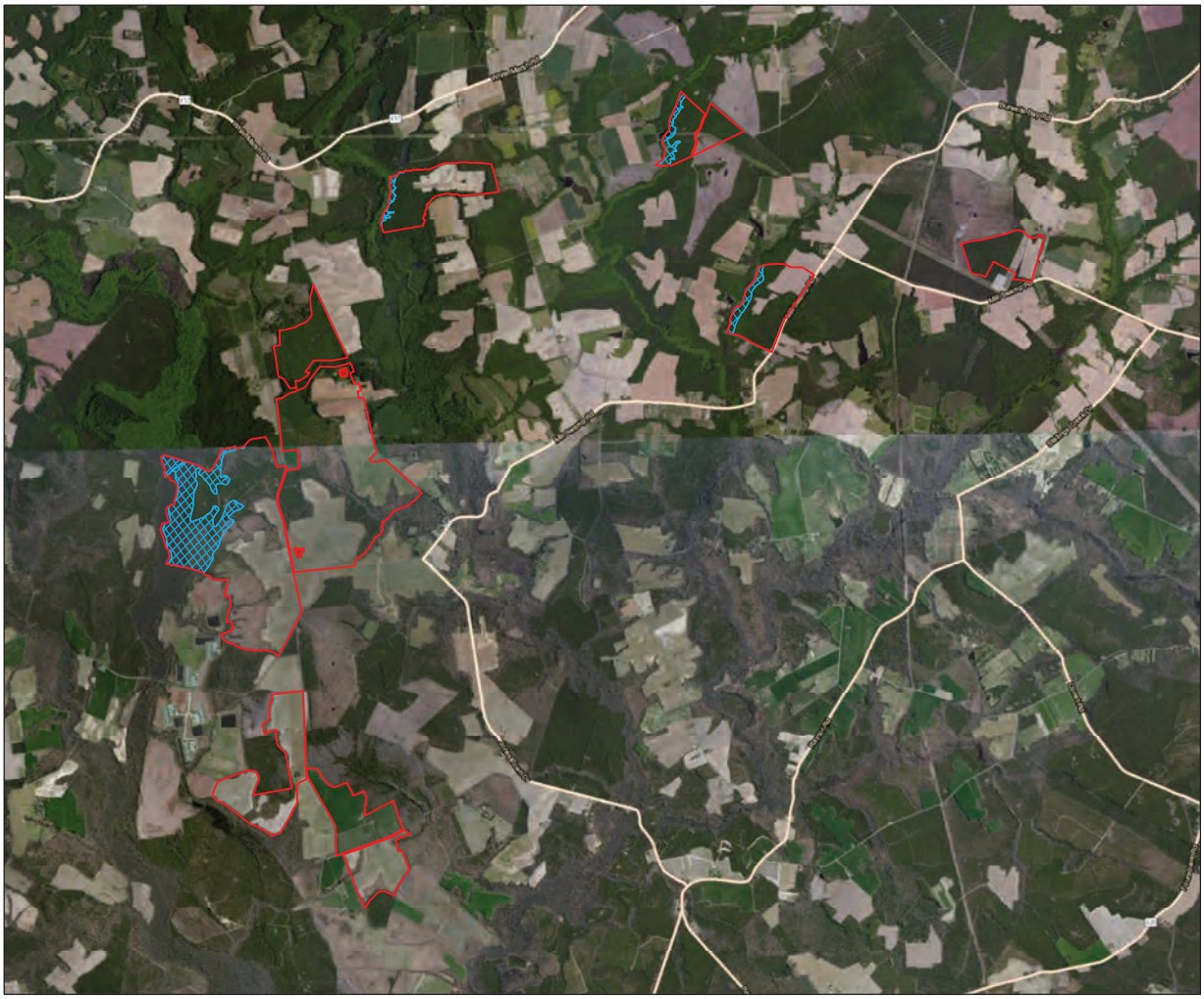
Date: 4/13/2023

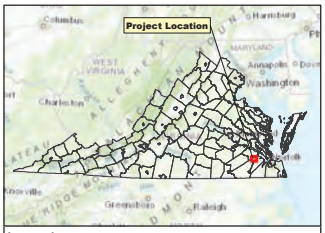
Source: Esri, et. al., 2022; AES, 2022; VDCR, 2017.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

AES\Sycamore_Cross_Solar\GIS\Spatial\MXD\2023\04\12_Env_Resource_Invest_Report\Figure_5_Sycamore_Cross_Solar_Ecological_Cores.mxd






**Legend**

- Project Study Area
- Outside Project Study Area

**FEMA Flood Risk**

- 100-year Floodplain, 1% annual chance of flooding

N
W E
S

0 0.25 0.5 1 Miles

**Figure 6**
FEMA Flood Hazard Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/14/2023

Source: Esri, et. al., 2022; AES, 2022; FEMA, 2022; FEMA FIRM number (FEMA FIRM Number 51093C0125E, effective December 2, 2015; 51093C0050E, effective December 1, 2015; and 51181C0225E, effective April 5, 2022); Virginia Open Data Portal, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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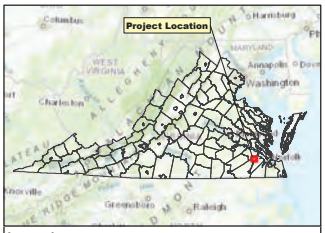


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Steep Slope (>25%)

N
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0 0.25 0.5 1 Miles

**Figure 7**
Steep Slopes Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Virginia Open Data Portal, 2022, USGS, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

P:\GIS\AES\Sycamore_Cross_Solar\GIS\Spatial\MXD\20230412_Envir_Resource_Impact_Report\Figure_7_Sycamore_Cross_Solar_Steep_Slopes_Map.mxd

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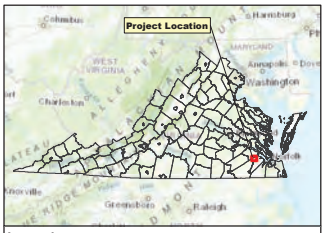
NOT FOR CONSTRUCTION




**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Detail Map Page

N
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0 0.25 0.5 1 Miles

**Figure 8**

Delineated Aquatic Resources Features Map Overview Map

Sycamore Cross Solar Project

Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia Open Data Portal, 2022; Virginia GIS Clearinghouse, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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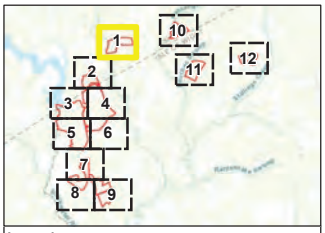


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N W E S

0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 1 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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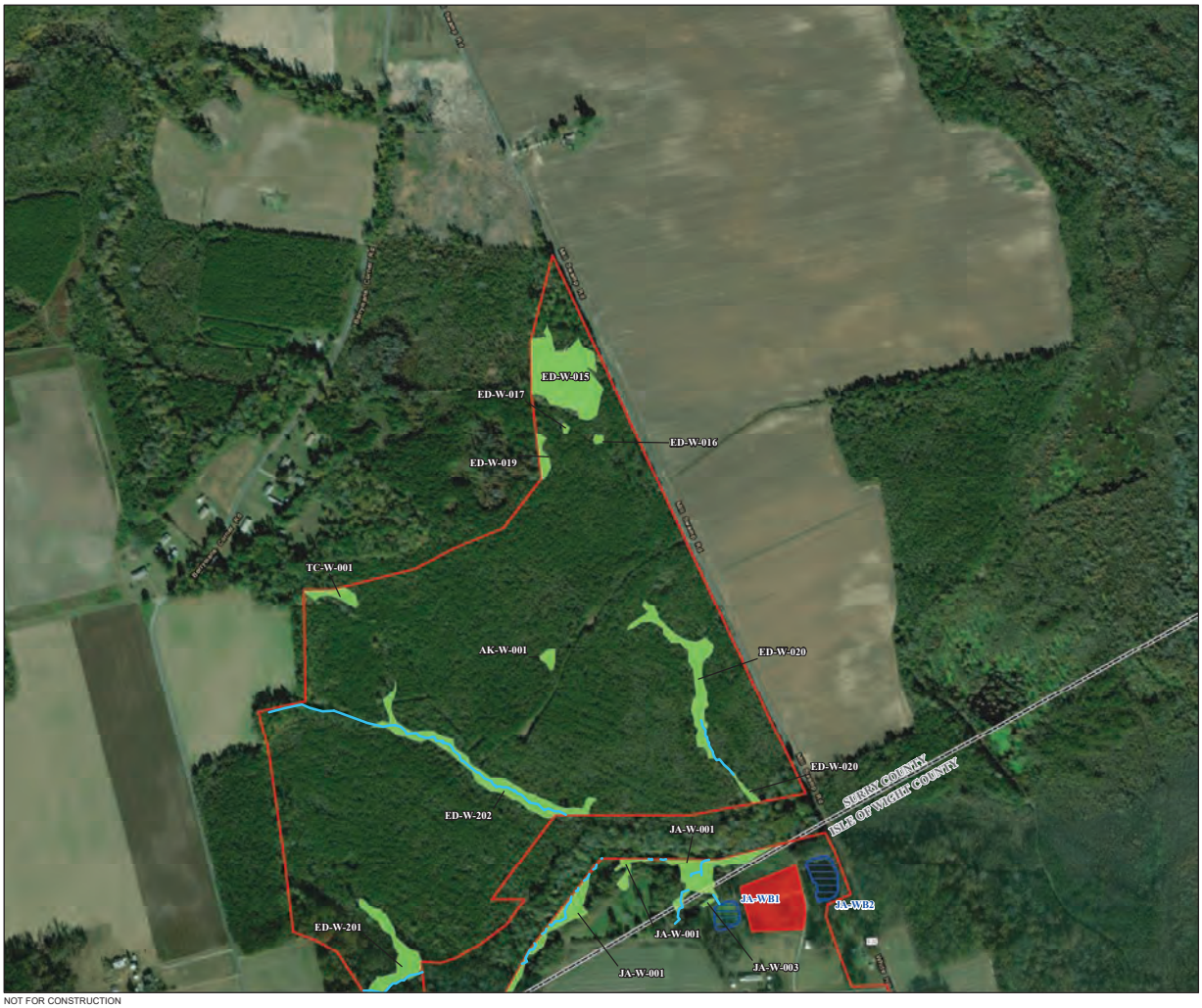


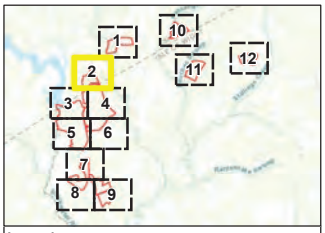


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N W E S

0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 2 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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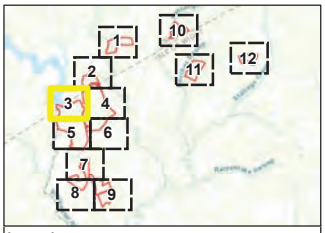


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N
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0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 3 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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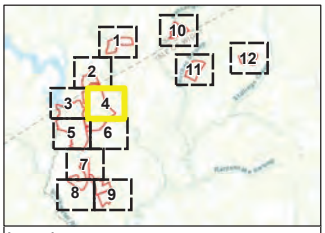


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

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0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 4 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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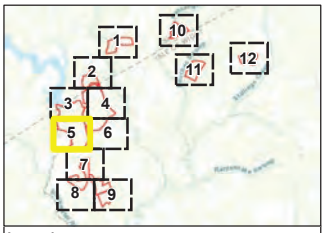


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N
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0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 5 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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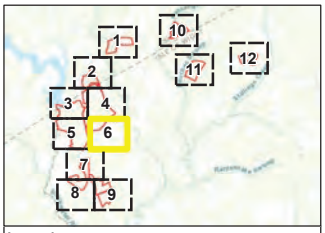


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N W E S

0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 6 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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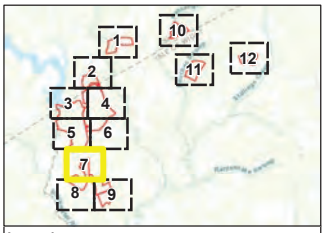


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N W E S

0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 7 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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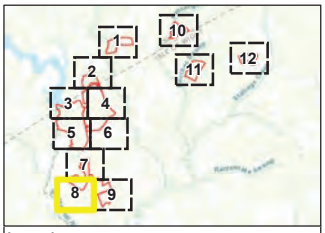


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N W E S

0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 8 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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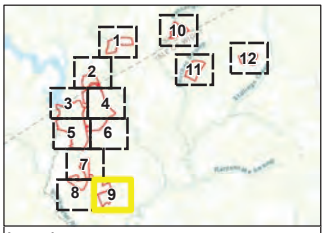
NOT FOR CONSTRUCTION




**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N
W
E
S

0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA



Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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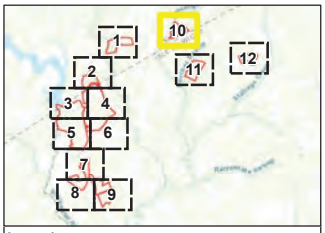


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N W E S

0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 10 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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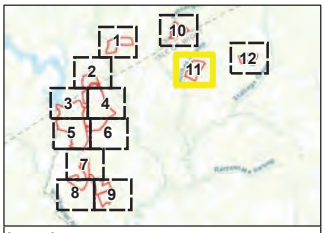


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N W E S

0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 11 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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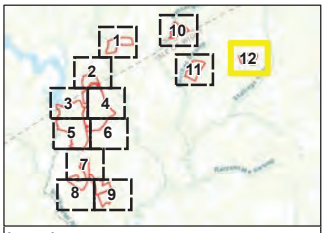


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
- Open Water

Disclaimer: Project study area/county boundary spatial data may have some accurary discrepencies.

N
W
E
S

0 250 500 1,000 Feet

**Figure 8**

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 12 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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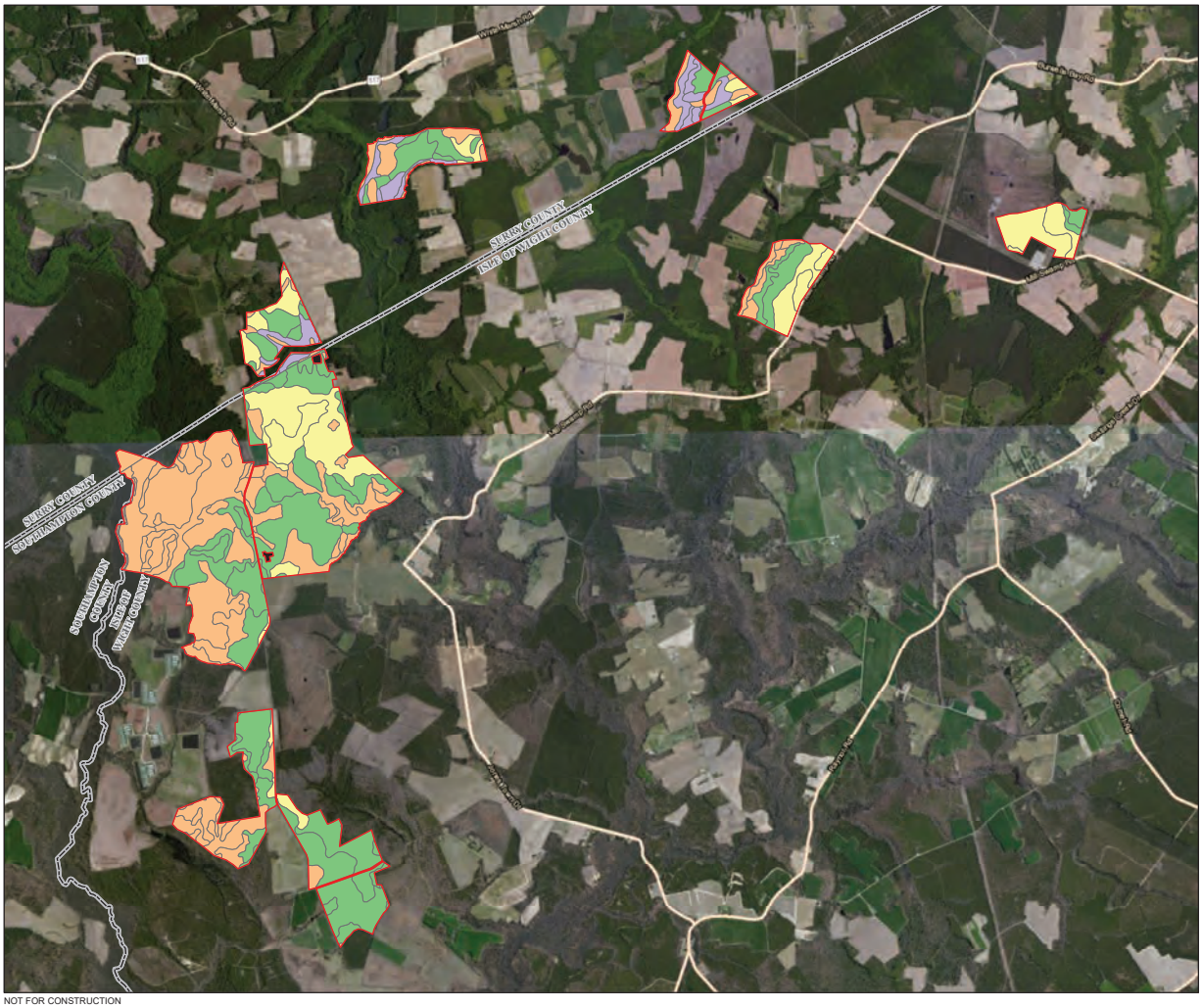


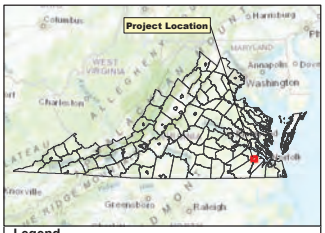


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary

**Farmland Class**

- All areas are prime farmland
- Farmland of statewide importance
- Not prime farmland
- Prime farmland if drained

N
W E
S

0 0.25 0.5 1 Miles

**Figure 9**
Prime Farmland Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; NHD, 2022; NWI; 2022; USDA, 2022; NRCS, 2022; SSURGO, 2022; Virginia Open Data Portal, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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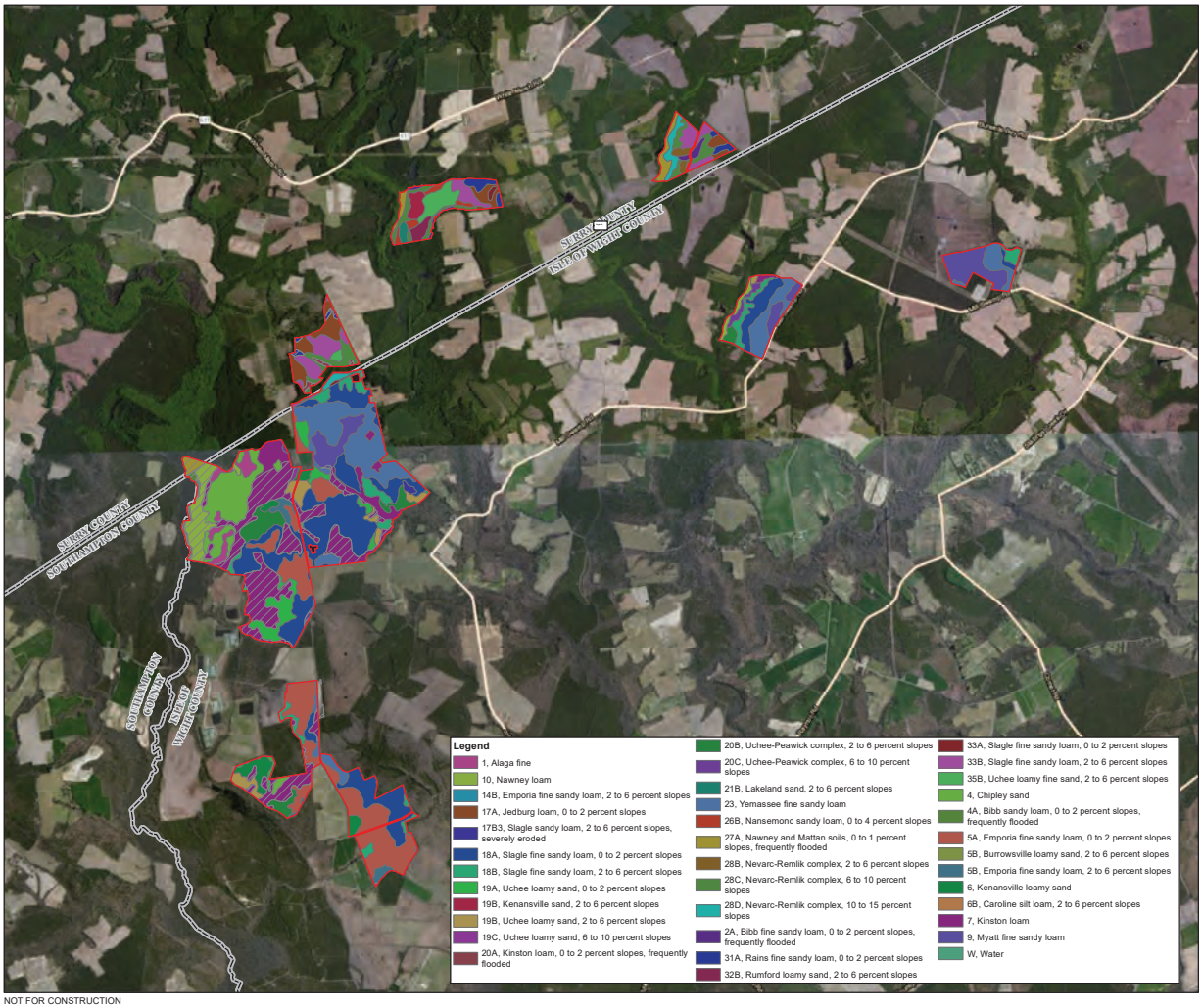


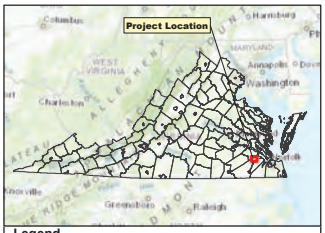


**Legend**

- Project Study Area
- Outside Project Study Area
- County Boundary
- Hydric Soil

N
W E
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0 0.25 0.5 1 Miles

**Figure 10**
USDA-NRCS Soil Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; NHD, 2022; NWI; 2022; USDA, 2022; NRCS, 2022; SSURGO, 2022; Virginia Open Data Portal, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

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# APPENDIX A: USDA-NRCS SOIL REPORT

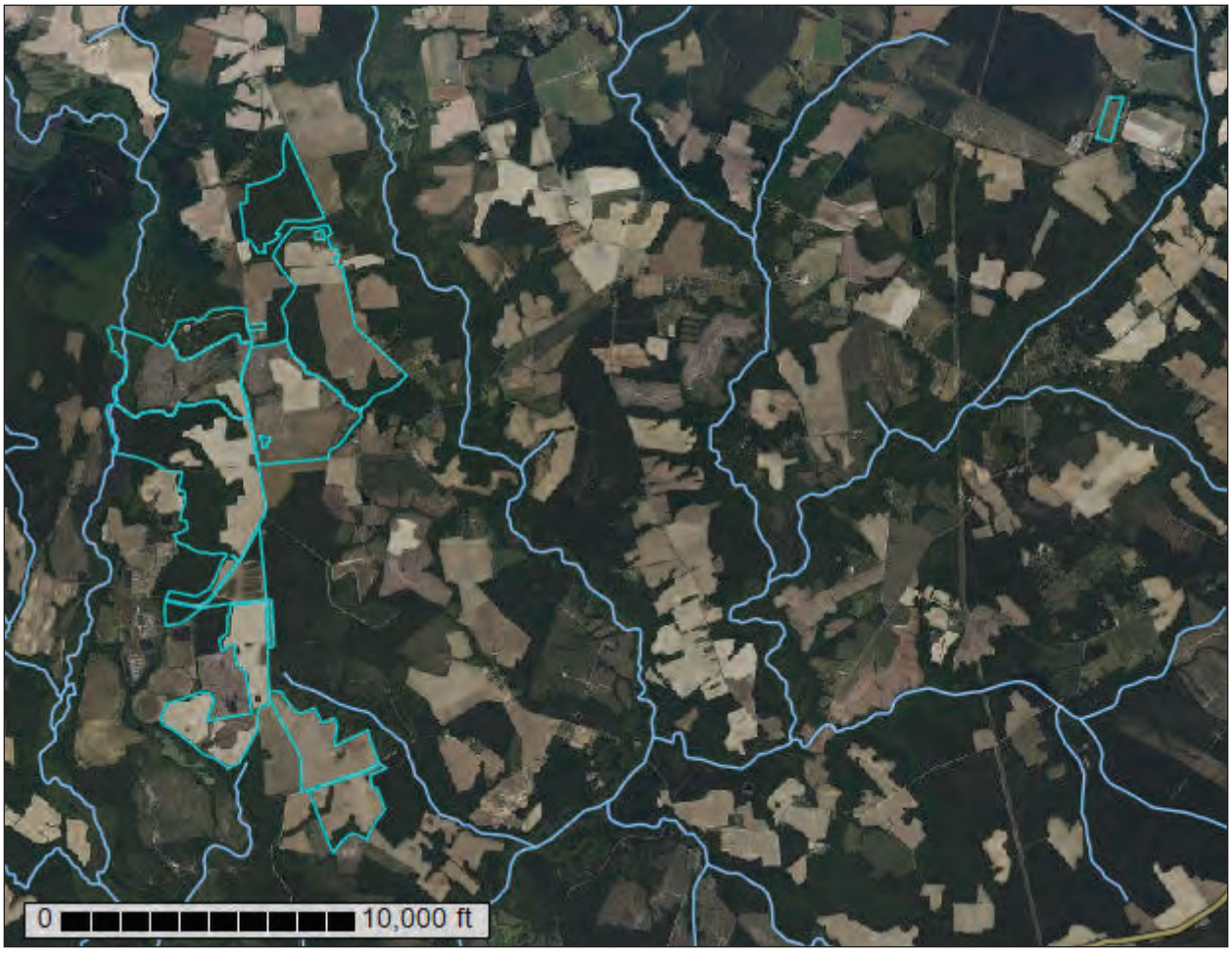
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Isle of Wight County, Virginia, Southampton County, Virginia, and Surry County, Virginia




March 31, 2023

# Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

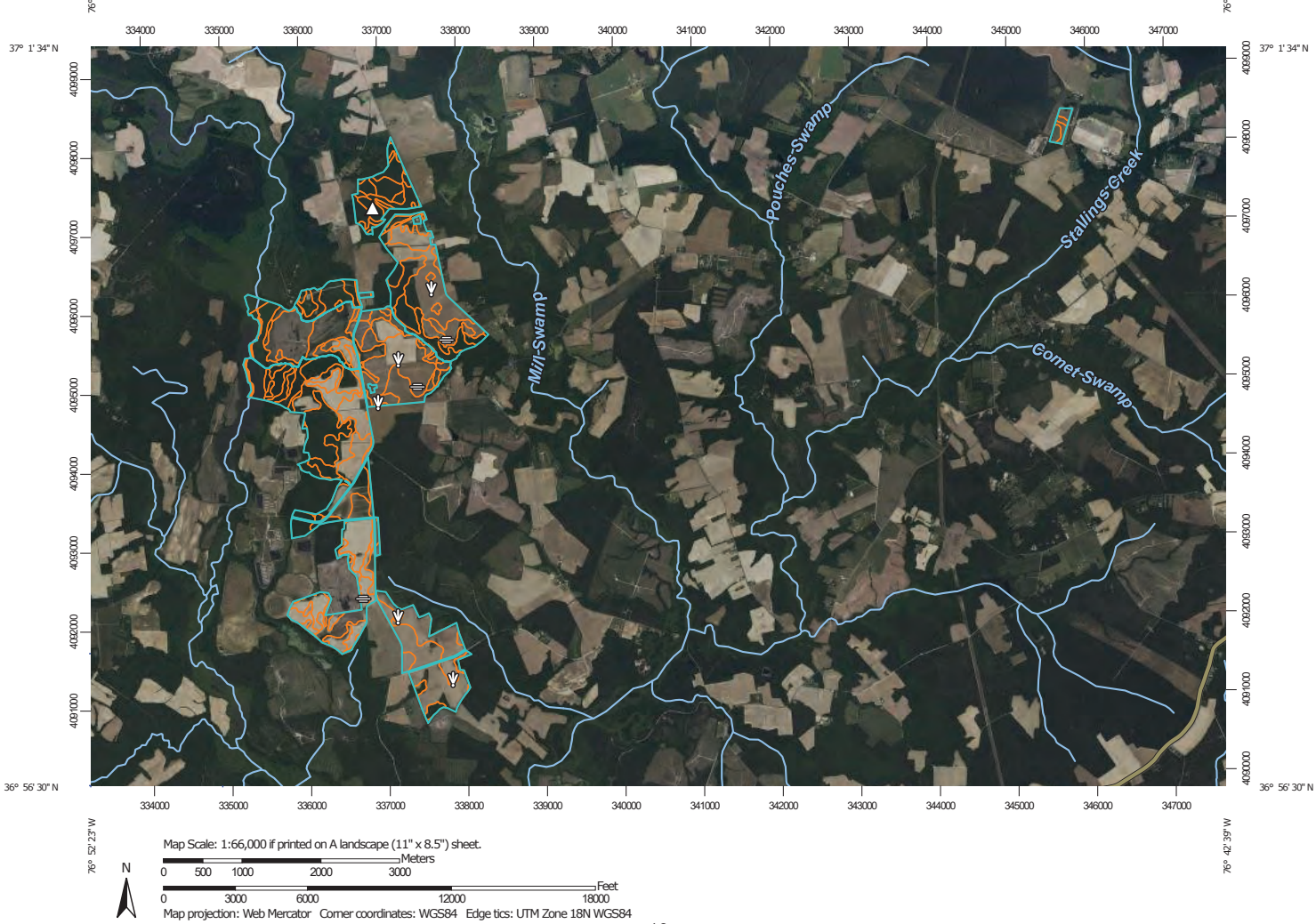
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

**Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

**Water Features**
- Streams and Canals

**Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**
- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:15,800 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Isle of Wight County, Virginia
Survey Area Data: Version 18, Aug 29, 2022

Soil Survey Area: Southampton County, Virginia
Survey Area Data: Version 21, Aug 22, 2022

Soil Survey Area: Surry County, Virginia
Survey Area Data: Version 19, Aug 22, 2022

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 18, 2022—Jul 13, 2022

## MAP LEGEND

## MAP INFORMATION

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 1 | Alaga fine sand | 29.3 | 1.6% |
| 4 | Chipley sand | 116.0 | 6.2% |
| 5A | Emporia fine sandy loam, 0 to 2 percent slopes | 274.8 | 14.6% |
| 5B | Emporia fine sandy loam, 2 to 6 percent slopes | 21.0 | 1.1% |
| 6 | Kenansville loamy sand | 41.6 | 2.2% |
| 7 | Kinston loam | 367.5 | 19.5% |
| 9 | Myatt fine sandy loam | 38.4 | 2.0% |
| 10 | Nawney loam | 55.9 | 3.0% |
| 17B3 | Slagle sandy loam, 2 to 6 percent slopes, severely eroded | 3.7 | 0.2% |
| 18A | Slagle fine sandy loam, 0 to 2 percent slopes | 401.3 | 21.3% |
| 18B | Slagle fine sandy loam, 2 to 6 percent slopes | 58.5 | 3.1% |
| 19A | Uchee loamy sand, 0 to 2 percent slopes | 61.1 | 3.2% |
| 19B | Uchee loamy sand, 2 to 6 percent slopes | 40.0 | 2.1% |
| 19C | Uchee loamy sand, 6 to 10 percent slopes | 2.1 | 0.1% |
| 20B | Uchee-Peawick complex, 2 to 6 percent slopes | 57.2 | 3.0% |
| 20C | Uchee-Peawick complex, 6 to 10 percent slopes | 9.3 | 0.5% |
| 23 | Yemassee fine sandy loam | 155.4 | 8.3% |
| W | Water | 4.1 | 0.2% |
| **Subtotals for Soil Survey Area** | | **1,737.1** | **92.3%** |
| **Totals for Area of Interest** | | **1,881.1** | **100.0%** |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 4A | Bibb sandy loam, 0 to 2 percent slopes, frequently flooded | 3.9 | 0.2% |
| W | Water | 3.4 | 0.2% |
| **Subtotals for Soil Survey Area** | | **7.3** | **0.4%** |
| **Totals for Area of Interest** | | **1,881.1** | **100.0%** |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 5B | Burrowsville loamy sand, 2 to 6 percent slopes | 0.1 | 0.0% |
| 6B | Caroline silt loam, 2 to 6 percent slopes | 0.0 | 0.0% |
| 14B | Emporia fine sandy loam, 2 to 6 percent slopes | 0.5 | 0.0% |
| 17A | Jedburg loam, 0 to 2 percent slopes | 40.2 | 2.1% |
| 20A | Kinston loam, 0 to 2 percent slopes, frequently flooded | 6.9 | 0.4% |
| 21B | Lakeland sand, 2 to 6 percent slopes | 1.7 | 0.1% |
| 27A | Nawney and Mattan soils, 0 to 1 percent slopes, frequently flooded | 9.4 | 0.5% |
| 28B | Nevarc-Remlik complex, 2 to 6 percent slopes | 0.2 | 0.0% |
| 28C | Nevarc-Remlik complex, 6 to 10 percent slopes | 23.9 | 1.3% |
| 28D | Nevarc-Remlik complex, 10 to 15 percent slopes | 5.7 | 0.3% |
| 31A | Rains fine sandy loam, 0 to 2 percent slopes | 5.3 | 0.3% |
| 33A | Slagle fine sandy loam, 0 to 2 percent slopes | 1.1 | 0.1% |
| 33B | Slagle fine sandy loam, 2 to 6 percent slopes | 37.3 | 2.0% |
| 35B | Uchee loamy fine sand, 2 to 6 percent slopes | 4.2 | 0.2% |
| **Subtotals for Soil Survey Area** | | **136.5** | **7.3%** |
| **Totals for Area of Interest** | | **1,881.1** | **100.0%** |

# Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made

up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# Isle of Wight County, Virginia

## 1—Alaga fine sand

### Map Unit Setting

*National map unit symbol:* 404h
*Elevation:* 10 to 350 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Alaga and similar soils:* 85 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Alaga

#### Setting

*Landform:* Stream terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 3 inches:* fine sand
*H2 - 3 to 60 inches:* loamy fine sand

#### Properties and qualities

*Slope:* 0 to 4 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Somewhat excessively drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Very high (19.98 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 4.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

### Minor Components

#### Leon

*Percent of map unit:* 5 percent
*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Hydric soil rating:* Yes

**Nawney**

*Percent of map unit:* 5 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 4—Chipley sand

**Map Unit Setting**

*National map unit symbol:* 4058
*Elevation:* 10 to 300 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Chipley and similar soils:* 85 percent
*Minor components:* 14 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Chipley**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Sandy marine deposits

**Typical profile**

*H1 - 0 to 6 inches:* sand
*H2 - 6 to 60 inches:* sand

**Properties and qualities**

*Slope:* 0 to 4 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)
*Depth to water table:* About 24 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 3.7 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

**Minor Components**

**Kinston**
*Percent of map unit:* 5 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Nawney**
*Percent of map unit:* 5 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Leon**
*Percent of map unit:* 4 percent
*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Hydric soil rating:* Yes

## 5A—Emporia fine sandy loam, 0 to 2 percent slopes

**Map Unit Setting**
*National map unit symbol:* 4059
*Elevation:* 20 to 150 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* All areas are prime farmland

**Map Unit Composition**
*Emporia and similar soils:* 85 percent
*Minor components:* 2 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Emporia**

**Setting**
*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex

*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

**Typical profile**

*H1 - 0 to 15 inches:* fine sandy loam
*H2 - 15 to 33 inches:* sandy clay loam
*H3 - 33 to 60 inches:* sandy loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 1.98 in/hr)
*Depth to water table:* About 36 to 54 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.9 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 1
*Hydrologic Soil Group:* B
*Hydric soil rating:* No

**Minor Components**

**Nawney**

*Percent of map unit:* 2 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 5B—Emporia fine sandy loam, 2 to 6 percent slopes

**Map Unit Setting**

*National map unit symbol:* 405b
*Elevation:* 20 to 150 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* All areas are prime farmland

**Map Unit Composition**

*Emporia and similar soils:* 85 percent
*Minor components:* 2 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Emporia

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 15 inches:* fine sandy loam
*H2 - 15 to 33 inches:* sandy clay loam
*H3 - 33 to 60 inches:* sandy loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 1.98 in/hr)
*Depth to water table:* About 36 to 54 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.9 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* B
*Hydric soil rating:* No

### Minor Components

#### Nawney

*Percent of map unit:* 2 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 6—Kenansville loamy sand

### Map Unit Setting

*National map unit symbol:* 405c
*Elevation:* 0 to 300 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days

*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Kenansville and similar soils:* 80 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Kenansville**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

**Typical profile**

*H1 - 0 to 28 inches:* loamy sand
*H2 - 28 to 41 inches:* sandy loam
*H3 - 41 to 60 inches:* sand

**Properties and qualities**

*Slope:* 0 to 4 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 5.95 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 4.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

**Minor Components**

**Kinston**

*Percent of map unit:* 8 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Nawney**

*Percent of map unit:* 2 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 7—Kinston loam

### Map Unit Setting

*National map unit symbol:* 405d
*Elevation:* 50 to 300 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Kinston and similar soils:* 85 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Kinston

#### Setting

*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loamy fluviomarine deposits

#### Typical profile

*H1 - 0 to 9 inches:* loam
*H2 - 9 to 60 inches:* sandy clay loam

#### Properties and qualities

*Slope:* 0 to 4 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 to 12 inches
*Frequency of flooding:* FrequentNone
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* High (about 9.7 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 6w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

## 9—Myatt fine sandy loam

### Map Unit Setting

*National map unit symbol:* 405g
*Elevation:* 0 to 100 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Prime farmland if drained

### Map Unit Composition

*Myatt and similar soils:* 90 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Myatt

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 15 inches:* fine sandy loam
*H2 - 15 to 51 inches:* sandy clay loam
*H3 - 51 to 60 inches:* sandy clay loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 1.98 in/hr)
*Depth to water table:* About 0 to 12 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* High (about 9.5 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

## 10—Nawney loam

### Map Unit Setting

*National map unit symbol:* 404j
*Elevation:* 0 to 80 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Nawney and similar soils:* 90 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Nawney

#### Setting

*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loamy fluviomarine deposits

#### Typical profile

*H1 - 0 to 10 inches:* loam
*H2 - 10 to 44 inches:* loam
*H3 - 44 to 60 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Very poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 to 6 inches
*Frequency of flooding:* Frequent
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* High (about 9.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

## 17B3—Slagle sandy loam, 2 to 6 percent slopes, severely eroded

### Map Unit Setting

*National map unit symbol:* 404t
*Elevation:* 50 to 350 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Slagle and similar soils:* 85 percent
*Minor components:* 9 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Slagle

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 4 inches:* sandy loam
*H2 - 4 to 25 inches:* sandy clay loam
*H3 - 25 to 60 inches:* sandy clay loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.57 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 8.7 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

### Minor Components

#### Kinston

*Percent of map unit:* 7 percent
*Landform:* Flood plains

*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Nawney**

*Percent of map unit:* 2 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 18A—Slagle fine sandy loam, 0 to 2 percent slopes

**Map Unit Setting**

*National map unit symbol:* 404v
*Elevation:* 50 to 350 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* All areas are prime farmland

**Map Unit Composition**

*Slagle and similar soils:* 85 percent
*Minor components:* 9 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Slagle**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

**Typical profile**

*H1 - 0 to 13 inches:* fine sandy loam
*H2 - 13 to 25 inches:* sandy clay loam
*H3 - 25 to 60 inches:* sandy clay loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.57 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None

*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 8.5 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2w
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Kinston**

*Percent of map unit:* 7 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Nawney**

*Percent of map unit:* 2 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 18B—Slagle fine sandy loam, 2 to 6 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2sgy1
*Elevation:* 70 to 330 feet
*Mean annual precipitation:* 32 to 51 inches
*Mean annual air temperature:* 47 to 70 degrees F
*Frost-free period:* 158 to 206 days
*Farmland classification:* All areas are prime farmland

**Map Unit Composition**

*Slagle and similar soils:* 83 percent
*Minor components:* 3 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Slagle**

**Setting**

*Landform:* Marine terraces
*Landform position (two-dimensional):* Summit, shoulder
*Landform position (three-dimensional):* Riser, tread, rise
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

**Typical profile**

*Ap - 0 to 8 inches:* fine sandy loam
*Bt - 8 to 51 inches:* sandy clay loam
*C - 51 to 70 inches:* sandy loam

**Properties and qualities**

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.57 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 9.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Myatt**

*Percent of map unit:* 3 percent
*Landform:* Depressions
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Dip
*Down-slope shape:* Concave
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 19A—Uchee loamy sand, 0 to 2 percent slopes

**Map Unit Setting**

*National map unit symbol:* 404y
*Elevation:* 50 to 700 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Uchee and similar soils:* 85 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Uchee

### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

### Typical profile

*H1 - 0 to 28 inches:* loamy sand
*H2 - 28 to 52 inches:* sandy clay loam
*H3 - 52 to 60 inches:* sandy loam

### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

## Minor Components

### Kinston

*Percent of map unit:* 7 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

### Nawney

*Percent of map unit:* 3 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 19B—Uchee loamy sand, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 404z
*Elevation:* 50 to 700 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Uchee and similar soils:* 85 percent
*Minor components:* 8 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Uchee

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 28 inches:* loamy sand
*H2 - 28 to 52 inches:* sandy clay loam
*H3 - 52 to 60 inches:* sandy loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.4 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Nawney**

*Percent of map unit:* 5 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Kinston**

*Percent of map unit:* 3 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 19C—Uchee loamy sand, 6 to 10 percent slopes

**Map Unit Setting**

*National map unit symbol:* 4050
*Elevation:* 50 to 700 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Uchee and similar soils:* 85 percent
*Minor components:* 7 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Uchee**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

**Typical profile**

*H1 - 0 to 28 inches:* loamy sand
*H2 - 28 to 52 inches:* sandy clay loam
*H3 - 52 to 60 inches:* sandy loam

**Properties and qualities**

*Slope:* 6 to 10 percent
*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained
*Runoff class:* Medium
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Kinston**

*Percent of map unit:* 4 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Nawney**

*Percent of map unit:* 3 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 20B—Uchee-Peawick complex, 2 to 6 percent slopes

**Map Unit Setting**

*National map unit symbol:* 4052
*Elevation:* 20 to 700 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Uchee and similar soils:* 45 percent
*Peawick and similar soils:* 35 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Uchee

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 28 inches:* loamy sand
*H2 - 28 to 52 inches:* sandy clay loam
*H3 - 52 to 60 inches:* sandy loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.4 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

### Description of Peawick

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 4 inches:* silt loam
*H2 - 4 to 70 inches:* clay loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Medium
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 8.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

**Minor Components**

**Kinston**

*Percent of map unit:* 10 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 20C—Uchee-Peawick complex, 6 to 10 percent slopes

**Map Unit Setting**

*National map unit symbol:* 4053
*Elevation:* 20 to 700 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Uchee and similar soils:* 45 percent
*Peawick and similar soils:* 35 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Uchee**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

**Typical profile**

*H1 - 0 to 28 inches:* loamy sand
*H2 - 28 to 52 inches:* sandy clay loam
*H3 - 52 to 60 inches:* sandy loam

**Properties and qualities**

*Slope:* 6 to 10 percent
*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained
*Runoff class:* Medium
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

## Description of Peawick

### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

### Typical profile

*H1 - 0 to 4 inches:* silt loam
*H2 - 4 to 70 inches:* clay loam

### Properties and qualities

*Slope:* 6 to 10 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* High
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 8.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3e
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

## Minor Components

### Kinston

*Percent of map unit:* 10 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 23—Yemassee fine sandy loam

### Map Unit Setting

*National map unit symbol:* 4056
*Elevation:* 0 to 40 feet
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Prime farmland if drained

### Map Unit Composition

*Yemassee and similar soils:* 85 percent
*Minor components:* 7 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Yemassee

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*H1 - 0 to 10 inches:* fine sandy loam
*H2 - 10 to 52 inches:* sandy clay loam
*H3 - 52 to 60 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Somewhat poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 12 to 18 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 8.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* No

**Minor Components**

**Myatt**

*Percent of map unit:* 7 percent
*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Hydric soil rating:* Yes

## W—Water

**Map Unit Setting**

*National map unit symbol:* 405h
*Mean annual precipitation:* 43 to 53 inches
*Mean annual air temperature:* 66 to 73 degrees F
*Frost-free period:* 165 to 260 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Water:* 100 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

# Southampton County, Virginia

## 4A—Bibb sandy loam, 0 to 2 percent slopes, frequently flooded

### Map Unit Setting

*National map unit symbol:* rnwb
*Elevation:* 0 to 110 feet
*Mean annual precipitation:* 42 to 54 inches
*Frost-free period:* 180 to 208 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Bibb and similar soils:* 95 percent
*Minor components:* 3 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Bibb

#### Setting

*Landform:* Flood plains, drainageways
*Landform position (three-dimensional):* Base slope, tread
*Down-slope shape:* Concave
*Across-slope shape:* Linear
*Parent material:* Sandy and/or loamy alluvium

#### Typical profile

*H1 - 0 to 8 inches:* sandy loam
*H2 - 8 to 50 inches:* sandy loam
*H3 - 50 to 84 inches:* loamy sand

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 to 12 inches
*Frequency of flooding:* NoneFrequent
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.5 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 6w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

### Minor Components

#### Chastain, frequently flooded

*Percent of map unit:* 2 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Riser, tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear

*Hydric soil rating:* Yes

**Myatt**

*Percent of map unit:* 1 percent
*Landform:* Depressions on marine terraces, drainageways on marine terraces
*Landform position (three-dimensional):* Riser, tread, dip
*Down-slope shape:* Concave, linear
*Across-slope shape:* Linear, concave
*Hydric soil rating:* Yes

## W—Water

**Map Unit Setting**

*National map unit symbol:* rnxs
*Mean annual precipitation:* 42 to 54 inches
*Frost-free period:* 180 to 208 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Water:* 100 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Water**

**Setting**

*Landform:* Swamps, lakes, perenial streams

# Surry County, Virginia

## 5B—Burrowsville loamy sand, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 43fs
*Elevation:* 60 to 100 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Burrowsville and similar soils:* 80 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Burrowsville

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine sediments

#### Typical profile

*H1 - 0 to 11 inches:* loamy sand
*H2 - 11 to 32 inches:* fine sandy loam
*H3 - 32 to 59 inches:* fine sandy loam
*H4 - 59 to 70 inches:* sandy loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* 18 to 36 inches to fragipan
*Drainage class:* Moderately well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 3.9 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* B
*Hydric soil rating:* No

## 6B—Caroline silt loam, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 43ft
*Elevation:* 90 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Caroline and similar soils:* 80 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Caroline

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Clayey marine sediments

#### Typical profile

*H1 - 0 to 10 inches:* silt loam
*H2 - 10 to 14 inches:* silt loam
*H3 - 14 to 70 inches:* clay
*H4 - 70 to 80 inches:* clay

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Medium
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.14 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 8.5 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

## 14B—Emporia fine sandy loam, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 43gz
*Elevation:* 60 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Emporia and similar soils:* 80 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Emporia

#### Setting

*Landform:* Marine terraces
*Landform position (two-dimensional):* Summit
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine sediments

#### Typical profile

*H1 - 0 to 6 inches:* fine sandy loam
*H2 - 6 to 14 inches:* loamy fine sand
*H3 - 14 to 18 inches:* fine sandy loam
*H4 - 18 to 41 inches:* sandy clay loam
*H5 - 41 to 54 inches:* sandy clay
*H6 - 54 to 72 inches:* stratified sandy loam to sandy clay loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Medium
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 1.98 in/hr)
*Depth to water table:* About 36 to 54 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.6 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* B
*Hydric soil rating:* No

## 17A—Jedburg loam, 0 to 2 percent slopes

### Map Unit Setting

*National map unit symbol:* 43h4
*Elevation:* 60 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Prime farmland if drained

### Map Unit Composition

*Jedburg and similar soils:* 85 percent
*Minor components:* 6 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Jedburg

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Linear
*Parent material:* Loamy marine sediments

#### Typical profile

*H1 - 0 to 5 inches:* loam
*H2 - 5 to 57 inches:* loam
*H3 - 57 to 72 inches:* sandy clay loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Somewhat poorly drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 6 to 18 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* High (about 10.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* C/D
*Hydric soil rating:* No

### Minor Components

#### Rains

*Percent of map unit:* 6 percent
*Landform:* Marine terraces

*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 20A—Kinston loam, 0 to 2 percent slopes, frequently flooded

### Map Unit Setting

*National map unit symbol:* 43h9
*Elevation:* 0 to 130 feet
*Mean annual precipitation:* 25 to 59 inches
*Mean annual air temperature:* 46 to 70 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Kinston and similar soils:* 75 percent
*Minor components:* 21 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Kinston

#### Setting

*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loamy alluvial sediments

#### Typical profile

*H1 - 0 to 9 inches:* loam
*H2 - 9 to 52 inches:* sandy clay loam
*H3 - 52 to 74 inches:* sand

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 to 12 inches
*Frequency of flooding:* NoneFrequent
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 6w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

### Minor Components

#### Bibb

*Percent of map unit:* 8 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

#### Nawney

*Percent of map unit:* 3 percent
*Landform:* Swamps
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

#### Rains

*Percent of map unit:* 3 percent
*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

#### Bohicket

*Percent of map unit:* 2 percent
*Landform:* Salt marshes
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

#### Levy

*Percent of map unit:* 2 percent
*Landform:* Salt marshes
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

#### Lawnes

*Percent of map unit:* 2 percent
*Landform:* Salt marshes
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

#### Mattan

*Percent of map unit:* 1 percent
*Landform:* Swamps
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 21B—Lakeland sand, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 43hd
*Elevation:* 10 to 70 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Lakeland and similar soils:* 80 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Lakeland

#### Setting

*Landform:* Stream terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Sandy eolian sediments

#### Typical profile

*H1 - 0 to 5 inches:* sand
*H2 - 5 to 74 inches:* sand

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Excessively drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 3.6 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

## 27A—Nawney and Mattan soils, 0 to 1 percent slopes, frequently flooded

### Map Unit Setting

*National map unit symbol:* 43hm
*Elevation:* 0 to 130 feet
*Mean annual precipitation:* 25 to 59 inches
*Mean annual air temperature:* 46 to 70 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Nawney and similar soils:* 50 percent
*Mattan and similar soils:* 40 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Nawney

#### Setting

*Landform:* Swamps
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loamy alluvial sediments

#### Typical profile

*H1 - 0 to 10 inches:* loam
*H2 - 10 to 44 inches:* loam
*H3 - 44 to 70 inches:* loamy sand

#### Properties and qualities

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 to 6 inches
*Frequency of flooding:* Frequent
*Frequency of ponding:* Frequent
*Available water supply, 0 to 60 inches:* High (about 9.8 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

## Description of Mattan

### Setting

*Landform:* Swamps
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Organic and loamy alluvial sediments

### Typical profile

*Oa1 - 0 to 14 inches:* muck
*Oa2 - 14 to 40 inches:* muck
*H3 - 40 to 48 inches:* loamy sand
*H4 - 48 to 60 inches:* sandy clay loam

### Properties and qualities

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Very poorly drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 inches
*Frequency of flooding:* Frequent
*Frequency of ponding:* Frequent
*Maximum salinity:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* High (about 11.9 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

## Minor Components

### Bibb

*Percent of map unit:* 4 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

### Kinston

*Percent of map unit:* 3 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

### Bohicket

*Percent of map unit:* 1 percent
*Landform:* Salt marshes
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear

*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Lawnes**

*Percent of map unit:* 1 percent
*Landform:* Salt marshes
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Levy**

*Percent of map unit:* 1 percent
*Landform:* Salt marshes
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 28B—Nevarc-Remlik complex, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 43hx
*Elevation:* 50 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Nevarc and similar soils:* 36 percent
*Remlik and similar soils:* 34 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Nevarc

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Clayey alluvial and marine sediments

#### Typical profile

*H1 - 0 to 4 inches:* loam
*H2 - 4 to 50 inches:* clay loam
*H3 - 50 to 74 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 2 to 6 percent

*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* High
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

## Description of Remlik

### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy and sandy alluvial and marine sediments

### Typical profile

*H1 - 0 to 22 inches:* loamy fine sand
*H2 - 22 to 39 inches:* fine sandy loam
*H3 - 39 to 74 inches:* sand

### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 5.95 in/hr)
*Depth to water table:* About 48 to 79 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 5.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

## 28C—Nevarc-Remlik complex, 6 to 10 percent slopes

### Map Unit Setting

*National map unit symbol:* 43j0
*Elevation:* 50 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Nevarc and similar soils:* 36 percent
*Remlik and similar soils:* 34 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Nevarc

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Riser
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Clayey alluvial and marine sediments

#### Typical profile

*H1 - 0 to 4 inches:* loam
*H2 - 4 to 50 inches:* clay loam
*H3 - 50 to 74 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 6 to 10 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.1 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3e
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

### Description of Remlik

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Riser
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy and sandy alluvial and marine sediments

#### Typical profile

*H1 - 0 to 22 inches:* loamy fine sand
*H2 - 22 to 39 inches:* fine sandy loam
*H3 - 39 to 74 inches:* sand

#### Properties and qualities

*Slope:* 6 to 10 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 5.95 in/hr)
*Depth to water table:* About 48 to 79 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 5.6 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

## 28D—Nevarc-Remlik complex, 10 to 15 percent slopes

### Map Unit Setting

*National map unit symbol:* 43j1
*Elevation:* 10 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Nevarc and similar soils:* 40 percent
*Remlik and similar soils:* 35 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Nevarc

### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Riser
*Down-slope shape:* Linear
*Across-slope shape:* Convex
*Parent material:* Clayey alluvial and marine sediments

### Typical profile

*H1 - 0 to 4 inches:* loam
*H2 - 4 to 50 inches:* clay loam
*H3 - 50 to 74 inches:* fine sandy loam

### Properties and qualities

*Slope:* 10 to 15 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 7.1 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4e
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

## Description of Remlik

### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Riser
*Down-slope shape:* Linear
*Across-slope shape:* Convex
*Parent material:* Loamy and sandy alluvial and marine sediments

### Typical profile

*H1 - 0 to 22 inches:* loamy fine sand
*H2 - 22 to 39 inches:* fine sandy loam
*H3 - 39 to 74 inches:* sand

### Properties and qualities

*Slope:* 10 to 15 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 5.95 in/hr)
*Depth to water table:* About 48 to 79 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 5.6 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4e
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

## 31A—Rains fine sandy loam, 0 to 2 percent slopes

**Map Unit Setting**

*National map unit symbol:* 43j8
*Elevation:* 70 to 110 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Rains and similar soils:* 85 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Rains**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loamy marine sediments

**Typical profile**

*H1 - 0 to 12 inches:* fine sandy loam
*H2 - 12 to 72 inches:* sandy clay loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
*Depth to water table:* About 0 to 12 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* High (about 9.5 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

## 33A—Slagle fine sandy loam, 0 to 2 percent slopes

### Map Unit Setting

*National map unit symbol:* 43jg
*Elevation:* 60 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Slagle and similar soils:* 80 percent
*Minor components:* 2 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Slagle

#### Setting

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Linear
*Parent material:* Loamy marine sediments

#### Typical profile

*H1 - 0 to 8 inches:* fine sandy loam
*H2 - 8 to 41 inches:* sandy clay loam
*H3 - 41 to 70 inches:* sandy loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.57 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 9.0 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2w
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

### Minor Components

#### Rains

*Percent of map unit:* 2 percent
*Landform:* Marine terraces

*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 33B—Slagle fine sandy loam, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 2sgy1
*Elevation:* 70 to 330 feet
*Mean annual precipitation:* 32 to 51 inches
*Mean annual air temperature:* 47 to 70 degrees F
*Frost-free period:* 158 to 206 days
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Slagle and similar soils:* 83 percent
*Minor components:* 3 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Slagle

#### Setting

*Landform:* Marine terraces
*Landform position (two-dimensional):* Summit, shoulder
*Landform position (three-dimensional):* Riser, tread, rise
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine deposits

#### Typical profile

*Ap - 0 to 8 inches:* fine sandy loam
*Bt - 8 to 51 inches:* sandy clay loam
*C - 51 to 70 inches:* sandy loam

#### Properties and qualities

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.57 in/hr)
*Depth to water table:* About 18 to 36 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 9.0 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2e
*Hydrologic Soil Group:* C

*Hydric soil rating:* No

**Minor Components**

**Myatt**

*Percent of map unit:* 3 percent
*Landform:* Depressions
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Dip
*Down-slope shape:* Concave
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 35B—Uchee loamy fine sand, 2 to 6 percent slopes

**Map Unit Setting**

*National map unit symbol:* 43jp
*Elevation:* 50 to 130 feet
*Mean annual precipitation:* 42 to 52 inches
*Mean annual air temperature:* 57 to 64 degrees F
*Frost-free period:* 180 to 220 days
*Farmland classification:* All areas are prime farmland

**Map Unit Composition**

*Uchee and similar soils:* 85 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Uchee**

**Setting**

*Landform:* Marine terraces
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Loamy marine sediments

**Typical profile**

*H1 - 0 to 34 inches:* loamy fine sand
*H2 - 34 to 72 inches:* sandy clay loam

**Properties and qualities**

*Slope:* 2 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 42 to 60 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

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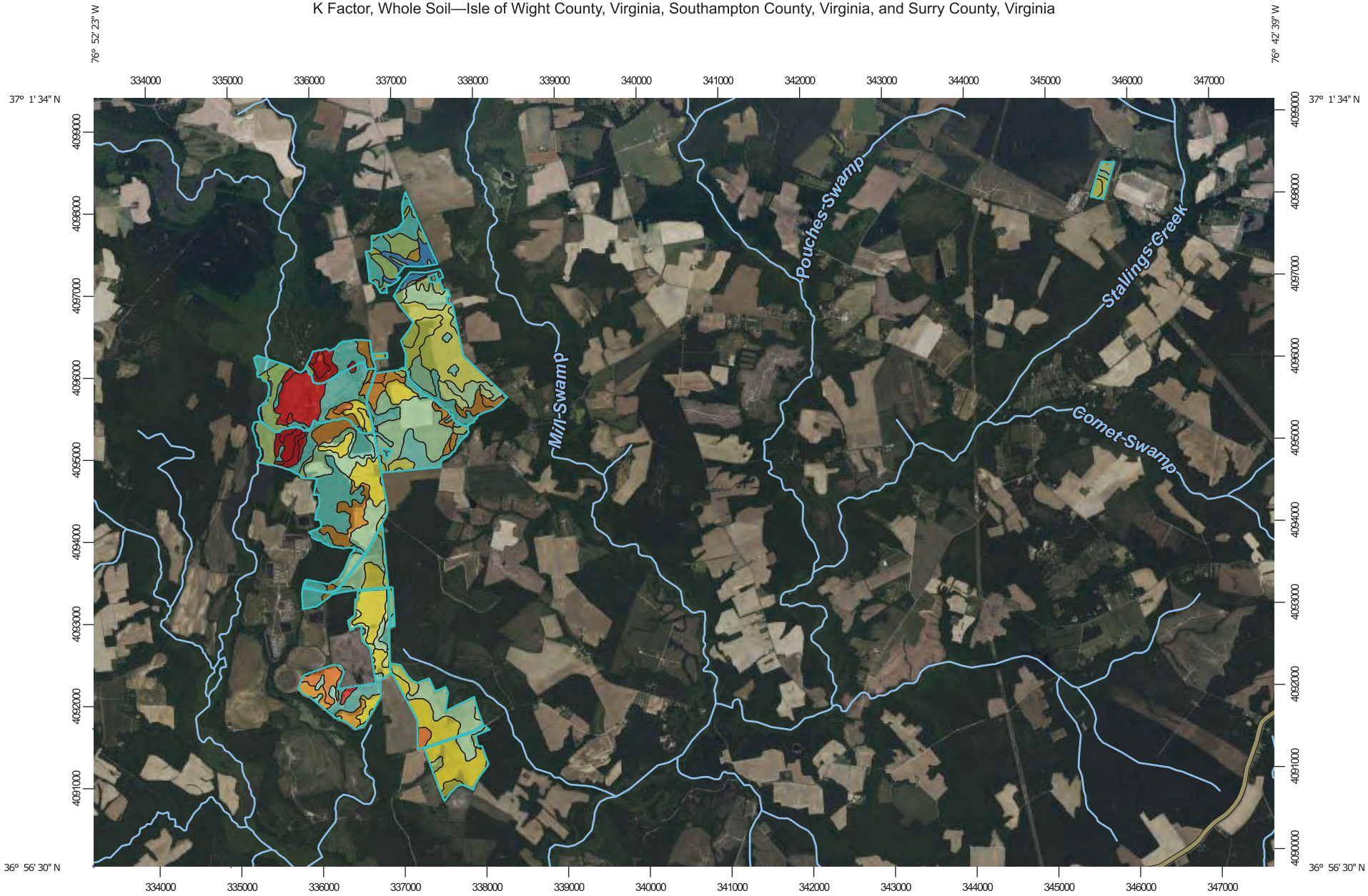



Map Scale: 1:66,000 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 500 1000 2000 3000

Feet
0 3000 6000 12000 18000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

## MAP LEGEND

**Area of Interest (AOI)**

Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

.02
.05
.10
.15
.17
.20
.24
.28
.32
.37
.43
.49
.55
.64
Not rated or not available

**Soil Rating Lines**

.02
.05
.10
.15
.17
.20
.24
.28
.32
.37
.43
.49
.55
.64
Not rated or not available

**Soil Rating Points**

.02
.05
.10
.15
.17
.20
.24
.28
.32
.37
.43
.49
.55
.64
Not rated or not available

**Water Features**

Streams and Canals

**Transportation**

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

**Background**

Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:15,800 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Isle of Wight County, Virginia
Survey Area Data: Version 18, Aug 29, 2022

Soil Survey Area: Southampton County, Virginia
Survey Area Data: Version 21, Aug 22, 2022

Soil Survey Area: Surry County, Virginia
Survey Area Data: Version 19, Aug 22, 2022

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 18, 2022—Jul 13, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# K Factor, Whole Soil

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 1 | Alaga fine sand | .02 | 29.3 | 1.6% |
| 4 | Chipley sand | .02 | 116.0 | 6.2% |
| 5A | Emporia fine sandy loam, 0 to 2 percent slopes | .17 | 274.8 | 14.6% |
| 5B | Emporia fine sandy loam, 2 to 6 percent slopes | .17 | 21.0 | 1.1% |
| 6 | Kenansville loamy sand | .05 | 41.6 | 2.2% |
| 7 | Kinston loam | .32 | 367.5 | 19.5% |
| 9 | Myatt fine sandy loam | .20 | 38.4 | 2.0% |
| 10 | Nawney loam | .24 | 55.9 | 3.0% |
| 17B3 | Slagle sandy loam, 2 to 6 percent slopes, severely eroded | .24 | 3.7 | 0.2% |
| 18A | Slagle fine sandy loam, 0 to 2 percent slopes | .28 | 401.3 | 21.3% |
| 18B | Slagle fine sandy loam, 2 to 6 percent slopes | .24 | 58.5 | 3.1% |
| 19A | Uchee loamy sand, 0 to 2 percent slopes | .10 | 61.1 | 3.2% |
| 19B | Uchee loamy sand, 2 to 6 percent slopes | .10 | 40.0 | 2.1% |
| 19C | Uchee loamy sand, 6 to 10 percent slopes | .10 | 2.1 | 0.1% |
| 20B | Uchee-Peawick complex, 2 to 6 percent slopes | .10 | 57.2 | 3.0% |
| 20C | Uchee-Peawick complex, 6 to 10 percent slopes | .10 | 9.3 | 0.5% |
| 23 | Yemassee fine sandy loam | .20 | 155.4 | 8.3% |
| W | Water | | 4.1 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **1,737.1** | **92.3%** |
| **Totals for Area of Interest** | | | **1,881.1** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 4A | Bibb sandy loam, 0 to 2 percent slopes, frequently flooded | .20 | 3.9 | 0.2% |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| W | Water | | 3.4 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **7.3** | **0.4%** |
| **Totals for Area of Interest** | | | **1,881.1** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 5B | Burrowsville loamy sand, 2 to 6 percent slopes | .10 | 0.1 | 0.0% |
| 6B | Caroline silt loam, 2 to 6 percent slopes | .43 | 0.0 | 0.0% |
| 14B | Emporia fine sandy loam, 2 to 6 percent slopes | .24 | 0.5 | 0.0% |
| 17A | Jedburg loam, 0 to 2 percent slopes | .32 | 40.2 | 2.1% |
| 20A | Kinston loam, 0 to 2 percent slopes, frequently flooded | .28 | 6.9 | 0.4% |
| 21B | Lakeland sand, 2 to 6 percent slopes | .02 | 1.7 | 0.1% |
| 27A | Nawney and Mattan soils, 0 to 1 percent slopes, frequently flooded | .32 | 9.4 | 0.5% |
| 28B | Nevarc-Remlik complex, 2 to 6 percent slopes | .43 | 0.2 | 0.0% |
| 28C | Nevarc-Remlik complex, 6 to 10 percent slopes | .43 | 23.9 | 1.3% |
| 28D | Nevarc-Remlik complex, 10 to 15 percent slopes | .43 | 5.7 | 0.3% |
| 31A | Rains fine sandy loam, 0 to 2 percent slopes | .17 | 5.3 | 0.3% |
| 33A | Slagle fine sandy loam, 0 to 2 percent slopes | .24 | 1.1 | 0.1% |
| 33B | Slagle fine sandy loam, 2 to 6 percent slopes | .24 | 37.3 | 2.0% |
| 35B | Uchee loamy fine sand, 2 to 6 percent slopes | .15 | 4.2 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **136.5** | **7.3%** |
| **Totals for Area of Interest** | | | **1,881.1** | **100.0%** |

## Description

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

"Erosion factor Kw (whole soil)" indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Factor K does not apply to organic horizons and is not reported for those layers.

## Rating Options

*Aggregation Method:* Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

*Component Percent Cutoff: None Specified*

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

*Tie-break Rule:* Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

*Layer Options (Horizon Aggregation Method):* Surface Layer (Not applicable)

For an attribute of a soil horizon, a depth qualification must be specified. In most cases it is probably most appropriate to specify a fixed depth range, either in centimeters or inches. The Bottom Depth must be greater than the Top Depth, and the Top Depth can be greater than zero. The choice of "inches" or "centimeters" only applies to the depth of soil to be evaluated. It has no influence on the units of measure the data are presented in.

When "Surface Layer" is specified as the depth qualifier, only the surface layer or horizon is considered when deriving a value for a component, but keep in mind that the thickness of the surface layer varies from component to component.

When "All Layers" is specified as the depth qualifier, all layers recorded for a component are considered when deriving the value for that component.

Whenever more than one layer or horizon is considered when deriving a value for a component, and the attribute being aggregated is a numeric attribute, a weighted average value is returned, where the weighting factor is the layer or horizon thickness.

# APPENDIX B: USFWS IPAC AND FEDERAL-LISTED SPECIES INFORMAL REVIEW

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694 Fax: (804) 693-9032


In Reply Refer To:
Project Code: 2023-0061833
Project Name: Sycamore Cross

March 29, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

**Migratory Birds**: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Project Code in the header of this

letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds

# OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Virginia Ecological Services Field Office**
6669 Short Lane
Gloucester, VA 23061-4410
(804) 693-6694

# PROJECT SUMMARY

Project Code: 2023-0061833
Project Name: Sycamore Cross
Project Type: Power Gen - Solar
Project Description: Sycamore Cross
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.985725,-76.84112557757788,14z

Counties: Isle of Wight , Southampton , and Surry counties, Virginia

# ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

| NAME | STATUS |
|---|---|
| Northern Long-eared Bat *Myotis septentrionalis*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/9045 | Threatened |

## BIRDS

| NAME | STATUS |
|---|---|
| Red-cockaded Woodpecker *Picoides borealis*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/7614 | Endangered |

## INSECTS

| NAME | STATUS |
|---|---|
| Monarch Butterfly *Danaus plexippus*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/9743 | Candidate |

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

# USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

# MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|---|---|
| Bald Eagle *Haliaeetus leucocephalus*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Sep 1 to Jul 31 |
| Brown-headed Nuthatch *Sitta pusilla*<br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds Mar 1 to Jul 15 |
| Chimney Swift *Chaetura pelagica*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Mar 15 to Aug 25 |

| NAME | BREEDING SEASON |
|---|---|
| Eastern Whip-poor-will *Antrostomus vociferus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 1 to Aug 20 |
| Prairie Warbler *Dendroica discolor*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 1 to Jul 31 |
| Prothonotary Warbler *Protonotaria citrea*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Apr 1 to Jul 31 |
| Red-headed Woodpecker *Melanerpes erythrocephalus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 10 to Sep 10 |
| Wood Thrush *Hylocichla mustelina*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 10 to Aug 31 |

# PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

**Probability of Presence (■)**

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12

(0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

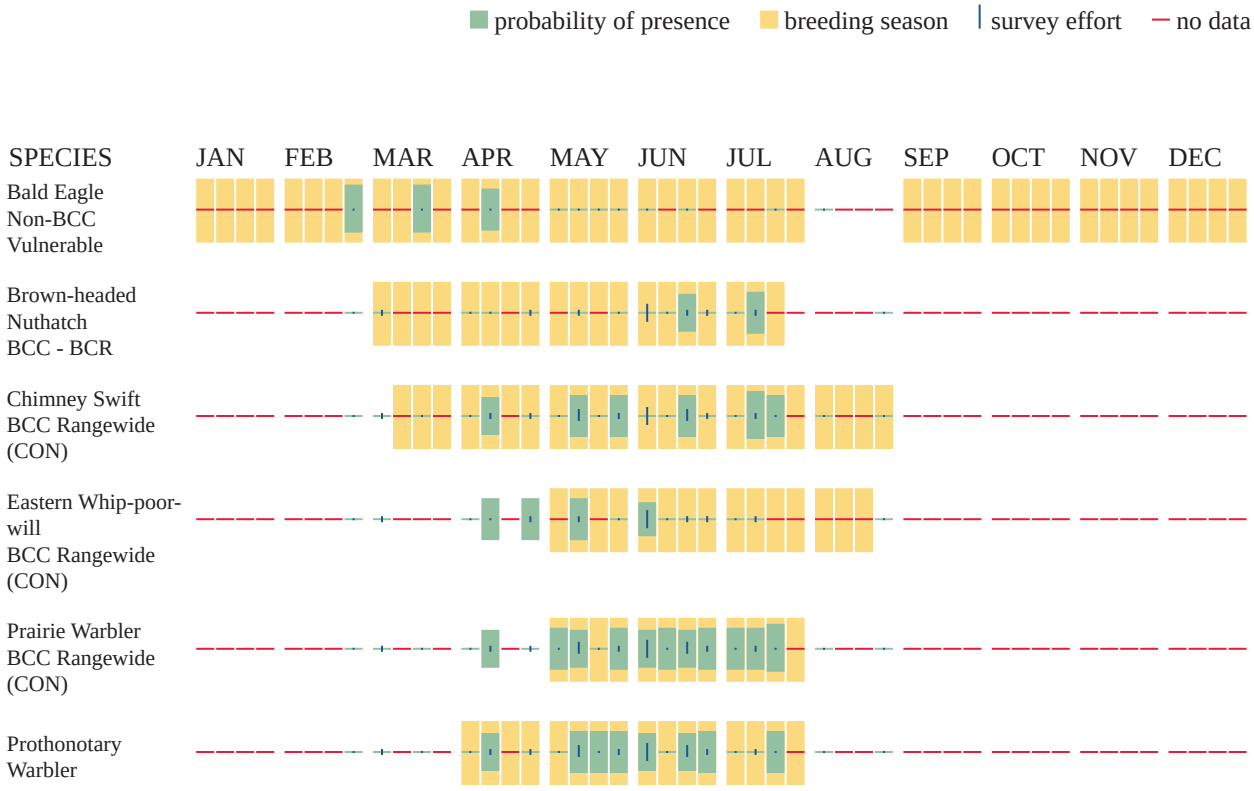
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

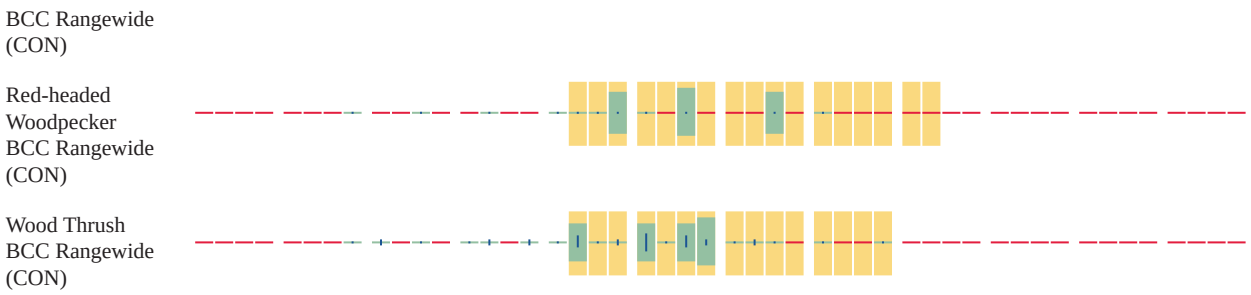
**Breeding Season** (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

**Survey Effort** (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

**No Data** (–)
A week is marked as having no data if there were no survey events for that week.

**Survey Timeframe**
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.






Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

## MIGRATORY BIRDS FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list

of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering or migrating in my area?**
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

**What are the levels of concern for migratory birds?**
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

**Details about birds that are potentially affected by offshore projects**
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical

Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

**What if I have eagles on my list?**
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

**Proper Interpretation and Use of Your Migratory Bird Report**
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

# IPAC USER CONTACT INFORMATION


| | |
|---|---|
| Agency: | Tetra Tech |
| Name: | Justin Ahn |
| Address: | 4101 Cox Road |
| Address Line 2: | Suite 120 |
| City: | Glen Allen |
| State: | VA |
| Zip: | 23060 |
| Email | justin.ahn@tetratech.com |
| Phone: | 6105730764 |

Area A

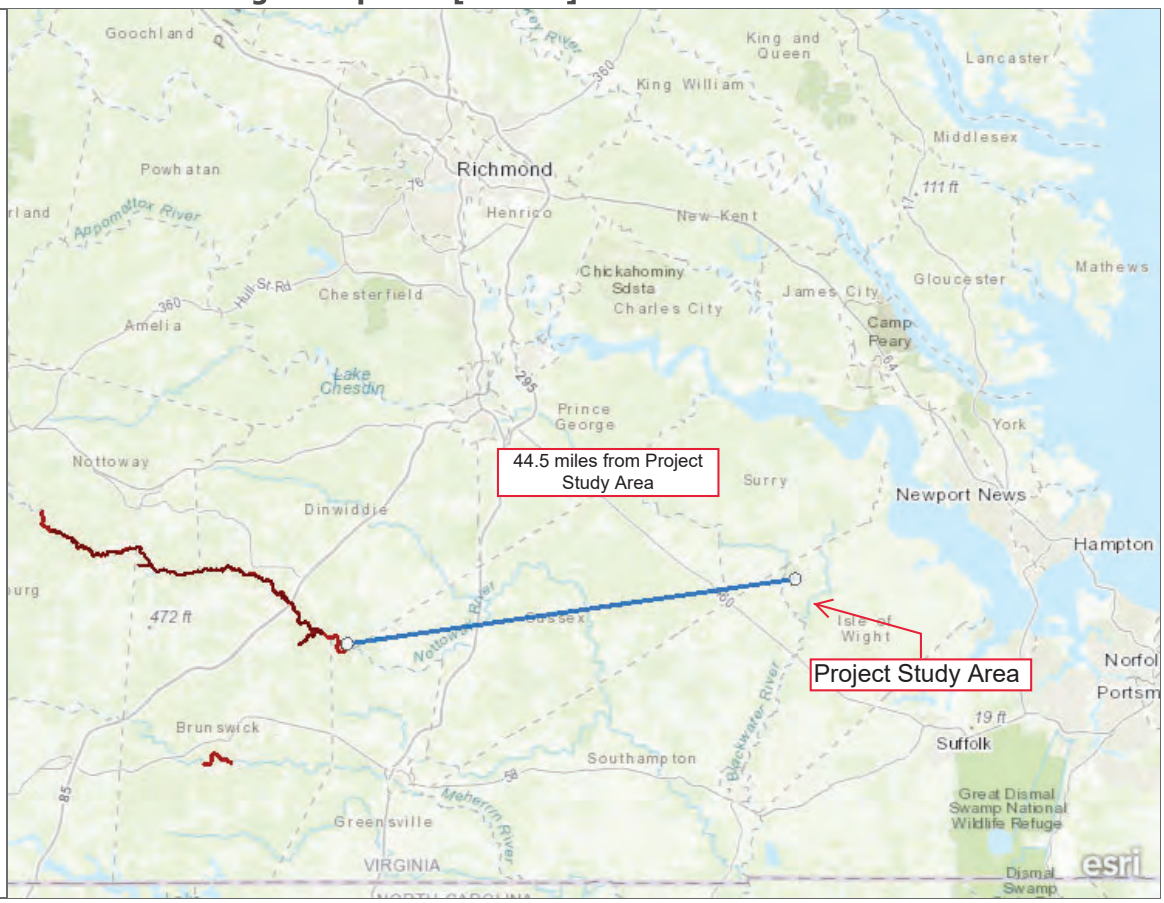
# Critical Habitat for Threatened & Endangered Species [USFWS]

**Final Polygon Features**

**Final Linear Features**

**Proposed Polygon Features**

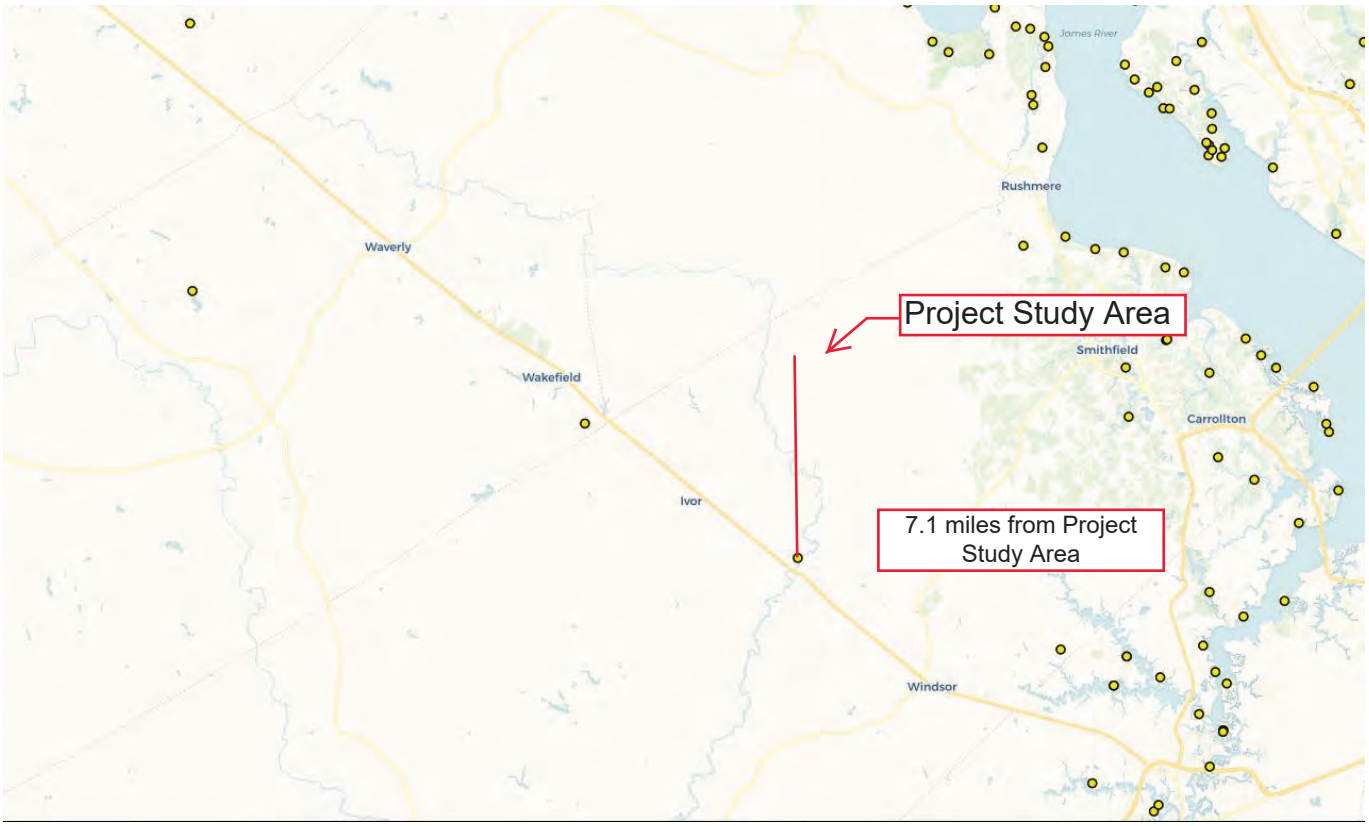
**Proposed Linear Features**




A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

Esri, HERE, Garmin, FAO, USGS, NGA, EPA, NPS

# CCB Mapping Portal




**Layers:** VA Eagle Nest Buffers, VA Eagle Nest Locator

**Map Center [longitude, latitude]:** [-76.83631896972655, 36.933702217046296]

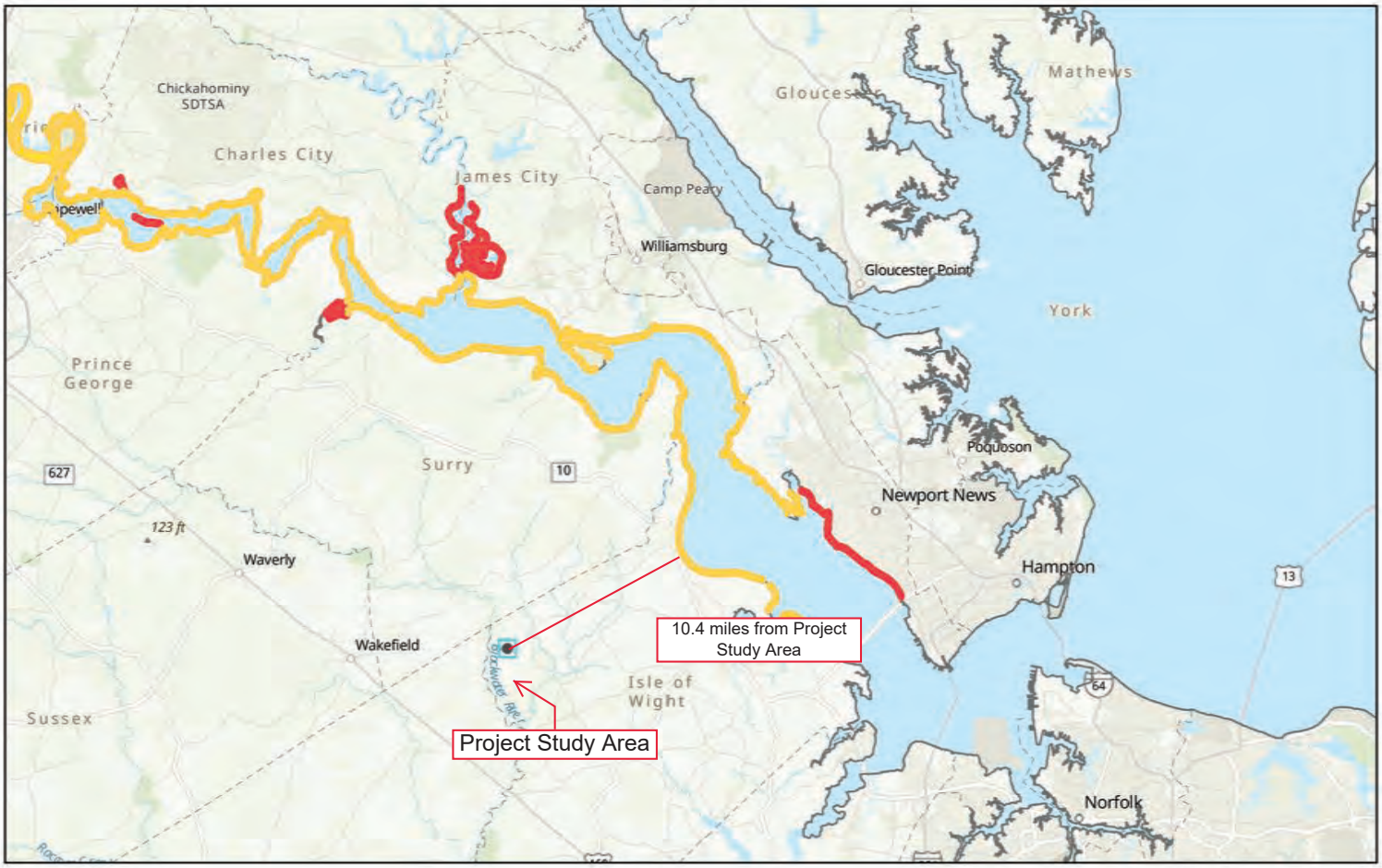
**Map Link:**
https://www.ccbbirds.org/maps/#layer=VA+Eagle+Nest+Buffers&layer=VA+Eagle+Nest+Locator&zoom=11&lat=36.933702217046296&lng=-76.83631896972655&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=Street+Map+%28OSM%2FCarto%29

**Report Generated On:** 03/27/2023

The Center for Conservation Biology (CCB) provides certain data online as a free service to the public and the regulatory sector. CCB encourages the use of its data sets in wildlife conservation and management applications. These data are protected by intellectual property laws. All users are reminded to view the Data Use Agreement to ensure compliance with our data use policies. For additional data access questions, view our Data Distribution Policy, or contact our Data Manager, Marie Pitts, at mlpitts@wm.edu or 757-221-7503.

Area A

# BECA




March 27, 2023

1:577,791

0 4 8 16 mi

0 5 10 20 km

Esri, CGIAR, USGS, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

# APPENDIX C: STATE-LISTED SPECIES INFORMAL REVIEW

**Site Location**

37,00,52.7 -76,49,49.6
is **the Search Point**

**Show Position Rings**
(•) Yes ( ) No
1 mile and 1/4 mile at the **Search Point**

**Show Search Area**
(•) Yes ( ) No
2 Search distance miles buffer

Display at center | **Search Point** is not at map center

**Base Map** Choices
Topography

**Map Overlay** Choices
Current List: Position, Search, BECAR, BAEANests, TEWaters, TierII, Habitat, Trout, Anadromous

**Map Overlay Legend**

T & E Waters
Federal
State

Predicted Habitat WAP Tier I & II
Aquatic
Terrestrial

Trout Waters
Class I - IV
Class V - VI

Anadromous Fish Reach
Confirmed
Potential

Impediment

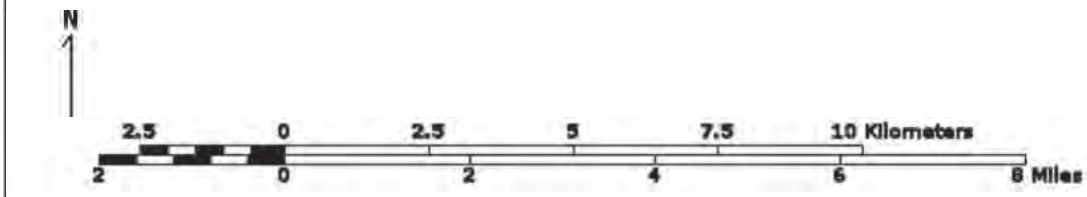
Position Rings 1 mile and 1/4 mile at the Search Point

2 mile radius Search Area

Bald Eagle Concentration Areas and Roosts

Refresh Browser Page

Map Click Pan Id M  Map Scale In Zoom Out  Screen Size Small Size Big  Help




Point of Search 37,00,52.7 -76,49,49.6
Map Location 36,58,55.9 -76,50,04.8

Select **Coordinate System:**
(•) Degrees,Minutes,Seconds Latitude - Longitude
( ) Decimal Degrees Latitude - Longitude
( ) Meters UTM NAD83 East North Zone
( ) Meters UTM NAD27 East North Zone

Base Map source: USGS 1:250,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 327114 and top 4104072. Pixel size is 23. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 19200 meters east to west by 19200 meters north to south for a total of 368.6 square kilometers. The map display represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 square miles.

Topographic maps and Black and white aerial photography for year 1990+-
are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
Shaded topographic maps are from TOPO! ©2006 National Geographic
http://www.national.geographic.com/topo
All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2023-03-29 10:45:27 (qa/qc March 21, 2016 12:20 - tn=1469798.0 dist=3218 I )
$poi=37.0146500 -76.8304699

| DGIF | Credits | Disclaimer | Contact vafwis_support@dgif.virginia.gov |Please view our privacy policy |
© 1998-2023 Commonwealth of Virginia Department of Game and Inland Fisheries

## VaFWIS Search Report Compiled on 3/29/2023, 10:45:04 AM

Known or likely to occur within a **2 mile buffer around polygon; center 37.0146500 -76.8304699** in **093 Isle of Wight County, 175 Southampton County, 181 Surry County, VA**

View Map of Site Location

593 Known or Likely Species ordered by Status Concern for Conservation
(displaying first 39) (39 species with Status* or Tier I** or Tier II** )

| BOVA Code | Status* | Tier** | Common Name | Scientific Name | Confirmed | Database(s) |
|---|---|---|---|---|---|---|
| 040228 | FESE | Ia | Woodpecker, red-cockaded | Picoides borealis | | BOVA |
| 010032 | FESE | Ib | Sturgeon, Atlantic | Acipenser oxyrinchus | | BOVA |
| 010214 | FESE | IIa | Logperch, Roanoke | Percina rex | | BOVA |
| 030071 | FTST | Ia | Turtle, loggerhead sea | Caretta caretta | | BOVA |
| 040144 | FTST | Ia | Knot, red | Calidris canutus rufa | | BOVA,HU6 |
| 040110 | FTSE | Ia | Rail, eastern black | Laterallus jamaicensis jamaicensis | | BOVA |
| 050022 | FTST | Ia | Bat, northern long-eared | Myotis septentrionalis | | BOVA |
| 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | Yes | BOVA,TEWaters,SppObs,HU6 |
| 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Potential | BOVA,Habitat,HU6 |
| 030064 | SE | Ia | Turtle, eastern chicken | Deirochelys reticularia reticularia | | BOVA |
| 050020 | SE | Ia | Bat, little brown | Myotis lucifugus | | BOVA |
| 050034 | SE | Ia | Bat, Rafinesque's eastern big-eared | Corynorhinus rafinesquii macrotis | Yes | BOVA,SppObs,HU6 |
| 050027 | FPSE | Ia | Bat, tri-colored | Perimyotis subflavus | Yes | BOVA,SppObs,HU6 |
| 020052 | SE | IIa | Salamander, eastern tiger | Ambystoma tigrinum | | BOVA |
| 030013 | SE | IIa | Rattlesnake, canebrake | Crotalus horridus | Potential | Habitat,HU6 |
| 040096 | ST | Ia | Falcon, peregrine | Falco peregrinus | | BOVA |
| 040293 | ST | Ia | Shrike, loggerhead | Lanius ludovicianus | | BOVA |
| 040385 | ST | Ia | Sparrow, Bachman's | Peucaea aestivalis | | BOVA,HU6 |
| 020044 | ST | IIa | Salamander, Mabee's | Ambystoma mabeei | Potential | BOVA,Habitat,HU6 |
| 040292 | ST | | Shrike, migrant loggerhead | Lanius ludovicianus migrans | | BOVA |
| 100079 | FC | IIIa | Butterfly, monarch | Danaus plexippus | | BOVA |
| 030067 | CC | IIa | Terrapin, northern diamond-backed | Malaclemys terrapin terrapin | Potential | BOVA,Habitat |
| 030063 | CC | IIIa | Turtle, spotted | Clemmys guttata | Yes | BOVA,SppObs,HU6 |
| 030031 | CC | IIIc | Kingsnake, scarlet | Lampropeltis elapsoides | | BOVA |
| 010174 | | Ia | Bass, Roanoke | Ambloplites cavifrons | | BOVA |
| 010077 | | Ia | Shiner, bridle | Notropis bifrenatus | | BOVA |
| 070131 | | Ic | Isopod, Phreatic | Caecidotea phreatica | | BOVA |
| 020063 | | IIa | Toad, oak | Anaxyrus quercicus | Yes | BOVA,Habitat,SppObs,HU6 |
| 020002 | | IIa | Treefrog, barking | Hyla gratiosa | | BOVA,HU6 |
| 040052 | | IIa | Duck, American black | Anas rubripes | | BOVA,HU6 |
| 040033 | | IIa | Egret, snowy | Egretta thula | | BOVA |

| | | | | | | |
|---|---|---|---|---|---|---|
| 040029 | | IIa | Heron, little blue | Egretta caerulea caerulea | | BOVA |
| 040036 | | IIa | Night-heron, yellow-crowned | Nyctanassa violacea violacea | | BOVA |
| 040181 | | IIa | Tern, common | Sterna hirundo | | BOVA,HU6 |
| 040320 | | IIa | Warbler, cerulean | Setophaga cerulea | | BOVA,HU6 |
| 040140 | | IIa | Woodcock, American | Scolopax minor | | BOVA,HU6 |
| 060071 | | IIa | Lampmussel, yellow | Lampsilis cariosa | | BOVA |
| 040105 | | IIb | Rail, king | Rallus elegans | | BOVA |
| 040304 | | IIc | Warbler, Swainson's | Limnothlypis swainsonii | | BOVA,HU6 |

To view **All 593 species** View 593

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier
Virginia Widlife Action Plan Conservation Opportunity Ranking:
a - On the ground management strategies/actions exist and can be feasibly implemented.; b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.; c - No on the grou

View Map of All Query Results from All Observation Tables

Bat Colonies or Hibernacula: **Not Known**

**Anadromous Fish Use Streams**

N/A

**Impediments to Fish Passage**

N/A

**Colonial Water Bird Survey** ( 3 records )

View Map of All Query Results Colonial Water Bird Survey

| Colony_Name | N Obs | Latest Date | N Species | | | View Map |
|---|---|---|---|---|---|---|
| | | | Different Species | Highest TE* | Highest Tier** | |
| Sycamore Crossroads | 1 | Jun 2 2003 | 1 | | | Yes |
| Blackwater River at Surry | 1 | Jun 1 1993 | 1 | | | Yes |
| Rattlesnake Swamp | 1 | Jun 1 1993 | 1 | | | Yes |

Displayed 3 Colonial Water Bird Survey

**Threatened and Endangered Waters** ( 13 Reaches )

View Map of All Threatened and Endangered Waters

| Stream Name | T&E Waters Species | | | | | | | View Map |
|---|---|---|---|---|---|---|---|---|
| | Highest TE* | BOVA Code, Status*, Tier**, Common & Scientific Name | | | | | | |
| Terrapin Swamp (0283664 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0285385 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0287738 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0289129 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0289623 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0290117 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0291410 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0291935 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0293016 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0294529 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0298333 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0302220 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |
| Terrapin Swamp (0302289 ) | FTST | 060029 | FTST | IIa | Lance, yellow | Elliptio lanceolata | | Yes |

**Managed Trout Streams**

N/A

**Bald Eagle Concentration Areas and Roosts**

N/A

**Bald Eagle Nests**

N/A

**Species Observations** ( 56 records - displaying first 20 , 6 Observations with Threatened or Endangered species ) View Map of All Query Results Species Observations

| obsID | class | Date Observed | Observer | N Species | |
|---|---|---|---|---|---|
| | | | | Different Species | Highest TE |
| 55516 | SppObs | May 7 1998 | BEATY, AND ZEYTOONIAN, VIRGINIA COOPERATIVE FISH AND WILDLIFE RESEARCH UNIT. | 3 | FTST |
| 55237 | SppObs | May 7 1998 | BRAVEN B. BEATY AND RICHARD J. NEVES, DEPARTMENT OF FISHERIES AND WILDLIFE AT VA TECH | 3 | FTST |
| 635308 | SppObs | Aug 18 2021 | Shane Brodnick | 1 | SE |
| 58094 | SppObs | Aug 7 1997 | Steven M. Roble, Ph. D. , Staff Zoologist | 1 | SE |
| 53381 | SppObs | Aug 8 1996 | Steven M. Roble, Ph. D. , DCR | 2 | FPSE |
| 9410 | SppObs | Apr 5 1988 | Mitchell D. Norman, VDGIF | 3 | CC |
| 614290 | SppObs | Jun 26 2007 | John; Kleopfer\| Robert ; Clontz | 1 | |
| 375284 | Aquatics | Oct 12 2007 | B. T. Watson, M. E. Bradley | 7 | |
| 426929 | SppObs | May 17 2005 | VCU - INSTAR | 14 | |
| 62424 | SppObs | Aug 11 1999 | Ryan Smith, DGIF | 12 | |
| 11331 | SppObs | Sep 6 1985 | NORMAN | 19 | |
| 426934 | SppObs | Sep 6 1985 | VCU - INSTAR | 19 | |
| 426951 | SppObs | Sep 6 1984 | VCU - INSTAR | 10 | |
| 10425 | SppObs | Sep 6 1984 | Norman | 10 | |
| 10433 | SppObs | Aug 29 1984 | Norman | 23 | |
| 338036 | SppObs | Jan 1 1984 | MDN-B-NORMAN | 23 | |
| 338051 | SppObs | Jan 1 1984 | MDN-B-NORMAN | 10 | |
| 15411 | SppObs | May 5 1962 | R D ROSS | 4 | |
| 332815 | SppObs | Jan 1 1962 | VPI-B-VA. POLY. INST. | 4 | |
| 426942 | SppObs | May 12 2005 | VCU - INSTAR | 5 | |

Displayed 20 Species Observations

**Selected 56 Observations** View all 56 Species Observations

**Habitat Predicted for Aquatic WAP Tier I & II Species** ( 5 Reaches ) View Map Combined Reaches from Below of Habitat Predicted for WAP Tier I & II Aquatic Species

| Stream Name | Tier Species | | | | | | View Map |
|---|---|---|---|---|---|---|---|
| | Highest TE* | BOVA Code, Status*, Tier**, Common & Scientific Name | | | | | |
| Hickaneck Swamp (03010202) | SE | 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Yes |
| Mill Swamp (03010202) | SE | 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Yes |
| Rattlesnake Swamp (03010202) | SE | 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Yes |
| Terrapin Swamp (03010202) | SE | 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Yes |
| tributary (03010202) | SE | 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Yes |
| tributary (03010202) | SE | 010347 | SE | Ia | Sunfish, blackbanded | Enneacanthus chaetodon | Yes |

**Habitat Predicted for Terrestrial WAP Tier I & II Species** ( 4 Species ) View Map of Combined Terrestrial Habitat Predicted for 4 WAP Tier I & II Species Listed Below

ordered by Status Concern for Conservation

| BOVA Code | Status* | Tier** | Common Name | Scientific Name | View Map |
|---|---|---|---|---|---|
| 030013 | SE | IIa | Rattlesnake, canebrake | Crotalus horridus | Yes |
| 020044 | ST | IIa | Salamander, Mabee's | Ambystoma mabeei | Yes |
| 030067 | CC | IIa | Terrapin, northern diamond-backed | Malaclemys terrapin terrapin | Yes |
| 020063 | | IIa | Toad, oak | Anaxyrus quercicus | Yes |

**Virginia Breeding Bird Atlas Blocks** ( 2 records )

View Map of All Query Results
Virginia Breeding Bird Atlas Blocks

| BBA ID | Atlas Quadrangle Block Name | Breeding Bird Atlas Species | | | View Map |
|---|---|---|---|---|---|
| | | Different Species | Highest TE* | Highest Tier** | |
| 55056 | Dendron, SE | 43 | | III | Yes |
| 56056 | Runnymede, SE | 65 | | III | Yes |

**Public Holdings:**

N/A

**Summary of BOVA Species Associated with Cities and Counties of the Commonwealth of Virginia:**

| FIPS Code | City and County Name | Different Species | Highest TE | Highest Tier |
|---|---|---|---|---|
| 093 | Isle of Wight | 421 | FESE | I |
| 175 | Southampton | 402 | FESE | I |
| 181 | Surry | 445 | FESE | I |

**USGS 7.5' Quadrangles:**
Ivor
Dendron
Raynor
Runnymede

**USGS NRCS Watersheds in Virginia:**

N/A

**USGS National 6th Order Watersheds Summary of Wildlife Action Plan Tier I, II, III, and IV Species:**

| HU6 Code | USGS 6th Order Hydrologic Unit | Different Species | Highest TE | Highest Tier |
|---|---|---|---|---|
| CU59 | Blackwater River-Terrapin Swamp | 99 | FTSE | I |
| CU60 | Mill Swamp-Moores Swamp | 89 | FTSE | I |
| CU61 | Rattlesnake Swamp | 88 | FTSE | I |
| CU62 | Blackwater River-Antioch Swamp | 92 | FTSE | I |

Compiled on 3/29/2023, 10:45:05 AM I1469798.0 report=all searchType= P dist= 3218 poi= 37.0146500 -76.8304699 siteDD= 37.0146550 -76.8304718;37.0066990 -76.8254288;37.0001450 -76.8230508;36.9967600 -76.8213098;36.9930180 -76.8166158;36.9852540 -76.8256298;36.9847270 -76.8336928;36.9804500 -76.8326788;36.9788090 -76.8335 -76.8324618;36.9563430 -76.8367528;36.9612070 -76.8454438;36.9632160 -76.8392578;36.9610180 -76.8391648;36.9615850 -76.8345228;36.9685120 -76.8383148;36.9712350 -76.8373848;36.9696540 -76.8447548;36.9730630 -76.8446968;36.9763590 -76.8378158;36.9781580 -76.8437688;36.9839170 -76.8427458;36.9859910 -76.8507688;36.9910220 -76.8303698;37.0146550 -76.8304718;.

PixelSize=64; Anadromous=0.024391; BBA=0.050274; BECAR=0.021702; Bats=0.021087; Buffer=0.183266; County=0.083571; HU6=0.123373; Impediments=0.022716; Init=0.229008; PublicLands=0.031386; Quad=0.06463; SppObs=0.369493; TEWaters=0.045345; TierReaches=0.081872; TierTerrestrial=0.168646; Total=1.671032; Tracking_BOVA=0.234283

| 3/29/2023, 10:45:05 AM | DGIF | Credits | Disclaimer | Please view our privacy policy |
© 1998-2023 Commonwealth of Virginia Department of Game and Inland Fisheries
I 1469798

If you have difficulty reading or accessing documents, please Contact Us for assistance.

# Natural Heritage Resources

**Your Criteria**

Taxonomic Group: Select All

Global Conservation Status Rank: Select All

State Conservation Status Rank: Select All

Federal Legal Status: Select All

State Legal Status: Select All

County: Isle of Wight,Surry

Physiographic Province: Select All

Watershed (8 digit HUC): 03010202 - Blackwater River

Subwatershed (12 digit HUC): CU59 - Blackwater River-Terrapin Swamp,CU60 - Mill Swamp-Moores Swamp,CU61 - Rattlesnake Swamp

Planning District: Select All

Virginia Coastal Zone: Select All

Search Run: 3/27/2023 15:27:24 PM

**Result Summary**

Total Species returned: 3

Total Communities returned: 0

Click scientific names below to go to NatureServe report.

Click column headings for an explanation of species and community ranks.

| Common Name/Natural Community | Scientific Name | Scientific Name Linked | Global Conservation Status Rank | State Conservation Status Rank | Federal Legal Status | State Legal Status | Statewide Occurrences | Virginia Coastal Zone |
|---|---|---|---|---|---|---|---|---|
| **Isle of Wight** | | | | | | | | |
| Southern Coastal Plain Blackwater Blackwater River-Terrapin Swamp | | | | | | | | |

| Common Name/Natural Community | Scientific Name | Scientific Name Linked | Global Conservation Status Rank | State Conservation Status Rank | Federal Legal Status | State Legal Status | Statewide Occurrences | Virginia Coastal Zone |
|---|---|---|---|---|---|---|---|---|
| Hampton Roads | | | | | | | | |
| MAMMALS | | | | | | | | |
| Eastern Big-eared Bat | Corynorhinus rafinesquii macrotis | Corynorhinus rafinesquii macrotis | G3G4T3 | S2 | None | LE | 44 | Y |
| Rattlesnake Swamp | | | | | | | | |
| Hampton Roads | | | | | | | | |
| MAMMALS | | | | | | | | |
| Eastern Big-eared Bat | Corynorhinus rafinesquii macrotis | Corynorhinus rafinesquii macrotis | G3G4T3 | S2 | None | LE | 44 | Y |

## Surry

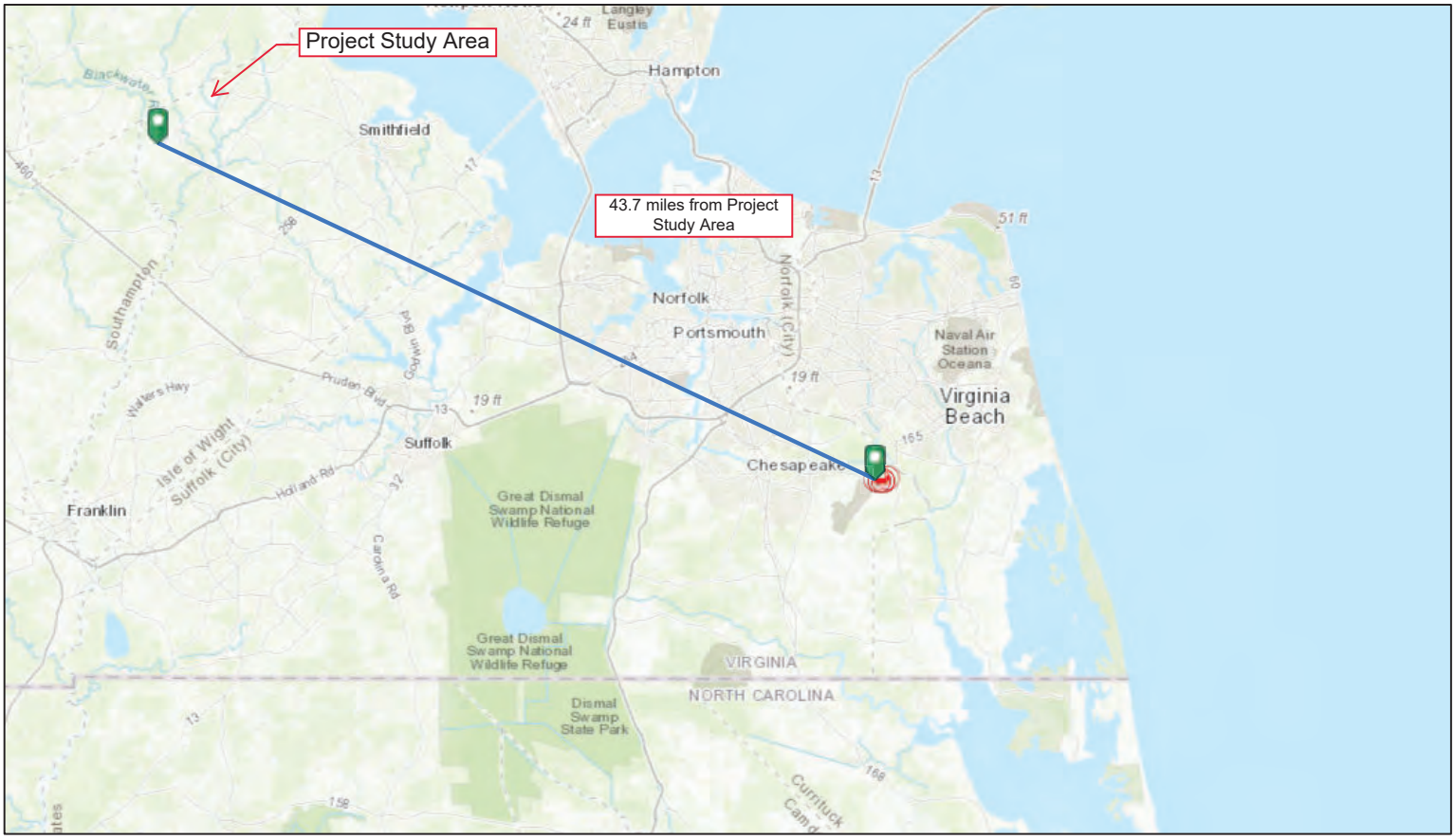
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Southern Coastal Plain | | | | | | | | |
| Blackwater | | | | | | | | |
| Rattlesnake Swamp | | | | | | | | |
| Crater | | | | | | | | |
| MAMMALS | | | | | | | | |
| Eastern Big-eared Bat | Corynorhinus rafinesquii macrotis | Corynorhinus rafinesquii macrotis | G3G4T3 | S2 | None | LE | 44 | Y |

**Note: On-line queries provide basic information from DCR's databases at the time of the request. They are NOT to be substituted for a project review or for on-site surveys required for environmental assessments of specific project areas.**

**For Additional Information** on locations of Natural Heritage Resources please submit an information request.

**To Contribute information** on locations of natural heritage resources, please fill out and submit a rare species sighting form.

# NLEB Locations and Roost Trees




3/27/2023, 2:38:01 PM

NLEB Known Occupied Maternity Roost (Summer Habitat)

1:577,791

0 4 8 16 mi

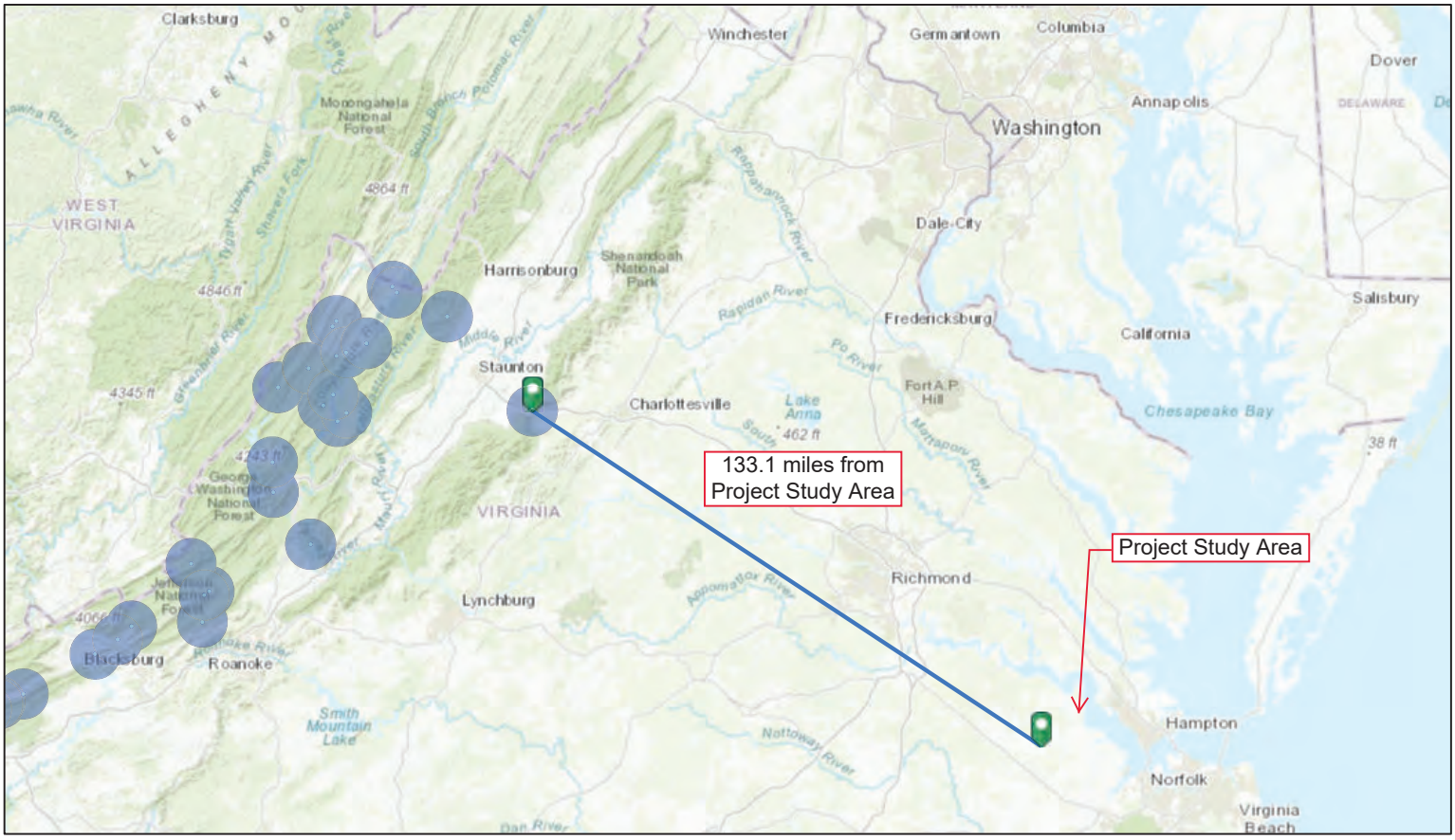
0 5 10 20 km

Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

VA Dept. Game & Inland Fisheries

Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS |

# MYLU PESU




3/27/2023, 2:55:31 PM

Tri-colored and Little Brown Hibernaculum Half Mile Buffer

Tri-colored and Little Brown Hibernaculum 5.5 Mile Buffer

1:2,311,162

0 15 30 60 mi

0 20 40 80 km

Esri, HERE, Garmin, FAO, USGS, EPA, NPS

Dept. Game and Inland Fisheries

Esri, HERE, Garmin, FAO, USGS, EPA, NPS |

# Attachment N
# Historical and Cultural Resources Report

**REPORT >**

# Phase IA Cultural Resource Assessment of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**DATE > August 2023**

**LOCATION >** Isle of Wight and Surry Counties, Virginia

**PREPARED FOR >**
AES Clean Energy

**PREPARED BY >**
Dutton + Associates, LLC

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

# PHASE IA CULTURAL RESOURCES ASSESSMENT OF THE ±817.46 Hectare (2,020 Acre) SYCAMORE CROSS SOLAR STUDY AREA

## ISLE OF WIGHT AND SURRY COUNTIES, VIRGINIA

***PREPARED FOR:***
**AES CLEAN ENERGY**
**4200 INNSLAKE DRIVE**
**SUITE 302**
**GLEN ALLEN, VIRGINIA 23060**

***PREPARED BY*:**
**DUTTON + ASSOCIATES, LLC**
**1115 CROWDER DRIVE**
**MIDLOTHIAN, VIRGINIA 23113**
**804.897.1960**

***PRINCIPAL INVESTIGATOR:***
**ROBERT J. TAYLOR, JR., M.A.**

***PROJECT ARCHAEOLOGIST:***
**HOPE SMITH, PH.D.**

**AUGUST 2023**

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# ABSTRACT

*In August 2023 Dutton +Associates, LLC (D+A) completed a Phase IA cultural resource assessment of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar study area in Isle of Wight and Surry counties, Virginia. The assessment was conducted for planning purposes in order to confirm existing conditions of the study area, note surface evidence of cultural activity, and identify recommended survey methods based upon the results of the background research and field reconnaissance. The study area is located near the border of Isle of Wight and Surry counties generally along Sycamore Cross Road, Ramsey Road, Mill Swamp Road, Rattlesnake Trail, and White Hill Trail. The study area consists of multiple parcels and tracts of land that may not correspond precisely with the boundaries chosen for the final development of the project. Rather, the study area represents the maximum extent of the parcels being considered for development.*

*Analysis of historic maps and aerial photographs from the mid-nineteenth to early-twentieth century reveal a well-established network of roads and a number of dwellings scattered across the study area during that period. Previous cultural resource survey has recorded a number of buildings from that period, although many have since been demolished and the study area is now sparsely developed. Just seven (7) building/building complexes remain extant within the study area, although they range from good condition and occupied to ruinous and abandoned. Several additional homes and building complexes are within or bordering the overall study area limits but are in carve-out parcels excluded from development. Buildings/complexes within the study area include two ruinous early-nineteenth century dwellings, three late-nineteenth century dwellings, a vacant early-twentieth century dwelling, and a mid-twentieth century dwelling. Field inspection revealed evidence of two additional map projected buildings that remain only as sites.*

*The study area is bordered by Blackwater River and Mill Swamp and crossed by numerous swamps, drainages, and pocosins. These natural resources would have been attractive to prehistoric hunters and gatherers, but the terrain within the study was not likely to have supported large, permanent settlements. The primary prehistoric resources that are likely to be present are small, temporary procurement camps located above the wetlands, however, no such sites have been previously recorded within the study area limits.*

*Although the study area contains a number of site-predictive factors, such as the natural resources, a historic road network, and mapped buildings, land use throughout the twentieth and twenty-first centuries has negatively impacted the stratigraphic integrity of the soils. Much of the study area has been used to produce timber for an extended period of time and multiple harvests resulting in multiple episodes of clearcutting, planting, and regrowth. Most of the regrowth has been in the form of trees planted in steeply-banked rows interspersed with deep furrows, and in most cases the topsoil and eluviated layers have been destroyed or displaced. Areas not put to use for timber have been used agriculturally and therefore subject to regular plow and tilling.*

*Based on the above observations, the locations of the map-projected buildings that were field verified as well as previously recorded architectural resources should be considered high potential for historic sites. Together, these account for an area covering about* ***34 hectares (85 acres)*** *total. The map-projected locations of buildings that were not visible through surface reconnaissance but reveal evidence of prior disturbance from logging should be considered moderate potential for*

*historic sites. Landforms bordering Blackwater River should likewise be considered moderate potential for prehistoric sites, in addition to open, well-drained fields that have not be previously disturbed by logging. Together, the moderate potential area covers an area of about* ***365 hectares (901 acres)*** *total. A 25% sample of the moderate potential areas should be subjected to targeted subsurface testing. This sample should include the least disturbed landforms that correspond to or share similar characteristics as the locations of buildings depicted on historic maps. The remainder of the study area that does not lie in wetland should be considered low potential for archaeological resources. A sample constituting 10% of the low-potential area should be subjected to subsurface testing. This 10% should include the least-disturbed terraces overlooking wetlands and intersections of streams to test for prehistoric resources; along the edges of roads and field depicted on Civil War-era maps to test for early historic sites; and any other areas that appear to be less disturbed in the field. The total low probability area is about* ***170 hectares (421 acres)****. A large tract of land at the northern end of the study area has been subject to recent, approved phase I survey and that area will not require further investigation as part of this effort The table below details these areas.*

| ***Potential*** | ***Reason*** | ***STP Sample*** | ***Total Area*** | ***STP Area*** |
|---|---|---|---|---|
| ***High*** | *Yard space around extant and map-projected architectural resources* | *100%* | *34 hectares 85 acres* | *34 hectares 85 acres* |
| ***Moderate*** | *Yard space around map-projected architectural resources in areas of documented disturbance. Finger ridges and terraces overlooking Blackwater River and confluences.* | *25%, chosen based on field conditions, pedestrian survey of remainder* | *365 hectares 901 acres* | *91 hectares 225 acres* |
| ***Low*** | *Areas with no site predictors* | *10%, chosen based on field conditions, pedestrian survey of remainder* | *170 hectares 421 acres* | *17 hectares 42 acres* |
| ***No Subsurface Testing*** | *Wetlands, water-saturated soils, slopes greater than 15%, previously surveyed areas* | *Pedestrian survey where possible* | *248 hectares 613 acres* | *Pedestrian survey where possible* |
| ***Total*** | | | ***817.46 hectares 2,020 acres*** | ***142 hectares 352 acres*** |

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# 1. INTRODUCTION

In July 2023 Dutton +Associates, LLC (D+A) completed a Phase IA cultural resource assessment of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar study area in Isle of Wight and Surry counties, Virginia. Fieldwork for the study was conducted January 4th and 5th, and June 28th and 29th, 2023. The D+A effort is intended to provide a comprehensive archival study that will include a complete listing and discussion of previously recorded historic properties located within and in the vicinity of the study area, a historical map review of the study area in order to better understand the development and use of the properties and their role in the larger community, provide a basis for interpreting previously recorded historic properties, define potential locations where historic resources (above and below ground) are present or likely to be present, as well as delineate areas where consideration of archaeological resources is not necessary to assist in the development of a strategy for addressing historic resource issues going forward in the Certificate of Public Convenience and Need (CPCN) process.

Robert J. Taylor, Jr., M.A. served as the Principal Investigator, oversaw all project tasks, and co-authored the report. Hope Smith, Ph.D., served as the Project Archaeologist, coauthored the report, and was assisted in the field by Rebecca Mattson and Courtney Roark. Dara Friedberg, M.S., conducted background research for the project and coauthored the report. Copies of all field notes, maps, correspondence, and research materials are on file at D+A's main office in Midlothian, Virginia.

### STUDY AREA

The study area is located near the border of Isle of Wight and Surry counties generally along Sycamore Cross Road, Ramsey Road, Mill Swamp Road, Rattlesnake Trail, and White Hill Trail (Figure 1-1). The study area consists of multiple parcels and tracts of land that may not correspond precisely with the boundaries chosen for the final development of the project. Rather, the study area represents the maximum extent of the parcels being considered for development, and the final project area may be smaller than the current study area.

As part of the effort, field reconnaissance to document existing conditions was limited to those parcels where access was expressly granted while the rest of the study area was limited to desktop review only (Figure 1-2).

**Figure 1-1: General location of the study area. Source: USGS**

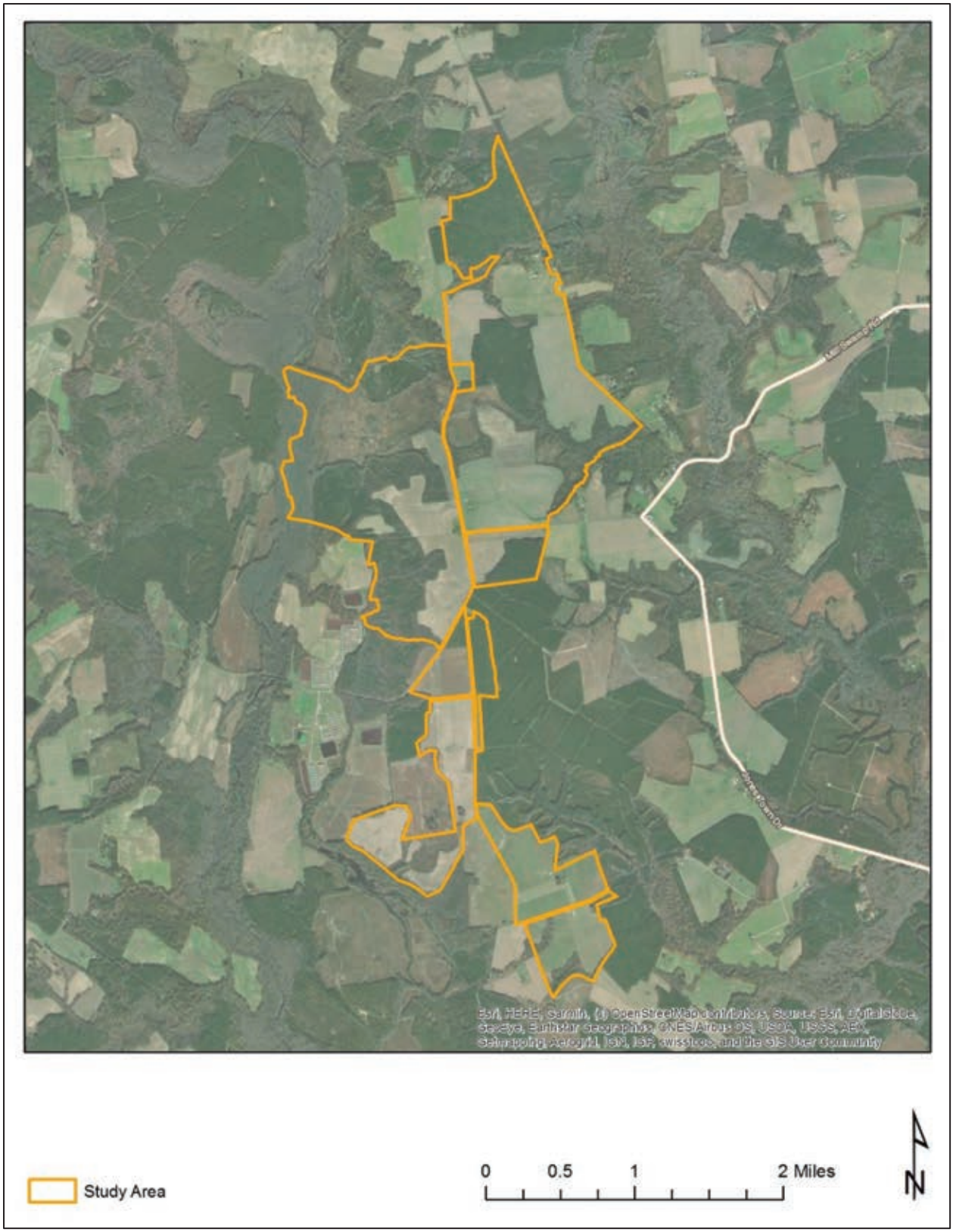


**Figure 1-2: Aerial view of study area depicting parcels subject to full assessment as well as desktop-only.**

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# 2. RESEARCH DESIGN

The Phase IA cultural resource assessment of the Sycamore Cross Solar study area was undertaken to provide a comprehensive archival study of previous cultural resource investigations in the study area, a historical map review to understand the land-use and development of properties within the study area, and define potential locations within the study area where historic resources (above and below ground) are present or likely to be present. Limited field reconnaissance was also conducted to verify existing conditions and note visible evidence of cultural resources, previous disturbance, or other pertinent landscape features. The background research, field reconnaissance, and field survey methodologies are summarized below.

## ARCHIVAL RESEARCH

In January 2023, D+A conducted background research with the goal of identifying all previously recorded historic properties located within and in the vicinity of the study area in accordance with VDHR's guidance document titled *Guidelines for Conducting Cultural Resources Survey in Virginia* (Revised October 2017). Background research was conducted at the VDHR and on the internet and including the following sources:

- VDHR V-CRIS site files; and
- National Park Service, American Battlefield Protection Program, maps and related documentation.

In further preparation for the Phase IA survey, D+A conducted additional review of the following documents and sources for information relative to unrecorded historic property locations in the study area:

- County Tax Assessors records;
- USDA Historic Aerial Imagery;
- U.S. Geological Survey Topographic Maps;
- Previous historic resource survey documents; and
- Local historical society archives.

## ARCHAEOLOGICAL FIELD SURVEY

For those parcels within the study area where field access was granted, a limited pedestrian survey was conducted to document existing conditions and to note surface evidence of cultural activity or material. In addition, a limited number of judgmentally placed shovel tests were excavated in order to assess and document soil conditions throughout the project area. For any newly encountered archaeological resources identified during the reconnaissance, photographs were taken of the general vicinity and of any visible features. A field map was prepared showing feature locations, permanent landmarks, topographic and vegetation variation, as well as sources of disturbance. Sufficient information was included on the map to permit easy re-identification of the resources.

### REPORT AND RECORD PREPARATION

The results of the background research and field reconnaissance were synthesized and summarized in this report accompanied by maps and photographs as appropriate. All research material and documentation generated by this project are on file at D+A's office in Midlothian, Virginia.

### QUALIFICATIONS AND STANDARDS

The D+A personnel who directed and conducted this survey meet the professional qualification standards of the Department of the Interior (48 FR 44738-9). All work was conducted in accordance with the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (Federal Register 48:44716-44742, September 29, 1983), and VDHR's *Guidelines for Conducting Historic Resource Survey in Virginia* (rev. 2017).

# 3. ENVIRONMENTAL CONTEXT

## PHYSICAL DESCRIPTION AND LOCATION

The Sycamore Cross Solar study area consists of ±817.46-Hectare (2,020 Acres) of land divided into multiple contiguous and discontiguous parcels. The study area is located along the border of Isle of Wight and Surry counties within a primarily rural area of the Coastal Plain of Southside Virginia. The landscape within and bordering the study area is a mix of cultivated agricultural field, planted timber stands, and native woodland, particularly bordering the numerous drainages and swamps that dissect the area (Figure 3-1).

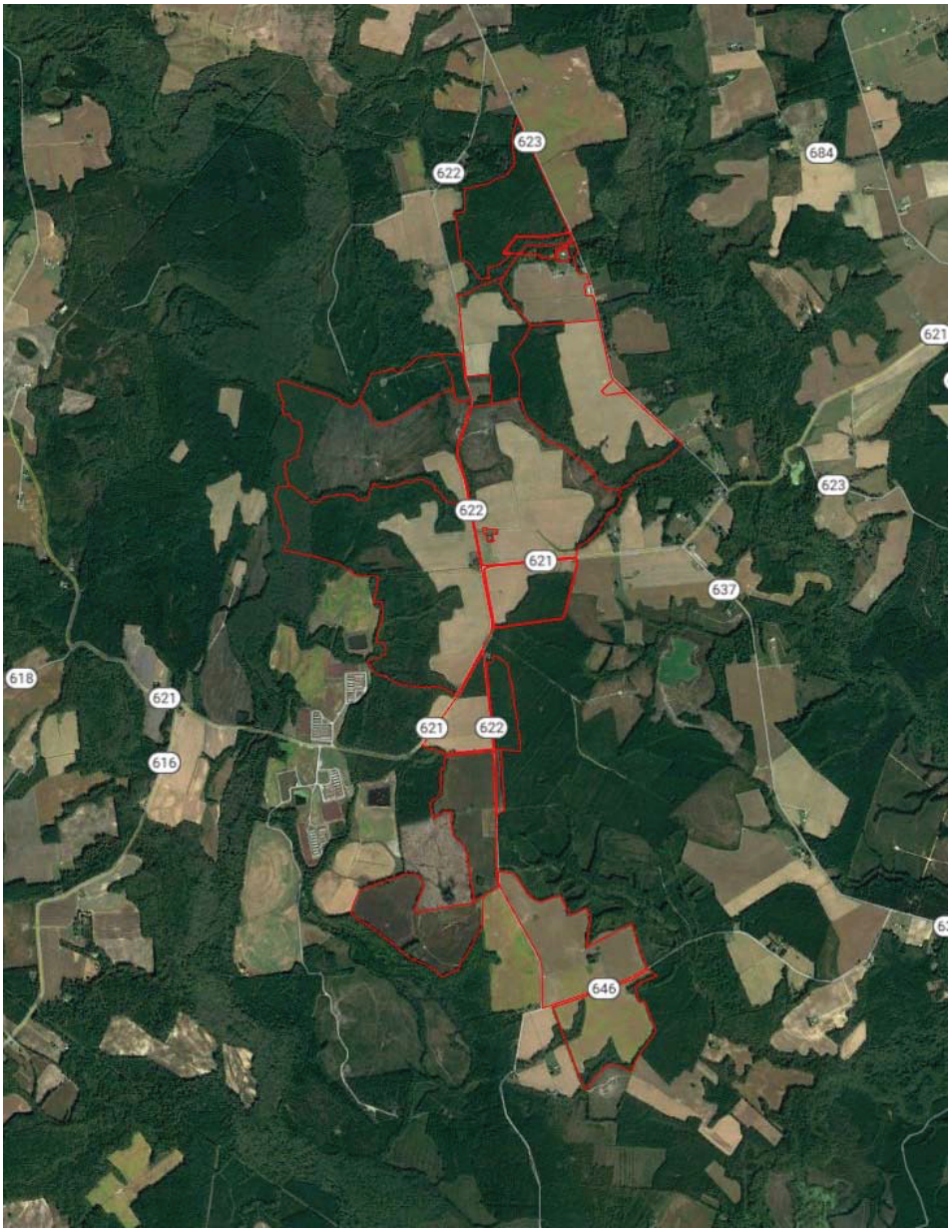


**Figure 3-1. Aerial view of study area illustrating existing conditions.**

## GEOLOGY AND TOPOGRAPHY

The study area topography is characterized by primarily flat level terrain associated with the Lowland subprovince of the Coastal Plain region. The area is underlain by a thick wedge of sediments resting on an eroded surface of Precambrian to early Mesozoic rock. Generally, a lightly dissected, dendritic drainage pattern occurs throughout this region with broad, low landforms and shallow, sluggish drainageways. The elevation of the study area ranges from approximately ±7.9 meters (26 feet) to ±27.4 meters (90 feet) above mean sea level with the highest elevations located along the crest of a broad ridge along the eastern edge of the study area and the lowest elevations bordering the Blackwater River along the western edge.

## HYDROLOGY

Most of the study area drains west into Blackwater River, although portions of the eastern edge drain eastward into Mill Swamp which flows into Rattlesnake Swamp and ultimately into Blackwater River. This flows south into North Carolina where it empties into the Chowan River, which flows into Albemarle Sound, which empties into the Currituck Sound before ultimately draining into the Atlantic Ocean.

## PEDOLOGY

The study area is dominated by sandy loams and sandy clay loams formed from marine sediments. The most prominent soil type is Slagel fine sandy loam which is moderately well drained and covers about 25% of the study area. The second most prominent soil type is Kinston loam, which represents about 17.8% of the study area and is considered poorly drained. Well-drained Emporia fine sandy loam are the only other soils types that account for a significant portion of the study area at 15.2%. The rest of the study area is comprised of assorted sandy loams and complexes. Approximately 39.7% of the soils within the study area are classified as poorly to somewhat poorly drained (Figure 3-2 and Table 3-1).

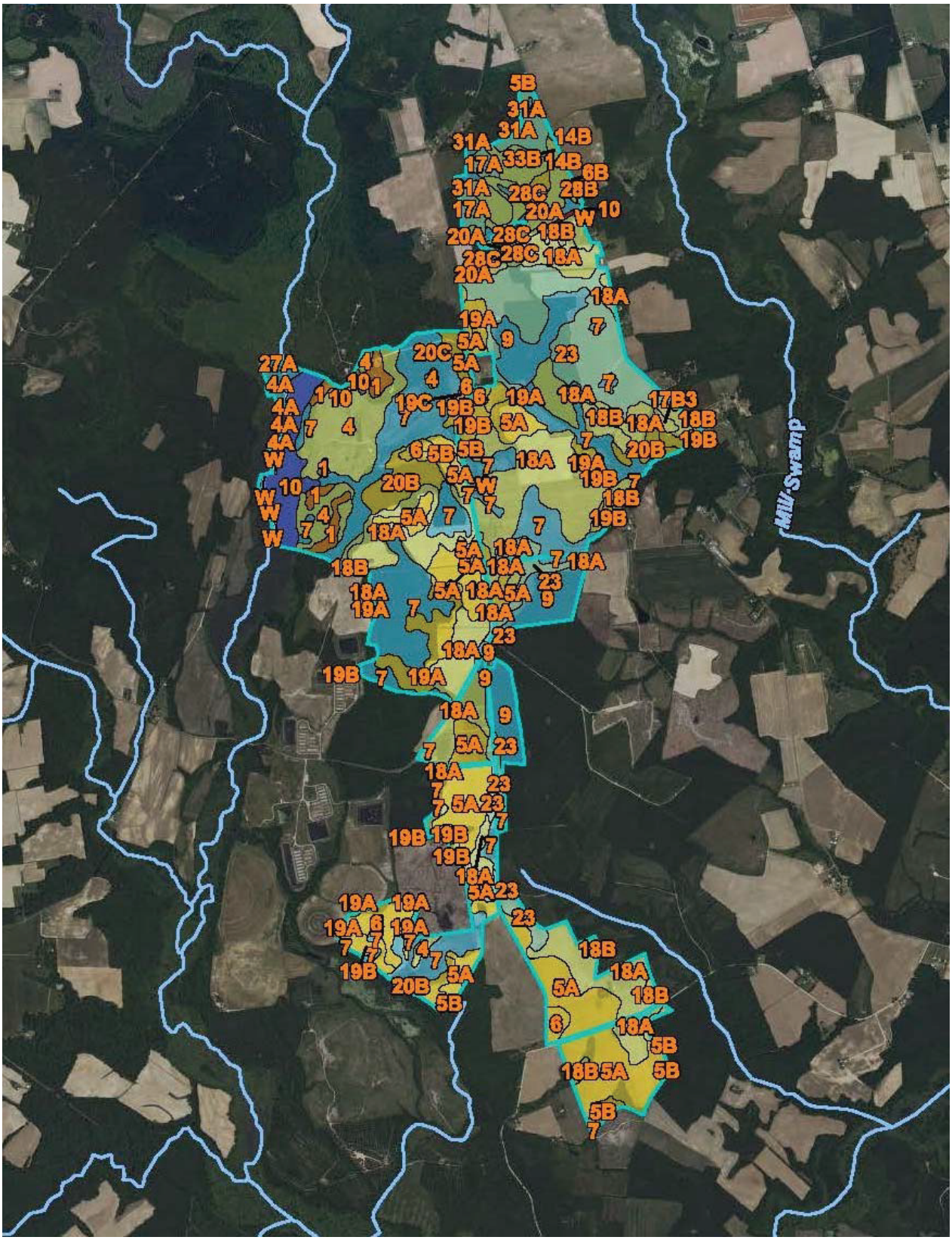


**Figure 3-2: Soil survey of the Sycamore Cross study area showing drainage class (USDA 2023).**

**Table 3-1: Soil survey data for study area parcel cluster, showing drainage rating. Source: USDA.**

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 1 | Alaga fine sand | Somewhat excessively drained | 29.3 | 1.5% |
| 4 | Chipley sand | Moderately well drained | 116.0 | 5.7% |
| 5A | Emporia fine sandy loam, 0 to 2 percent slopes | Well drained | 286.6 | 14.2% |
| 5B | Emporia fine sandy loam, 2 to 6 percent slopes | Well drained | 21.0 | 1.0% |
| 6 | Kenansville loamy sand | Well drained | 41.6 | 2.1% |
| 7 | Kinston loam | Poorly drained | 347.0 | 17.2% |
| 9 | Myatt fine sandy loam | Poorly drained | 119.0 | 5.9% |
| 10 | Nawney loam | Very poorly drained | 55.9 | 2.8% |
| 17B3 | Slagle sandy loam, 2 to 6 percent slopes, severely eroded | Moderately well drained | 3.7 | 0.2% |
| 18A | Slagle fine sandy loam, 0 to 2 percent slopes | Moderately well drained | 401.5 | 19.9% |
| 18B | Slagle fine sandy loam, 2 to 6 percent slopes | Moderately well drained | 56.9 | 2.8% |
| 19A | Uchee loamy sand, 0 to 2 percent slopes | Well drained | 66.8 | 3.3% |
| 19B | Uchee loamy sand, 2 to 6 percent slopes | Well drained | 40.1 | 2.0% |
| 19C | Uchee loamy sand, 6 to 10 percent slopes | Well drained | 2.1 | 0.1% |
| 20B | Uchee-Peawick complex, 2 to 6 percent slopes | Well drained | 57.3 | 2.8% |
| 20C | Uchee-Peawick complex, 6 to 10 percent slopes | Well drained | 9.2 | 0.5% |
| 23 | Yemassee fine sandy loam | Somewhat poorly drained | 205.4 | 10.2% |
| W | Water | | 4.1 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **1,863.4** | **92.2%** |
| **Totals for Area of Interest** | | | **2,020.4** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 4A | Bibb sandy loam, 0 to 2 percent slopes, frequently flooded | Poorly drained | 3.9 | 0.2% |

**Table 3-1 (cont.): Soil survey data for primary study area parcel cluster, showing drainage rating. Source: USDA.**

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| W | Water | | 3.4 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **7.3** | **0.4%** |
| **Totals for Area of Interest** | | | **2,020.4** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 5B | Burrowsville loamy sand, 2 to 6 percent slopes | Moderately well drained | 0.1 | 0.0% |
| 6B | Caroline silt loam, 2 to 6 percent slopes | Well drained | 0.0 | 0.0% |
| 14B | Emporia fine sandy loam, 2 to 6 percent slopes | Well drained | 0.5 | 0.0% |
| 17A | Jedburg loam, 0 to 2 percent slopes | Somewhat poorly drained | 40.1 | 2.0% |
| 20A | Kinston loam, 0 to 2 percent slopes, frequently flooded | Poorly drained | 13.0 | 0.6% |
| 21B | Lakeland sand, 2 to 6 percent slopes | Excessively drained | 1.7 | 0.1% |
| 27A | Nawney and Mattan soils, 0 to 1 percent slopes, frequently flooded | Poorly drained | 9.4 | 0.5% |
| 28B | Nevarc-Remlik complex, 2 to 6 percent slopes | Moderately well drained | 0.5 | 0.0% |
| 28C | Nevarc-Remlik complex, 6 to 10 percent slopes | Moderately well drained | 28.4 | 1.4% |
| 28D | Nevarc-Remlik complex, 10 to 15 percent slopes | Moderately well drained | 5.7 | 0.3% |
| 31A | Rains fine sandy loam, 0 to 2 percent slopes | Poorly drained | 5.3 | 0.3% |
| 33A | Slagle fine sandy loam, 0 to 2 percent slopes | Moderately well drained | 1.1 | 0.1% |
| 33B | Slagle fine sandy loam, 2 to 6 percent slopes | Moderately well drained | 39.7 | 2.0% |
| 35B | Uchee loamy fine sand, 2 to 6 percent slopes | Well drained | 4.2 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **149.6** | **7.4%** |
| **Totals for Area of Interest** | | | **2,020.4** | **100.0%** |

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# 4. PREVIOUS INVESTIGATIONS

This section includes a summary of all the cultural resource management events that have taken place within the study area registered at VDHR through July 2023. It also lists all previously identified architectural resources and archaeological sites located within the study area, as well as within one mile of the study area.

## PREVIOUS SURVEYS RELEVANT TO THE STUDY AREA

VCRIS reveals that three Phase I cultural resource surveys have been conducted within one mile of the study area, one of which included portions of the study area (Table 4-1 and Figure 4-1). These surveys are archaeological in nature, although some include architectural resource investigations as well. The three surveys were conducted as part of assorted utility and infrastructure projects.

**Table 4-1: Previously conducted Phase I surveys within one mile of the study area. Orange highlight denotes survey including portions of the study area.**

| Report Number | Survey Title | Author/ Affiliation | Year | VDHR Review File |
|---|---|---|---|---|
| IW-105 | Phase I Cultural Resources Survey for the Align RNG Virginia – Waverly Renewable Natural Gas Project, Isle of Wight County, Virginia | TRC | 2022 | 2021-0097 |
| SY-079 | Phase I Cultural Resource Survey of the ±2,106.02-Hectare (±5,204.1-Acre) Cavalier Solar Study Area, Isle of Wight and Surry Counties, Virginia | DUTTON | 2020 | 2020-0521 |
| VA-176 | Phase I Archaeological Survey, Virginia Reliability Project, Cities of Chesapeake and Suffolk, and Greensville, Isle of Wight, Prince George, Southampton, Surry, and Sussex Counties, Virginia | ERM | 2022 | 2021-0026 |

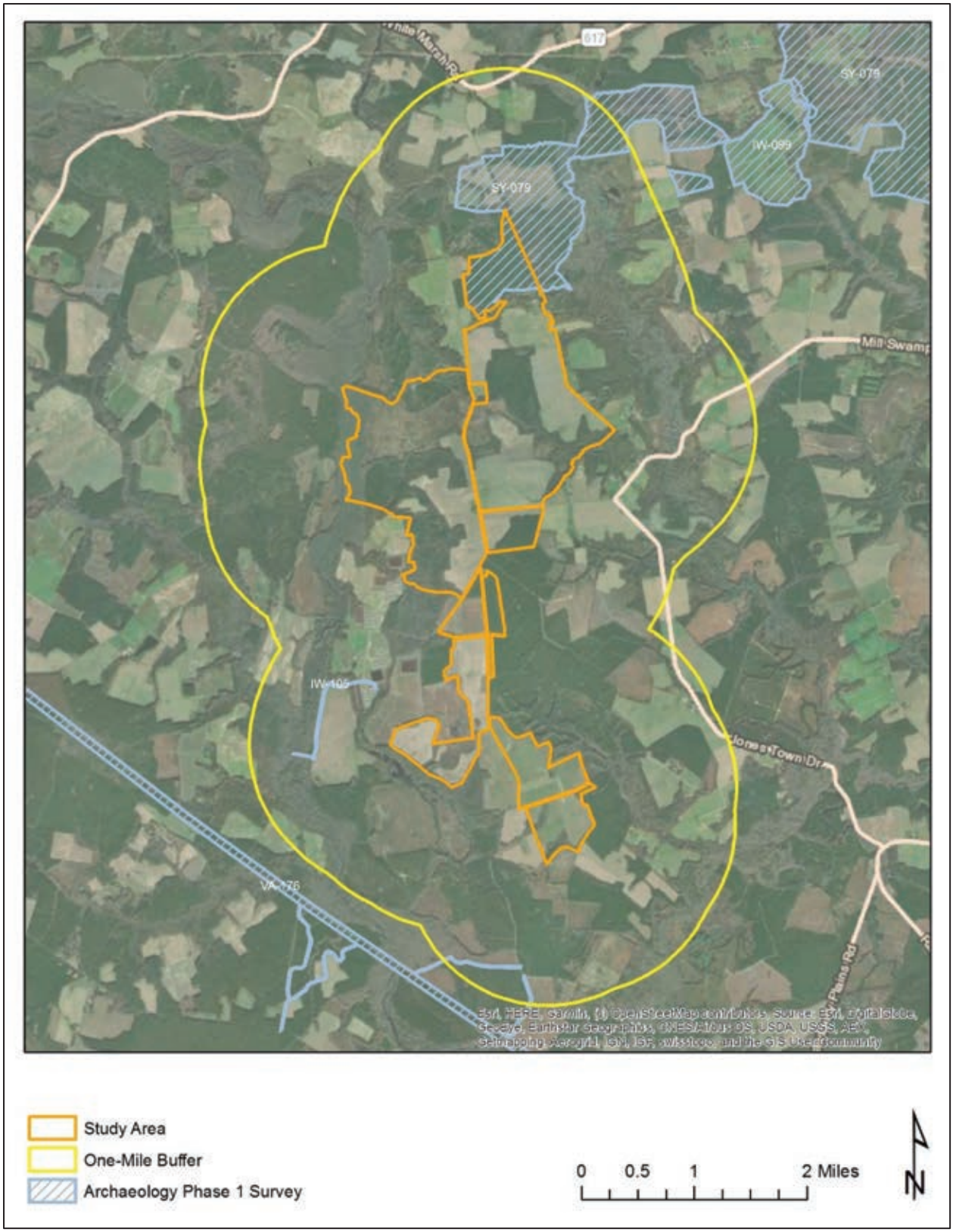


**Figure 4-1: Previous Phase I surveys conducted within one mile of the study area Source: V-CRIS**

## PREVIOUSLY IDENTIFIED ARCHAEOLOGICAL SITES WITHIN ONE MILE

There are ten (10) previously recorded archaeological sites located within one mile of study area, two of which are located within the study area (Table 4-2 and Figure 4-2). The sites within one mile include prehistoric lithic scatters and camps; as well as historic period domestic sites and refuse scatters. Of the sites within one mile, eight (8) have been determined not eligible and two (2) have not been formally evaluated by the VDHR. Of the two sites within the study area, both are historic period artifact scatters that have been determined not eligible for listing in the NRHP.

**Table 4-2: Table detailing all archaeological resources within one mile of study area. Orange highlight denotes site is within the limits of the study area.**

| VDHR # | Site Type | Cultural Designation | Temporal Association | NRHP Status |
|---|---|---|---|---|
| 44IW0327 | Camp | Native American | Early Archaic Period (8500 - 6501 B.C.E), Middle Archaic Period (6500 - 3001 B.C.E), Late Archaic Period (3000 - 1201 B.C.E), Early Woodland (1200 B.C.E - 299 C.E), Middle Woodland (300 - 999 C.E) | Not Evaluated |
| 44IW0336 | Lithic scatter | Native American | Pre-Contact | DHR Staff: Not Eligible |
| 44SY0128 | Dwelling, single | Indeterminate | Historic/Unknown | Not Evaluated |
| 44SY0316 | Dwelling, single | Indeterminate | World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0317 | Artifact scatter | Indeterminate | Reconstruction and Growth (1866 - 1916) | DHR Staff: Not Eligible |
| 44SY0318 | Dwelling, single | Indeterminate | Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0319 | Artifact scatter | Indeterminate | Reconstruction and Growth (1866 - 1916) | DHR Staff: Not Eligible |
| 44SY0320 | Dwelling, single | Indeterminate | World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0321 | Outbuilding | Indeterminate | Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0322 | Artifact scatter, Lithic scatter | Indeterminate | Pre-Contact, Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991) | DHR Staff: Not Eligible |

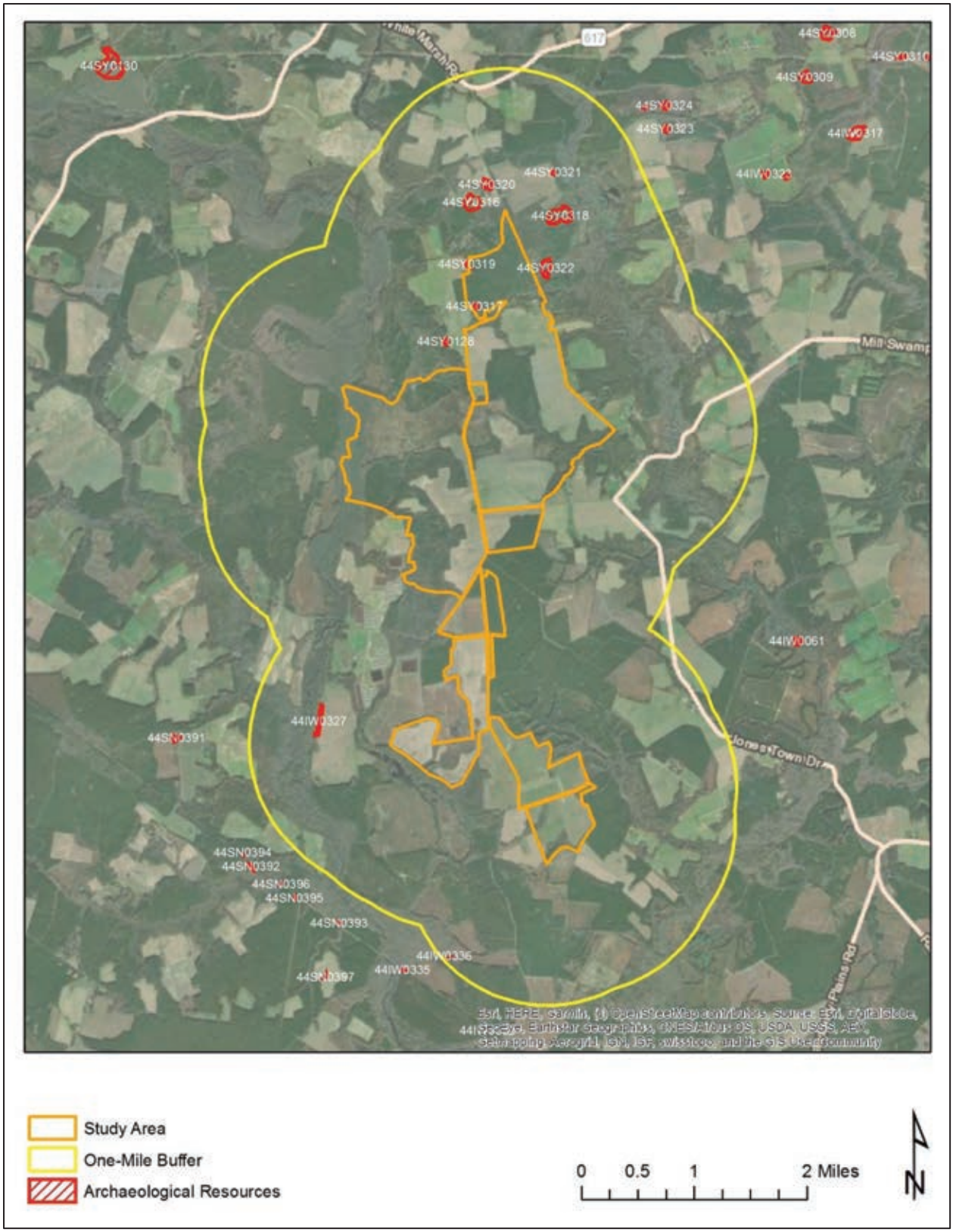


**Figure 4-2: Previously recorded archaeological sites located within one mile of the study area. Source: V-CRIS**

## PREVIOUSLY IDENTIFIED ARCHITECTURAL RESOURCES WITHIN ONE MILE

There are thirty-two (32) previously recorded architectural resources located one mile of the study area, nine (9) of which are located within the study area (Table 4-3 and Figure 4-3). The resources within one mile include single-family homes from the mid-eighteenth to mid-twentieth century, a commercial building from the turn-of-the-twentieth century, a church from the early-twentieth century, and a family cemetery from the early-twentieth century. Thirteen of the resources have been determined not eligible for listing in the NRHP by the VDHR and the rest have not been formally evaluated. Of the nine resources within the study area, nine are dwellings with four from the early-nineteenth century, four from the late-nineteenth century, and one from the early-twentieth century; and one is a late-nineteenth century commercial building. One late-nineteenth and one early-twentieth century dwelling have been determined not eligible for listing in the NRHP and the rest have not been formally evaluated.

**Table 4-3: Previously identified architectural resources located within one mile of the study area. Orange highlight denotes resource is located within the study area.**

| VDHR ID# | Resource Name | Type | Year | NRHP Status |
|---|---|---|---|---|
| 046-0029 | House, Route 622 (Function/Location) | Single Dwelling | c.1800 | Not Evaluated |
| 046-0030 | Betts House (Historic) | Single Dwelling | c.1802 | Not Evaluated |
| 046-0032 | Dudley House and Outbuildings (Historic) | Single Dwelling | c.1820 | Not Evaluated |
| 046-0055 | Tenant House, Sycamore Crossroads (Historic/Current) | Secondary Dwelling | c.1800 | Not Evaluated |
| 046-0056 | Grays' Brick House (Historic/Current) | Single Dwelling | c.1825 | Not Evaluated |
| 046-0057 | Brick House (Descriptive) | Single Dwelling | c.1825 | Not Evaluated |
| 046-0068 | Wilson Hollemon House, Mill Swamp Rd (Rt 621) (Historic/Location) | Single Dwelling | c.1830 | Not Evaluated |
| 046-5147 | Farmhouse, 14537 Rattlesnake Trail (Function/Location) | Single Dwelling | 1850 | Not Evaluated |
| 046-5148 | Farmhouse, 13407 Ramsey Road (Function/Location) | Single Dwelling | 1880 | Not Evaluated |
| 046-5149 | Store, Intersection of Mill Swamp Road and Sycamore Cross Drive (Function/Location) | Commercial Building | 1899 | Not Evaluated |
| 046-5150 | Farmhouse, 11356 Proctors Bridge Road (Function/Location) | Single Dwelling | 1899 | Not Evaluated |
| 046-5151 | Mill Swamp Baptist Church & Cemetery (Historic/Current) | Church/Chapel | 1928 | Not Evaluated |
| 046-5152 | Store, 6159 Jones Town Road (Function/Location) | Service Station | c.1930 | Not Evaluated |
| 046-5234 | William Gray House (Historic/Current) | Single Dwelling | c.1825 | Not Evaluated |
| 046-5260 | House, 6330 Mill Swamp Road (Function/Location), Mill Swamp Baptist Church Parsonnage (Historic) | Single Dwelling | c.1900 | Not Evaluated |
| 046-5550 | Dwelling, 10126 White Hill Trail (Function/Location) | Single Dwelling | 1890 | DHR Staff: Not Eligible |
| 046-5551 | Dwelling, 10106 White Hill Trail (Function/Location) | Single Dwelling | 1944 | DHR Staff: Not Eligible |
| 046-5552 | Dwelling, 10088 White Hill Trail (Function/Location) | Single Dwelling | c.1930 | DHR Staff: Not Eligible |
| 087-0003 | Binford House (Historic) | Single Dwelling | c.1750 | Not Evaluated |

| VDHR ID# | Resource Name | Type | Year | NRHP Status |
|---|---|---|---|---|
| 087-5328 | Brantley Home (Historic), Pretlow Farm (Historic) | Single Dwelling | c.1900 | Not Evaluated |
| 087-5509 | 1760 Henley Pretlow House (Historic), Captain Pretlow House (Historic), House 4071 Proctor's Bridge Road (Function/Location) | Single Dwelling | 1760 | Not Evaluated |
| 090-0051 | Stratman House (Historic/Current) | Single Dwelling | c.1750 | Not Evaluated |
| 090-5160 | Dwelling, 9091 White Marsh Road (Function/Location) | Single Dwelling | 1905 | DHR Staff: Not Eligible |
| 090-5161 | Dwelling, 9100 White Marsh Road (Function/Location) | Single Dwelling | 1949 | DHR Staff: Not Eligible |
| 090-5162 | Dwelling, 274 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1890 | DHR Staff: Not Eligible |
| 090-5163 | Dwelling, 337 Berrymans Corner Road (Function/Location) | Single Dwelling | 1942 | DHR Staff: Not Eligible |
| 090-5164 | Dwelling, 285 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1900 | DHR Staff: Not Eligible |
| 090-5165 | Simmons and Brown Cemetery (Current Name) | Cemetery | c.1900 | DHR Staff: Not Eligible |
| 090-5166 | Dwelling, 1122 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1930 | DHR Staff: Not Eligible |
| 090-5167 | Dwelling, 1097 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1965 | DHR Staff: Not Eligible |
| 090-5168 | Dwelling, 1676 Berrymans Corner Road (Function/Location) | Single Dwelling | 1870 | DHR Staff: Not Eligible |
| 090-5174 | House, Berrymans Corner Road (Function/Location) | Single Dwelling | c.1920 | DHR Staff: Not Eligible |

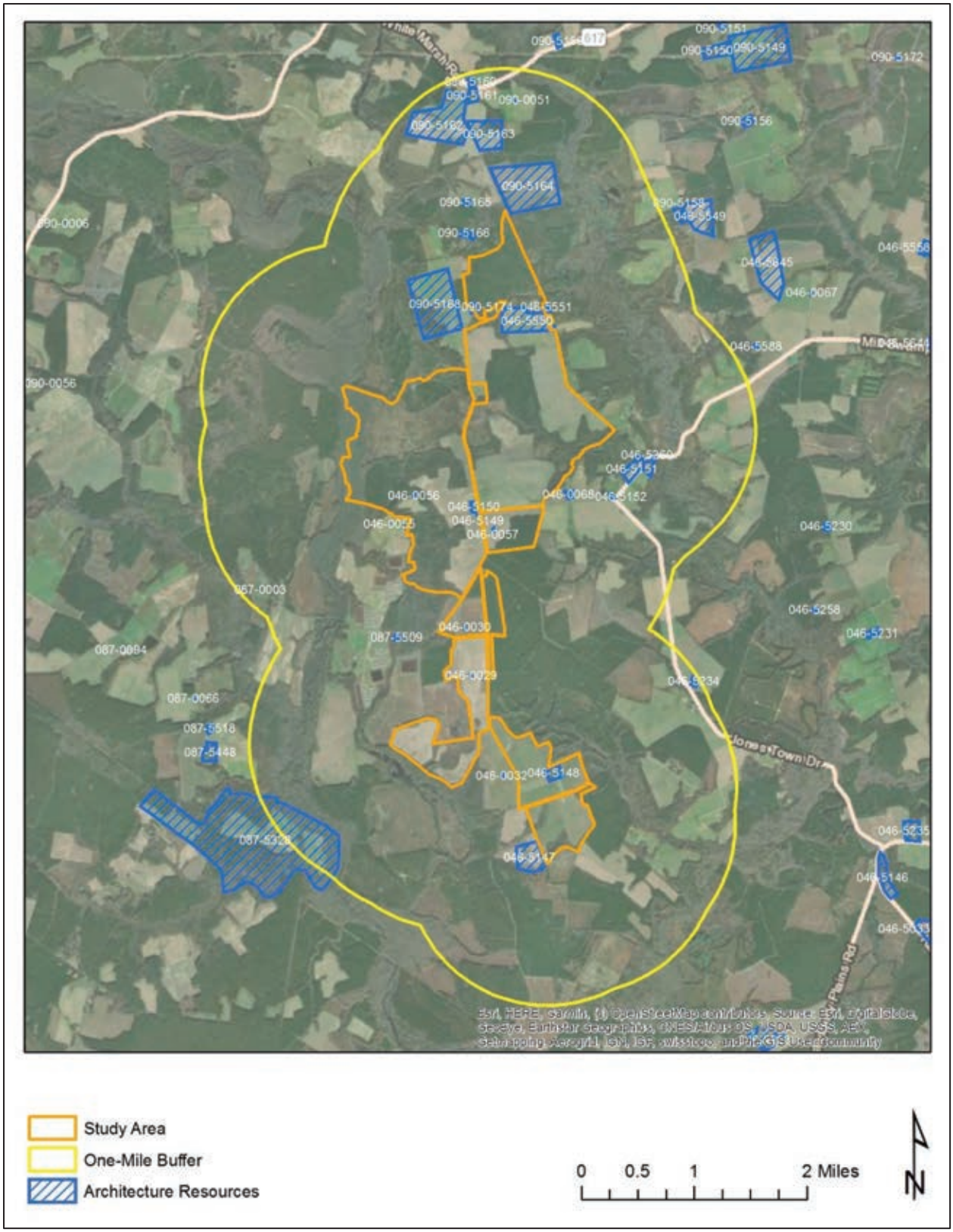


**Figure 4-3: Previously recorded architectural resources within one mile of the study area. Source: V-CRIS**

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# 5. HISTORIC MAP REVIEW

The Sycamore Cross Solar study area is located at the northwestern corner of Isle of Wight County, spanning the county line into Surry County. Prior to English arrival to Virginia, the region was home to the Warraskoyak living in the two major villages of Mathomank, near present-day Burwell's Bay, and Mokete, at Pagan Point. Though the tribes' primary villages were along the James River, they used interior lands up to at least 20 miles inland (King 1993:1). As early as 1608, the English crossed the James River to what is now Isle of Wight County though it would not be until 1619 when the first permanent English settlement was initiated in the future county (Morrison and Gwaltney 2006). While the south side of the James River was rich, the lands were fringed by swamps and the harbors were fewer and shallower making the region a bit less desirable (Rouse 1968:17).

The study area would have remained the frontier as settlement was focused along the James River. By 1634, the population of the Virginia Colony had grown to the point that King Charles I directed the formation of eight shires (counties). James City County spanned both sides of the James River and encompassed Surry County. To the east of it was Warroaquyoake, later renamed Isle of Wight (Rouse 1969:67).

Despite unrest between European settlers and American Indians, land continued to be granted. Land was first settled along the James River and its tributaries after which colonists were forced to move farther inland into the more swampy land. In the vicinity of the study area are Blackwater River and Mill Swamp.

By the mid-eighteenth century, the population increasingly moved inland from the James River and the farms in Isle of Wight County were typically between 500 to 1,700 acres (David 2007:9). According to V-CRIS records, several mid- to late eighteenth century homes were constructed less than two miles of the study area. During the American Revolution, though the British passed through Isle of Wight and Surry counties, closer to the James River, the war did not impact this region as it did nearby port towns, like Norfolk and Portsmouth (Figure 5-1).

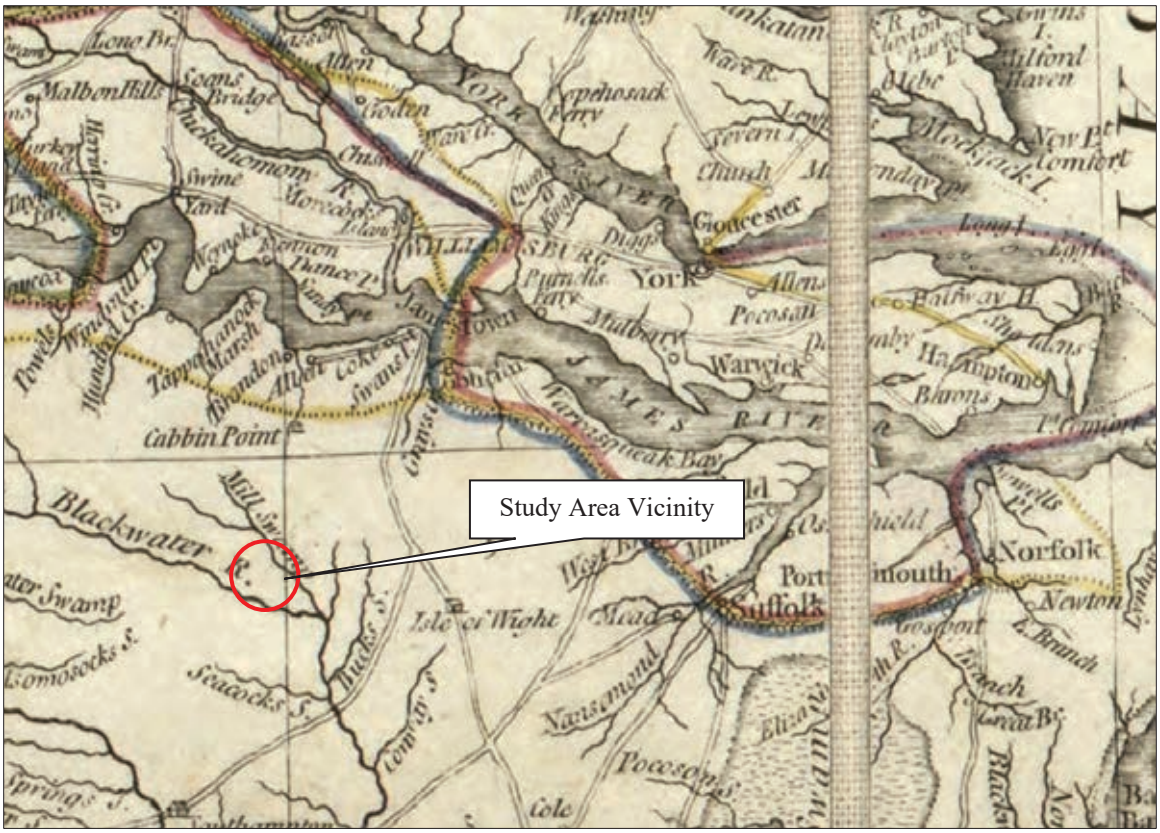


**Figure 5-1: Detail of *The marches of Lord Cornwallis in the Southern Provinces*, 1787, depicting general vicinity of the study area. Source: Library of Congress**

As time passed, the almost exclusively agrarian society was beginning to accommodate urban centers and small hamlets, although farming continued to be the primary means of livelihood. While the population remained relatively steady, there was a shift to the southern half of the county as people were enticed by the open lands and inland roadways. Roads began to increasingly cross the county and homesteads continued to be erected, including within the study area and the general vicinity (Figure 5-2).

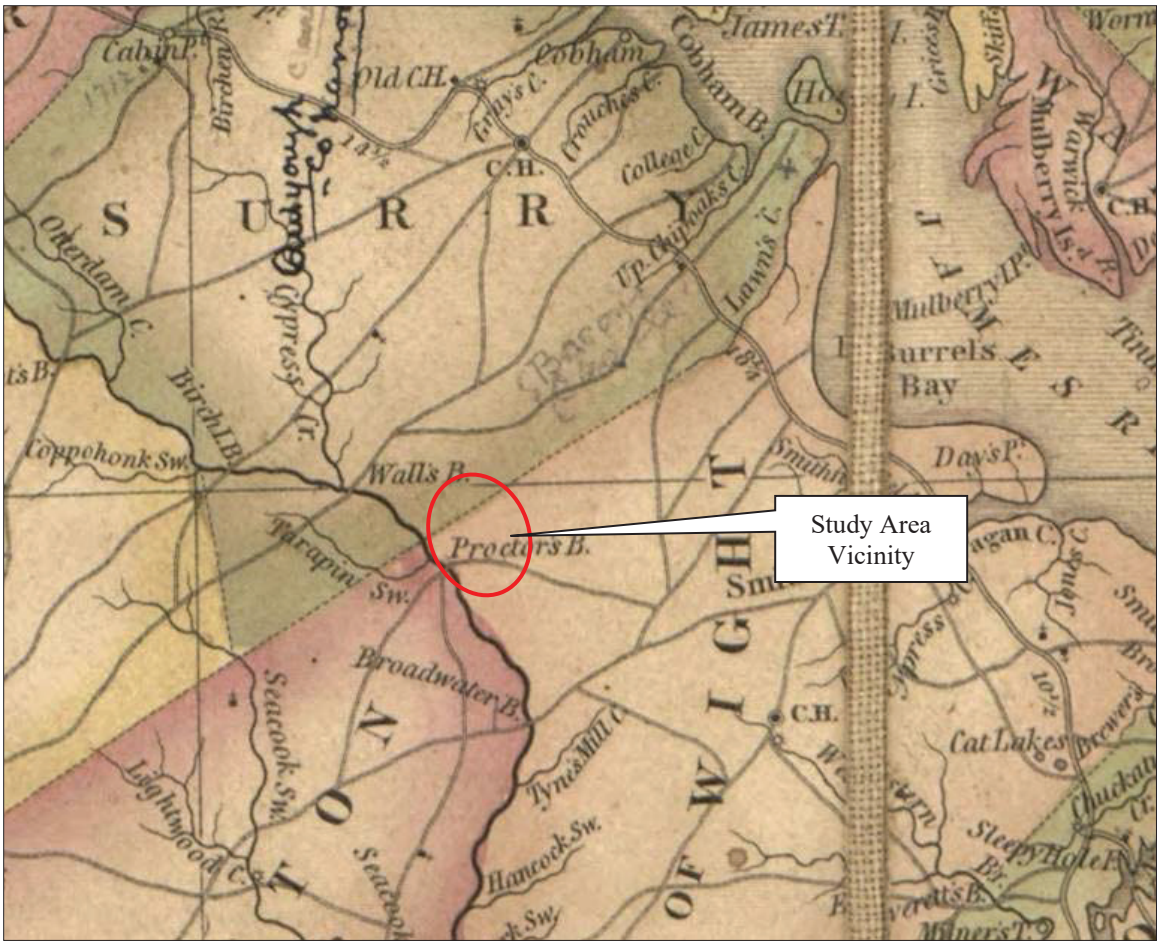


**Figure 5-2: Detail of *A map of the state of Virginia*, 1827, depicting the vicinity of the study area. Source: Library of Congress**

By the 1830s, a lasting migration from older settled regions of Virginia to lands opening in the west and an agricultural depression affected area's commerce and population. Between 1830 and 1850, the population of Isle of Wight County decreased 11 percent and that of Surry County fell by more than 13 percent (USCB). Despite the drop in population, the enslaved and free black population remained about 50 percent of the total population. Approximately 90 percent of the total population was involved in agriculture and identified as farmers (David 2007:10).

Despite the number of marshes crossing the study area, structures within it and in the vicinity were common by the mid-nineteenth century as evidenced by mid-nineteenth century maps. In Surry County, the study area appears to have been completed wooded (Figure 5-3). Mapping illustrates several buildings within or adjacent to the study area in Isle of Wight County, however (Figure 5-4). This includes homes related to the Bell, Betts, and Barlow families. According to a Works Progress Administration survey of Virginia's historical inventory, there was a small family cemetery associated with the Betts House that may be within the study area (Jordan 1937). The cemetery is not identified in Find-a-Grave or on topographic maps. Major roads crossed through the study area in Isle of Wight County, including that connecting to Proctor's Bridge over the Blackwater River. Also located in Isle of Wight County, on Rattlesnake Road (now Sycamore Cross Drive, Route 622) were a store and a schoolhouse.

**Figure 5-3: Detail of *Map of Surry Sussex and Southampton counties, Virginia*, 1863, depicting the portion of the study area in Surry County. Source: Library of Congress**

**Figure 5-4: Detail of *Map of Isle of Wight and part of Nansemond*, 1864, depicting the primary study area parcel cluster in Isle of Wight County. Source: Library of Congress**

During the Civil War, no major battles took place in the county, although a skirmishes did occur. The products of the countryside were depleted in service of the Confederate cause. Following the War Between the States, the longstanding agricultural economy of Tidewater Virginia began to recover and the production of peanuts increased. In addition to peanuts, the county produced oats, potatoes, fruits, vegetables, and oysters (Morrison and Gwaltney 2006). Timbering also prospered, as did the bacon and ham industry. As population increased, commerce also grew, particularly along the intersections of major inland roadways in the form crossroad stores. With improved

inland transportation corridors, crossroads stores became more common, within the study area was Sycamore Crossroads.

As the twentieth century continued, the number of farms steadily increased. Additionally, during this time many farms were subdivided and new single family homes were constructed or new dwellings replaced older homes on farms (David 2007:18). Topographic maps from this period illustrate the increase of buildings within and around the study area as well as a lumber railroad in the study area in Surry County (Figure 5-5).

**Figure 5-5: Detail of the 1919 and 1920 topographic maps, *Surry* and *Ivor,* depicting the primary study area parcel cluster. Source: USGS**

The end of World War II brought with it a building boom that would begin to change the character of the earlier farmsteads within counties, particularly Isle of Wight. With its proximity to Newport News, Portsmouth, and Norfolk, the county began to become a bedroom community. As the twentieth century continued and transitioned in the twenty-first, the study area remained much as it had historically, as a mixture of forested land and agricultural fields with some farmsteads (Figure 5-6 through Figure 5-10). Buildings previously depicted in the study area in Surry County, were no longer illustrated by the mid-twentieth century. Sycamore Crossroads remained, though it was referred as McClelland on the 1944 topographic map. On the same map, south of McClelland, McClelland School was depicted within the study area. This was a small school that served black students (Locations n.d.). The study area continues to show evidence of agriculture and timbering on its land.

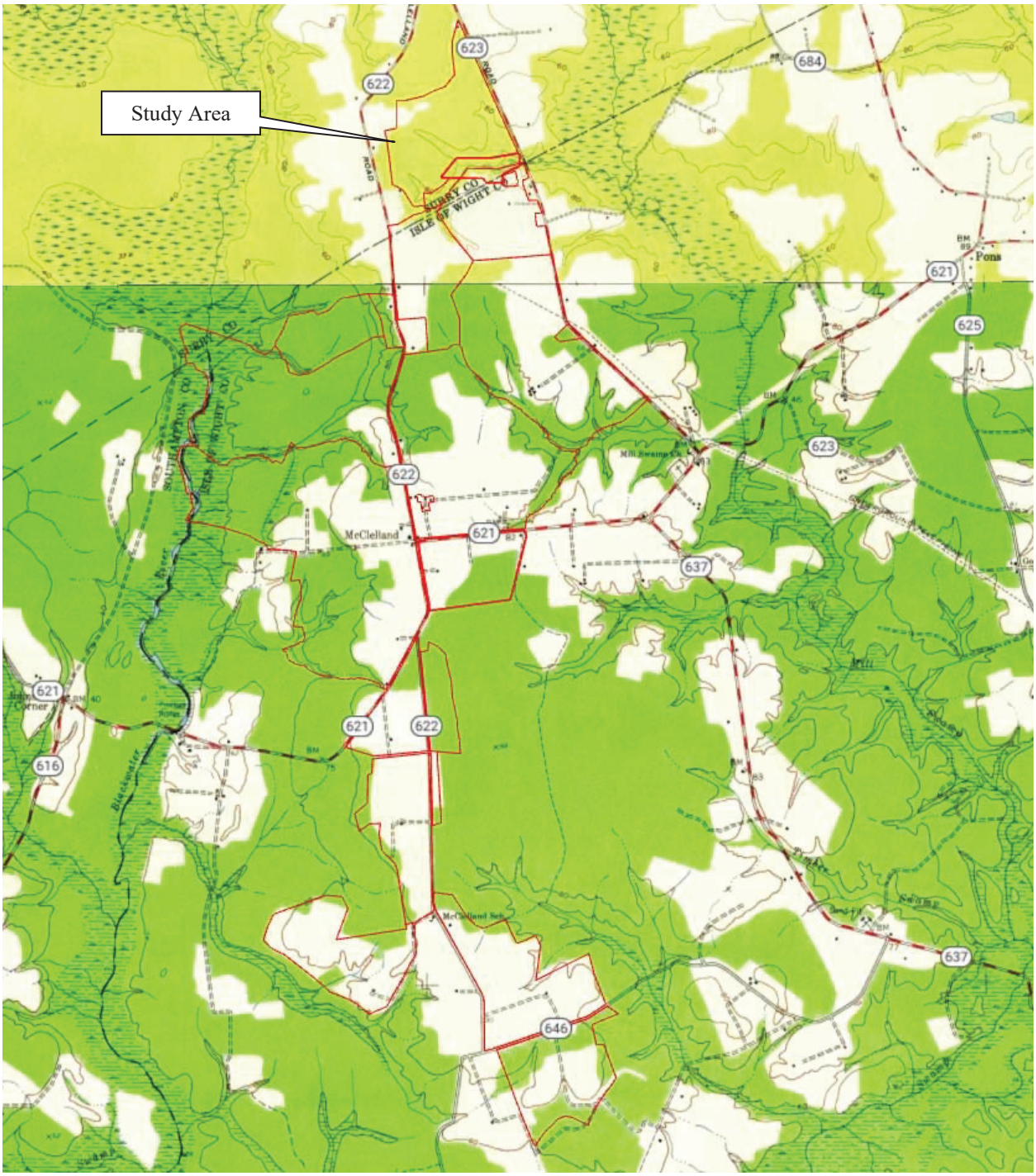


**Figure 5-6: Detail of the 1944 and 1954 topographic maps, *Raynor* and *Runnymeade*, depicting the primary study area parcel cluster. Source: USGS**

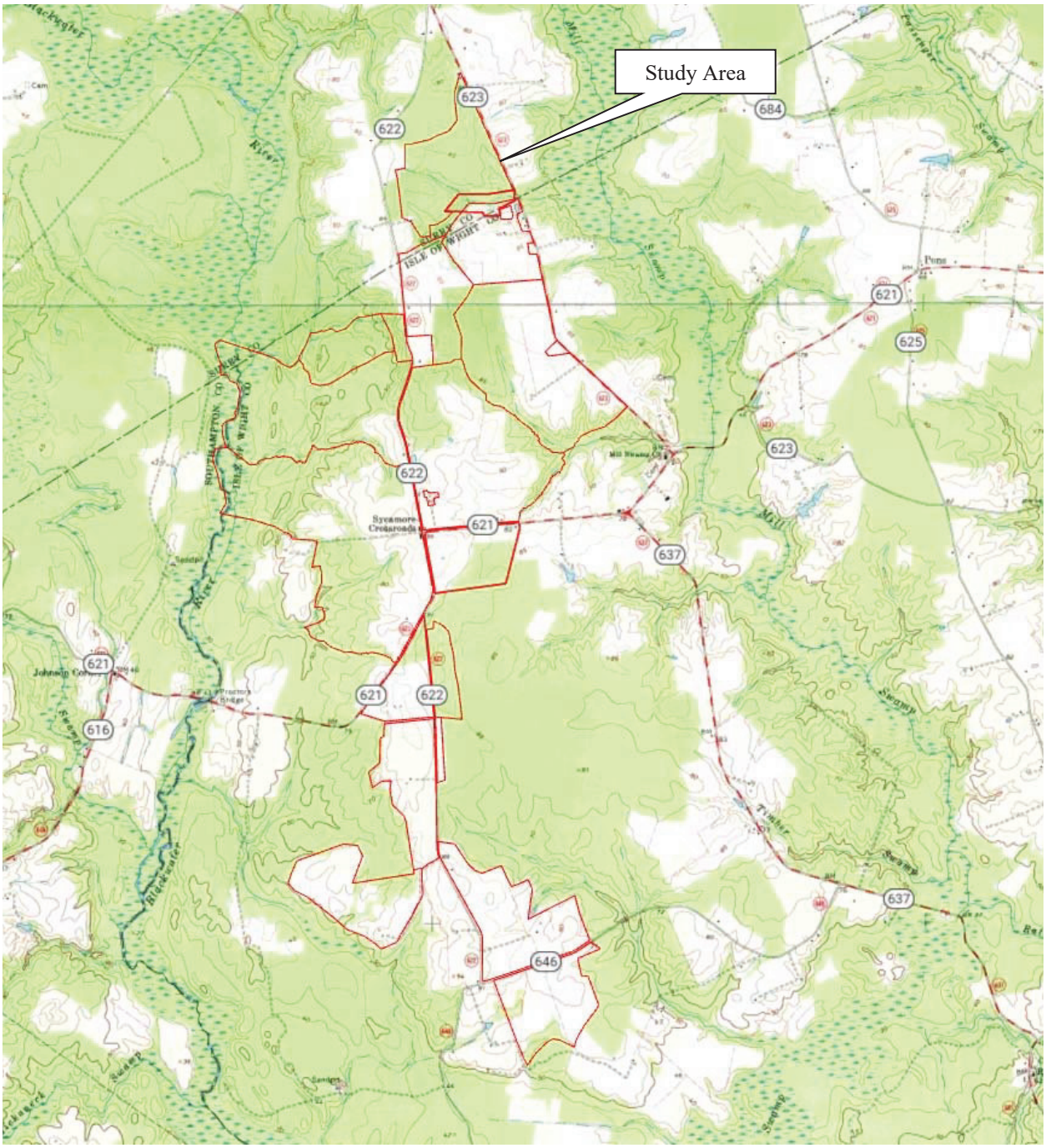


**Figure 5-7: Detail of the 1968 and 1971 topographic maps, *Raynor* and *Runnymeade*, depicting the primary study area parcel cluster. Source: USGS**

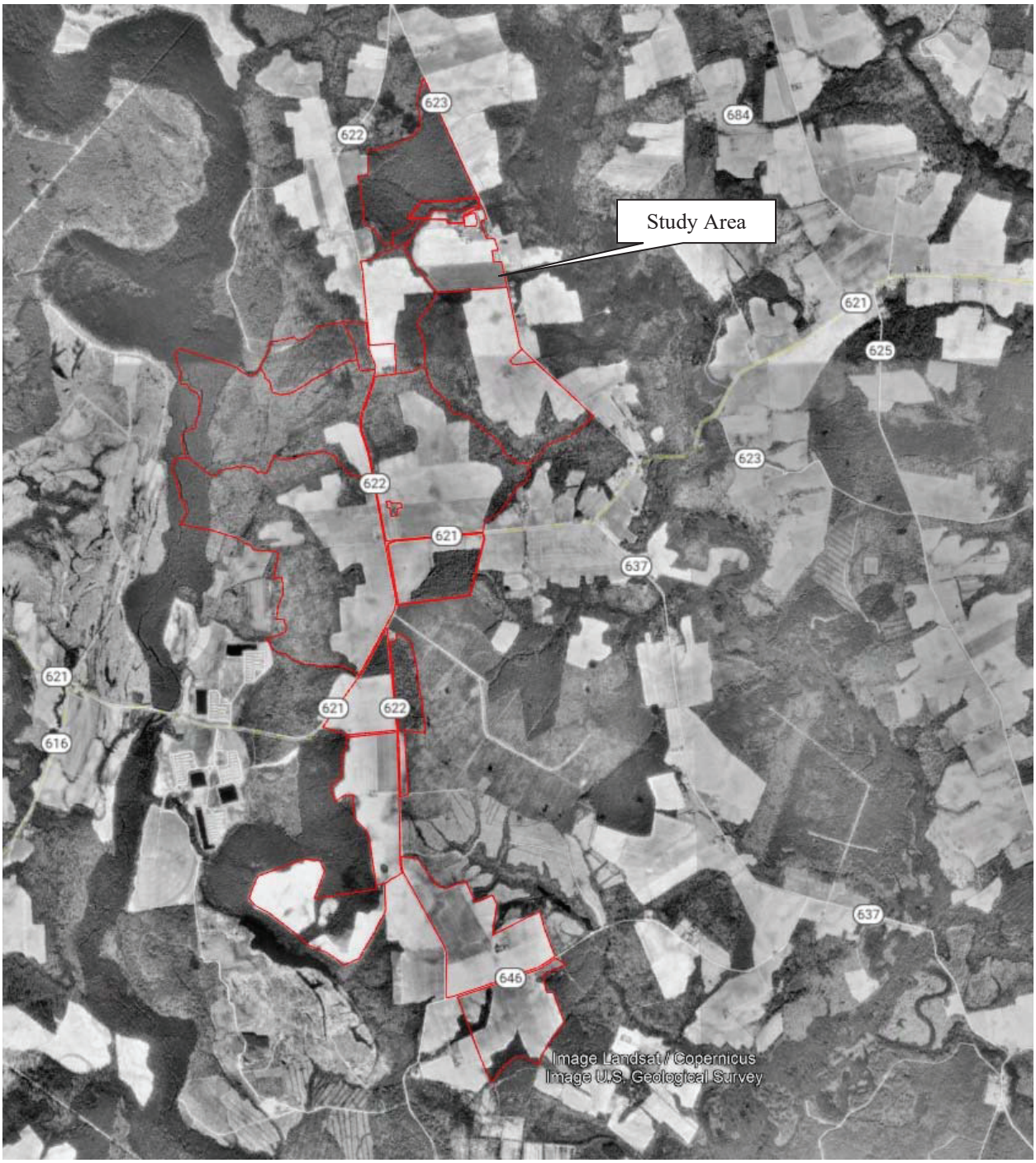


**Figure 5-8: Detail of a 1990 aerial depicting the primary study area parcel cluster. Source: Google Earth**

**Figure 5-9: Detail of a 2003 aerial depicting the study area. Source: Google Earth**

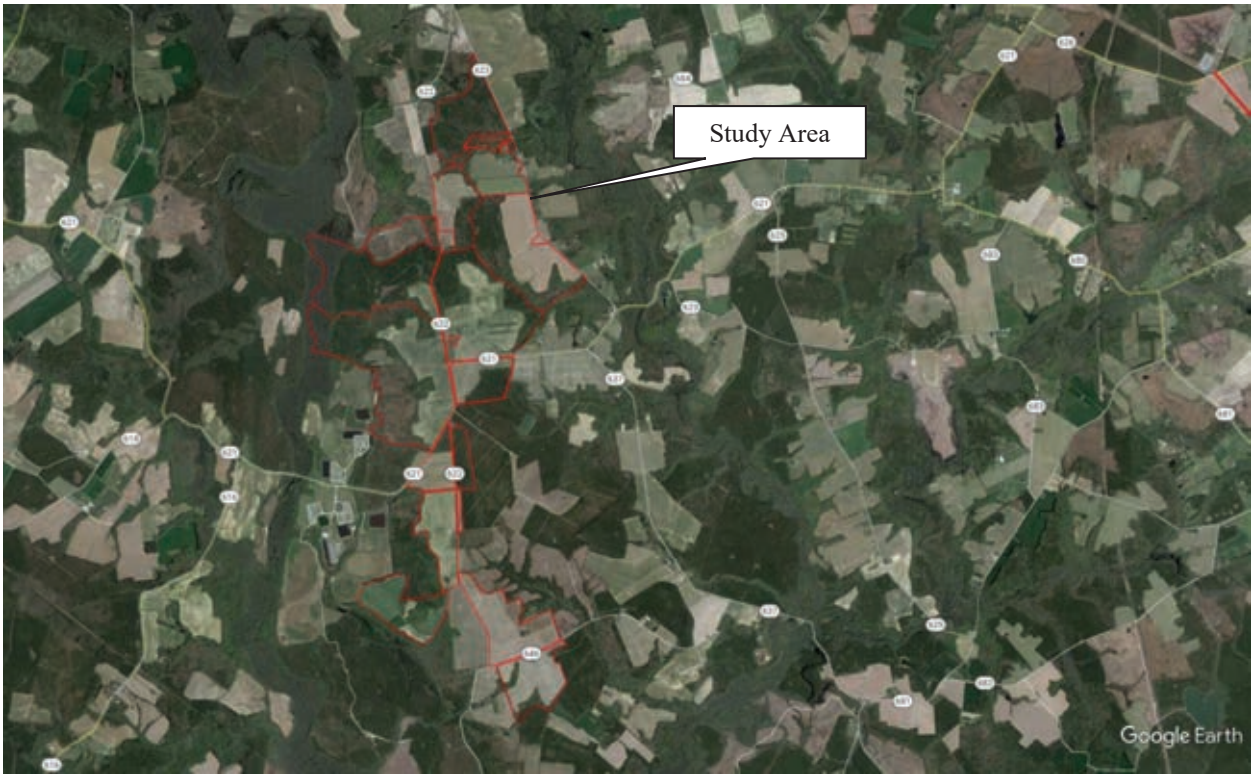


**Figure 5-10: Detail of a 2017 aerial depicting the study area. Source: Google Earth**

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# 6. ASSESSMENT RESULTS

On January 4th and 5th and June 28th and 29th, 2023, D+A performed field reconnaissance for the Phase IA cultural resources assessment of the Sycamore Cross Solar study area in Isle of Wight and Surry counties, Virginia. The field investigations involved a walkover reconnaissance of the study area tracts, as well as the excavation of nine (9) judgmental shovel test pits in order to determine soil stratigraphy within them. To organize the field investigations, the study area was divided into three sections, including the northern, central, and southern parcels (Figure 6-1). The results of the assessment are summarized below.

**Figure 6-1: Sycamore Cross Study Area depicting Field Reconnaissance Areas.**

## NORTHERN PARCELS

The Northern Parcels area consists of six tracts of land at the northern edge of the overall study area. The parcels are generally located between Berrymans Corner Road to the west and Mill Swamp Road to the east, and north of an unnamed tributary to Mill Swamp (Figure 6-2).

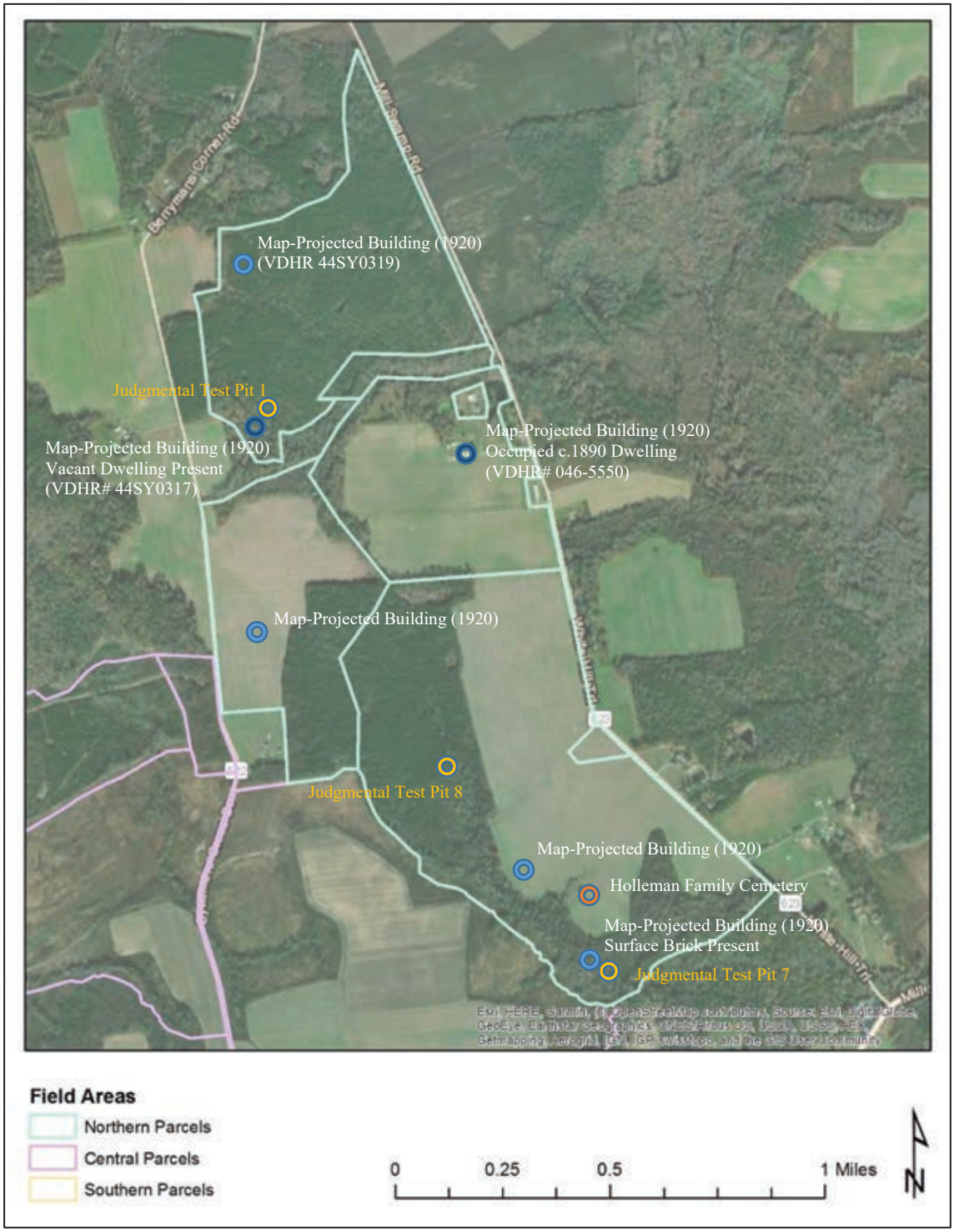



**Figure 6-2: Northern parcels map.**

At present time, the northernmost two parcels are completely wooded, while the lower parcels are a mix of open agricultural field, primarily occupying the portions of the area along the road while the central areas along the Mill Swamp tributary are wooded. Vegetation in the northern parcels consisted of mature planted pine with scrub understory (Figure 6-3) while the vegetation within the lower areas is a mix of native woodland along the drainage and mature planted pine (Figure 6-4 and Figure 6-5). The agricultural fields were fallow at the time of inspection in January and planted with corn as of June (Figure 6-6). The terrain of the area is generally flat, except along the drainages that cross through the lower edge of the northernmost parcel and centrally through the lower parcels, enroute towards Mill Swamp to the east.

One occupied dwelling and farm complex is located near the northern edge of this area just south of a drainage leading into Mill Swamp. This building appears to coincide with one labeled as "Turner" on Civil War-era maps and has been previously recorded as a circa 1890 dwelling (VDHR# 046-5550) (Figure 6-7). Two additional previously recorded dwellings from the early- to mid-twentieth century are located along the road to the front of this house (VDHR# 046-5551 and 046-5552), but both are excluded from the project study area.

One abandoned dwelling with an associated outbuilding was observed in the western edge of the northernmost parcel (Figure 6-8). This building is located within the limits of previously recorded site VDHR# 44SY0317, recorded as a Reconstruction and Growth (1866-1916) era site that has been determined not eligible. Civil War-era maps reveal what is now Sycamore Cross Road was present along the western edge of the area, but suggests the area remained wooded and undeveloped at that time. However, a 1920 topographic map reveals a building present by that time in generally the same location as the abandoned home. A driveway off Berrymans Corner Road (SR 622) leads to the home.

The 1920s topographic map also reveals several additional buildings scattered throughout the northern parcel area, none of which remain extant, although evidence of several remain. One in the northwestern corner of the area coincides with site 44SY0319 but no surface evidence was observed. This site has been recorded as a Reconstruction and Growth (1866-1916) era site that was determined not eligible for listing in the NRHP by the VDHR. A relic farm lane from Sycamore Cross Drive in the western most parcel leads to the location of one of the map-projected buildings although field inspection did not reveal surface evidence of the building. The 1920 map projects two additional buildings along the drainage in the southernmost parcel of this area of which a brick was observed on the surface in the vicinity of one (Figure 6-9) but no evidence was observed of the second. A family cemetery associated with the Holleman family was observed within a copse of trees set between the map-projected locations of these buildings (Figure 6-10).

**Figure 6-3: Planted pine forest of northernmost Parcel, looking South from Judgmental 1**

**Figure 6-4: Field edge within southernmost Parcel, looking northeast from near Judgmental 7**

**Figure 6-5: Wooded area along drainage in southernmost parcel, looking northwest from Judgmental 8**

**Figure 6-6: Corn planted within southernmost parcel, looking southeast**

**Figure 6-7: Occupied dwelling along Mill Swamp Road generally coinciding with "Turner" on Civil War-era maps and previously recorded as circa 1890 VDHR# 046-5550.**

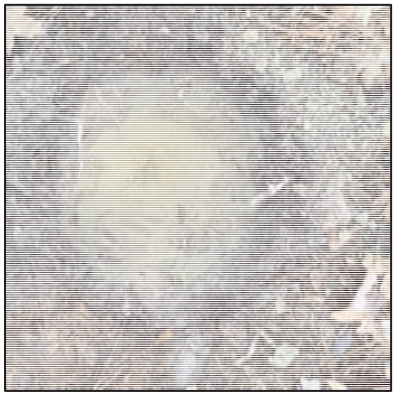
**Figure 6-8: Vacant dwelling in the northernmost parcel coinciding with Site 44SY0317.**

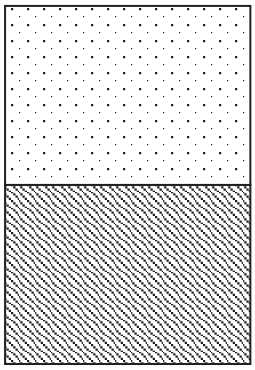
**Figure 6-9: Brick on surface in the vicinity of a 1920 map projected building**

**Figure 6-10: Headstone within family cemetery, looking east.**

Three judgmental shovel tests were excavated throughout the northern parcel assessment area, including one in the northwestern portion of the area near a standing home in the vicinity of Site 44SY0317 (STP 1), one within a wooded area bordering the drainage that extends through the central portion of the area (STP 2), and one in the southern portion of the area in the vicinity of a 1920 map projected home where a brick was encountered on the surface (STP 3).

Judgmental STP 1 confirmed disturbed topsoil in what appears to be a previously logged area and was negative for cultural material. Soils consisted of a topsoil layer of 2.5Y 5/4 silty clay loam topsoil (A horizon) over top of 2.5Y 5/6 silty clay subsoil (B horizon) (Figure 6-11). The shovel test pit was highly disturbed, with little historic integrity remaining.



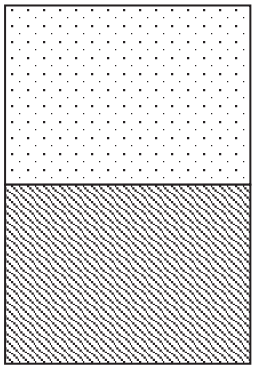


2.5Y 5/4 silty clay loam
0-33 cm

2.5Y 5/6 silty clay
33-40 cm

**Figure 6-11: Soil profile of Judgmental 1.**

Judgmental STP 8 confirmed disturbed topsoil in what appears to be a previously logged area and was negative for cultural material. Soils consisted of a topsoil layer of 2.5Y 5/6 sandy clay loam topsoil (A horizon) over top of 2.5Y 6/6 sandy clay subsoil (B horizon) (Figure 6-12).



2.5Y 5/6 sandy clay loam
0-41 cm

2.5Y 6/6 sandy clay
41-51 cm

**Figure 6-12: Soil profile of Judgmental 8.**

Judgmental STP 7 revealed natural soil stratigraphy within an area of native vegetation bordering a drainage and was negative for cultural material. Soils consisted of a topsoil layer of 10YR 7/4

sandy loam topsoil (A horizon) overlying 2.5Y 7/3 sandy clay loam, over top of 5Y 6/4 sandy clay subsoil (B horizon) (Figure 6-13).

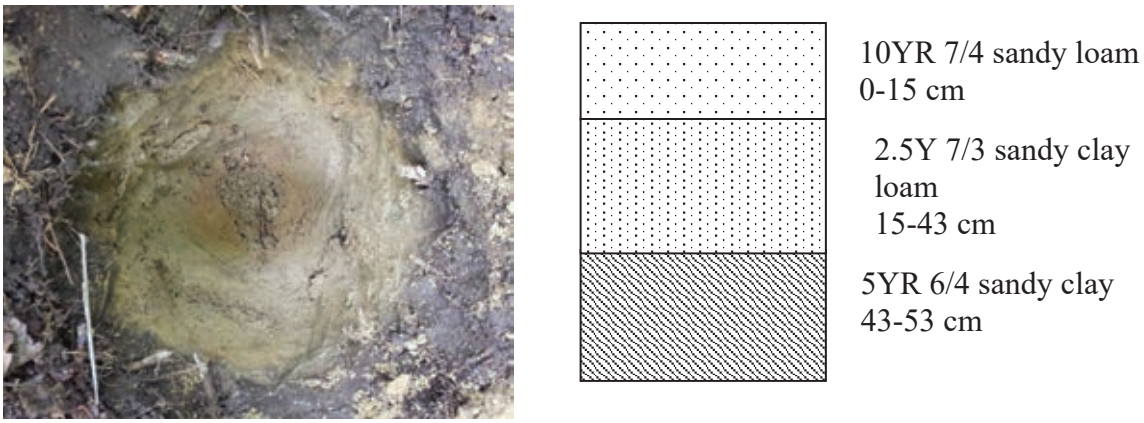



**Figure 6-13: Soil profile of Judgmental 7.**

## CENTRAL PARCELS

The Central Parcels area consists of six tracts of land sited centrally within the overall study area. The area spans Sycamore Cross Drive/Proctors Bridge Road (State Rte 622) and borders Blackwater River to the west and an offshoot of Mill Swamp to the east (Figure 6-14).

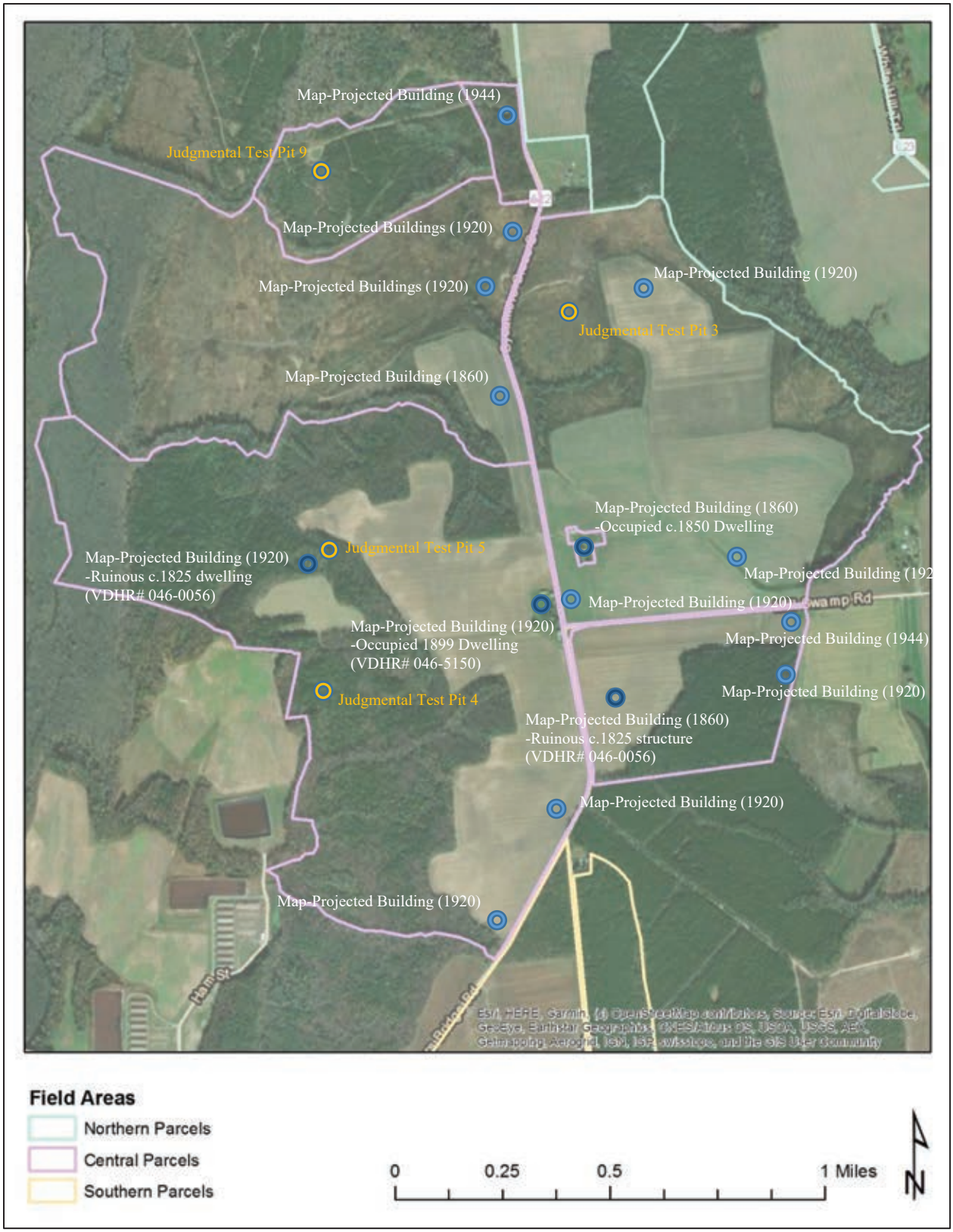



**Figure 6-14: Central parcels map.**

At present time, the area is a mix of open agricultural field and woodland, including both native forest and planted pine. The terrain in the crop fields of the central area parcels is generally flat while the forested and timbered areas to the rear of the parcels are slightly more rolling down to the bordering rivers and swampy areas. Most of the two parcels east of Sycamore Cross Drive are cleared as agricultural fields that are currently in crop. The northern field is bordered by a planted pine stand that has been logged within the last three years (Figure 6-15), although a narrow drainage extends through the front of the parcel along and crossing Sycamore Cross Road (Figure 6-16). The entrances to the timbered areas do not appear well maintained or easily accessible but there are farm roads in the crop fields that provide access to the properties. The southern field is bordered by a large patch of deciduous forest (Figure 6-17). Of the tracts on the west side of Sycamore Cross Road, the front portions (nearest the road) are cleared field while the rear portions nearer Blackwater River are wooded. The majority of the woodland in the southern tract is a mix of young-growth pine interspersed with native hardwood and swampy wetland vegetation along a network of drainages leading into the river (Figure 6-18). The large middle parcel was planted timber that was harvested within the last three years leaving just narrow lines of native vegetation along a drainage at the front of the tract and along Blackwater River to the rear. The northernmost two tracts on the west side of Sycamore Cross Road is a mix of native hardwood, young pine, and scrub brush (Figure 6-19 and Figure 6-20).

There were four standing buildings observed within the Central parcels area, one of which is located within a small parcel excluded from the study area footprint, while the other three are within the study area limits. Two of the extant buildings appear to coincide with structures depicted on Civil War-era maps and a third is also believed to be Antebellum but is not illustrated on maps from that period. At that time, two buildings were shown in proximity to the intersection of Sycamore Cross Road and Mill Swamp Drive including one on the northeast corner that was labeled as a "store" and an unlabeled building was mapped across the road to the south. The mapped location of the store coincides with the location of the standing building that is located within an exclusion parcel (Figure 6-21). This building functions as a dwelling, but may historically have operated as a tavern or "store". The building mapped on the south side of the intersection appears to coincide with a ruinous structure that remains within an agricultural field that is recorded as VDHR# 046-0057 (Figure 6-22 through Figure 6-24). A third building believed to be Antebellum was observed near the western edge of the assessment area, but does not appear to be depicted on Civil War-era maps. The structure has been previously recorded as the circa 1825 "Gray's House" (VDHR# 046-0056). The dwelling remains in ruinous condition, however, a variety of materials and evidence of other features, including brick fall, and subsurface pits were observed in the vicinity of the house (Figure 6-25 through Figure 6-30). Civil War-era maps do depict a building on the west side of Sycamore Cross Drive north of Gray's House and therefore may represent the same building with a mapping discrepancy. Field investigation did not reveal any surface evidence of a structure in the map-projected location of this building, however, there were artifacts such as whiteware, terracotta drainpipe, solarized glass, and brick fragments observed in the plowed field where the building was map-projected. In the trees to the west of the field, there was a push pile with a large stone and some modern detritus but no indications of extant structures or foundations (Figure 6-31).

The 1920 topographic map also reveals eight additional buildings present by that time, one of which coincides with the fourth standing buildings observed in the area. This building has been previously recorded as an 1899 dwelling (VDHR# 046-5150) (Figure 6-32). Field inspection did

not reveal surface evidence of any of the other map-projected buildings. None of the previously recorded buildings have been formally evaluated for NRHP-eligibility.

**Figure 6-15: Recently timbered terrain and vegetation around Judgmental 3, looking East.**

**Figure 6-16: Drainage between Berrymans Corner Rd and timbered field, looking East.**

**Figure 6-17: Debris pile within wooded area along southeastern edge of area, looking southwest.**

**Figure 6-18: Planted pine and wetland vegetation, looking west from Judgmental 4.**

**Figure 6-19: Deciduous vegetation and scrub in northern tract on west side of Sycamore Cross Road, looking south.**

**Figure 6-20: Planted pine in northern tract on west side of Sycamore Cross Road, looking southeast.**

**Figure 6-21: Intersection of Sycamore Cross Drive and Mill Swamp Road showing Civil War-era "store" to the right (within exclusion parcel) and c.1899 farmhouse (VDHR# 046-5150) to the left, looking north.**

**Figure 6-22: Ruinous c.1825 structure (VDHR# 046-0057) located southeast of Sycamore Cross Road and Mill Swamp Drive, looking east.**

**Figure 6-23: View of ruinous c.1825 structure (VDHR# 046-0057), looking north.**

**Figure 6-24: Interior view of ruinous c.1825 structure (VDHR# 046-0057), looking southeast**

**Figure 6-25: Circa 1825 "Gray's Brick House" (VDHR# 046-0056) in western portion of assessment area, looking northeast.**

**Figure 6-26: Depression near Gray's Brick House, looking west.**

**Figure 6-27: Second depression near Gray's Brick House, looking north.**

**Figure 6-28: Brick pile near Gray's Brick House, looking southeast.**

**Figure 6-29: Gray's Brick House setting, looking north.**

**Figure 6-30: Swampy area at rear of western parcel, looking northeast.**

**Figure 6-31: Push-pile and stone in treeline near Civil War-era map-projected building site in western parcel, looking southwest.**

**Figure 6-32: View of c.1899 farmhouse (VDHR# 046-5150), looking west.**

Four judgmental shovel test pits were excavated throughout this testing area including one near the standing c.1825 Grays Brick House (Judgmental STP 5), one within an area of native woodland (Judgmental STP 4), one within an area of young, mixed vegetation (Judgmental STP 9), and one

within a recently timbered area (Judgmental STP 3). Soils in these parcels vary drastically based on location. Soils near the Gray's House were undisturbed, primarily consisting of 10YR 4/3 sandy loam topsoil over top of 2.5Y 5/4 sandy clay subsoil (Figure 6-33). The shovel test pit in the native woodland area had similar stratigraphy; dry, although with wetland qualities, consisting of 10YR 3/2 Silty loam over 10YR 6/1 Sandy clay (Figure 6-34). The judgmental tests in the recently timbered areas were considerably deeper and disturbed. The soils in STP 3 consisted of a 2.5Y 5/6 Sandy clay loam (A horizon) over 10YR 5/6 Sandy clay (B horizon) (Figure 6-35).

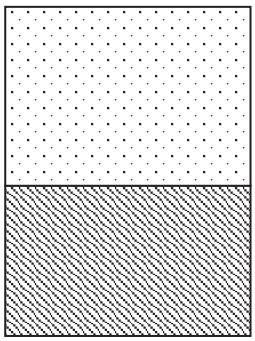



**Figure 6-33: Soil Profile of Judgmental 5.**

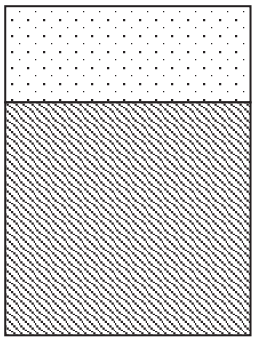
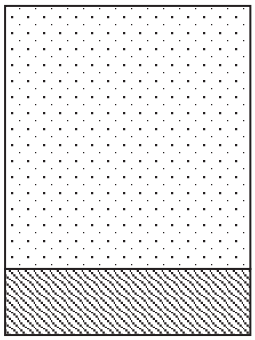



**Figure 6-34: Soil Profile of Judgmental 4.**



2.5Y 5/6 Sandy clay loam
0-68 cm

10YR 5/6 Sandy clay
68-80 cm

**Figure 6-35: Soil Profile of Judgmental 3.**

### SOUTHERN PARCELS

The Southern Parcels area consists of seven tracts of land sited at the southern end of the overall study area. The area spans Ramsey Road (State Rte 622) with three parcels on the west side of the road and three on the east side, as well as one on the south side of Rattlesnake Trail. The parcels generally back up to small drainages that dissect the area (Figure 6-36).

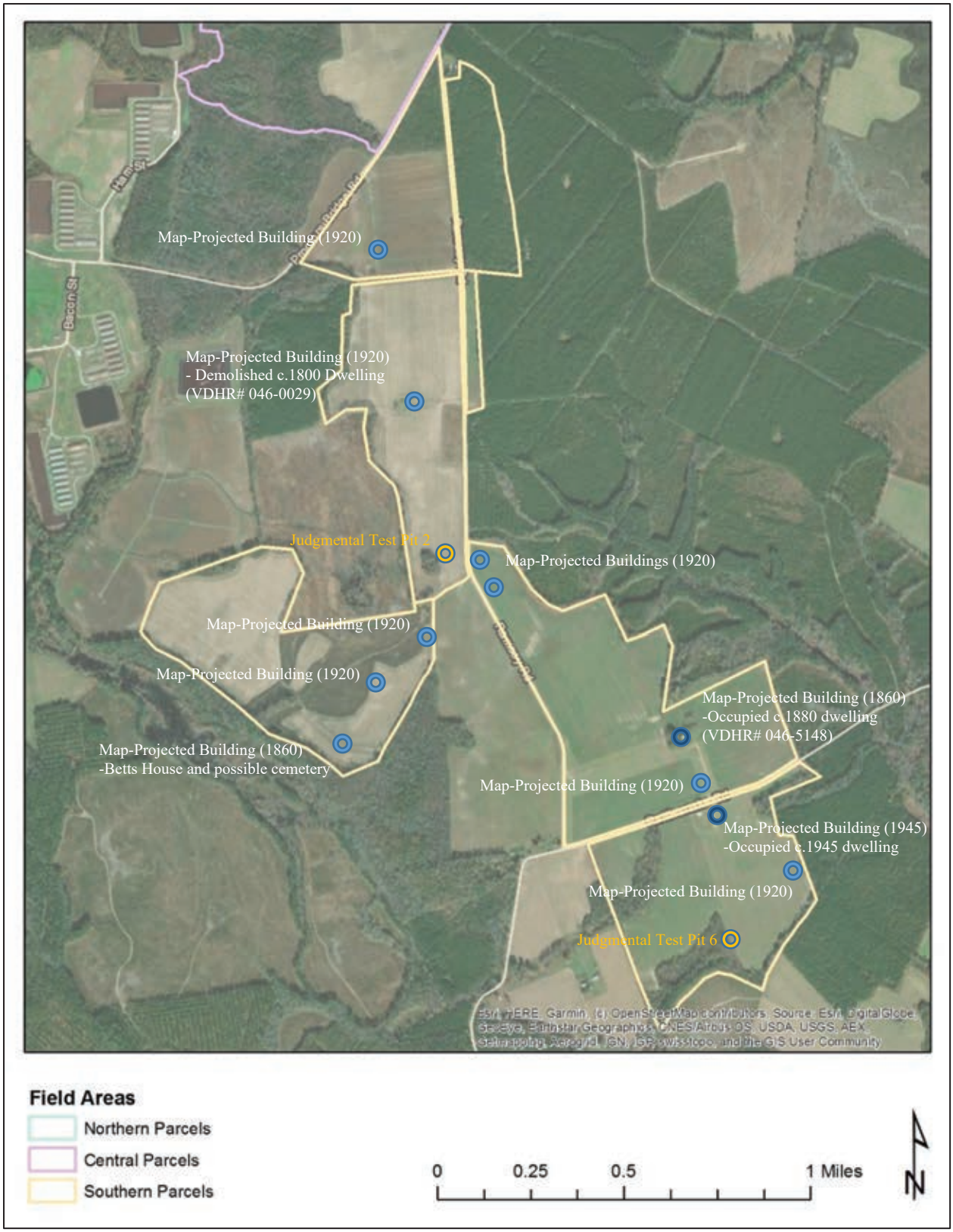



**Figure 6-36: Southern parcels map.**

At present time, this area is primarily open agricultural field with just small patches of planted and recently harvested timber, as well as smaller patches of vegetated native woodland. The timber harvested area is limited to the southwestern-most parcel abutting a drainage leading to Blackwater River that was harvested within the last three years. A network of logging roads leads through this parcel and beyond the timbered area to an agricultural field at the rear. Another large patch of planted pine is situated on the east side of Ramsay Road at the northeastern edge of this area. The native woodlands are limited to treelines bordering two low drainages that cross through the southeastern-most parcel and a larger patch of woodland in the northernmost parcel (Figure 6-37 and Figure 6-38). Vegetation in these areas consists of a mix of deciduous trees and some evergreens. The remaining portions of the southern parcel area are primarily agricultural fields that are currently in crop (Figure 6-39 through Figure 6-41). Terrain of this area is nearly flat, particularly within the crop field areas, while the edges and rear of the parcels slopes gently towards the short, low drainages that cross through the southernmost two parcels (Figure 6-42).

There were two standing building complexes observed within the Southern Parcels area, including a single-family home and associated outbuilding set near the road in the front of the southernmost parcel along Rattlesnake Road and a farm complex across the road to the north. The building on the north side of Rattlesnake Road appears to coincide with a Civil War-era map projected building, however, the home is previously recorded as a c.1880 dwelling (VDHR# 046-5148) (Figure 6-43 through Figure 6-45). The extant building on the south side of Rattlesnake Road coincides with a building depicted on a 1945 topographic map. The small frame building appears to date from the second-quarter of the twentieth century (Figure 6-46). Civil War-era maps reveal what is now Ramsey Road was present, as was Rattlesnake Trail, although this road was depicted at that time as secondary route. Another road crossing the area was also depicted and coincides with what is now a private farm lane along the lower edge of the southwestern-most parcel. In addition to the extant home on the north side of Rattlesnake Road that coincides with a Civil War map-projected building but is recorded as a c.1880 dwelling, another home labeled as "Betts" was depicted west of Ramsay Road. That building continues to be depicted on a 1920 topographic map of the area and was inventoried in the 1930s as part of a WPA project. That documentation noted the home as a frame structure and mentioned a family burial in the vicinity, however, no evidence of the structure or cemetery was observed at this time. The 1920 map depicts a number of additional buildings throughout the area as well, including two along the west side of Ramsay Road in the northwestern two parcels, two more set further back from Ramsay Road in the southwestern parcel, two set immediately along the east side of Ramsay Road, and two spanning Rattlesnake Road. Field investigation revealed evidence of one building projected on the west side of Ramsay Road on the 1920 topographic map, but none of the other map-projected buildings from the Civil War-era or 1920 topo map. The building site on the west side of Ramsay Road verified through field inspection was also previously recorded in 1973 as a c.1800 dwelling frame dwelling. At that time, it was noted as remaining in ruinous condition and was updated to demolished by 2005 (VDHR# 046-0029). Field inspection at this time confirmed the building is no longer extant, but the site is still evident as a grassy patch with relic hardwood vegetation at the end of a dirt lane within the center of an otherwise plowed and cultivated agricultural field. Located south of this homesite within the same parcel is a small patch of trees that is not depicted on maps until a 1960s aerial that reveals it as a ring of trees. Inspection at this time revealed a ring of hardwood trees with scrub brush and greenbriers throughout the interior (Figure 6-47). Several fence posts remain around the ring, and the soils were soft and uneven. A surface scatter of cultural materials included iron scrap and a twentieth century bottle dump (Figure 6-48 and Figure 6-49).

**Figure 6-37: Wooded area in northern parcel, looking east.**

**Figure 6-38: View of treeline in vicinity of Judgmental 6, looking north.**

**Figure 6-39: Landscape within southeastern parcel, looking north.**

**Figure 6-40: View towards map-project building site (VDHR# 046-0029) within northwestern parcel, looking north.**

**Figure 6-41: Crops within fields bordering Ramsay Road, looking north.**

**Figure 6-42: Terrain at edge of field in southernmost parcel, looking south.**

**Figure 6-43: Extant building on the north side of Rattlesnake Road coinciding with a Civil War map project and previously recorded as a c.1880 dwelling (VDHR# 046-5148), looking northeast.**

**Figure 6-44: Barn in the vicinity of the previously recorded c.1880 dwelling (VDHR# 046-5148), looking north.**

**Figure 6-45: Shed in the vicinity of the previously recorded c.1880 dwelling (VDHR# 046-5148), looking northeast.**

**Figure 6-46: Extant twentieth century dwelling along south side of Rattlesnake Road, looking southwest.**

**Figure 6-47: Tree ring in northwestern parcel, looking north.**

**Figure 6-48: Vegetation within tree ring, looking north.**

**Figure 6-49: Iron scrap within tree ring, looking west.**

Two judgmental shovel test pits were excavated in the southern parcels area, including one within an agricultural field in the northwestern parcel in the vicinity of the tree ring, and the other within the southwestern parcel near the edge of a field just inside the deciduous treeline. The shovel test within the field revealed a 28-cm deep 2.5Y 4/4 plow zone over a 2.5Y 5/6 A Horizon that extended to 44 cm deep resting on a 10YR 5/6 sandy clay subsoil (Figure 6-50). The shovel test within the treeline revealed a more natural soil profile consisting of a 2.5Y 4/2 sandy loam layer over 2.5YR 5/6 sandy clay loam (Figure 6-51).

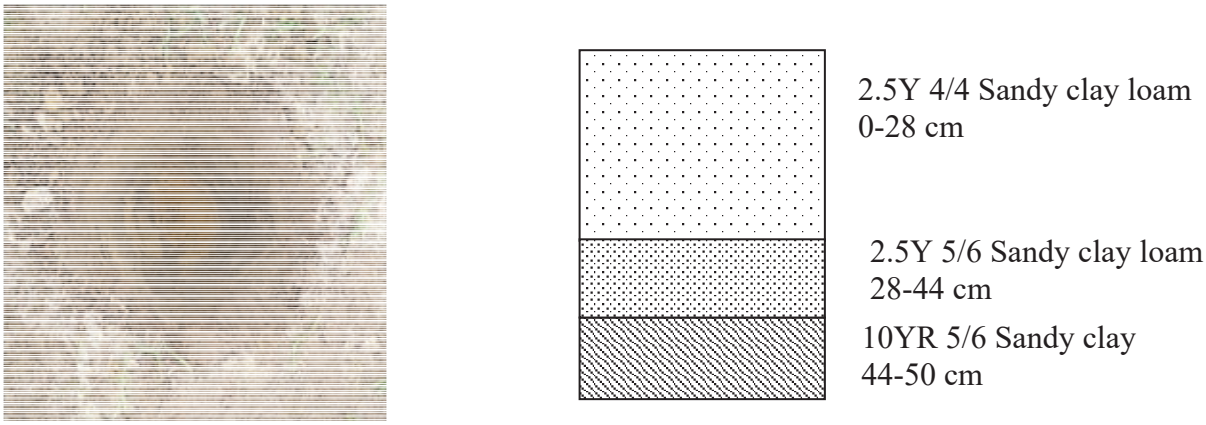
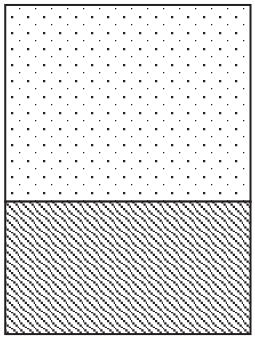



**Figure 6-50: Soil Profile of Judgmental 2.**



2.5Y 4/2 Sandy loam
0-24 cm

2.5Y 5/6 Sandy clay loam
24-37 cm

**Figure 6-51: Soil Profile of Judgmental 6.**

# 7. CONCLUSIONS AND RECOMMENDATIONS

In August 2023 Dutton +Associates, LLC (D+A) completed a Phase IA cultural resource assessment of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar study area in Isle of Wight and Surry counties, Virginia. The assessment was conducted for planning purposes in order to confirm existing conditions of the study area, note surface evidence of cultural activity, and identify recommended survey methods based upon the results of the background research and field reconnaissance. The study area is located near the border of Isle of Wight and Surry counties generally along Sycamore Cross Road, Ramsey Road, Mill Swamp Road, Rattlesnake Trail, and White Hill Trail. The study area consists of multiple parcels and tracts of land that may not correspond precisely with the boundaries chosen for the final development of the project. Rather, the study area represents the maximum extent of the parcels being considered for development.

Analysis of historic maps and aerial photographs from the mid-nineteenth to early-twentieth century reveal a well-established network of roads and a number of dwellings scattered across the study area during that period. Previous cultural resource survey has recorded a number of buildings from that period, although many have since been demolished and the study area is now sparsely developed. Just seven (7) building/building complexes remain extant within the study area, although they range from good condition and occupied to ruinous and abandoned. Several additional homes and building complexes are within or bordering the overall study area limits but are in carve-out parcels excluded from development. Buildings/complexes within the study area include two ruinous early-nineteenth century dwellings, three late-nineteenth century dwellings, a vacant early-twentieth century dwelling, and a mid-twentieth century dwelling. Field inspection revealed evidence of two additional map projected buildings that remain only as sites.

The study area is bordered by Blackwater River and Mill Swamp and crossed by numerous swamps, drainages, and pocosins. These natural resources would have been attractive to prehistoric hunters and gatherers, but the terrain within the study was not likely to have supported large, permanent settlements. The primary prehistoric resources that are likely to be present are small, temporary procurement camps located above the wetlands, however, no such sites have been previously recorded within the study area limits.

Although the study area contains a number of site-predictive factors, such as the natural resources, a historic road network, and mapped buildings, land use throughout the twentieth and twenty-first centuries has negatively impacted the stratigraphic integrity of the soils. Much of the study area has been used to produce timber for an extended period of time and multiple harvests resulting in multiple episodes of clearcutting, planting, and regrowth. Most of the regrowth has been in the form of trees planted in steeply-banked rows interspersed with deep furrows, and in most cases the topsoil and eluviated layers have been destroyed or displaced. Areas not put to use for timber have been used agriculturally and therefore subject to regular plow and tilling.

Based on the above observations, the locations of the map-projected buildings that were field verified as well as previously recorded architectural resources should be considered high potential for historic sites. Together, these account for an area covering about **34 hectares (85 acres)** total. The map-projected locations of buildings that were not visible through surface reconnaissance but reveal evidence of prior disturbance from logging should be considered moderate potential for

historic sites. Landforms bordering Blackwater River should likewise be considered moderate potential for prehistoric sites, in addition to open, well-drained fields that have not be previously disturbed by logging. Together, the moderate potential area covers an area of about **365 hectares (901 acres)** total. A 25% sample of the moderate potential areas should be subjected to targeted subsurface testing. This sample should include the least disturbed landforms that correspond to or share similar characteristics as the locations of buildings depicted on historic maps. The remainder of the study area that does not lie in wetland should be considered low potential for archaeological resources. A sample constituting 10% of the low-potential area should be subjected to subsurface testing. This 10% should include the least-disturbed terraces overlooking wetlands and intersections of streams to test for prehistoric resources; along the edges of roads and field depicted on Civil War-era maps to test for early historic sites; and any other areas that appear to be less disturbed in the field. The total low probability area is about **170 hectares (421 acres).** A large tract of land at the northern end of the study area has been subject to recent, approved phase I survey and that area will not require further investigation as part of this effort (Table 7-1 and Figure 7-1 and Figure 7-2).

**Table 7-1: Summary of archaeological potential within the study area.**

| Potential | Reason | STP Sample | Total Area | STP Area |
|---|---|---|---|---|
| **High** | Yard space around extant and map-projected architectural resources | 100% | 34 hectares<br>85 acres | 34 hectares<br>85 acres |
| **Moderate** | Yard space around map-projected architectural resources in areas of documented disturbance. Finger ridges and terraces overlooking Blackwater River and confluences. | 25%, chosen based on field conditions, pedestrian survey of remainder | 365 hectares<br>901 acres | 91 hectares<br>225 acres |
| **Low** | Areas with no site predictors | 10%, chosen based on field conditions, pedestrian survey of remainder | 170 hectares<br>421 acres | 17 hectares<br>42 acres |
| **No Subsurface Testing** | Wetlands, water-saturated soils, slopes greater than 15%, previously surveyed areas | Pedestrian survey where possible | 248 hectares<br>613 acres | Pedestrian survey where possible |
| **Total** | | | **817.46 hectares<br>2,020 acres** | **142 hectares<br>352 acres** |

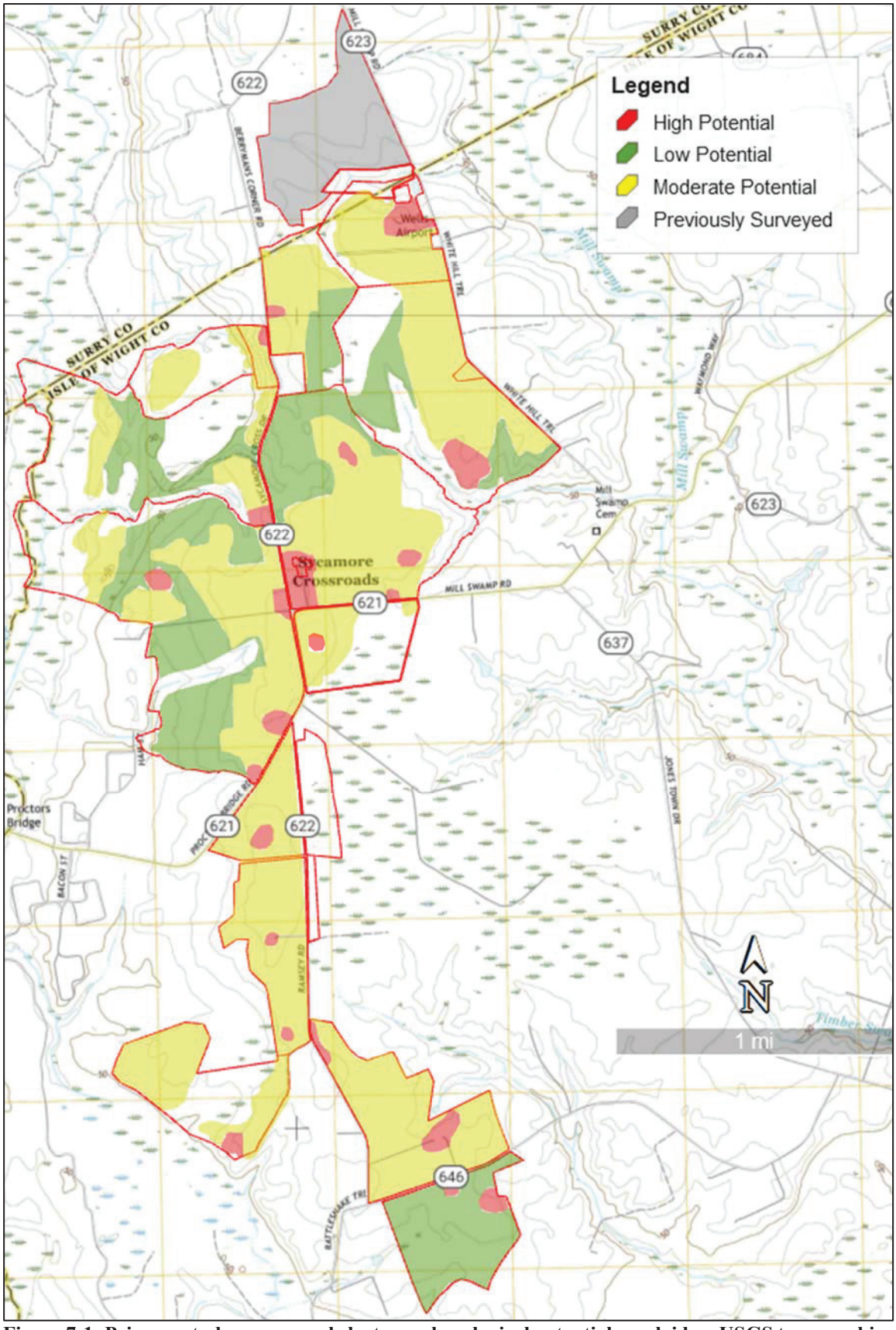



**Figure 7-1: Primary study area parcel cluster archaeological potential overlaid on USGS topographic map.**

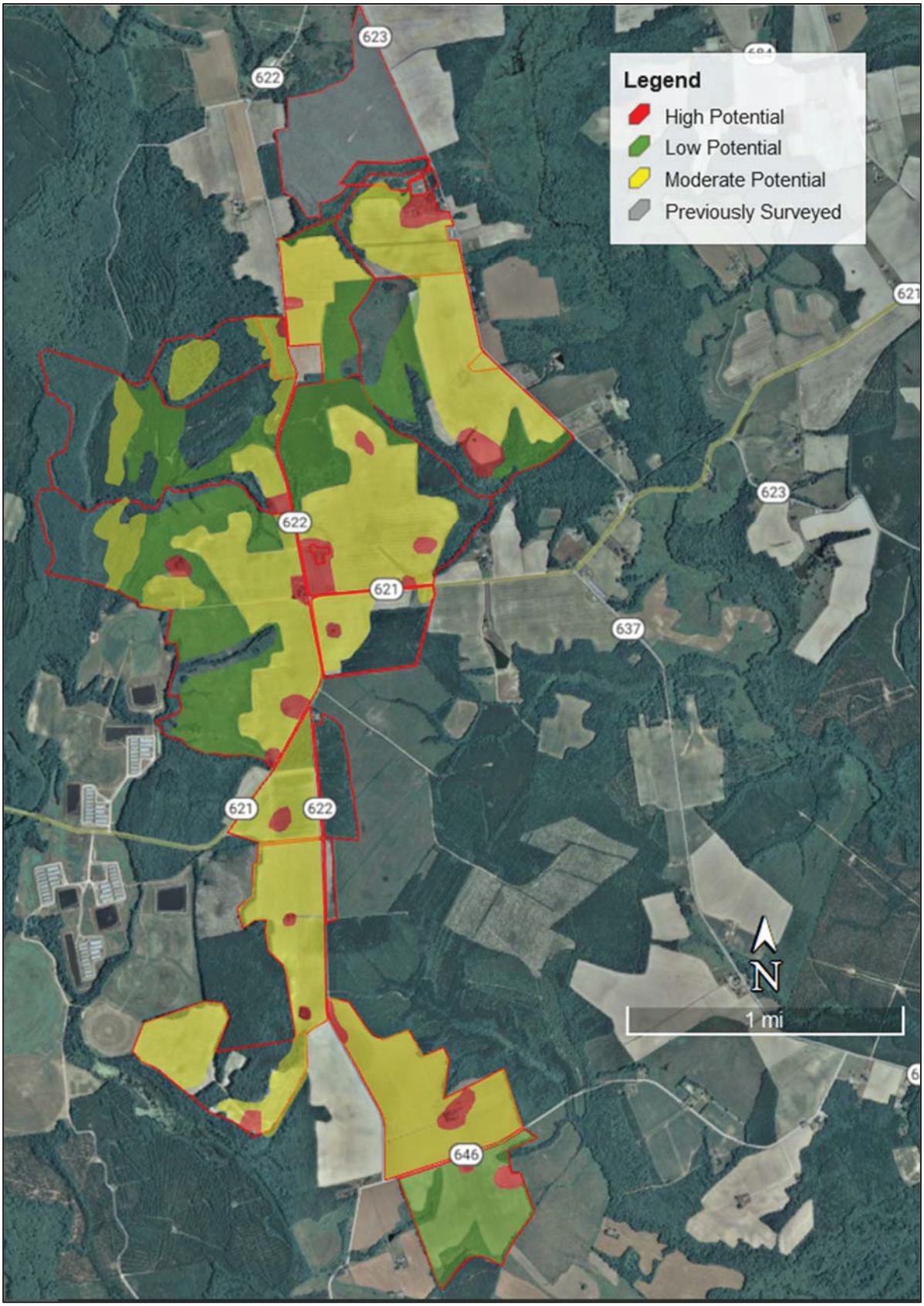



**Figure 7-2: Primary study area parcel cluster archaeological potential overlaid on aerial photography.**

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# APPENDIX A: RESUMES

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**DAVID H. DUTTON**
**Managing Partner**

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

## Education

Master of Arts, 1990
Archaeological Studies
Boston University
Boston, Massachusetts

Bachelor of Science, 1986
Anthropology and Sociology
Virginia Commonwealth University
Richmond, Virginia

## Appointments

Historic Advisory Committee, Woodrow Wilson Bridge Design Competition, 1998

Dept. of the Army Counterpart Regulations Task Force, NCSHPO, 1999

Virginia Department of Historic Resources Archaeology Advisory Group, 2000

Historic Preservation Committee Chesterfield County, Virginia 2011

Dominion Historic, Scenic, and Cultural Advisory Group, 2017

Mr. Dutton has over 25 years of professional historic preservation experience throughout the East Coast, with a focus on Section 106 coordination and review. He directed the Virginia Department of Historic Resources Division of Project Review where he managed all federal and state environmental reviews, rehabilitation tax credit project certification, historic preservation easements, covenants, and archaeological permits. Prior to his work at the state, Mr. Dutton served as a project review archaeologist for the President's Advisory Council on Historic Preservation. His geographic responsibility was the southeastern United States.

Mr. Dutton has managed the successful completion of multiple cultural resource projects for public and private clients including identification, evaluation, and data recovery efforts for archaeological and architectural properties, HABS documentation, Battlefield Cultural Heritage Plans, Interpretive Concept Plans, and Integrated Cultural Resource Management Plans (ICRMP). In addition, he has negotiated successful agreements under Section 106 for a wide variety of projects. Specific examples include a memorandum of agreement for the Dominion Surry-Skiffes-Whealton transmission line project and a programmatic agreement for the closure of Fort Monroe, a National Historic Landmark District.

Mr. Dutton brings clients both experience and expertise ensuring cultural resource requirements are successfully and efficiently integrated into project planning and construction.

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Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

**DAVID H. DUTTON**
**Managing Partner**

## Professional Experience

**Dutton + Associates, LLC**, Managing Partner, Richmond, Virginia, 2005 – Present. Directs the firm's technical services which include review of projects pursuant to federal and state historic preservation regulations, cultural resource plan development, field investigations, laboratory processing and analyses, and report preparation.

**American Civil War Center *at Historic Tredegar***, Chief Operating Officer, Richmond, Virginia, 2002 – 2006. Managed the Tredegar Iron Works site, the financial performance of the Foundation and construction of the Foundation's new exhibition facility and exhibit *In the Cause of Liberty*.

**Cultural Resources Inc.**, President and Principal Investigator, Williamsburg, Virginia, 1999 – 2002. Managed the firm's financial and technical performance. Directed and authored several cultural resource management studies including identification, evaluation, and data recovery efforts.

**Virginia Department of Historic Resources,** Director, Division of Project Review; Richmond, Virginia, 1994-1999. Managed all federal and state review and compliance programs; generated policies, specifications, and standards; directed the state historic preservation easement program; interfaced with federal and state executives, elected officials, developers, architects, and engineers on project development and implementation; managed the review and certification of plans for federal and state rehabilitation tax credits; and commented on proposed federal and state legislation and regulations as well as on national and regional historic preservation issues.

**Virginia Department of Historic Resources,** Archaeologist Planner; Richmond, Virginia, 1992-1994. Planned, coordinated, and supervised the statewide program in archaeological preservation planning; developed and implemented historic preservation plans; and managed, monitored, and evaluated grantee performance for departmental grants awarded in preservation planning.

**Advisory Council on Historic Preservation,** Historic Preservation Specialist, Staff Archaeologist; Washington, D.C. 1989 – 1992. Reviewed federal projects under Section 106 of the National Historic Preservation Act for the southeast United States; consulted with Congressional offices, federal and state agencies, local governments, and members of the general public; developed and reviewed historic property management plans; and assisted in development of federal policy for the identification and treatment of historic property.

## Example Projects and Publications

2007 Project Management of cultural resource team for King William Reservoir Archaeological Services Contract.

2008 Programmatic Agreement for the Closure of Fort Monroe and the Management of Historic Properties.

2017 Regulatory assistance for the Surry-Skiffes-Whealton Transmission Line Project, Surry and James City Counties and the City of Newport News.

2017 Regulatory assistance for the Atlantic Coast Pipeline project, North Carolina, Virginia, West Virginia, and Penssylvania.

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Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

**J. HOPE SMITH**
**PRINCIPAL INVESTIGATOR**

## Education

PhD, 2017
Anthropology
University of Tennessee
Knoxville, Tennessee

Bachelor of Arts, 2005
Historic Preservation
University of Mary Washington
Fredericksburg, Virginia

## Memberships

Register of Professional Archaeologists

Society for Historical Archaeology

Hope Smith holds a PhD in Anthropology, concentrating in Historical Archaeology, from the University of Tennessee and a B.A. in Historic Preservation from the University of Mary Washington. Her area of focus is eighteenth and nineteenth-century Virginia, and her research interests include material culture studies, artifacts of personal adornment, and the intersection of race and gender in plantation archaeology. She has over 12 years of experience in archaeology and has participated in both historic and prehistoric projects at all levels of investigation.

Her experience in Cultural Resource Management includes supervising fieldwork, analyzing field and artifact data, and authoring reports.

Prior to working at Dutton + Associates, she was employed as a Teaching Associate at the University of Tennessee, where she taught archaeology field schools and courses in archaeology, including a course on Cultural Resource Management law and practice.

As a project archaeologist for Dutton + Associates, Dr. Smith collaborates on all aspects of archaeological work, including supervising field work, and authoring project reports.

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Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

**J. HOPE SMITH**
**PRINCIPAL INVESTIGATOR**

## Professional Experience

**Dutton+Associates, LLC**, Project Archaeologist
Richmond, Virginia, 2017
Conducts archaeological investigations (Phase I, II, III and monitoring), prepares research designs, manages and directs archaeological field crew, analyzes artifacts, writes reports.

**University of Tennessee, Knoxville,** Graduate Teaching Associate
Knoxville, Tennessee, 2011-2017
Supervised fieldwork during two archaeological field schools; taught undergraduate-level archaeology courses.

**James Madison's Montpelier** Crew Chief
Montpelier Station, Virginia 2008-2011
Performed fieldwork and supervised students and interns in excavation and survey projects; drew maps and coauthored site reports.

**The Louis Berger Group** Field Technician, Richmond, Virginia, 2005-2007.
Performed fieldwork at all levels of excavation on a wide variety of projects.

**The Ottery Group** Field Technician, Silver Springs, Maryland, 2005.
Performed fieldwork on a complex multi-component historic Phase III in Gloucester, Virginia.

## Example Projects and Publications

*Phase I Surveys*
Mecklenburg Timber and Prison sites, Mecklenburg Co
Dranesville Rd. Development, Fairfax Co
Pavilion Development, Prince William Co
Dry Mill, Loudoun Co
Remington to Gordonsville Transmission Line
Montebello Farm, Loudoun Co.
Arbordale, York Co.
Spotsylvania Town Center, City of Fredericksburg
Palmer's Creek, Spotsylvania Co.

*Phase II Evaluations*
44LD1244, Loudoun Co
44WM0312, Westmoreland Co

*Museum Technical Reports*
Object Report and Museum Purchasing Recommendations, The Montpelier Foundation, Orange Co
Report of Archaeological Testing at Mount Pleasant, The Montpelier Foundation, Orange Co
Archaeological Dataset and Context, Digital Archaeological Archive of Comparative Slavery

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**DARA FRIEDBERG**
Architectural Historian

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

## Education

Master of Science, 2004
Historic Preservation
University of Pennsylvania
Philadelphia, Pennsylvania

Bachelor of Arts, 1999
Historic Preservation
Mary Washington College
Fredericksburg, Virginia

Ms. Friedberg holds a M.S. in Historic Preservation, concentrating in Architectural Conservation, from University of Pennsylvania and a B.A. in Historic Preservation from Mary Washington College. She has worked in historic preservation and conservation since 1999 and has taken part in projects in Virginia, Maryland, Pennsylvania, Washington, D.C., South Carolina, Georgia, Connecticut, New York, Illinois, Ohio, and Tennessee.

Her experience in Cultural Resource Management includes conducting field surveys, researching and documenting historic resources, preparing National Register of Historic Places nominations, performing archival research, assisting in Federal Tax Credit projects, and completing material analyses of historic mortar and paint.

Prior to working at Dutton + Associates, she was employed as a conservator. This allowed her to conduct multiple conditions assessments of architecture, monuments, and sculptures as well as provide treatment recommendations and project specifications. She has also physically worked on the conservation of stone, metal, and decorative painting. At the completion of each project she provided thorough documentation of each process undertaken.

As an Architectural Historian for Dutton + Associates, Ms. Friedberg collaborates on all aspects of historic and architectural projects including performing field work, conducting project research, and authoring project reports.

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Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

**DARA FRIEDBERG**
Architectural Historian

## Professional Experience

**Dutton + Associates, LLC,** Architectural Historian, Midlothian, Virginia, 2013-Present
Conducts historic resources surveys, performs background research, develops historic contexts, writes National Register nominations, and authors and formats project reports

**Kreilick Conservation, LLC,** Conservator, Oreland, Pennsylvania, 2006-2012
Completed conditions assessments and treatment recommendations for stone and metal projects, conserved stone and metal architectural elements, monuments, and sculptures, and authored conservation reports.

**Powers & Company, Inc.,** Preservation Associates, Philadelphia, Pennsylvania, 2002-2006
Conducted historic resources surveys, performed background research, assisted with Federal Historic Preservation Tax Credit projects, completed mortar and historic paint analyses, completed conditions assessments and recommendations for buildings, produced reports for large scale restoration projects, and created project specifications.

**Albert Michaels Conservation, Inc.,** Conservation Technician, Harrisburg, Pennsylvania, 2001-2002
Conserved decorative paintings and refinished ornate wood, and authored conservation reports.

**KCI Technologies, Inc.,** Cultural Resource Specialist, Hunt Valley, Maryland, 2000-2001
Conducted historic resources surveys, performed background research, and authored project reports.

**Restoration Concepts,** Restoration Intern, Burlington, Vermont, 1999
Assisted in the restoration of a building.

## Example Projects

*National Register of Historic Places Nominations*
- Tower Building, Richmond
- Lee Medical Building, Richmond
- Fuqua Farm, Chesterfield

*Preliminary Information Forms*
- North Thompson Street Historic District, Richmond
- Virginia Avenue Elementary School, Petersburg

*Interpretive Signs*
- Skiffes Creek Interpretive Signs, multiple counties
- Spring Hill Plantation Interpretive Signs, Chesterfield Co.

*Viewshed Analyses*
- Viewshed Assessment for Fort Evans, Loudoun Co.
- Viewshed Analysis for Ellerslie, Surry Co.

*Military Analyses and Landscape Studies*
- Phase IA Assessment and Military Terrain Analysis of the Plantation Woods Property, Spotsylvania Co.
- Phase I, Viewshed Assessment, and Military Terrain Analysis for the Potato Run Mitigation Bank, Culpeper Co.
- Assessment of Two Core Areas of the Battle of Buckland Mills, Prince William Co.

*Cultural Resource Survey and Compliance Reports*
- Cultural Context and Thematic Study for the Proposed Revitalize RVA Project, Richmond
- Assessment of Fulton Gas Works, Richmond
- Documentary Study of the Cromley Row Project Area, Alexandria
- Study of Washington Boundary Ditches, Fairfax Co.
- Intensive Level Survey for Warehouse No. 3 of the Richmond Intermediate Terminal, Richmond
- Economic Context of Middlesex County and the Palmer House, Middlesex Co.
- Phase I Survey for the Remington-Gordonsville Transmission Line Rebuild Project, multiple counties
- Phase II Archaeological Evaluation of Site 44LD1244, Loudoun Co.

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# Attachment Q

# Department of Historic Resources Concurrence Letter on Survey Methodology

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COMMONWEALTH of VIRGINIA

Department of Historic Resources
2801 Kensington Avenue, Richmond, Virginia 23221

Travis A. Voyles
*Secretary of Natural and Historic Resources*

Julie V. Langan
*Director*
Tel: (804) 367-2323
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August 28, 2023

Julia Wellman
Dept. of Environmental Quality
Office of Environmental Impact Review
P.O. Box 1105
Richmond, VA 23218

RE- Application of Sycamore Cross Solar, LLC, PUR-2023-00126
Isle of Wight and Surry Counties, VA
DEQ #23-108S
DHR File No. 2023-4691

Dear Ms. Wellman

We have received your request for comments on the project referenced above. Our comments are provided as assistance to the Department of Environmental Quality (DEQ) and the State Corporation Commission (SCC) in the review of this application. In general, the SCC application does not reflect the full record of consultation on this project, nor does it sufficiently identify potential impacts to historic properties that may be eligible for listing in the Virginia Landmarks Register (VLR)/National Register of Historic Places (NRHP).

On August 2, 2023, DHR received the OEIR review request. The application includes a Phase IA desktop analysis and proposed survey strategy for the Sycamore Cross Solar project area. Typically, DHR does not consider desktop analyses to be sufficient for identifying historic properties that may be eligible for the listing in the VLR/NRHP. Furthermore, the proposed survey strategy included in the application for the Sycamore Cross Solar project is, in our opinion, inadequate for identifying archaeological resources within the project area.

In a letter dated August 14, 2023, DHR provided comments to the applicant's consultants, Dutton and Associates (D+A) regarding the proposed survey strategy in the Phase IA desktop analysis report. DHR recommended revising the probability map to more accurately reflect previous disturbance and site probability. On August 24, 2023, DHR received a revised Phase IA report from D+A. The newly revised survey strategy is generally sufficient for identifying archaeological resources within the project area; however, this revised Phase IA is not included in the SCC application. The application should be amended to include the revised Phase IA report.

As stated earlier, desktop analyses are typically not considered sufficient for identifying historic resources that are eligible for listing in the VLR/NRHP and assessing the full impacts of a project on historic resources. Without a sufficient identification of historic properties, it is difficult for DHR to provide meaningful comments about potential adverse impacts. The desktop analysis does state that there are areas with moderate to high potential

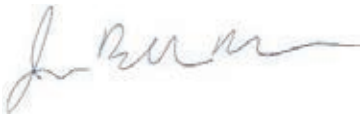
for archaeological resources. These areas should be adequately surveyed, and any identified sites should be evaluated for eligibility for listing in the VLR/NRHP and assessed for impacts. The desktop analysis also listed previously identified architectural resources within the study area that have not been evaluated for the VLR/NRHP. Moderate to severe impacts to VLR/NRHP-eligible/listed resources should be avoided, minimized or mitigated in consultation with DHR and other stakeholders.

While DHR often supports the phased review of electric transmission line projects regulated by the SCC, solar projects often have much larger footprints and more extensive impacts on historic resources. We are concerned that any approval by the SCC at this time would be made with insufficient information to make an informed decision regarding the potential impact of this project on significant historic resources. That said, in order to fully identify and address impacts to historic resources, we recommend the following:

1. The SCC application must be updated to include the revised Phase IA report and amended survey plan.
2. Any project approval should allow for sufficient flexibility in design to accommodate avoidance of significant archaeological sites and minimization of visual impacts to adjacent properties and construction should not commence until the studies and analyses listed below and completed.
3. Archaeological and architectural surveys should be completed by qualified professionals in accordance with DHR's *Survey Guidelines* and the revised Phase IA report prior to any significant project-related ground disturbance. All identified resources should be evaluated for listing in the VLR/NRHP.
4. The results of the archaeological and architectural surveys should be submitted to DHR for review and comment.
5. Potential direct and indirect impacts to all VLR/NRHP-eligible/listed resources, including previously inaccessible properties, should be assessed in consultation with DHR.
6. All moderate to severe impacts to VLR/NRHP-eligible/listed resources should be avoided, minimized, and/or mitigated by the applicant in consultation with DHR and other stakeholders.

If you have any questions regarding these comments, please contact me at 804-482-8091 or via email, jennifer.bellville-marrion@dhr.virginia.gov.

Sincerely,



Jenny Bellville-Marrion
Project Review Archaeologist
Review and Compliance Division

Cc: Robert Taylor, Dutton and Associates

COMMONWEALTH of VIRGINIA

Travis A. Voyles
*Secretary of Natural and Historic Resources*

**Department of Historic Resources**
2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan
*Director*
Tel: (804) 367-2323
Fax: (804) 367-2391
www.dhr.virginia.gov

August 28, 2023

Julia Wellman
Dept. of Environmental Quality
Office of Environmental Impact Review
P.O. Box 1105
Richmond, VA 23218

RE- Application of Sycamore Cross Solar, LLC, PUR-2023-00126
Isle of Wight and Surry Counties, VA
DEQ #23-108S
DHR File No. 2023-4691

Dear Ms. Wellman

We have received your request for comments on the project referenced above. Our comments are provided as assistance to the Department of Environmental Quality (DEQ) and the State Corporation Commission (SCC) in the review of this application. In general, the SCC application does not reflect the full record of consultation on this project, nor does it sufficiently identify potential impacts to historic properties that may be eligible for listing in the Virginia Landmarks Register (VLR)/National Register of Historic Places (NRHP).

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Sincerely,

Jenny Bellville-Marrion
Project Review Archaeologist
Review and Compliance Division

Cc: Robert Taylor, Dutton and Associates

ISLE of WIGHT COUNTY MUSEUM

**MEMORANDUM**

TO: Amy Ring, Director of Community Development, Isle of Wight County

FROM: Jennifer England
Director, Isle of Wight County Museum
Historic Resources Manager, Isle of Wight County

RE: Sycamore Cross Solar Energy Generation Facility
Conditional Use Permit (CUP-8-23) – Third Submittal Tax Map Numbers 09-01-001, 10-01-017, 11-01-015, 16-01-002, 16-01- 002A, 16-01-003, 16-01-008, 16-01-009, 17-01-003, 17-01-003C, 17-01- 001, 17-01-002, 27-01-003, and 27-01-004

DATE: March 26, 2024

---

After reviewing the **Updated Historical and Cultural Resources Report Dated August 2023** as prepared by Dutton + Associates for AES Clean Energy and sPower with reference to Conditional Use Permit (CUP-8-23), the Isle of Wight County Museum/Isle of Wight County Department of Historic Resources acknowledges that much of the acreage to be developed as a solar energy facility has been plowed, logged and utilized as farmland for many years. However, there are still a few notable concerns, and some of them are noted here as they were in a previous memorandum.

The report's study area includes multiple parcels and tracts of land--some of these span Isle of Wight County's border to cross into Surry County. Within the project area, there are multiple recorded archaeological and architectural resources. These sites as well as their boundaries are considered high potential for archaeological discovery. Expanding the project area by one mile adds other resources to this list. Vegetative cover may be required for the varied project locations within the viewshed of some of these historic resources.

103 Main Street
Smithfield, VA 23430
(757) 356-1014
(757) 357-0114 FAX

ISLE of WIGHT COUNTY MUSEUM

Of particular note are these sites. Avoidance with a 100-foot buffer is recommended. In the event that is not possible, a Phase II evaluation should be required.

- Site 44SYO309, farmstead
- Site 44SY0310, archaeological materials with a single grave
- Cemeteries in areas D2 and D3

There are nine previously recorded architectural resources located within the study area. Only two have been formally evaluated by Virginia Department of Historic Resources staff for eligibility on the National Register of Historic Places. Before proceeding with the project, the remaining resources should be formally evaluated. Additionally, these dwellings may or may not have associated cemeteries which will require avoidance.

Overall, the proposed project will certainly impact – both directly and indirectly - archaeological, cultural or architectural historic resources in Isle of Wight County. Determining the full extent of the project's archaeological history may not be possible because of size; however, if the project proceeds, an on-site archaeologist during site preparation and construction should be considered.

The potential on the project site for archaeological artifacts is highly likely. As the project proceeds, the Isle of Wight County Museum should be the repository for discovered artifacts and future finds on this site as they will further the interpretation or discovery of Isle of Wight County history.

103 Main Street
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(757) 356-1014
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# SYCAMORE CROSS SOLAR
## ECONOMIC & FISCAL CONTRIBUTION TO THE COUNTIES OF SURRY AND ISLE OF WIGHT, VIRGINIA

**Prepared for**

aes

MANGUM economics

4198 COX ROAD, SUITE 104
GLEN ALLEN, VIRGINIA 23060
804-322-7777

MANGUMECONOMICS.COM

SEPTEMBER 2023

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# About Mangum Economics, LLC

Mangum Economics is a Glen Allen, Virginia based firm that was founded in 2003. Since then, we have become known as a leader in industry analysis, economic impact assessment, policy and program evaluation, and economic and workforce strategy development. The Mangum Team specializes in producing objective and actionable quantitative economic research that our clients use for strategic decision making in a variety of industries and environments. We know that our clients are unique, and that one size does not fit all. As a result, we have a well-earned reputation for tailoring our analyses to meet the specific needs of specific clients, with a specific audience.

Most of our research falls into four general categories:

- **Economic Development and Special Projects:** The Mangum Team has performed hundreds of analyses of proposed economic development projects. One recent example was an analysis of the proposed $2.3 billion Green City "net-zero eco district." The Mangum Team has also authored multiple economic development plans, including identifying industry recruitment opportunities created by the high-speed MAREA and BRUSA sub-sea cable landings in Virginia Beach.
- **Energy:** The Mangum Team has produced analyses of the economic and fiscal impact of over 23 GW of proposed solar, wind, battery, and hydro projects spanning twenty states. Among those projects was Dominion Energy's 2.6 GW Coastal Virginia Offshore Wind project off of Virginia Beach. In addition, the Mangum Team has also performed economic and fiscal impact analyses for the natural gas, nuclear, oil, and pipeline industries.
- **Information Technology:** Working with some of the largest names in the industry, to date the Mangum Team has produced analyses of the economic and fiscal impact of the data center industry in multiple states. Among those, were studies conducted in IL, MD, and VA that were instrumental in the passage of industry-specific legislation.
- **Policy Analysis:** The Mangum Team also has extensive experience in identifying and quantifying the intended and unintended economic consequences of proposed legislative and regulatory initiatives.

## The Project Team

Rebecca Kyle, *Senior Research Analyst*

Martina Arel, M.B.A., *Director – Economic Development & Energy Research*

A. Fletcher Mangum, Ph.D., *Founder and CEO*

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## Executive Summary

**This report assesses the economic and fiscal contribution that the proposed Sycamore Cross Solar project would make to the counties of Surry and Isle of Wight, Virginia. The primary findings from that assessment are as follows:**

1) **Sycamore Cross Solar is a proposed 240-megawatt (MW) alternating current (AC) solar photovoltaic power generating facility. The project would be located northeast of US Highway 460 and west of Route 10 in the counties of Surry and Isle of Wight, Virginia. The total acreage leased and purchased for the project would be approximately 1,156 acres of timberland and agricultural land.**
    - The actively used, fenced-in portion of the project site would encompass approximately 125 acres located in Surry County and approximately 1,030 acres located in Isle of Wight County.
    - The project would involve an investment of $437.1 million in capital equipment and improvements to the existing property. Approximately $34.6 million of that total would be located in Surry County and approximately $402.5 million would be located in Isle of Wight County.[1]

2) **The proposed Sycamore Cross Solar project would make a significant economic contribution to the counties of Surry and Isle of Wight:**
    - The proposed Sycamore Cross Solar project would provide an estimated one-time pulse of economic activity to the counties of Surry and Isle of Wight during its construction phase supporting approximately:
        - 197 direct, indirect, and induced job years.
        - $9.9 million in associated wages and benefits.
        - $91.6 million in economic output.
    - The proposed Sycamore Cross Solar project would provide an estimated annual economic impact to the counties of Surry and Isle of Wight during its ongoing operational phase supporting approximately:
        - 7 direct, indirect, and induced jobs.
        - $0.6 million in associated wages and benefits.
        - $1.6 million in economic output.

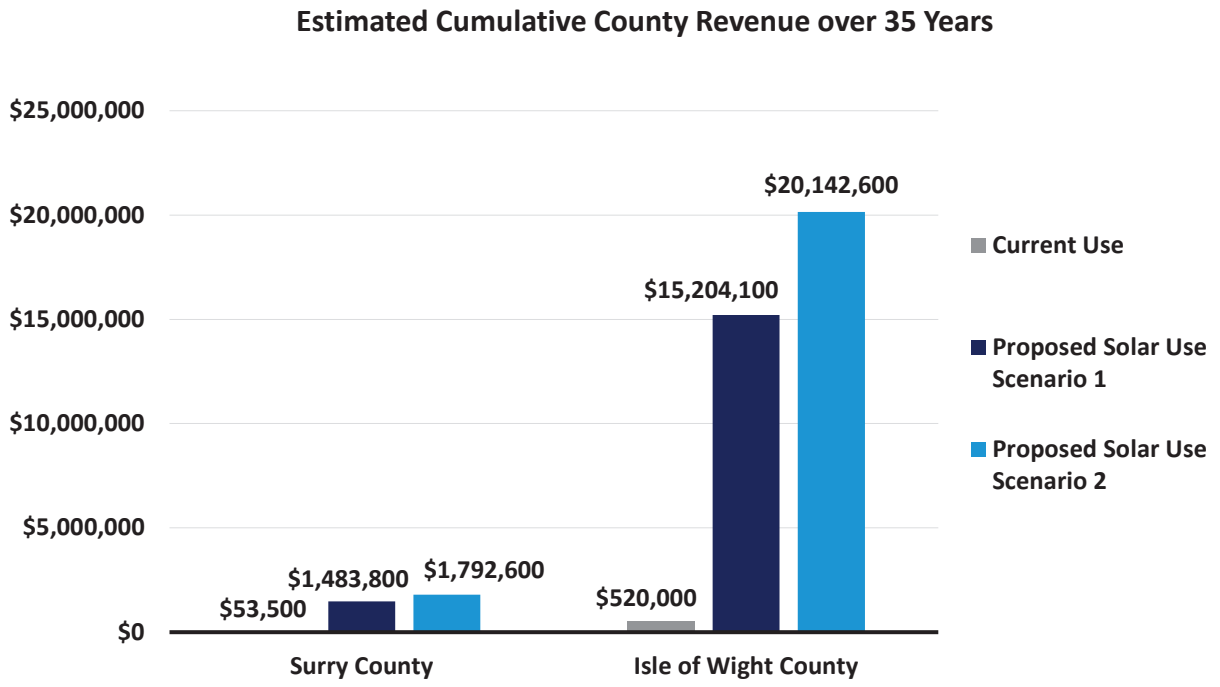
3) **The proposed Sycamore Cross Solar project would also make a significant fiscal contribution to the counties of Surry and Isle of Wight. The proposed project would generate approximately:**
    - $1.4 million in state and local tax revenue from the one-time pulse of economic activity associated with the project's construction.

[1] Data Source: AES Corporation. Allocation of generation capacity and investment subject to change based on final design.

- Surry County:
  - $1.5 million in cumulative county revenue over the facility's anticipated 35-year operational life assuming revenues are generated from the reassessment of the real property and the taxation of the associated capital investments, (Scenario 1); or
  - $1.8 million in cumulative county revenue over the facility's anticipated 35-year operational life assuming revenues are generated from the reassessment of the real property and payments associated with a locally adopted revenue share ordinance. The payments would be based on the project's generation capacity and would include a 10 percent escalator every five years (Scenario 2).
- Isle of Wight County:
  - $15.2 million in cumulative county revenue over the facility's anticipated 35-year operational life assuming revenues are generated from the reassessment of the real property and the taxation of the associated capital investments, (Scenario 1); or
  - $20.1 million in cumulative county revenue over the facility's anticipated 35-year operational life assuming revenues are generated from the reassessment of the real property and payments associated with a locally adopted revenue share ordinance. The payments would be based on the project's generation capacity and would include a 10 percent escalator every five years (Scenario 2).

4) **The proposed Sycamore Cross Solar project would have a significantly greater fiscal impact on The counties of Surry and Isle of Wight than the property generates in its current use:**

- Surry County: The proposed Sycamore Cross Solar project would generate approximately $1.5 million (from taxation on capital investments) or $1.8 million (from a revenue share ordinance) in cumulative county revenue over the facility's anticipated 35-year operational life, as compared to approximately $53,500 in cumulative county revenue in the property's current use – that's a 28- to 34-fold increase over the current use revenues.
- Isle of Wight County: The proposed Sycamore Cross Solar project would generate approximately $15.2 million (from taxation on capital investments) or $20.1 million (from a revenue share ordinance) in cumulative county revenue over the facility's anticipated 35-year operational life, as compared to approximately $520,000 in cumulative county revenue in the property's current use – that's a 29- to 39-fold increase over current use revenues.




*The estimates provided in this report are based on the best information available and all reasonable care has been taken in assessing the quality of that information. However, because these estimates attempt to foresee the consequences of circumstances that have not yet occurred, it is not possible to be certain that they will be representative of actual events. These estimates are intended to provide a good indication of likely future outcomes and should not be construed to represent a precise measure of those outcomes.*

# Introduction

This report assesses the economic and fiscal contribution that the proposed Sycamore Cross Solar project would make to the Counties of Surry and Isle of Wight, Virginia. This report was commissioned by AES Clean Energy (AES) and produced by Mangum Economics.

# The Project

Sycamore Cross Solar is a proposed 240-megawatt (MW) alternating current (AC) solar photovoltaic power generating facility. The project would be located northeast of US Highway 460 and west of Route 10 in the counties of Surry and Isle of Wight, Virginia. The total acreage leased and purchased for the project would be approximately 1,156 acres of timberland and agricultural land. The estimated actively used, fenced-in solar site encompasses approximately 125 acres in Surry County and 1,030 acres in Isle of Wight County.

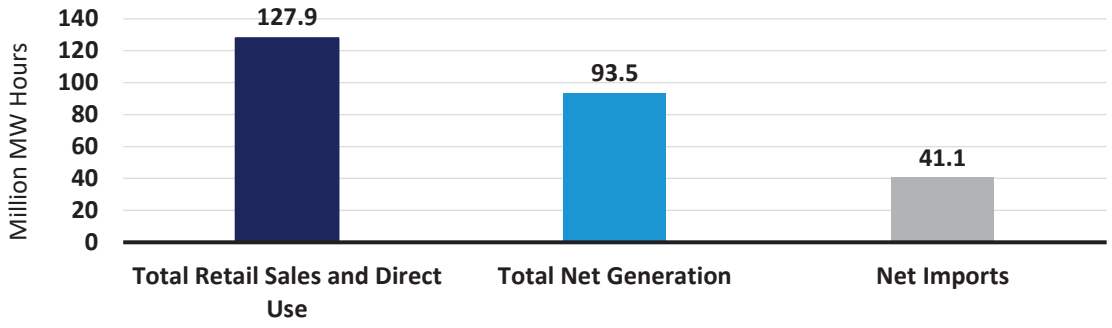
# Electricity Production in Virginia

This section provides a backdrop for the proposed Sycamore Cross Solar project by profiling Virginia's electricity production sector and the role that solar energy could play in that sector.

## Overall Market

As shown in Figure 1, in 2021 electricity sales and direct use in Virginia totaled 127.9 million megawatt hours, ranking the state 10th among the fifty states in terms of electricity consumption. However, only 73 percent of that demand was met by in-state utilities, independent producers, and other sources. As a result, Virginia had to import the remaining electricity it consumed from producers in other states. As with all imports, this means that the jobs, wages, and economic output created by that production went to localities in those states, not to localities in Virginia.

Figure 1: Demand and Supply of Electricity in Virginia in 2021 (in millions of megawatt-hours)[2]



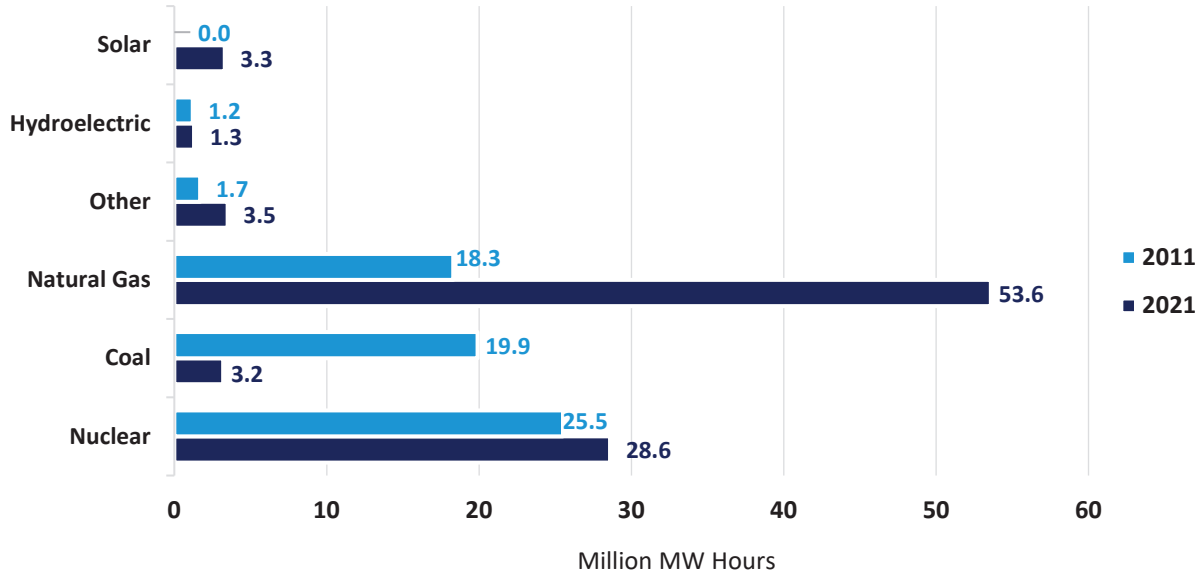

[2] Data Source: U.S. Energy Information Administration. In this chart, "Net Imports" also takes into account losses during transmission. As a result, it does not directly equal the residual of "Total Net Generation" minus "Total Retail Sales and Direct Use."

## Sources of Production

Between 2011 and 2021, the total amount of electricity produced in Virginia increased from 66.7 to 93.5 million megawatt hours, while retail and direct consumption of electricity increased from 112.1 to 127.9 million megawatt hours. Consequently, imports of electricity decreased by 11.8 million megawatt hours (or 22 percent) during this time.[3] Figure 2 provides a comparison of the energy sources that were used to produce electricity in Virginia in each of those years. As these data show, the most significant change between 2011 and 2021 was a decrease in the use of coal and an increase in the use of natural gas. Where coal was the state's second largest source of electricity in 2011, accounting for 19.9 million megawatt hours (or 29.9 percent) of production, by 2021 production had fallen by 16.7 million megawatt hours, making coal a distant fifth place source of electricity with only 3.4 percent of production.

In contrast, the share of electricity produced using cleaner-burning low-emissions energy sources increased over the period. Where natural gas accounted for only 18.3 million megawatt hours (or 27.5 percent) of Virginia's electricity production in 2011, by 2021 that proportion had almost tripled to 53.6 million megawatt hours (or 57.3 percent of production), making natural gas the state's largest source of electricity. In addition, solar, which entered the Virginia electricity production market in 2016, increased its share to 3.3 million megawatt hours in 2021.

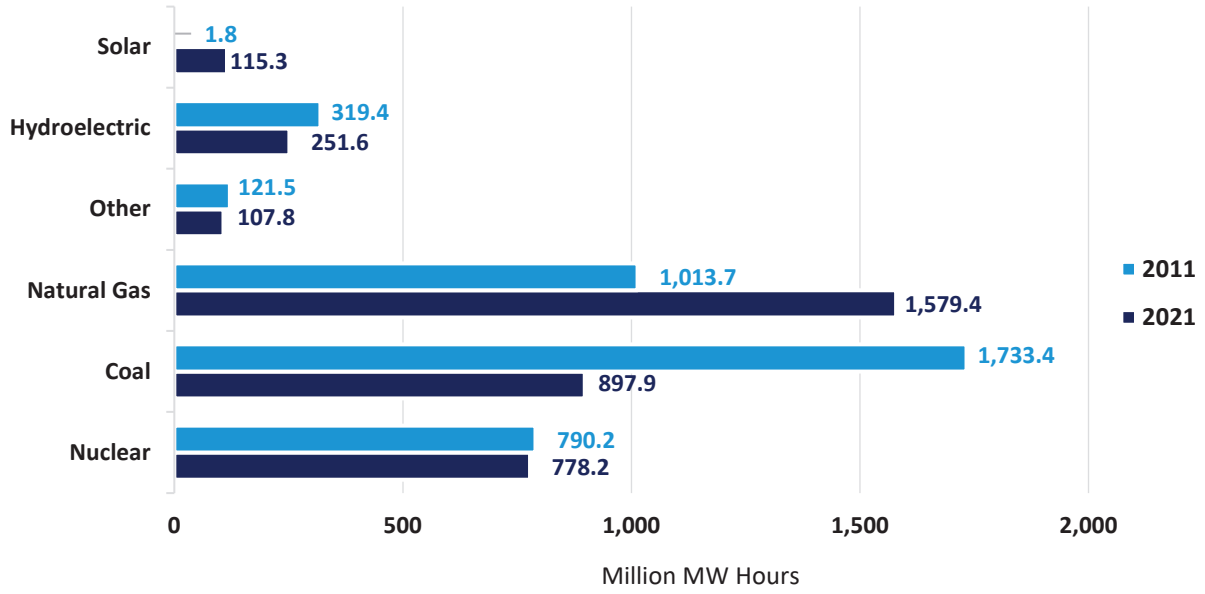
Figure 2: Electricity Generation in Virginia by Energy Source in 2011 and 2021 (in millions of megawatt-hours)[4]




[3] Imports also takes into account losses during transmission. As a result, totals do not equal sum of components.
[4] Data Source: U.S. Energy Information Administration. The "Other" category includes battery, wood, wind, petroleum, other biomass, "other", and pumped storage.

Figure 3 provides similar data for the U.S. as a whole. A quick comparison of Figures 2 and 3 shows that although the degree of reliance on specific energy sources for electricity production is quite different between the U.S. and Virginia, the trend toward lower-emissions energy sources is the same. Nationally, between 2011 and 2021 the amount of electricity produced using coal declined by 835.5 million megawatt hours from 42 to 22 percent of production, while in contrast the amount of electricity produced using natural gas increased by 565.7 million megawatt hours from 25 to 38 percent of production. Nationwide, as in Virginia, the reliance on renewable energy sources such as solar increased during this time but at a slower pace than in Virginia. Between 2011 and 2021, the amount of electricity produced using solar increased by 113.5 million megawatt hours to 2.8 percent of total electricity production in the nation compared to 3.5 percent of total electricity production in Virginia.

Figure 3: Electricity Generation in the United States by Energy Source in 2011 and 2021 (in millions of megawatt-hours)[5]

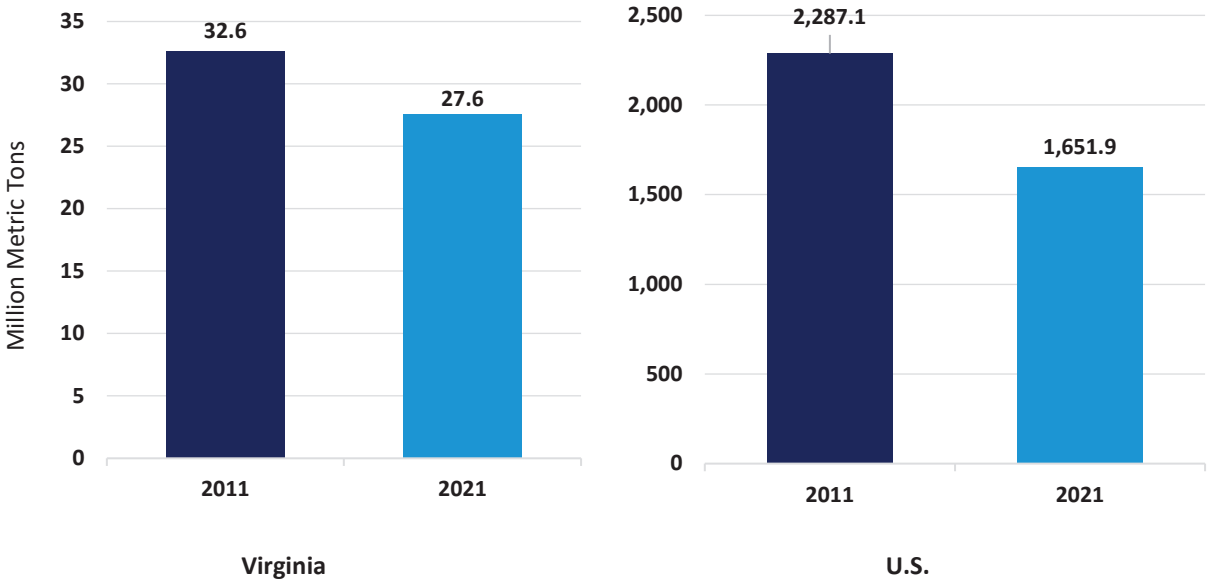



## Impact on the Environment

In discussing the impact of these trends on the environment, it is important to realize that electricity production is one of the U.S.'s largest sources of greenhouse gas emissions. Figure 4 depicts carbon dioxide emissions from electricity production in 2011 and 2021 for both Virginia and the U.S. As these data indicate, between 2011 and 2021, as the share of electricity produced in Virginia by coal fell from 29.9 to 3.4 percent, carbon dioxide emissions from electricity production fell from 32.6 to 27.6 million metric tons. Where at the national level, as the share of electricity produced by coal fell from 42 to 22 percent, carbon dioxide emissions from electricity production fell from 2,287.1 to 1,651.9 million metric tons.

[5] Data Source: U.S. Energy Information Administration. "Other" includes battery, geothermal, hydroelectric, other, other biomass, other gas, petroleum, pumped storage, wind, and wood.

Figure 4: Carbon Dioxide Emissions from Electricity Production (millions of metric tons)[6]




[6] Data Source: U.S. Energy Information Administration.

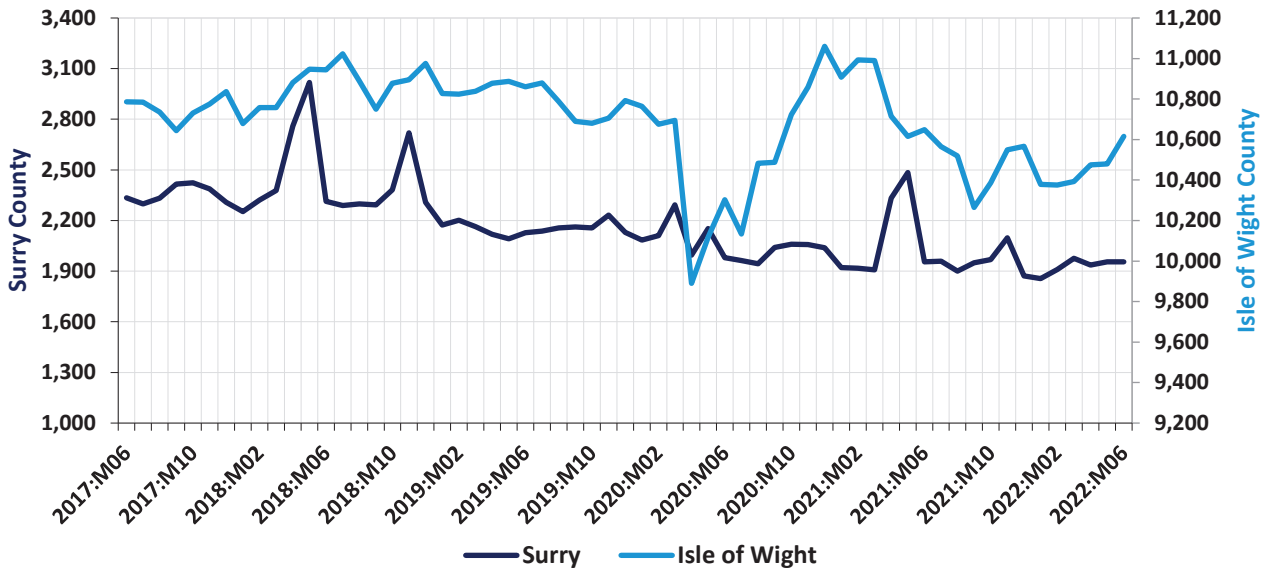
# Local Economic Profile

This section provides context for the economic and fiscal impact assessments to follow by profiling the local economies of the counties of Surry and Isle of Wight.

## Total Employment

Figure 5 depicts the trend in total employment in the counties of Surry and Isle of Wight from June 2017 through June 2022. As these data show, employment in Surry County generally declined through the five-year period. Employment in Isle of Wight County remained generally stable until the decrease in economic activity associated with the COVID-19 pandemic led to a steep employment decline in Isle of Wight County in April 2020. Since then, employment has rebounded back to pre-pandemic levels. As of June 2022, county employment stood at 1,956 jobs in Surry County and 10,616 jobs in Isle of Wight County. This represents an overall decrease in employment of 16.2 percent (or 379 jobs) in Surry County and 1.6 percent (or 170 jobs) in Isle of Wight County over the five-year period. To put this number in perspective, over this same period, total statewide employment in Virginia increased by 1.5 percent.[7]

Figure 5: Total Employment in the Counties of Surry and Isle of Wight– June 2017 to June 2022[8]

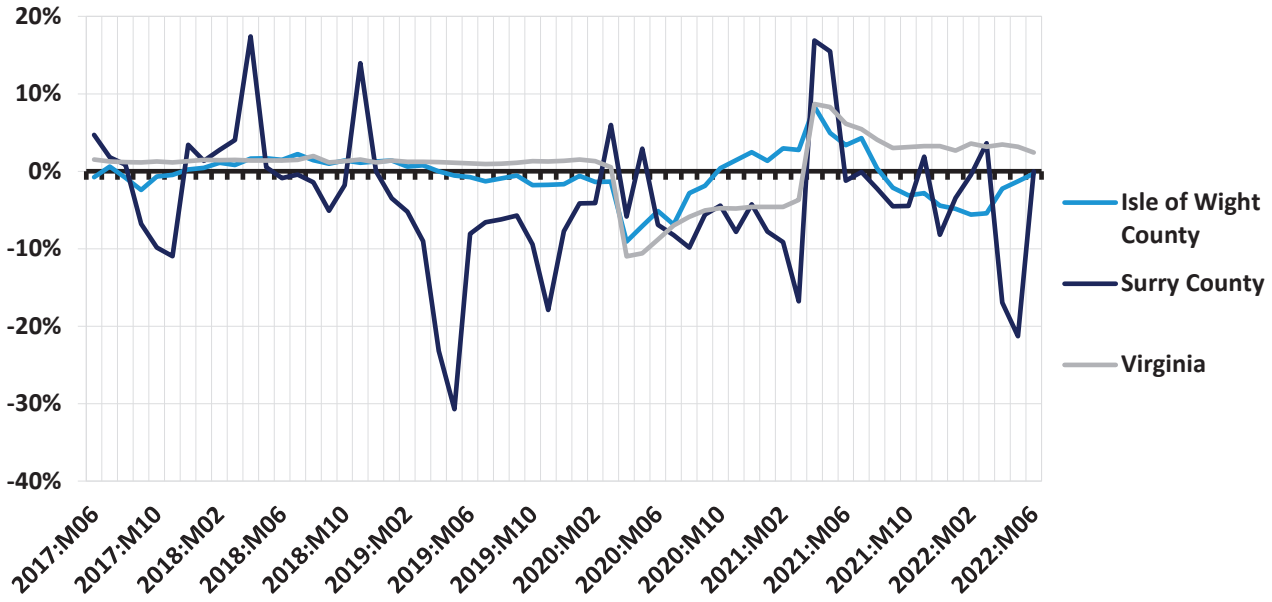



To control for seasonality and provide a point of reference, Figure 6 compares the year-over-year change in total employment in the counties of Surry and Isle of Wight to that of the state of Virginia over the same five-year period. Any point above the zero line in this graph indicates an increase in employment, while any point below the zero line indicates a decline in employment. As these data show, Surry County experienced periods of high employment growth and high employment loss throughout the period. Isle of Wight County tracked closely with the statewide trend throughout the

[7] Data Source: U.S. Bureau of Labor Statistics.
[8] Data Source: U.S. Bureau of Labor Statistics.

five-year period. As of June 2022, the year-over-year change in total employment was 0 percent in Surry County and minus 0.3 percent in Isle of Wight County as compared to 2.4 percent statewide in Virginia.

Figure 6: Year-Over-Year Change in Total Employment – June 2017 to June 2022[9]




## Employment and Wages by Industry Supersector

To provide a better understanding of the underlying factors motivating the total employment trends depicted in Figures 5 and 6, Figures 7 through 9 provide data on private employment and wages in the counties of Surry and Isle of Wight by industry supersector.[10]

Figure 7 provides an indication of the distribution of private sector employment across industry supersectors in the counties of Surry and Isle of Wight in the second quarter of 2022. As these data indicate, the largest industry sector that quarter in Surry County was Trade, Transportation, and Utilities (873 jobs). In Isle of Wight County, the largest industry sector that quarter was Manufacturing (2,646 jobs).

Figure 8 provides a similar ranking for average private sector weekly wages by industry supersector in the counties of Surry and Isle of Wight in the second quarter of 2022. As these data show, the highest paying industry sector that quarter in Surry County was Trade, Transportation and Utilities ($2,088 per week). In Isle of Wight County, the highest paying sector was Information ($2,089 per week).

[9] Data Source: U.S. Bureau of Labor Statistics.
[10] A "supersector" is the highest level of aggregation in the coding system that the Bureau of Labor Statistics uses to classify industries.

Figure 7: Private Employment by Industry Supersector in the Counties of Surry and Isle of Wight– 2nd Qu. 2022[11]

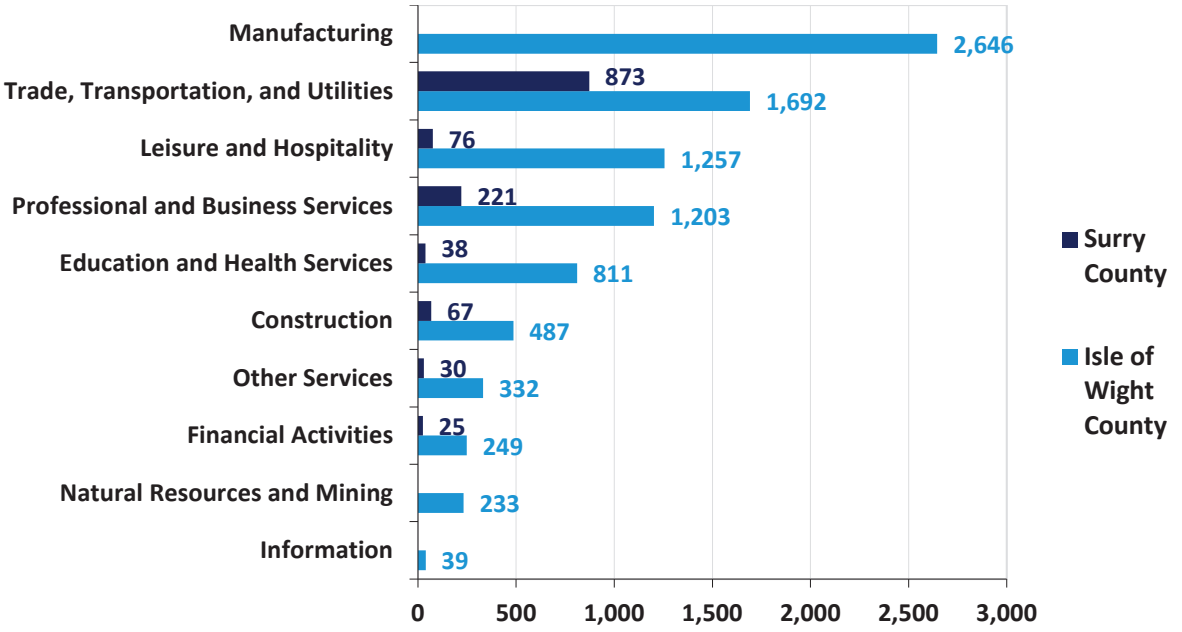
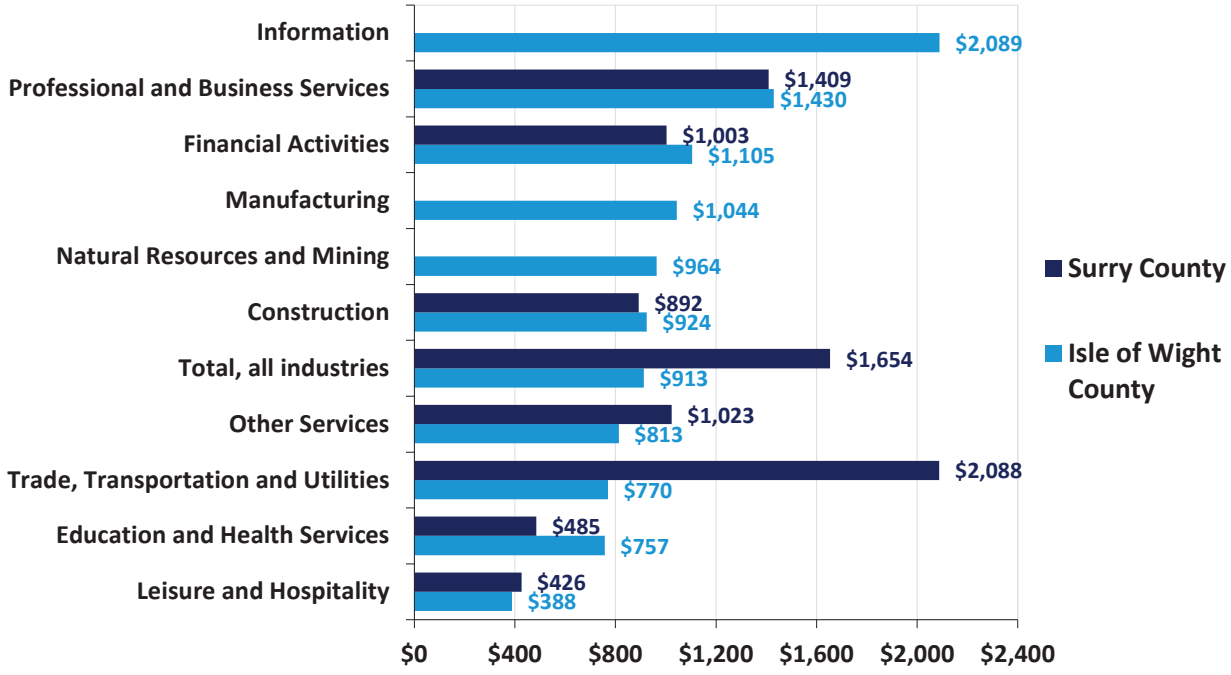



Figure 8: Average Private Weekly Wages by Industry Supersector in the Counties of Surry and Isle of Wight – 2nd Qu. 2022[12]

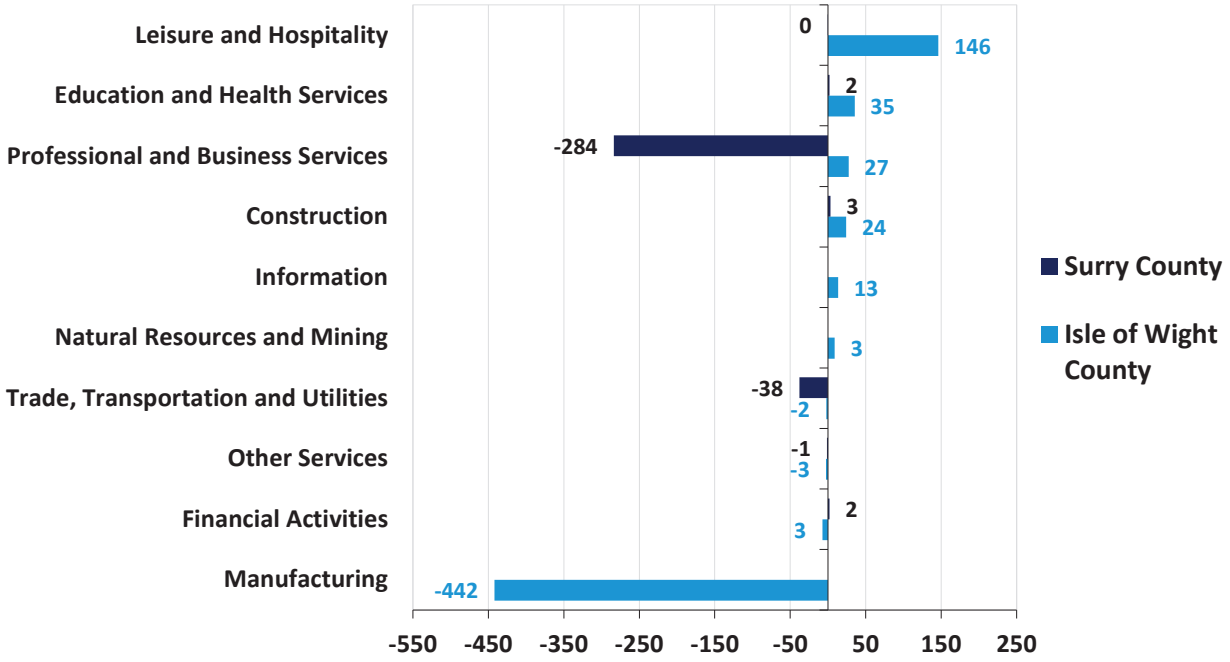



[11] Data Source: U.S. Bureau of Labor Statistics. Data on the Natural Resources and Mining, Manufacturing, and Information sectors in Surry County have been suppressed due to data confidentiality.

[12] Data Source: U.S. Bureau of Labor Statistics. Data on the Natural Resources and Mining, Manufacturing, and Information sectors in Surry County have been suppressed due to data confidentiality.

Figure 9 details the year-over-year change in private sector employment from the second quarter of 2021 to the second quarter of 2022 in the counties of Surry and Isle of Wight by industry supersector. Over this period, the largest employment gains in Surry County occurred in the Construction (up 3 jobs) sector, and the largest employment loss occurred in the Professional and Business Services (down 284 jobs) sector. The largest employment gain in Isle of Wight County occurred in the Leisure and Hospitality (up 146 jobs) sector, and the largest employment loss occurred in the Manufacturing (down 442 jobs) sector.

Figure 9: Change in Private Employment by Industry Supersector in the Counties of Surry and Isle of Wight from 2nd Qu. 2021 to 2nd Qu. 2022[13]

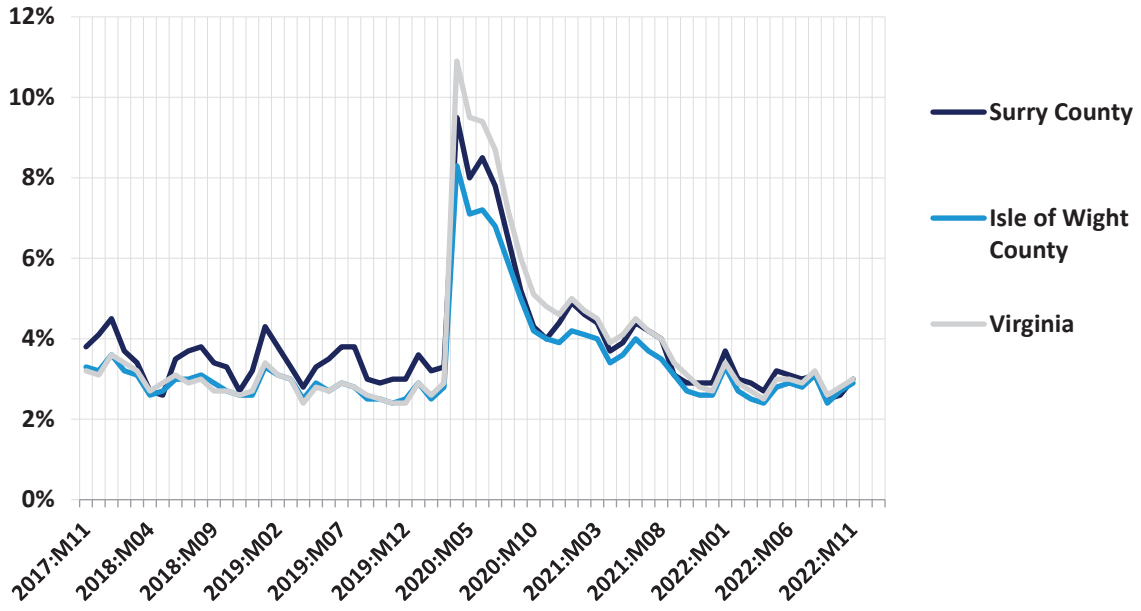



## Unemployment

Figure 10 illustrates the unemployment trend in the counties of Surry and Isle of Wight over the five-year period from November 2017 through November 2022 and benchmarks those data against the statewide trend for Virginia. As these data show, unemployment rates in the counties of Surry and Isle of Wight generally tracked closely to the statewide norm. In April 2020 unemployment in both the counties and the state significantly rose as a result of the labor dislocations caused by the COVID-19 pandemic. The counties' unemployment rates did not peak as high as the statewide rate. As of November 2022, unemployment stood at 3.0 percent in Surry County, 2.9 percent in Isle of Wight County, and 3.0 percent in Virginia as a whole.

[13] Data Source: Bureau of Labor Statistics. Data on the Natural Resources and Mining, Manufacturing, and Information sectors in Surry County have been suppressed due to data confidentiality.

Figure 10: Unemployment Rate – November 2017 to November 2022[14]




[14] Data Source: Bureau of Labor Statistics.

# Economic and Fiscal Impact

This section quantifies the economic and fiscal contribution that the proposed Sycamore Cross Solar project would make to the counties of Surry and Isle of Wight. The analysis separately evaluates the one-time pulse of economic activity that would occur during the construction phase of the project, as well as the annual economic activity that the project would generate during its ongoing operations phase.

## Method

To empirically evaluate the likely local economic impact attributable to the proposed Sycamore Cross Solar project, the analysis employs a regional economic impact model called IMPLAN.[15] The IMPLAN model is one of the most commonly used economic impact simulation models in the U.S., and in Virginia is used by UVA's Weldon Cooper Center, the Virginia Department of Planning and Budget, the Virginia Employment Commission, and other state agencies and research institutes. Like all economic impact models, the IMPLAN model uses economic multipliers to quantify economic impact.

Economic multipliers measure the ripple effects that an expenditure generates as it makes its way through the economy. For example, as when the Sycamore Cross Solar project purchases goods and services – or when contractors hired by the facility use their salaries and wages to make household purchases – thereby generating income for someone else, which is in turn spent, thereby becoming income for yet someone else, and so on, and so on. Through this process, one dollar in expenditures generates multiple dollars of income. The mathematical relationship between the initial expenditure and the total income generated is the economic multiplier.

One of the primary advantages of the IMPLAN model is that it uses regional and national production and trade flow data to construct region-specific and industry-specific economic multipliers, which are then further adjusted to reflect anticipated actual spending patterns within the specific geographic study area that is being evaluated. As a result, the economic impact estimates produced by IMPLAN are not generic. They reflect as precisely as possible the economic realities of the specific industry, and the specific study area, being evaluated.

In the analysis that follows, these impact estimates are divided into three categories. First round direct impact measures the direct economic contribution of the entity being evaluated (e.g., own employment, wages paid, goods and services purchased by the Sycamore Cross Solar project). Second round indirect and induced impact measures the economic ripple effects of this direct impact in terms of business to business, and household (employee) to business, transactions. Total impact is simply the sum of the preceding two. These categories of impact are then further defined in terms of employment (the jobs that are created), labor income (the wages and benefits associated with those jobs), and economic output (the total amount of economic activity that is created in the economy).

[15] IMPLAN is produced by IMPLAN Group, LLC.

## Construction Phase

This portion of the section assesses the economic and fiscal impact that the one-time pulse of activity associated with construction of the proposed Sycamore Cross Solar project would have on the counties of Surry and Isle of Wight.

### Inputs and Assumptions

The analysis is based on the following inputs and assumptions:

- Total investment in the Sycamore Cross Solar project is estimated to be approximately $437.1 million.[16]
- Of that total:
    - Architecture, engineering, site preparation, and other construction and development costs are estimated to be approximately $253.1 million.[17]
    - Capital equipment costs are estimated to be approximately $184.0 million.[18] It is anticipated that no capital equipment would be purchased from vendors in the counties of Surry and Isle of Wight.[19]
- For ease of analysis, all construction expenditures are assumed to take place in a single year.

### Economic Impact

Applying these inputs in the IMPLAN model results in the following estimates of one-time economic and fiscal impact. As shown in Table 1, construction of the proposed Sycamore Cross Solar project would directly provide a one-time pulse supporting approximately: 1) 102 job years, 2) $5.3 million in wages and benefits, and 3) $75.9 million in economic output to the counties of Surry and Isle of Wight.

Taking into account the economic ripple effects that direct investment would generate, the total estimated one-time impact on the counties of Surry and Isle of Wight would support approximately: 1) 197 job years, 2) $9.9 million in wages and benefits, 3) $91.6 million in economic output, and 4) $1.4 million in state and local tax revenue.

[16] Data Source: AES.
[17] Data Source: AES.
[18] Data Source: AES.
[19] Data Source: IMPLAN Group LLC.

Table 1: Estimated One-Time Economic and Fiscal Impact on the Counties of Surry and Isle of Wight from Construction of the Sycamore Cross Solar Project[20,21]

| Economic Impact | Employment (Job Years)[22] | Wages and Benefits | Output |
|---|---|---|---|
| **1st Round Direct Economic Activity** | 102 | $5,253,400 | $75,938,700 |
| **2nd Round Indirect and Induced Economic Activity** | 95 | $4,671,900 | $15,708,700 |
| **Total Economic Activity** | **197** | **$9,925,300** | **$91,647,400** |
| **Fiscal Impact** | | | |
| **State and Local Tax Revenue** | | | **$1,431,500** |

**Totals may not sum due to rounding.*

## Ongoing Operations Phase

This portion of the section assesses the annual economic and fiscal impact that the proposed Sycamore Cross Solar project would have on the counties of Surry and Isle of Wight during its anticipated 35-year operational phase.

### Economic Impact Inputs

The analysis is based on the following inputs:

- The Sycamore Cross Solar project would employ approximately five individuals and spend approximately $1.3 million each year for maintenance and repair, vegetative control, and other operational expenditures.[23]

### Economic Impact

Applying these inputs in the IMPLAN model results in the following estimates of annual economic impact. As shown in Table 2, annual operation of the proposed Sycamore Cross Solar project would on average directly support approximately: 1) 5 jobs, 2) $0.5 million in wages and benefits, and 3) $1.3 million in economic output to the counties of Surry and Isle of Wight.

[20] It is important to note that construction sector jobs are not necessarily new jobs, but the investments made can also support an existing job during the construction of the project. Due to preliminary nature of the project, the analysis is based on industry averages. Actual spending patterns may vary based on vendor contracts and final design.
[21] A construction sector job, also referred to as a job year, is equal to one job over one year. It is used to denote employment on construction projects where the construction schedule extends beyond one year and to account for the fact that actual on-site employment may vary over the period.
[22] Please note that it is not possible to determine how much of the economic impact would take place in specifically Isle of Wight County or Surry County. That level of granularity is not available for a regional analysis.
[23] Data Source: AES.

Taking into account the economic ripple effects that direct impact would generate, the total estimated annually supported impact on the counties of Surry and Isle of Wight would be approximately: 1) 7 jobs, 2) $0.6 million in wages and benefits, and 3) $1.6 million in economic output.

Table 2: Estimated Annual Economic Impact on the Counties of Surry and Isle of Wight from the Ongoing Operation of the Sycamore Cross Solar Project[24]

| Economic Impact | Employment | Wages and Benefits | Output |
|---|---|---|---|
| **1st Round Direct Economic Activity** | 5 | $501,200 | $1,250,000 |
| **2nd Round Indirect and Induced Economic Activity** | 2 | $82,900 | $302,700 |
| **Total Economic Activity** | **7** | **$584,100** | **$1,552,700** |

**Totals may not sum due to rounding.*

## Fiscal Impact Inputs and Assumptions

The analysis is based on the following inputs and assumptions:

- The Sycamore Cross Solar project would involve an investment of approximately $437.1 million in capital equipment and improvements to the existing property. Approximately $34.6 million of that total would be invested in Surry County and approximately $402.5 million in Isle of Wight County.[25]
- The Sycamore Cross Solar project would be situated on approximately 125 acres in Surry County and on approximately 1,030 acres in Isle of Wight County.[26]
- The actively used, fenced-in acreage in Surry County would be reassessed at $13,000 per acre.[27]
- The actively used, fenced-in acreage in Isle of Wight County would be removed from the land use program and reassessed at $15,000 per acre.[28]
- Tax rates and locality ratios remain constant throughout the analysis.
- The initial interconnection request for Sycamore Cross Solar was filed in March 2017.[29]
- The Sycamore Cross Solar project's total generation capacity would be 240 MW AC, of which approximately 19 MW would be located in Surry County and approximately 221 MW would be located in Isle of Wight County.[30]
- The Sycamore Cross Solar project would become operational in the fourth quarter of 2026.[31]

[24] Please note that it is not possible to determine how much of the economic impact would take place in specifically Isle of Wight County or Surry County. That level of granularity is not available for a regional analysis.
[25] Data Source: AES.
[26] Data Source: AES.
[27] Data Source: Surry County Commissioner of Revenue's Office. Current assessment value of existing solar farm in the county.
[28] Data Source: Isle of Wight County Commissioner of Revenue's Office. Current assessment value of existing solar farm in the county.
[29] Data Source: AES.
[30] Data Source: AES.
[31] Data Source: AES.

## Fiscal Impact – Surry County

This portion of the section quantifies the direct fiscal contribution that the proposed Sycamore Cross Solar project would make to Surry County. The analysis considers two scenarios. Both scenarios include the additional revenue that the Sycamore Cross Solar project would generate for Surry County over a 35-year period from the increased property assessments associated with reassessing the site as solar use property. Scenario 1 then describes the additional revenue Sycamore Cross Solar would generate for Surry County from taxes levied on the capital investment, while Scenario 2 assumes tax revenue generated from the capital investment will be replaced with revenue associated with a locally adopted revenue share ordinance and based on the project's total generation capacity.

### *Reassessment of Property*

Table 3 details the increased property assessments associated with reassessing the 125-acre fenced-in site as solar use property. The county real estate tax revenue from the project after reassessment is estimated to be approximately $11,600 per year, for a cumulative total of approximately $404,600 over the project's anticipated 35-year operational life expectancy.[32] In contrast, the property currently generates approximately $1,530 per year in real estate tax revenue for the county, for a cumulative total of approximately $53,500 over 35 years.[33]

Table 3: Estimated Surry County Revenue Generated by the Proposed Sycamore Cross Solar Project over 35 Years from Real Estate Taxes

| | |
|---|---|
| Estimated Increased Appraised Value of Property under Solar Use[34] | $1,628,100 |
| Surry County Real Estate Tax Rate | 0.0071 |
| Annual County Real Estate Tax – Solar Use | $11,600 |
| **Cumulative Revenue over 35 Years** | **$404,600** |

**Totals may not sum due to rounding.*

### *Scenario 1: Taxation of Capital Investment*

Table 4 separately details the additional annual revenue that the proposed Sycamore Cross Solar project would generate for Surry County over a 35-year period from taxes levied on capital investment. This calculation is based on: 1) the taxable portion of capital investments pursuant to the 80 percent local tax exemption pursuant to Virginia Code §58.1-3660[35], times 2) the State Corporation Commission's utility assessment ratio for taxation of public utilities in Surry County, times 4) the State Corporation

[32] Assumes property will be reassessed at $13,000 per acre once it is under solar use.
[33] Derived from Surry County's Real Estate Assessment database. Includes value of existing structures.
[34] Calculated as 125 acres times $13,000.
[35] The Virginia Code §58.1-3660 stipulates that solar facilities over 20MW for which an interconnection request was filed between January 1, 2015 and June 30, 2018 are subject to an 80 percent exemption from local property taxes.

Commission's depreciation guidelines for solar facilities, times 5) Surry County's real property tax rate of $0.71 per $100 of assessed value pursuant to Virginia Code §58.1-2606.

As the data in Table 4 indicate, based on these calculations the estimated additional county revenue from taxation of capital investments associated with the proposed Sycamore Cross Solar project would be approximately $43,600 in the project's first year of operation, with that figure projected to decline to approximately $4,800 in the project's 34th year of operation and thereafter, as the value of the proposed capital investments is depreciated, for a cumulative total of approximately $1.1 million.

Table 4: Estimated Surry County Revenue by Proposed Solar Investment Over 35 Years

| Year | Total Capital Investment subject to Exemption[36] | Depreciated Value of Taxable Capital Investment[37] | Additional Annual County Tax Revenue Solar Investment[38] |
|---|---|---|---|
| 1 | $34,602,325 | $6,141,221 | $43,600 |
| 2 | $34,602,325 | $6,141,221 | $43,600 |
| 3 | $34,602,325 | $6,141,221 | $43,600 |
| 4 | $34,602,325 | $6,141,221 | $43,600 |
| 5 | $34,602,325 | $6,141,221 | $43,600 |
| 6 | $34,602,325 | $6,141,221 | $43,600 |
| 7 | $34,602,325 | $6,141,221 | $43,600 |
| 8 | $34,602,325 | $6,141,221 | $43,600 |
| 9 | $34,602,325 | $6,120,068 | $43,500 |
| 10 | $34,602,325 | $6,016,349 | $42,700 |
| 11 | $34,602,325 | $5,906,490 | $41,900 |
| 12 | $34,602,325 | $5,790,489 | $41,100 |
| 13 | $34,602,325 | $5,667,664 | $40,200 |
| 14 | $34,602,325 | $5,536,652 | $39,300 |
| 15 | $34,602,325 | $5,398,133 | $38,300 |
| 16 | $34,602,325 | $5,251,426 | $37,300 |
| 17 | $34,602,325 | $5,095,848 | $36,200 |
| 18 | $34,602,325 | $4,931,400 | $35,000 |
| 19 | $34,602,325 | $4,756,034 | $33,800 |
| 20 | $34,602,325 | $4,571,115 | $32,500 |
| 21 | $34,602,325 | $4,374,596 | $31,100 |
| 22 | $34,602,325 | $4,166,477 | $29,600 |
| 23 | $34,602,325 | $3,946,075 | $28,000 |

[36] Data Source: AES.
[37] Accounts for the State Corporation Commission's depreciation guidelines for solar facilities and the utility assessment ratio for taxation of public utilities in Surry County. Also accounts for the 80 percent exemption from local property taxes pursuant to Virginia Code §58.1-3660 for projects over 20 MW with an interconnection request between January 1, 2015 and June 30, 2018.
[38] Calculated pursuant to Virginia Code §58.1-2606 which stipulates that capital equipment owned by utilities is taxed as real property and the local tax rate on that capital equipment would be capped at Surry County's real property tax rate of $0.72 per $100 of assessed value.

| Year | Total Capital Investment subject to Exemption[36] | Depreciated Value of Taxable Capital Investment[37] | Additional Annual County Tax Revenue Solar Investment[38] |
|---|---|---|---|
| 24 | $34,602,325 | $3,712,027 | $26,400 |
| 25 | $34,602,325 | $3,464,331 | $24,600 |
| 26 | $34,602,325 | $3,200,941 | $22,700 |
| 27 | $34,602,325 | $2,922,539 | $20,800 |
| 28 | $34,602,325 | $2,627,078 | $18,700 |
| 29 | $34,602,325 | $2,314,558 | $16,400 |
| 30 | $34,602,325 | $1,982,250 | $14,100 |
| 31 | $34,602,325 | $1,630,835 | $11,600 |
| 32 | $34,602,325 | $1,258,268 | $8,900 |
| 33 | $34,602,325 | $863,183 | $6,100 |
| 34 | $34,602,325 | $682,358 | $4,800 |
| 35 | $34,602,325 | $682,358 | $4,800 |
| **Estimated Cumulative Total** | | | **$1,079,200** |

**Totals may not sum due to rounding.*

### *Scenario 1: Total Fiscal Impact*

Table 5 combines the results from the calculations depicted in Tables 3 and 4 to provide an estimate of the cumulative fiscal contribution that the proposed Sycamore Cross Solar project would make to Surry County over its 35-year anticipated operational life under Scenario 1. As these data indicate, that cumulative total is approximately $1.5 million.

Table 5: Estimated Cumulative Surry County Revenue from the Proposed Sycamore Cross Solar Project over 35 Years under Scenario 1

| | |
|---|---|
| County Real Estate Tax | $404,600 |
| County Revenue from Taxation of Capital Investments | $1,079,200 |
| **Total Cumulative Revenue over 35 Years** | **$1,483,800** |

**Totals may not sum due to rounding.*

### *Scenario 2: Revenue Share Ordinance*

The following section describes the additional annual revenue that the proposed Sycamore Cross Solar project would generate for Surry County assuming the county adopts an energy revenue share ordinance under Virginia Code §58.1-2636 in lieu of taxes on capital investment. This statute currently stipulates that a locality may assess an annual revenue share of up to $1,400 per megawatt (MW) alternating current (AC) generation capacity of a solar facility. However, legislation that was passed in the 2021 General Assembly (SB 1201/HB 2006) and went into effect July 1, 2021, allows a 10 percent escalator to be applied to the $1,400 per MW revenue share every five years, beginning in 2026.

Table 6 details the revenue generated from a revenue share ordinance including the 10 percent escalator. Based on a total generation capacity of 19 MW AC and an assumed commissioning date in the fourth quarter of 2026, a revenue share ordinance would generate approximately $1.4 million over the anticipated 35-year operational life of the project.

Table 6: Estimated Surry County Revenue Generated from a Revenue Share Ordinance over 35 Years

| Year | MW | Revenue Share per MW with Escalator | Annual County Revenue |
|---|---|---|---|
| 1 | 19 | $1,540 | $29,300 |
| 2 | 19 | $1,540 | $29,300 |
| 3 | 19 | $1,540 | $29,300 |
| 4 | 19 | $1,540 | $29,300 |
| 5 | 19 | $1,540 | $29,300 |
| 6 | 19 | $1,694 | $32,200 |
| 7 | 19 | $1,694 | $32,200 |
| 8 | 19 | $1,694 | $32,200 |
| 9 | 19 | $1,694 | $32,200 |
| 10 | 19 | $1,694 | $32,200 |
| 11 | 19 | $1,863 | $35,400 |
| 12 | 19 | $1,863 | $35,400 |
| 13 | 19 | $1,863 | $35,400 |
| 14 | 19 | $1,863 | $35,400 |
| 15 | 19 | $1,863 | $35,400 |
| 16 | 19 | $2,050 | $38,900 |
| 17 | 19 | $2,050 | $38,900 |
| 18 | 19 | $2,050 | $38,900 |
| 19 | 19 | $2,050 | $38,900 |
| 20 | 19 | $2,050 | $38,900 |
| 21 | 19 | $2,255 | $42,800 |
| 22 | 19 | $2,255 | $42,800 |
| 23 | 19 | $2,255 | $42,800 |
| 24 | 19 | $2,255 | $42,800 |
| 25 | 19 | $2,255 | $42,800 |
| 26 | 19 | $2,480 | $47,100 |
| 27 | 19 | $2,480 | $47,100 |
| 28 | 19 | $2,480 | $47,100 |
| 29 | 19 | $2,480 | $47,100 |
| 30 | 19 | $2,480 | $47,100 |
| 31 | 19 | $2,728 | $51,800 |
| 32 | 19 | $2,728 | $51,800 |
| 33 | 19 | $2,728 | $51,800 |
| 34 | 19 | $2,728 | $51,800 |
| 35 | 19 | $2,728 | $51,800 |
| **Cumulative Total** | | | **$1,388,000** |

### *Scenario 2: Total Fiscal Impact*

Table 7 combines the results from the calculations depicted in Tables 3 and 6 to provide an estimate of the cumulative fiscal contribution that the proposed Sycamore Cross Solar project would make to Surry County over its 35-year anticipated operational life under Scenario 2. As these data indicate, that cumulative total is approximately $1.8 million.

Table 7: Estimated Cumulative Surry County Revenue from the Proposed Sycamore Cross Solar Project over 35 Years under Scenario 2

| | Total Revenue |
|---|---|
| County Real Estate Tax | $404,600 |
| County Revenue from Revenue Share Ordinance | $1,388,000 |
| **Total Cumulative Revenue over 35 Years** | **$1,792,600** |

## Fiscal Impact – Isle of Wight County

This portion of the section quantifies the direct fiscal contribution that the proposed Sycamore Cross Solar project would make to Isle of Wight County. The analysis considers two scenarios. Both scenarios include the additional revenue that the Sycamore Cross Solar project would generate for Isle of Wight County over a 35-year period from the increased property assessments associated with reassessing the site as solar use property. Scenario 1 then describes the additional revenue Sycamore Cross Solar would generate for Isle of Wight County from taxes levied on the capital investment, while Scenario 2 assumes tax revenue generated from the capital investment will be replaced with revenue associated with a locally adopted revenue share ordinance and based on the project's total generation capacity.

### *Reassessment of Property*

Table 8 details the increased property assessments associated with removing the affected acreage from the land use program and reassessing the 1,030-acre fenced-in site as solar use property. The county real estate tax revenue from the project after reassessment is estimated to be approximately $109,700 per year, for a cumulative total of approximately $3.8 million over the project's anticipated 35-year operational life expectancy.[39] Adding one-time rollback taxes of approximately $157,700 increases that cumulative total to approximately $4.0 million. In contrast, the property currently generates approximately $14,900 per year in real estate tax revenue for the county, for a cumulative total of approximately $520,000 over 35 years.[40]

Table 8: Estimated Isle of Wight County Revenue Generated by the Proposed Sycamore Cross Solar Project over 35 Years from Real Estate Taxes

| | |
|---|---|
| Estimated Increased Appraised Value of Property under Solar Use[41] | $15,455,300 |
| Isle of Wight County Real Estate Tax Rate | 0.0071 |
| Annual County Real Estate Tax – Solar Use | $109,700 |
| **Cumulative Revenue over 35 Years** | **$3,840,600** |
| **One-time Rollback Taxes[42]** | **$157,700** |
| **Cumulative Revenue over 35 Years** | **$3,998,300** |

**Totals may not sum due to rounding.*

[39] Assumes property will be reassessed at $15,000 per acre once it is under solar use.
[40] Derived from Isle of Wight County's Real Estate Assessment database. Includes value of existing structures.
[41] Calculated as 1,030 acres times $15,000.
[42] Rollback taxes are computed as the difference between the land use value assessment tax and the tax on the fair market value for the affected acreage for five complete tax years plus the current year, including simple interest. Does not account for changes in assessment values.

### *Scenario 1: Taxation of Capital Investment*

Table 9 separately details the additional annual revenue that the proposed Sycamore Cross Solar project would generate for Isle of Wight County over a 35-year period from taxes levied on capital investment. This calculation is based on: 1) the taxable portion of capital investments pursuant to the 80 percent local tax exemption pursuant to Virginia Code §58.1-3660[43], times 2) the State Corporation Commission's utility assessment ratio for taxation of public utilities in Isle of Wight County, times 4) the State Corporation Commission's depreciation guidelines for solar facilities, times 5) Isle of Wight County's real property tax rate of $0.71 per $100 of assessed value pursuant to Virginia Code §58.1-2606.

As the data in Table 9 indicate, based on these calculations the estimated additional county revenue from taxation of capital investments associated with the proposed Sycamore Cross Solar project would be approximately $452,700 in the project's first year of operation, with that figure projected to decline to approximately $50,300 in the project's 34th year of operation and thereafter, as the value of the proposed capital investments is depreciated, for a cumulative total of approximately $11.2 million.

Table 9: Estimated Isle of Wight County Revenue by Proposed Solar Investment Over 35 Years

| Year | Total Capital Investment subject to Exemption[44] | Depreciated Value of Taxable Capital Investment[45] | Additional Annual County Tax Revenue Solar Investment[46] |
|---|---|---|---|
| 1 | $402,479,675 | $63,767,270 | $452,700 |
| 2 | $402,479,675 | $63,767,270 | $452,700 |
| 3 | $402,479,675 | $63,767,270 | $452,700 |
| 4 | $402,479,675 | $63,767,270 | $452,700 |
| 5 | $402,479,675 | $63,767,270 | $452,700 |
| 6 | $402,479,675 | $63,767,270 | $452,700 |
| 7 | $402,479,675 | $63,767,270 | $452,700 |
| 8 | $402,479,675 | $63,767,270 | $452,700 |
| 9 | $402,479,675 | $63,547,627 | $451,200 |
| 10 | $402,479,675 | $62,470,669 | $443,500 |
| 11 | $402,479,675 | $61,329,943 | $435,400 |
| 12 | $402,479,675 | $60,125,450 | $426,900 |
| 13 | $402,479,675 | $58,850,105 | $417,800 |

[43] The Virginia Code §58.1-3660 stipulates that solar facilities over 20MW for which an interconnection request was filed between January 1, 2015 and June 30, 2018 are subject to an 80 percent exemption from local property taxes.
[44] Data Source: AES.
[45] Accounts for the State Corporation Commission's depreciation guidelines for solar facilities and the utility assessment ratio for taxation of public utilities in Isle of Wight County. Also accounts for the 80 percent exemption from local property taxes pursuant to Virginia Code §58.1-3660 for projects over 20 MW with an interconnection request between January 1, 2015 and June 30, 2018.
[46] Calculated pursuant to Virginia Code §58.1-2606 which stipulates that capital equipment owned by utilities is taxed as real property and the local tax rate on that capital equipment would be capped at Isle of Wight County's real property tax rate of $0.71 per $100 of assessed value.

| Year | Total Capital Investment subject to Exemption[44] | Depreciated Value of Taxable Capital Investment[45] | Additional Annual County Tax Revenue Solar Investment[46] |
|---|---|---|---|
| 14 | $402,479,675 | $57,489,736 | $408,200 |
| 15 | $402,479,675 | $56,051,430 | $398,000 |
| 16 | $402,479,675 | $54,528,101 | $387,100 |
| 17 | $402,479,675 | $52,912,663 | $375,700 |
| 18 | $402,479,675 | $51,205,118 | $363,600 |
| 19 | $402,479,675 | $49,384,208 | $350,600 |
| 20 | $402,479,675 | $47,464,104 | $337,000 |
| 21 | $402,479,675 | $45,423,552 | $322,500 |
| 22 | $402,479,675 | $43,262,550 | $307,200 |
| 23 | $402,479,675 | $40,974,013 | $290,900 |
| 24 | $402,479,675 | $38,543,772 | $273,700 |
| 25 | $402,479,675 | $35,971,825 | $255,400 |
| 26 | $402,479,675 | $33,236,918 | $236,000 |
| 27 | $402,479,675 | $30,346,135 | $215,500 |
| 28 | $402,479,675 | $27,278,221 | $193,700 |
| 29 | $402,479,675 | $24,033,175 | $170,600 |
| 30 | $402,479,675 | $20,582,658 | $146,100 |
| 31 | $402,479,675 | $16,933,753 | $120,200 |
| 32 | $402,479,675 | $13,065,205 | $92,800 |
| 33 | $402,479,675 | $8,962,844 | $63,600 |
| 34 | $402,479,675 | $7,085,252 | $50,300 |
| 35 | $402,479,675 | $7,085,252 | $50,300 |
| **Estimated Cumulative Total** | | | **$11,205,800** |

**Totals may not sum due to rounding.*

### *Scenario 1: Total Fiscal Impact*

Table 10 combines the results from the calculations depicted in Tables 8 and 9 to provide an estimate of the cumulative fiscal contribution that the proposed Sycamore Cross Solar project would make to Isle of Wight County over its 35-year anticipated operational life under Scenario 1. As these data indicate, that cumulative total is approximately $15.2 million.

Table 10: Estimated Cumulative Isle of Wight County Revenue from the Proposed Sycamore Cross Solar Project over 35 Years under Scenario 1

| | |
|---|---|
| County Real Estate Tax | $3,998,300 |
| County Revenue from Taxation of Capital Investments | $11,205,800 |
| **Total Cumulative Revenue over 35 Years** | **$15,204,100** |

### *Scenario 2: Revenue Share Ordinance*

The following section describes the additional annual revenue that the proposed Sycamore Cross Solar project would generate for Isle of Wight County assuming the county adopts an energy revenue share ordinance under Virginia Code §58.1-2636 in lieu of taxes on capital investment. This statute currently stipulates that a locality may assess an annual revenue share of up to $1,400 per megawatt (MW) alternating current (AC) generation capacity of a solar facility. However, legislation that was passed in the 2021 General Assembly (SB 1201/HB 2006) and went into effect July 1, 2021, allows a 10 percent escalator to be applied to the $1,400 per MW revenue share every five years, beginning in 2026.

Table 11 details the revenue generated from a revenue share ordinance including the 10 percent escalator. Based on a total generation capacity of 221 MW AC and an assumed commissioning date in the fourth quarter of 2026, a revenue share ordinance would generate approximately $16.1 million over the anticipated 35-year operational life of the project.

Table 11: Estimated Isle of Wight County Revenue Generated from a Revenue Share Ordinance over 35 Years

| Year | MW | Revenue Share per MW with Escalator | Annual County Revenue |
|---|---|---|---|
| 1 | 221 | $1,540 | $340,300 |
| 2 | 221 | $1,540 | $340,300 |
| 3 | 221 | $1,540 | $340,300 |
| 4 | 221 | $1,540 | $340,300 |
| 5 | 221 | $1,540 | $340,300 |
| 6 | 221 | $1,694 | $374,400 |
| 7 | 221 | $1,694 | $374,400 |
| 8 | 221 | $1,694 | $374,400 |
| 9 | 221 | $1,694 | $374,400 |
| 10 | 221 | $1,694 | $374,400 |
| 11 | 221 | $1,863 | $411,800 |
| 12 | 221 | $1,863 | $411,800 |
| 13 | 221 | $1,863 | $411,800 |
| 14 | 221 | $1,863 | $411,800 |
| 15 | 221 | $1,863 | $411,800 |
| 16 | 221 | $2,050 | $453,000 |
| 17 | 221 | $2,050 | $453,000 |
| 18 | 221 | $2,050 | $453,000 |
| 19 | 221 | $2,050 | $453,000 |
| 20 | 221 | $2,050 | $453,000 |
| 21 | 221 | $2,255 | $498,300 |
| 22 | 221 | $2,255 | $498,300 |
| 23 | 221 | $2,255 | $498,300 |
| 24 | 221 | $2,255 | $498,300 |
| 25 | 221 | $2,255 | $498,300 |
| 26 | 221 | $2,480 | $548,100 |

| Year | MW | Revenue Share per MW with Escalator | Annual County Revenue |
|---|---|---|---|
| 27 | 221 | $2,480 | $548,100 |
| 28 | 221 | $2,480 | $548,100 |
| 29 | 221 | $2,480 | $548,100 |
| 30 | 221 | $2,480 | $548,100 |
| 31 | 221 | $2,728 | $602,900 |
| 32 | 221 | $2,728 | $602,900 |
| 33 | 221 | $2,728 | $602,900 |
| 34 | 221 | $2,728 | $602,900 |
| 35 | 221 | $2,728 | $602,900 |
| **Cumulative Total** | | | **$16,144,300** |

### *Scenario 2: Total Fiscal Impact*

Table 12 combines the results from the calculations depicted in Tables 8 and 11 to provide an estimate of the cumulative fiscal contribution that the proposed Sycamore Cross Solar project would make to Isle of Wight County over its 35-year anticipated operational life under Scenario 2. As these data indicate, that cumulative total is approximately $20.1 million.

Table 12: Estimated Cumulative Isle of Wight County Revenue from the Proposed Sycamore Cross Solar Project over 35 Years under Scenario 2

| | Total Revenue |
|---|---|
| County Real Estate Tax | $3,998,300 |
| County Revenue from Revenue Share Ordinance | $16,144,300 |
| **Total Cumulative Revenue over 35 Years** | **$20,142,600** |

# Current Agricultural Use

This section provides a benchmark for the previous estimates of the economic contribution that the proposed Sycamore Cross Solar project would make to the counties of Surry and Isle of Wight by estimating the economic and fiscal contribution that the site makes to the counties in its current use.

## Economic Impact Inputs and Assumptions

The analysis is based on the following inputs and assumptions:

- The proposed Sycamore Cross Solar project would be situated on an approximately 1,156-acre tract of land, of which approximately 125 acres are located in Surry County and 1,030 acres are located in Isle of Wight County.[47]
- The land currently is timberland and agricultural land used to produce corn, soybeans, cotton, and peanuts.[48]

## Economic Impact

Applying these inputs to the IMPLAN model results in the following estimates of annual economic impact. As shown in Table 13, in its current use, the proposed Sycamore Cross Solar project site directly supports approximately: 1) 1 job, 2) $0.1 million in wages and benefits, and 3) $0.4 million in economic output to the counties of Surry and Isle of Wight.

Taking into account the economic ripple effects that direct impact generates, on average, the total annually supported impact on the counties of Surry and Isle of Wight is approximately: 1) 2 jobs, 2) $0.2 million in wages and benefits, and 3) $0.5 million in economic output.

Table 13: Total Estimated Annual Economic Impact of the Sycamore Cross Solar Project Site on the Counties of Surry and Isle of Wight– Current Use[49]

| Economic Impact | Employment | Wages and Benefits | Output |
|---|---|---|---|
| **1st Round Direct Economic Activity** | 1 | $111,400 | $382,200 |
| **2nd Round Indirect and Induced Economic Activity** | 1 | $56,700 | $163,800 |
| **Total Economic Activity** | **2** | **$168,100** | **$546,000** |

**Totals may not sum due to rounding.*

[47] Data Source: AES.
[48] Data Source: AES.
[49] Calculations based data from the U.S. Department of Agriculture and IMPLAN Group, LLC for Isle of Wight County, Surry County, and Virginia.

## Fiscal Impact Inputs and Assumptions

The analysis is based on the following inputs and assumptions:

- The proposed Sycamore Cross Solar project would be situated on an approximately 1,156-acre tract of land, of which approximately 125 acres would be located in Surry County and 1,030 acres would be located in Isle of Wight County.[50]
- The current assessment value of the affected acreage in Surry County is approximately $0.2 million.[51]
- The current assessment value of the affected acreage in Isle of Wight County is approximately $2.1 million.[52]

## Fiscal Impact – Surry County

Table 14 details the estimated tax revenue that the proposed Sycamore Cross Solar site generates for Surry County in its current use. As the data in Table 14 indicate, the current county real estate tax revenue from the project site is estimated to be approximately $1,530 per year, for a cumulative total of approximately $53,500 over 35 years.

Table 14: Estimated Surry County Revenue Generated by the Proposed Sycamore Cross Solar Project Site over 35 Years from Real Estate Taxes – Current Use

| | |
|---|---|
| Estimated Assessed Value of Property – Current Use | $215,300 |
| Surry County Current Real Estate Tax Rate | 0.0071 |
| Estimated Annual County Real Estate Tax – Current Use | $1,530 |
| **Total Cumulative Revenue over 35 Years** | **$53,500** |

**Totals may not sum due to rounding.*

## Fiscal Impact – Isle of Wight County

Table 15 details the estimated tax revenue that the proposed Sycamore Cross Solar site generates for Isle of Wight County in its current use. As the data in Table 15 indicate, the current county real estate tax revenue from the project site is estimated to be approximately $14,900 per year, for a cumulative total of approximately $520,000 over 35 years.

[50] Data Source: AES.
[51] Data Source: Derived from Surry County's Real Estate Assessment database. Includes value of existing structures.
[52] Data Source: Derived from Isle of Wight County's Real Estate Assessment database. Includes value of existing structures.

Table 15: Estimated Isle of Wight County Revenue Generated by the Proposed Sycamore Cross Solar Project Site over 35 Years from Real Estate Taxes – Current Use

| | |
|---|---|
| Estimated Assessed Value of Property – Current Use | $2,092,500 |
| Isle of Wight County Current Real Estate Tax Rate | 0.0071 |
| Estimated Annual County Real Estate Tax – Current Use | $14,900 |
| **Total Cumulative Revenue over 35 Years** | **$520,000** |

*The estimates provided in this report are based on the best information available and all reasonable care has been taken in assessing the quality of that information. However, because these estimates attempt to foresee the consequences of circumstances that have not yet occurred, it is not possible to be certain that they will be representative of actual events. These estimates are intended to provide a good indication of likely future outcomes and should not be construed to represent a precise measure of those outcomes.*

# COUNTY OF ISLE OF WIGHT

*OFFICE OF THE COMMISSIONER OF THE REVENUE*
*Post Office Box 107*
*Isle of Wight, Virginia 23397*
*(757) 365-6222*

**Gerald H. Gwaltney**
**Commissioner of the Revenue**


## MEMORANDUM

**TO:** Amy M. Ring
Community Development Director

**FROM:** Gerald H. Gwaltney,
Commissioner of the Revenue

**DATE:** May 16, 2024

**RE:** **Sycamore Cross Solar Project**
**Conditional Use Permit (CUP-8-23), Third Submittal**

---

I have completed the review of the Sycamore Cross Solar Project Third Submittal. The solar project's initial interconnection request for Sycamore Cross Solar was filed in March 2017. This date is important because it occurs within the period (Jan. 1, 2015 – June 30, 2018) in which all solar equipment related to the application received an 80% exemption. No other category of taxable property in Isle of Wight receives such an exemption.

Below are several deficiencies in their submittal relating to the tax revenue analysis.

- **Real Estate**

  Rollback Taxes – the third submittal incorrectly calculates the rollback taxes. The amount of rollback taxes is overstated because "simple interest" is not applied in Isle of Wight County. This error indicates Sycamore Cross Solar, LLC did not review the County's land use ordinance.

  The study did not provide the worksheet detailing the rollback taxes by year for each parcel subject to the rollback tax, making it impossible to confirm the calculations.

- **Equipment**

  The State Corporation Commission will assess the solar equipment. Table 9 lists the "Depreciated Value of Taxable Capital Investment" as $63,767,270 for years 1 through 8. The study defines the formula used to arrive at the value. This formula includes the "SCC utility assessment ratio for taxation of public utilities in Isle of Wight County." If the 2023 sales ratio was used, then the capital investment taxes are overstated.

  The study did not provide the worksheet detailing the rates used to determine the taxes on the equipment, making it impossible to confirm the calculations.

Please let me know if you have any questions.

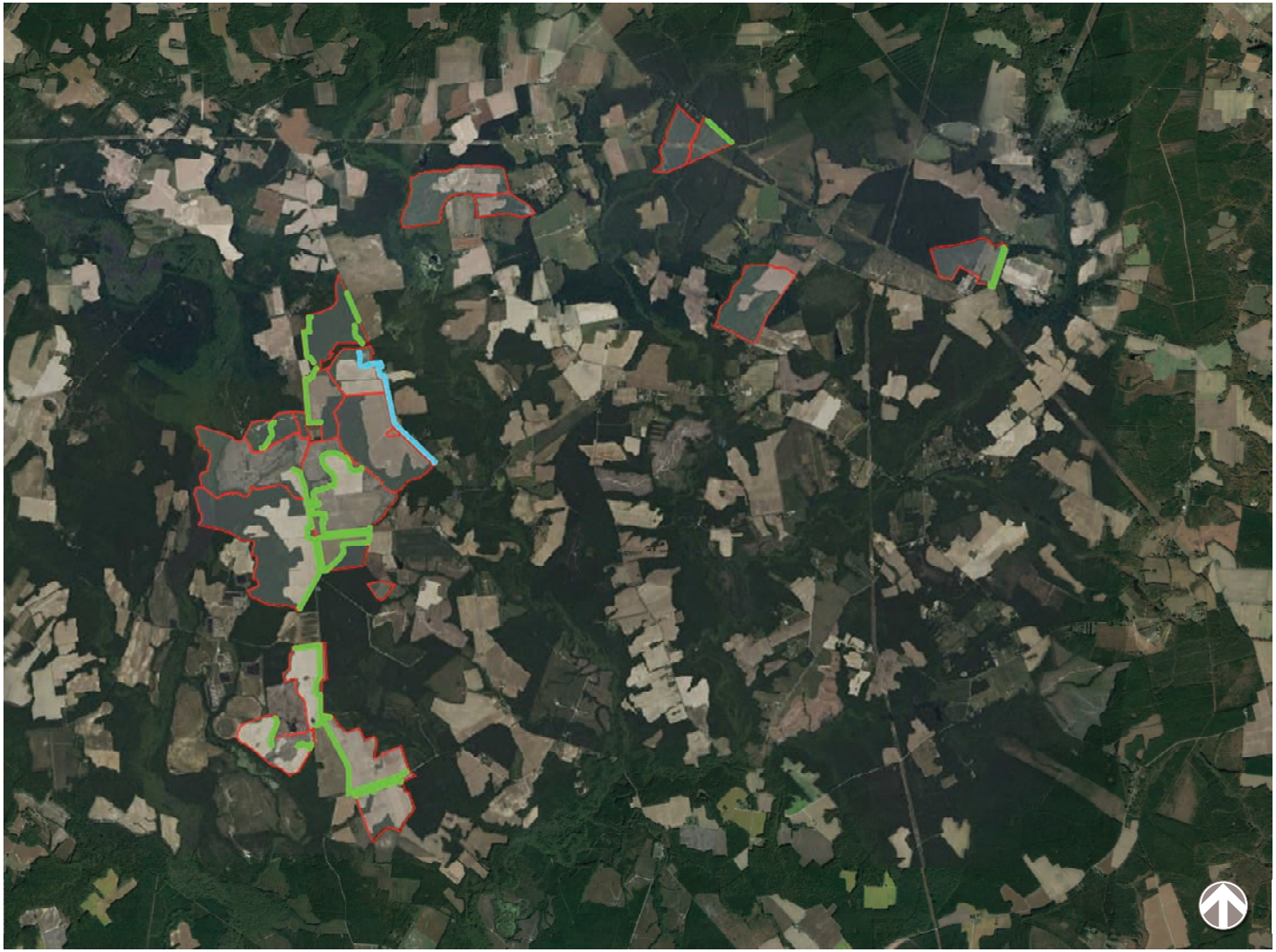
# SYCAMORE CROSS SOLAR PROJECT

## Isle of Wight and Surry Counties, Virginia

## CONCEPTUAL LANDSCAPE

FEBRUARY 2024

**LANDSCAPE SCREENING BY ZONE**



*LEGEND*

FRONTAGE ZONE

BUFFER ZONE

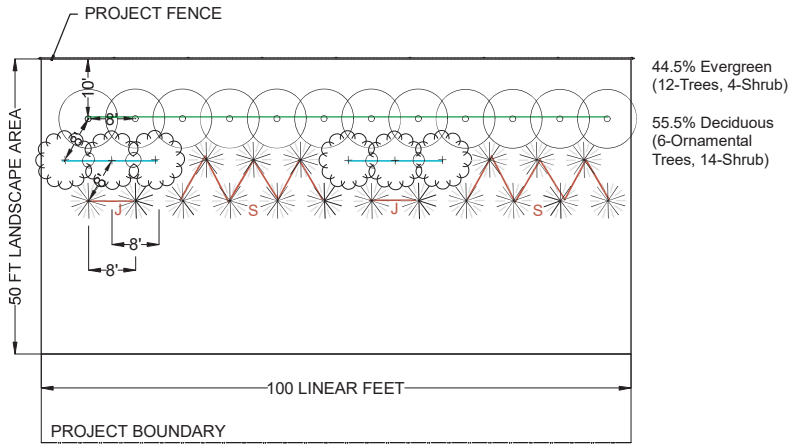
SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

# SYCAMORE CROSS SOLAR FACILITY

## LANDSCAPE SCREENING - PLANT SCHEMATICS AND CONCEPTUAL PLANT LISTS

## FRONTAGE ZONE LANDSCAPE

Apply to landscape screening areaalong public roadways with ROW greater than 50 feet

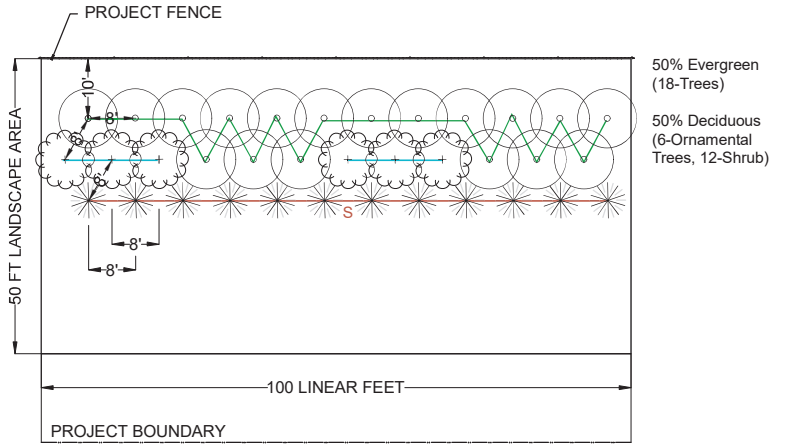



44.5% Evergreen (12-Trees, 4-Shrub)

55.5% Deciduous (6-Ornamental Trees, 14-Shrub)

## BUFFER ZONE LANDSCAPE - ABUTTING RESIDENTIAL PARCELS

Apply to Abutting Residential Parcels where the existing vegetation not present




50% Evergreen (18-Trees)

50% Deciduous (6-Ornamental Trees, 12-Shrub)

## CONCEPTUAL PLANT LIST

| CONCEPT PLANT LIST | | | | |
|---|---|---|---|---|
| **Botanical Name** | **Common Name** | **Height at Planting** | **Mature height** | **Mature Spread** |
| **EVERGREEN** | | | | |
| Ilex X 'Conap' oakleaf | Red Holly/ Oakleaf Holly | 6 FT | 15 FT | 9 FT |
| Ilex X mary nell | Mary Nell Holly | 6 FT | 20 FT | 10 FT |
| Juniperus virginiana 'Brodie' | Eastern Red Cedar | 6 FT | 15 FT | 6 FT |
| Myrica cerifera | Southern Wax Myrtle | 6 FT | 15 FT | 20 FT |
| Thuja Occidentalis 'techny' | Eastern Arborvitae | 6 FT | 15 FT | 10 FT |
| **ORNAMENTAL** | | | | |
| Amelanchier canadensis | Shadblow serviceberry | 6 FT | 25 FT | 15 FT |
| Chionanthus virginicus | Fringetree | 6 FT | 20 FT | 20 FT |
| Magnolia Virginiana | Sweetbay Magnolia | 6 FT | 20 FT | 20 FT |
| **SHRUB** | | | | |
| Juniperus communis var. depressa | Juniper | 1.5 FT | 4 FT | 10 FT |
| Lindera benzion | Spicebush | 1.5 FT | 10 FT | 10 FT |

J

S

SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

# SYCAMORE CROSS SOLAR FACILITY

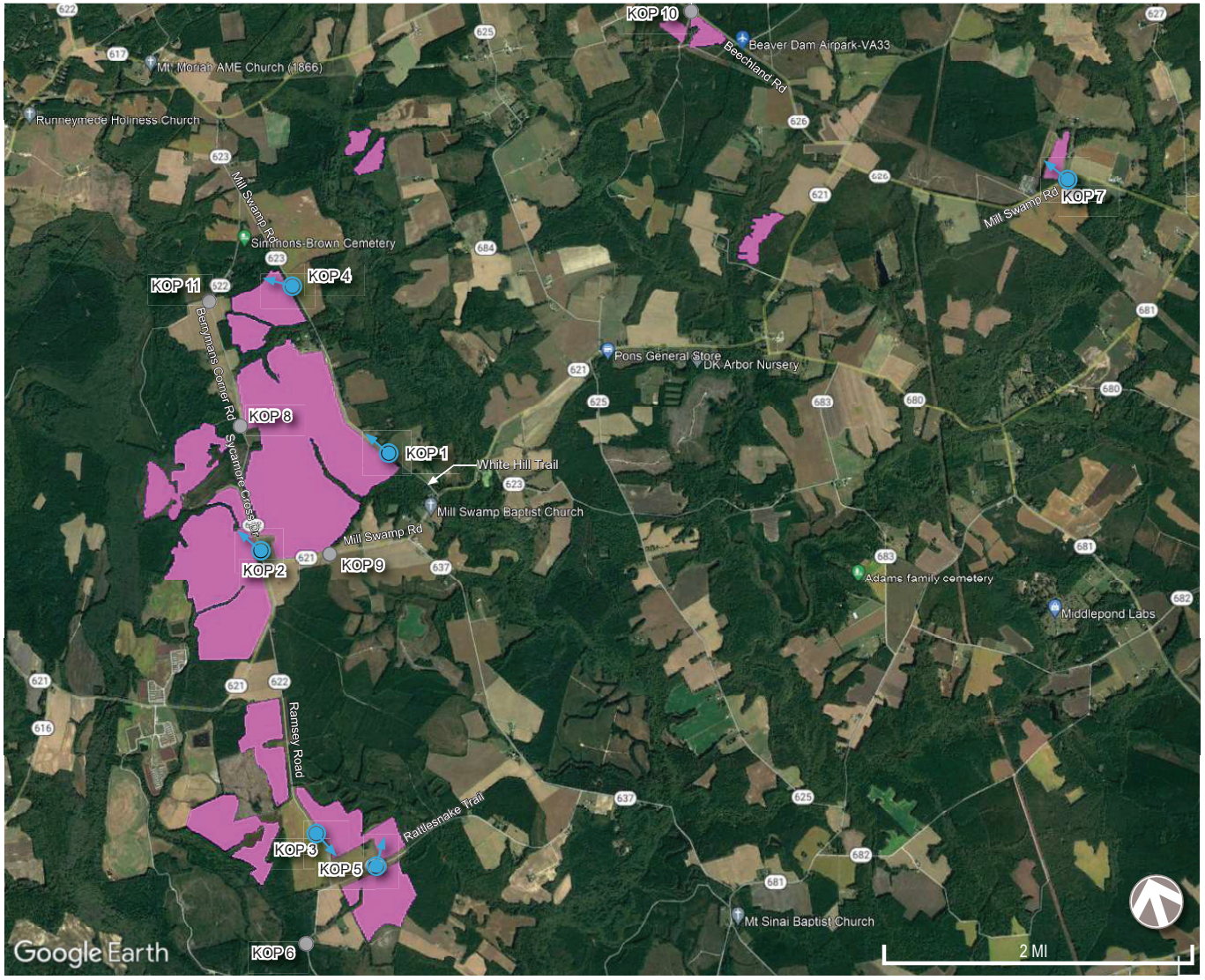
LANDSCAPE SCREENING - PLANT SCHEMATICS AND CONCEPTUAL PLANT LISTS

# SYCAMORE CROSS SOLAR PROJECT

## Isle of Wight and Surry Counties, Virginia

## PHOTO SIMULATIONS

APRIL 2024

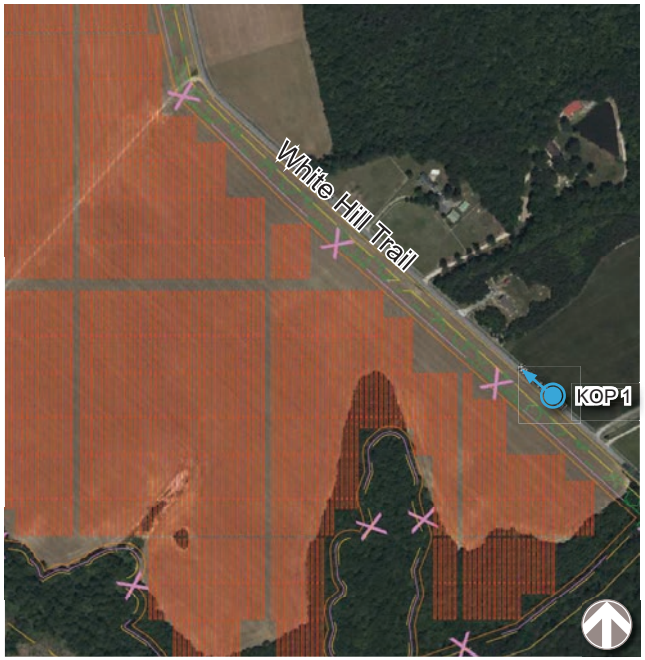



*LEGEND*

- Photo Simulation / Viewing Direction
- Project Area
- Candidate KOP Location

# SYCAMORE CROSS SOLAR FACILITY

## KEY OBSERVATION POINT LOCATION MAP




**KOP 1:**
**WHITE HILL TRAIL**

**KOP 2:**
**SYCAMORE CROSS DRIVE**

**KOP 3:**
**RAMSEY RD**

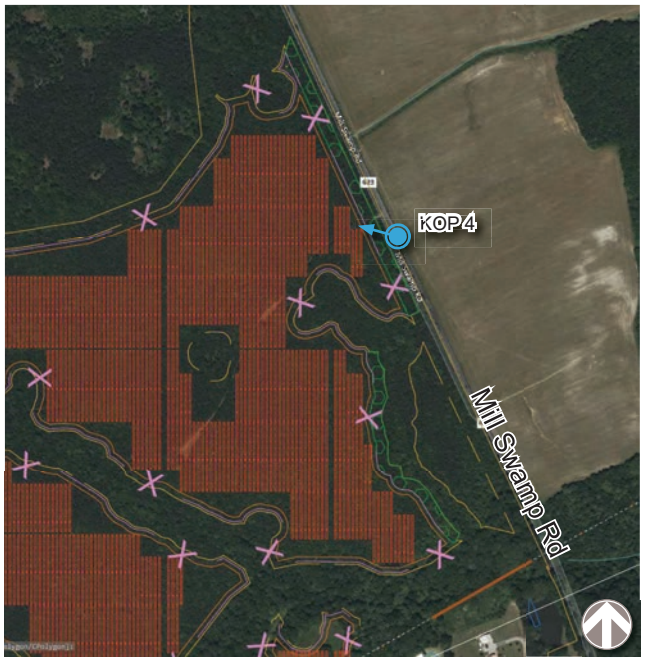
*LEGEND*

- PV Area
- Panels
- Fenceline
- Vegetative Buffer Area

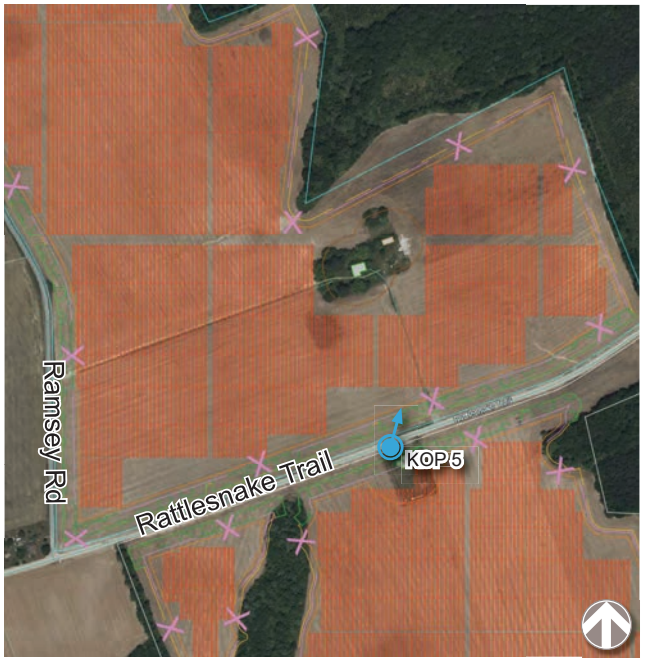
PHOTO LOCATION
& VIEWING DIRECTION

# SYCAMORE CROSS SOLAR FACILITY

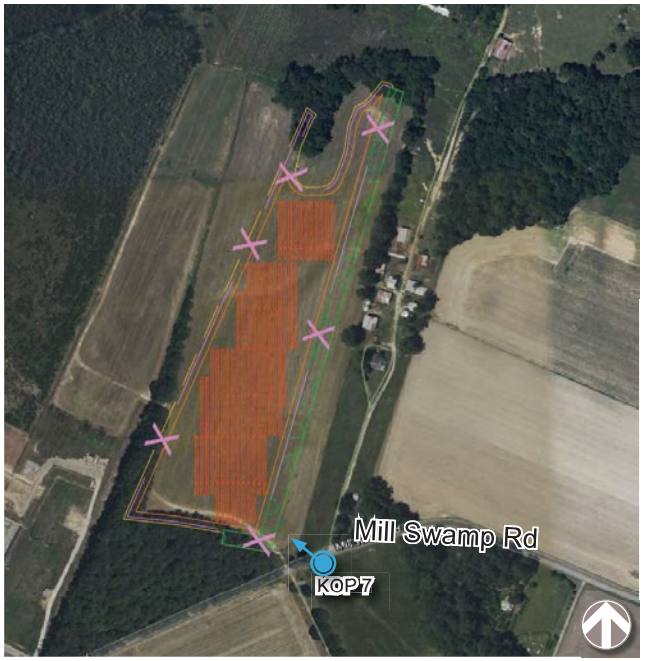
LANDSCAPE BUFFER VISUALIZATION - PHOTO LOCATIONS




**KOP 4:**
**MILL SWAMP ROAD**




**KOP 5:**
**RATTLESNAKE TRAIL**




**KOP 7:**
**MILL SWAMP ROAD**

*LEGEND*

- PV Area
- Panels
- Fenceline
- Vegetative Buffer Area

PHOTO LOCATION
& VIEWING DIRECTION

# SYCAMORE CROSS SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION - PHOTO LOCATIONS

## KOP 1:
## WHITE HILL TRAIL

### PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:18 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.994477° |
| LONGITUDE: | -76.817906° |
| DISTANCE TO PROJECT: | 155 FT |

EXISTING

SIMULATED - WITH PLANT SCREENING: AT PLANTING

SIMULATED - WITH PLANT SCREENING: AT MATURE HEIGHT

## KOP 2:
## SYCAMORE CROSS DRIVE

### PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 10:20 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.986213° |
| LONGITUDE: | -76.833997° |
| DISTANCE TO PROJECT: | 175 FT |

EXISTING

SIMULATED - WITH PLANT SCREENING: AT PLANTING

SIMULATED - WITH PLANT SCREENING: AT MATURE HEIGHT

## KOP 3:
## RAMSEY ROAD

### PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 9:32 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | SOUTHEAST |
| LATITIUDE: | 36.959386° |
| LONGITUDE: | -76.829939° |
| DISTANCE TO PROJECT: | 145 FT |

EXISTING

SIMULATED - WITH PLANT SCREENING: AT PLANTING

SIMULATED - WITH PLANT SCREENING: AT MATURE HEIGHT

**DISCLAIMER**: The photographs used as the base for these simulations were collected during winter months where existing deciduous trees are pictured in the leaf-off condition. The landscape screening simulated shows full leaf-on conditions for all vegetation used for screening. While this does not match existing conditions, it demonstrates the maximum extent of screening proposed.

# SYCAMORE CROSS SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION - BEFORE AND AFTER BUFFER INSTALLATION

## KOP 4:
## MILL SWAMP ROAD

### PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:35 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.011385° |
| LONGITUDE: | -76.827799° |
| DISTANCE TO PROJECT: | 190 FT |

EXISTING

SIMULATED - WITH PLANT SCREENING: AT PLANTING

## KOP 5:
## RATTLESNAKE TRAIL

### PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 8:53 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHEAST |
| LATITIUDE: | 36.955797° |
| LONGITUDE: | -76.823667° |
| DISTANCE TO PROJECT: | 400 FT |

EXISTING

SIMULATED - WITH PLANT SCREENING: AT PLANTING

SIMULATED - WITH PLANT SCREENING: AT MATURE HEIGHT

## KOP 7:
## MILL SWAMP ROAD

### PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 1:05 PM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.014834° |
| LONGITUDE: | -76.733937° |
| DISTANCE TO PROJECT: | 270 FT |

EXISTING

SIMULATED - WITH PLANT SCREENING: AT PLANTING

SIMULATED - WITH PLANT SCREENING: AT MATURE HEIGHT

**DISCLAIMER**: The photographs used as the base for these simulations were collected during winter months where existing deciduous trees are pictured in the leaf-off condition. The landscape screening simulated shows full leaf-on conditions for all vegetation used for screening. While this does not match existing conditions, it demonstrates the maximum extent of screening proposed.

# SYCAMORE CROSS SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION - BEFORE AND AFTER BUFFER INSTALLATION

# SYCAMORE CROSS SOLAR PROJECT

## KOP 1: White Hill Trail

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:18 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.994477° |
| LONGITUDE: | -76.817906° |
| DISTANCE FROM PROJECT: | 155 FT |

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 1: White Hill Trail

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:18 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.994477° |
| LONGITUDE: | -76.817906° |
| DISTANCE FROM PROJECT: | 155 FT |

**DISCLAIMER**:
The photographs used as the base for these simulations were collected during winter months where existing deciduous trees are pictured in the leaf-off condition. The landscape screening simulated shows full leaf-on conditions for all vegetation used for screening. While this does not match existing conditions, it demonstrates the maximum extent of screening proposed.

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 1: White Hill Trail

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:18 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.994477° |
| LONGITUDE: | -76.817906° |
| DISTANCE FROM PROJECT: | 155 FT |

**DISCLAIMER**:
The photographs used as the base for these simulations were collected during winter months where existing deciduous trees are pictured in the leaf-off condition. The landscape screening simulated shows full leaf-on conditions for all vegetation used for screening. While this does not match existing conditions, it demonstrates the maximum extent of screening proposed.

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 2: Sycamore Cross Dr

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 10:20 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.986213° |
| LONGITUDE: | -76.833997° |
| DISTANCE FROM PROJECT: | 175 FT |

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 2: Sycamore Cross Dr

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

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|---|---|
| TIME: | 10:20 AM |
| DATE: | 3/21/2023 |
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| LATITIUDE: | 36.986213° |
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# SYCAMORE CROSS SOLAR PROJECT

## KOP 2: Sycamore Cross Dr

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 10:20 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 36.986213° |
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# SYCAMORE CROSS SOLAR PROJECT

## KOP 3: Ramsey Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 9:32 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | SOUTHEAST |
| LATITIUDE: | 36.959386° |
| LONGITUDE: | -76.829939° |
| DISTANCE FROM PROJECT: | 145 FT |

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 3: Ramsey Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 9:32 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | SOUTHEAST |
| LATITIUDE: | 36.959386° |
| LONGITUDE: | -76.829939° |
| DISTANCE FROM PROJECT: | 145 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 3: Ramsey Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 9:32 AM |
| DATE: | 3/21/2023 |
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| VIEWING DIRECTION: | SOUTHEAST |
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| DISTANCE FROM PROJECT: | 145 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 4: Mill Swamp Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:35 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 37.011385° |
| LONGITUDE: | -76.827799° |
| DISTANCE FROM PROJECT: | 190 FT |

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 4: Mill Swamp Rd

PHOTO SIMULATION

**PROJECT VIEWS ARE OBSTRUCTED BY EXISTING VEGETATION**

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 11:35 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 37.011385° |
| LONGITUDE: | -76.827799° |
| DISTANCE FROM PROJECT: | 190 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 5: Rattlesnake Trail

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 8:53 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHEAST |
| LATITIUDE: | 36.955797° |
| LONGITUDE: | -76.823667° |
| DISTANCE FROM PROJECT: | 400 FT |

**DISCLAIMER**: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT AND LANDSCAPE DETAILS ARE IN DEVELOPMENT AND SUBJECT TO CHANGE.

# SYCAMORE CROSS SOLAR PROJECT

## KOP 5: Rattlesnake Trail

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 8:53 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHEAST |
| LATITIUDE: | 36.955797° |
| LONGITUDE: | -76.823667° |
| DISTANCE FROM PROJECT: | 400 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 5: Rattlesnake Trail

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 8:53 AM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHEAST |
| LATITIUDE: | 36.955797° |
| LONGITUDE: | -76.823667° |
| DISTANCE FROM PROJECT: | 400 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 7: Mill Swamp Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 1:05 PM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 37.014834° |
| LONGITUDE: | -76.733937° |
| DISTANCE FROM PROJECT: | 270 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 7: Mill Swamp Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 1:05 PM |
| DATE: | 3/21/2023 |
| WEATHER CONDITION: | PARTLY CLOUDY |
| VIEWING DIRECTION: | NORTHWEST |
| LATITIUDE: | 37.014834° |
| LONGITUDE: | -76.733937° |
| DISTANCE FROM PROJECT: | 270 FT |

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# SYCAMORE CROSS SOLAR PROJECT

## KOP 7: Mill Swamp Rd

PHOTO SIMULATION

VICINITY MAP

*LEGEND*

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

## PHOTOGRAPH INFORMATION

| | |
|---|---|
| TIME: | 1:05 PM |
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**Sycamore Cross A and B Solar Projects with Approved Solar Energy Generation Facilities as of 5/21/24**

| PROJECT | DEVELOPED AREA (PER CUP) | PRIME FARMLAND /SOILS OF STATEWIDE IMPORTANCE* | % OF TOTAL PRIME SOILS (rounded) | LOCATION | % OF TOTAL FARMLAND** | TOTAL MW | APPROVAL DATE |
|---|---|---|---|---|---|---|---|
| Woodland | 180 | 124 | 0.10% | Longview | 0.22% | 20 | 2015 |
| Solidago | 170 | 170 | 0.14% | Redhouse | 0.21% | 20 | 2018 |
| Ho-Fel | 330 | 315 | 0.26% | Lees Mill | 0.41% | 55 | 2019; Amended 2023 |
| Windsor PV1 | 630 | 630 | 0.52% | Windsor | 0.78% | 85 | 2019; Amended in 2021 |
| Cavalier | 500 | 500 | 0.41% | Hardy | 0.62% | 240 | 2021 |
| Nuby Run | 20 | 20 | 0.02% | Orbit | 0.02% | 2 | 2022 |
| Carver | 637 | 297 | 0.24% | Windsor | 0.79%<br>0.00% | 71 | Approved 7/23/2023 |
| Prairie Solar | 152 | 152 | 0.12% | Longview | 0.19%<br>0.00% | 20 | Approved 8/17/23 |
| Courthouse Solar | 18 | 18 | 0.01% | Route 258 | 0.02% | 3 | Approved 11/16/23 |
| Sycamore Cross A & B (Proposed) | 1,030 | 1,030 | 0.84% | Ramsey/Mill Swamp/White Hill Trail/Sycamore Cross/Rattlesnake | 1.28% | 240 | Under Review |
| | | | | | | | |
| **TOTAL** | **3,667** | **3,256** | **2.66%** | | **4.57%** | **756** | |

***Prime soils include Prime Farmland, Prime, If Drained, and Soils of Statewide Importance – 122,296 total acres in County***

***Total active agricultural lands as of 2022 Census of Agriculture – 80,316 acres***

**ORDINANCE NUMBER ___ _____**

**AN ORDINANCE TO ISSUE CONDITIONAL USE PERMIT CUP-5-24 TO ESTABLISH A MAJOR UTILITY SERVICE, SPECIFICALLY A SIX MW UTILITY-SCALE SOLAR ENERGY GENERATION FACILITY, ON APPROXIMATELY 240 ACRES WITH TAX PARCEL NUMBERS 10-01-017, 11-01-015, 10-01-023, 10-01-025, 10-01-027, 10-01-028A, 10-01-030, AND 11-01-005 LOCATED ON JONES DRIVE (RTE. 626), BURWELLS BAY ROAD (RTE. 621), MILL SWAMP ROAD (RTE. 621) AND JAMES WILSON WAY IN THE RURAL AGRICULTURAL CONSERVATION ZONING DISTRICT**

WHEREAS, Sycamore Cross Solar, LLC, applicant, has requested the issuance of a conditional use permit for a certain portion or all of the property with tax parcel numbers 10-01-017, 11-01-015, 10-01-023, 10-01-025, 10-01-027, 10-01-028A, 10-01-030, and 11-01-005 for a six MW utility scale solar energy generation facility which land is depicted on Exhibit "A"; and,

WHEREAS, the procedural requirements of Appendix B, Zoning Ordinance, of the Code of Isle of Wight County, Virginia, 2005 (as amended), have been followed; and,

WHEREAS, in acting upon this request, the Planning Commission and Board of Supervisors have considered the matters enunciated in Section 15.2-2284 of the Code of Virginia (1950), as amended, and Section 1-1017 of the Isle of Wight County Zoning Ordinance with respect to the purposes stated in Code of Virginia (1950), as amended, Section 15.2-2200 and 15.2 2283; and,

WHEREAS, the Planning Commission has made a recommendation of denial of the application at their May 28, 2024, regular meeting;

NOW, THEREFORE, BE IT ORDAINED by the Isle of Wight County Board of Supervisors of Isle of Wight County, Virginia, that:

Section 1. Exhibits.

Exhibit "A," "Property Map", and Exhibit "B" Conditions which are attached hereto, are hereby incorporated as part of this ordinance.

Section 2. Findings.

The Board of Supervisors finds that the proposal for a conditional use permit (CUP-5-24) and the withdrawal of enrolled land in the Moonlight Agricultural and Forestal District, as submitted or modified with conditions herein, the expressed purpose of which is to permit a major utility service, specifically a six MW utility-scale solar energy generation facility, is in conformity with the standards of the Isle of Wight County Zoning Ordinance, and that it will have no more adverse effects on the health, safety or comfort of persons living or working in or driving through the neighborhood, and will be no more injurious to property or improvements in the neighborhood than would any other use generally permitted in the same district, taking into consideration the location, type and height of buildings or structures, the type and extent of landscaping and screening on site and whether the use is consistent with any theme, action, policy or map of the Comprehensive Plan with the conditions set forth below.

These findings are based upon the consideration for the existing use and character of the property, the Comprehensive Plan, the suitability of the property for various uses, the trends of growth or change, the current and future requirements of the community as to land for various purposes as determined by population and economic studies and other studies, the transportation requirements of the community, the requirements of airports, housing, schools, parks, playgrounds, recreation areas and other public services, the conservation of natural resources, the preservation floodplains, the preservation of agricultural and forestal land, the conservation of properties and their values, and the encouragement of the most appropriate use of land throughout the County.

These findings are based upon a determination that the most reasonable and limited way of avoiding the adverse impacts of a major utility service is by the imposition of the conditions provided herein.

Section 3. Permit Granted.

The conditional use permit for the property be, and is hereby approved for the property, subject to the attached conditions in Exhibit "B" and the general conditions set forth in Section 4 hereof. The conditional use permit specifically allows for a six MW major utility service solar energy generation facility in compliance with the County Zoning Ordinance.

Section 4. Severability.

It is the intention of the Board of Supervisors that the provisions, sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable; and if any phrase, clause, sentence, paragraph, section, and provision of this ordinance hereby adopted shall be declared unconstitutional or otherwise invalid by the valid judgement or decree of a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining phrase, clauses, sentences, paragraphs, sections, and provisions of this ordinance, to the extent that they can be enforced notwithstanding such determination.

Section 5. Effective Date

This ordinance shall be effective upon passage and shall not be published or codified. The conditional use authorized by this permit shall be implemented within two (2) years from that date of approval by the Board of Supervisors and shall terminate if not initiated within that time period.

This ordinance shall be effective upon passage and shall not be published or codified.

DATE: _____

READ AND PASSED: _____
Chairman, Board of Supervisors

TESTE: _____
Clerk, Board of Supervisors

Approved as to Form:

_____
Robert W. Jones Jr, County Attorney

**EXHIBIT A**

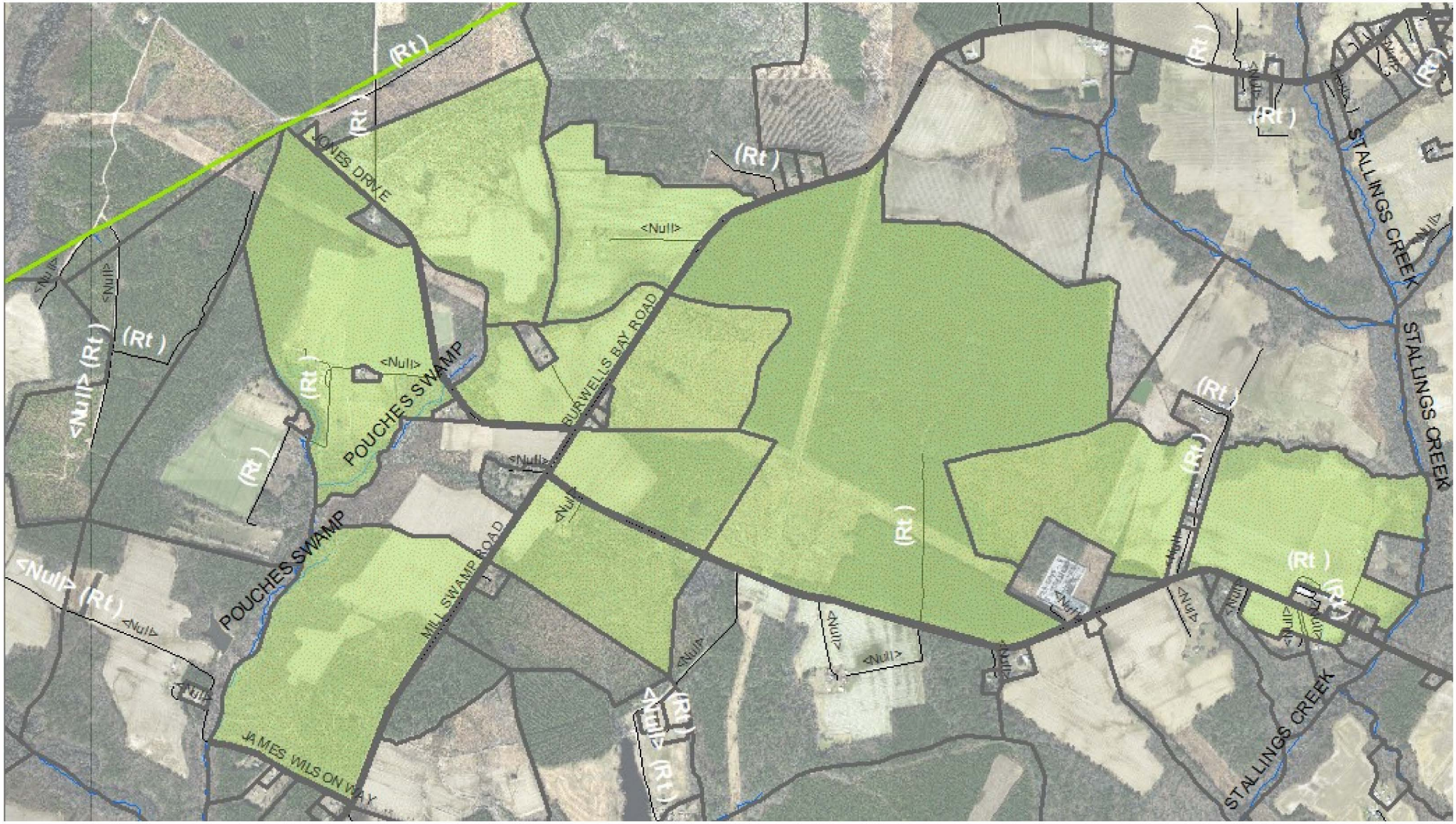
JONES DRIVE
POUCHES SWAMP
BURWELLS BAY ROAD
MILL SWAMP ROAD
JAMES WILSON WAY
STALLINGS CREEK
STALLINGS CREEK
STALLINGS CREEK
(Rt )
<Null>

**EXHIBIT B**

**CUP-5-24**
**SYCAMORE CROSS B CONDITIONS OF APPROVAL**

1. Topsoil shall be stockpiled on the site and shall be stored out of view from adjacent properties and public roads.
2. The applicant shall submit an invasive species management plan as recommended by DCR with the submission of the final site plan.
3. No impacts shall be permitted to the Pouches Swamp stream conservation unit area, the C1-C3 ecological core areas, or the priority forestland areas. The applicant shall submit a formal ecological core impact assessment with DCR as recommended.
4. The applicant shall submit a seed mix for site groundcover that includes native pollinators blooming in spring/summer as recommended by DCR.
5. The applicant will work directly with the Isle of Wight County Chamber of Commerce, Paul D. Camp Community College, and the Economic Development Department to ensure inclusion of local contractors in the bidding process.
6. A laminated Emergency Response Poster will be mounted near the front gate. The poster will include a general site plan, evacuation routes and muster points, emergency response chain of command, directions to the closest hospital, coordinates to the closest life flight landing area, and other pertinent information associated with the facility during an emergency response.
7. The facility perimeter fencing will be equipped with push bar pedestrian gates to permit emergency exits from the facility.
8. Adherence to the proposed transportation plan shall be required for all facility traffic. Truck traffic shall be limited to only to the preferred route as described in in the transportation plan. No other local routes in Isle of Wight County may be used. The applicant shall coordinate deliveries outside of school bus pickup and drop-off times.
9. Excluding the bufferyards, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing.
10. Hours of operation for construction and post-construction operation shall be limited to Monday through Friday, 7:00 a.m. to 6:00 p.m. Saturdays from 7:00 a.m. to 5:00 p.m. No construction is to occur on Sundays by any party involved with the project.
11. As part of the site plan review, the applicant shall provide documentation that the selected panels and all power-generating equipment on-site are “Tier 1” modules, as established by the most recent “PV Module Tier 1 List” issued by Bloomberg NEF or a similar third party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power-generating equipment initially installed and replaced on the site must qualify, for disposal purposes only, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP).
12. The applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil

conditions, including depth, density, and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to at least baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results.

13. Any recommendations provided by VDHR during site plan review will be adhered to, in addition to requirements in the zoning ordinance.

**REPORT >**

# Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**LOCATION >** Isle of Wight and Surry Counties, Virginia

**DATE > July 2024**

**PREPARED FOR >**
AES Clean Energy

**PREPARED BY >**
Dutton + Associates, LLC

**VDHR FILE NO. >**
2023-4691

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

# PHASE I CULTURAL RESOURCE SURVEY OF THE ±817.46 HECTARE (2,020 ACRE) SYCAMORE CROSS SOLAR PROJECT AREA

## ISLE OF WIGHT AND SURRY COUNTIES, VIRGINIA

***PREPARED FOR:***
**AES CLEAN ENERGY**
**4200 INNSLAKE DRIVE**
**SUITE 302**
**GLEN ALLEN, VIRGINIA 23060**

***PREPARED BY*:**
**DUTTON + ASSOCIATES, LLC**
**1115 CROWDER DRIVE**
**MIDLOTHIAN, VIRGINIA 23113**
**804.897.1960**

***PRINCIPAL INVESTIGATOR/***
***ARCHITECTURAL HISTORIAN:***
**ROBERT J. TAYLOR, JR., M.A.**

***SENIOR ARCHAEOLOGIST:***
**HOPE SMITH, PH.D.**

***RESEARCH HISTORIAN:***
**DARA FRIEDBERG, M.S.**

**JULY 2024**

# ABSTRACT

*In April 2024, Dutton +Associates, LLC (D+A) completed a Phase I cultural resource survey (Phase I) of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar project area in Isle of Wight and Surry counties, Virginia. Fieldwork for the study was conducted between December 2023 and March 2024. The effort was intended to provide documentation and assessment of cultural resources within the study area to make recommendations as to whether they may be potentially eligible for listing in the National Register of Historic Places (NRHP) and assess those that are considered NRHP-eligible for project impacts. The effort was conducted in support of an application for a Certificate of Public Convenience and Necessity (CPCN) from the Virginia State Corporation Commission (SCC) and serves as a follow-up to the previously coordinated Phase IA Cultural Resource Assessment of the Sycamore Cross Study Area (D+A July 2023).*

*The project involves the development of a solar energy production facility near the border of Isle of Wight and Surry counties generally along Sycamore Cross Road, Ramsey Road, Mill Swamp Road, Rattlesnake Trail, and White Hill Trail. As part of the project, a series of solar arrays will be built throughout the project area.*

*The architectural resources survey for the Sycamore Cross Solar Project resulted in the identification and recordation of forty-four (44) architectural resources greater than 50 years of age (constructed in 1974 or earlier) located within the one-half mile architectural survey area. Of the surveyed resources, twenty-five (25) were previously recorded (VDHR# VDHR# 046-0029, 046-0030, 046-0032, 046-0055, 046-0068, 046-5147/5152, 046-5260, 046-5550/5552, 087-5509, 090-5163/5168, and 090-5174) and nineteen (19) were newly recorded during this Phase I Survey (VDHR# 046-5804/5817 and 090-5208/5212). Ten (10) of the previously recorded sites were recently surveyed and determined not eligible for listing in the NRHP by the VDHR within the last five years, and therefore not subject to re-survey as part of this effort (VDHR# 046-5550/5552, 090-5163/5168, and 090-5174) and another previously recorded resource was relocated outside of the survey area and therefore also not subject to re-survey at this time (VDHR# 087-5509). Survey at this time also found that an additional five (5) previously recorded resources have been demolished since they were last updated (VDHR# 046-0029, 046-0030, 046-0032, 046-0055, and 046-5260). The surveyed resources consist primarily of domestic buildings and farmsteads from the early-nineteenth to mid-twentieth century. Also surveyed were several twentieth century commercial buildings, a former late-nineteenth century post office, a nineteenth century small family cemetery, and a mid-twentieth century church.*

*Of the surveyed resources, four (4) are considered potentially eligible for listing in the NRHP. This includes two Antebellum homes that represent the earliest extant development within the survey area and an important reflection of the architectural evolution of rural Isle of Wight County during that period. The other two resources are a late-nineteenth century post office and associated dwelling that remain as an example of a historically significant aspect of the crossroads community of Sycamore Cross at the turn-of-the-twentieth century. The rest of the surveyed properties generally do not appear to reflect any unique or significant design or historical associations, and as such, are recommended to be not eligible for listing in the NRHP individually or collectively.*

*Each of the four NRHP-eligible resources was subject to an assessment of impacts brought about by the project. Of the eligible resources, three are located directly within the study area, however, will be excluded by the project development plan and therefore will not be directly impacted by the project. With regards to indirect, visual impacts, field inspection revealed that the generally open nature of the landscape within and bordering the NRHP-eligible properties permits views of the project area that range from partially screened to nearly unobstructed. To minimize the potential for visibility of the project, a variety of measures have been employed including setbacks from roadways and property lines, and supplemental landscape buffers.* ***With these measures, it is D+A's recommendation that visibility of the project from one resource, the Wilson Hollemon House (VDHR# 046-0068) will be screened and therefore the Sycamore Cross Solar Project will have no more than a minimal impact to it. With regards to the remaining three resources, the setbacks and landscape screening will reduce visibility of the project but some portions will remain visible. As such, it is D+A's recommendation that the Sycamore Cross Solar Project will result in a moderate impact to the Sycamore Cross Post Office (VDHR# 046-5149), the house at 11356 Sycamore Cross Drive (VDHR# 046-5150), and the Betts Farm (VDHR# 046-5811)****.*

***Summary of NRHP-eligible architectural resources within the project survey area and recommendations of project impacts.***

| *VDHR ID#* | *Resource Name/Address* | *NRHP Eligibility* | *Proximity to Project* | *Project Impact* |
|---|---|---|---|---|
| *046-0068* | *Wilson Hollemon House, 5499 Mill Swamp Road* | *D+A: Potentially Eligible* | *Adjacent to Project* | *Minimal Impact* |
| *046-5149* | *Sycamore Cross Post Office, Mill Swamp Road* | *D+A: Potentially Eligible* | *Within Project Area (in Exclusion Area)* | *Moderate Impact* |
| *046-5150* | *House, 11356 Sycamore Cross Drive* | *D+A: Potentially Eligible* | *Within Project Area (in Exclusion Area)* | *Moderate Impact* |
| *046-5811* | *Betts Farm, 5191 Mill Swamp Road* | *D+A: Potentially Eligible* | *Within Project Area (in Exclusion Area)* | *Moderate Impact* |

*One (1) cemetery was identified within testing area B5 of the project area, and is an independent resource, not associated with any standing architectural resource.* ***Although the cemetery represents a typical small family cemetery and is considered not eligible for listing in the NRHP, the visual limits of the cemetery should be avoided with a 100-foot avoidance zone, or be subject to further delineation, to ensure protection during and after project construction.***

***Summary of Cemetery identified within the project area with proximity to project area and recommended avoidance measures.***

| *Cemetery #* | *Name, Location* | *NRHP Status* | *Proximity to Project Area* | *Avoidance/Impacts* |
|---|---|---|---|---|
| *046-5816* | *Holleman Cemetery, White Hill Trail* | *D+A: Not Eligible* | *Within Project Area* | *100-foot avoidance or further delineation* |

*Archaeological investigations followed an approved testing model that identified areas of high, moderate, and low archaeological potential. The testing strategy involved a combination of systematic pedestrian survey and shovel testing. A total of 1,175 shovel test pits were excavated throughout the project area. The archaeological survey resulted in the identification of 20 newly recorded sites and one previously recorded cemetery.*

*Of these sites, six are domestic sites associated with standing architectural resources, and fourteen are mid-nineteenth to early-twentieth century sites with no features and a light archaeological*

*signature. Most of these sites offer little new or significant archaeological data and are site types that are well represented in the region;* ***D+A recommends these 18 sites not eligible for inclusion in the NRHP, and no additional work is required.*** *However, two sites warrant further investigation: Site 44IW0424 consists of the ruin of a circa 1825 dwelling; and Site 44IW0407 contains surface features and artifacts and is also associated with an early-nineteenth-century house ruin. These two sites have the potential to provide new data about the early nineteenth century history of the area, and as such,* ***D+A recommends avoidance with a 50-foot buffer or further investigation of these sites.***

| *VDHR ID#* | *Site Type* | *Tine Period* | *NRHP Eligibility* | *Treatment/ Project Impacts* |
|---|---|---|---|---|
| *44IW0405* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0406* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| ***44IW0407*** | ***Farmstead*** | ***Antebellum Period, Civil War, Reconstruction and Growth, World War I to World War II*** | ***Potentially Eligible*** | ***Avoidance with 50-foot buffer/ Phase II Evaluation*** |
| *44IW0408* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0409* | *Farmstead* | *Civil War, Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0410* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0411* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0412* | *Artifact Scatter* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0413* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0414* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0415* | *Artifact Scatter* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0416* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0417* | *Artifact Scatter* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0418* | *Farmstead* | *Reconstruction and Growth* | *Not Eligible* | *No Impact* |
| *44IW0419* | *Farmstead* | *Civil War, Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0420* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0421* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0422* | *Farmstead* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| *44IW0423* | *Artifact Scatter* | *Reconstruction and Growth, World War I to World War II, The New Dominion* | *Not Eligible* | *No Impact* |
| ***44IW0424*** | ***Single Dwelling*** | ***Antebellum Period, Civil War, Reconstruction and Growth, World War I to World War II*** | ***Further Study*** | ***Avoidance with 50-foot buffer / Further Study*** |

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# 1. INTRODUCTION

In April 2024, Dutton +Associates, LLC (D+A) completed a Phase I cultural resource survey (Phase I) of the ±817.46-hectare (2,020-acre) Sycamore Cross Solar project area in Isle of Wight and Surry counties, Virginia. Fieldwork for the study was conducted between December 2023 and March 2024. The effort was intended to provide documentation and assessment of cultural resources within the study area to make recommendations as to whether they may be potentially eligible for listing in the National Register of Historic Places (NRHP) and assess those that are considered NRHP-eligible for project impacts. The effort was conducted in support of an application for a Certificate of Public Convenience and Necessity (CPCN) from the Virginia State Corporation Commission (SCC) and serves as a follow-up to the previously coordinated *Phase IA Cultural Resource Assessment of the Sycamore Cross Study Area* (D+A July 2023).

All research, fieldwork, and recording conducted as part of these investigations conforms to the guidance specified in the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (Federal Register 48:44716-44742, September 29, 1983), the Virginia Department of Historic Resources' (VDHR) *Guidelines for Conducting Historic Resources Survey in Virginia* (rev. 2017) and the Virginia Department of Environmental Quality's (DEQ) *Solar Permit by Rule Guidance* (2012) for complying with the provisions of §10.1-1197.6 B 7 of the *Code of Virginia*. Principal investigators meet the Secretary of the Interior's Professional Qualification Standards (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture. Robert J. Taylor, Jr. M.A. served as the Principal Investigator, oversaw architectural resource investigations, and coauthored the report. Hope Smith, Ph.D., oversaw archaeological investigations and coauthored the report. Research Historian Dara Friedberg M.S. conducted background research and prepared the historic context. Copies of all field notes, maps, correspondence, and research materials are on file at D+A's office in Midlothian, Virginia.

### PROJECT DESCRIPTION

The project involves the development of a solar energy production facility near the border of Isle of Wight and Surry counties generally along Sycamore Cross Road, Ramsey Road, Mill Swamp Road, Rattlesnake Trail, and White Hill Trail (Figure 1-1). The project area tracts are currently a mix of open agricultural field and woodland, including planted timber and native deciduous forest (1-2).

As part of the project, a series of solar arrays will be built throughout the project area within a project fenceline (Figure 1-3).

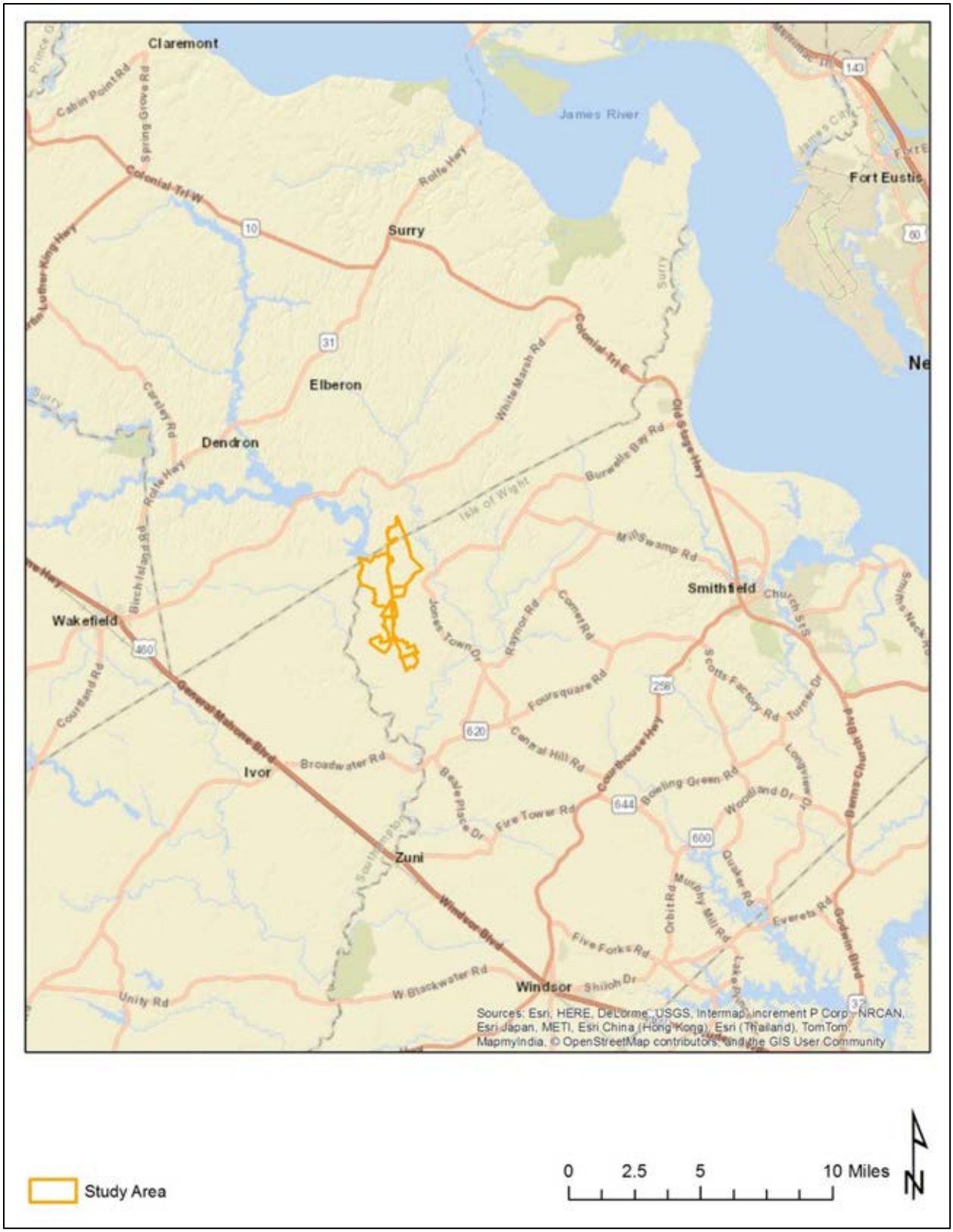


**Figure 1-1: General location of the project area. Source: USGS**

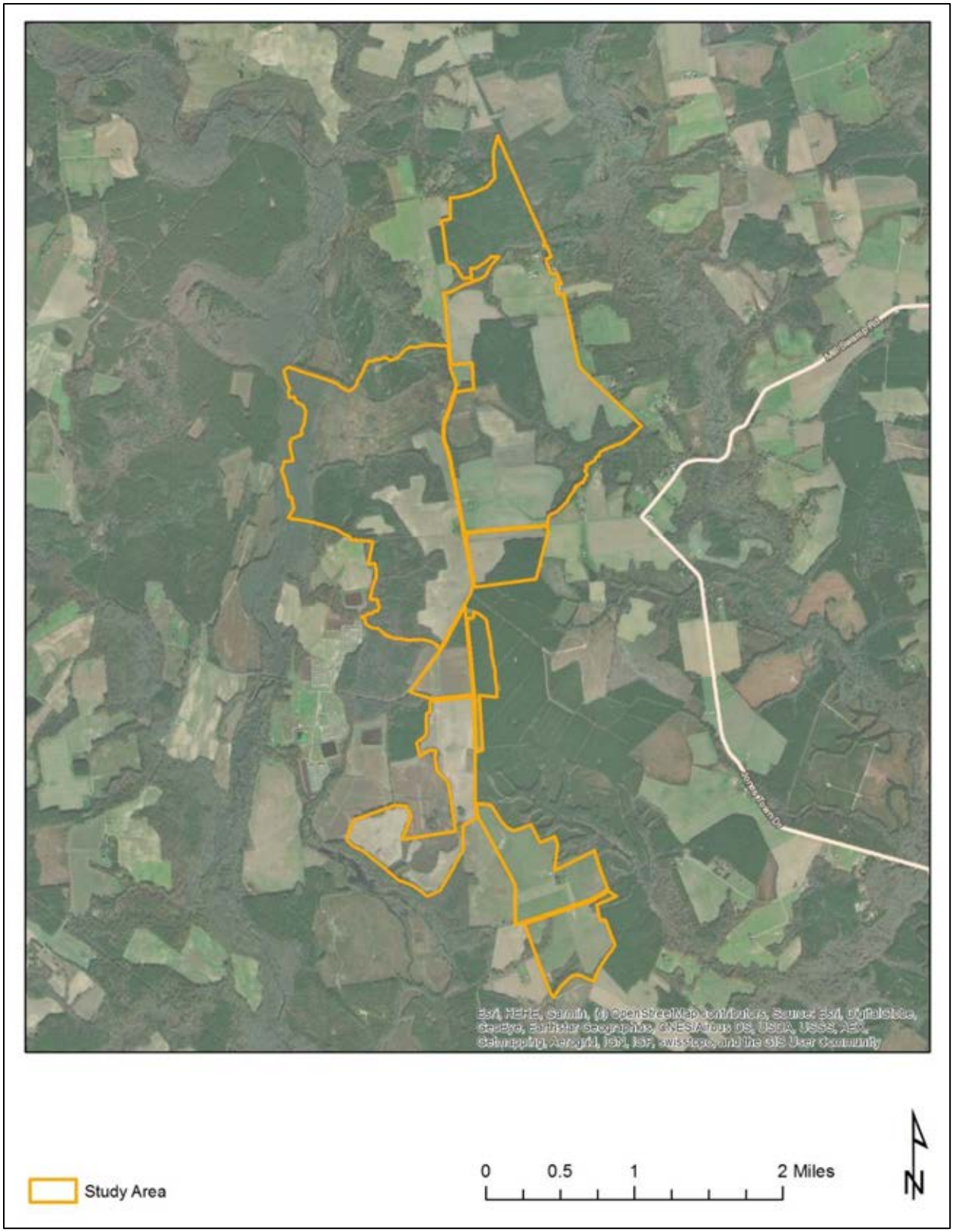


**Figure 1-2: Aerial view of the project area.**

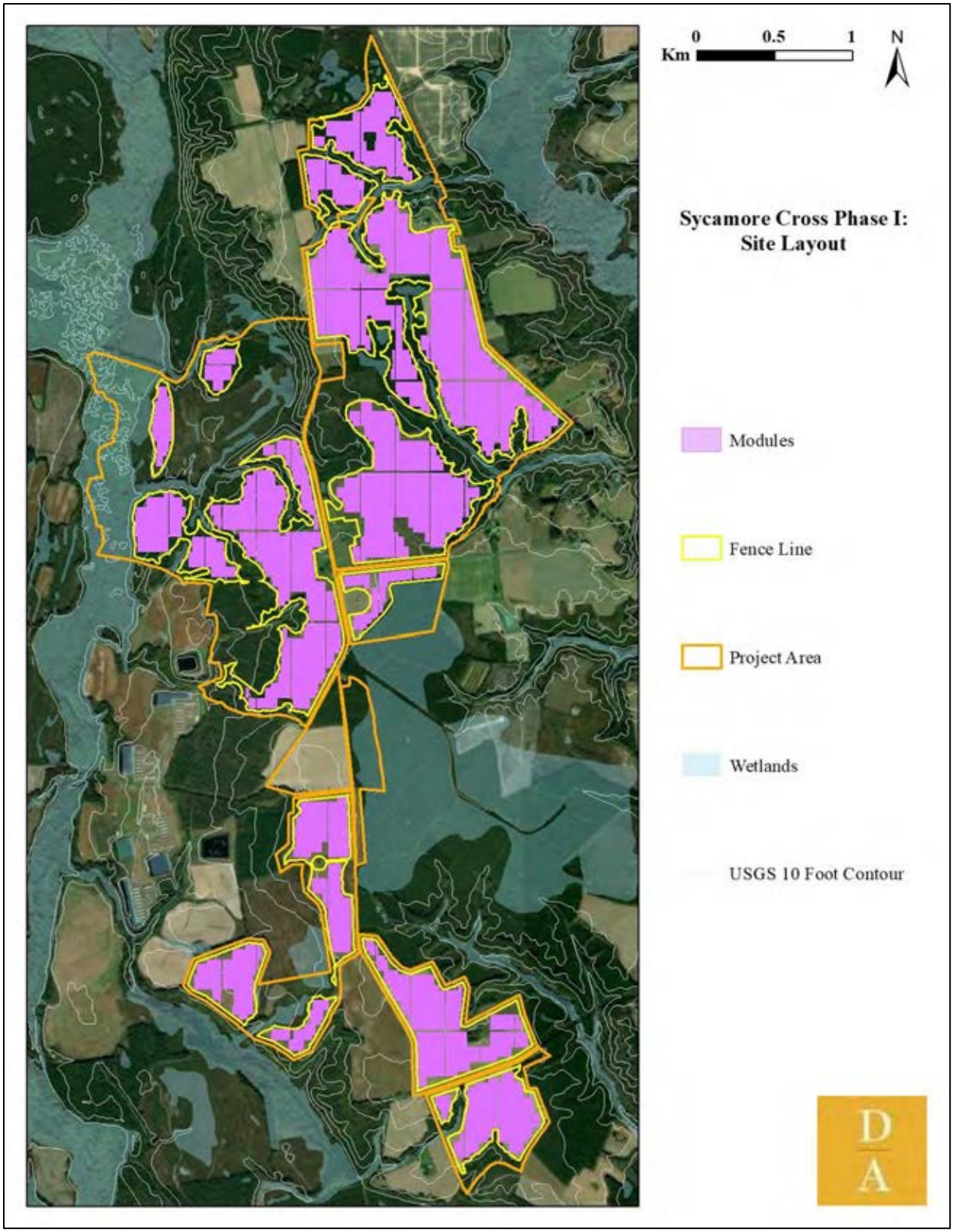


**Figure 1-3: Aerial view of the project area showing proposed fencelines and array layout.**

# 2. SURVEY AREA

For the purposes of this project, the survey area was established to define the area in which the project may result in impacts to NRHP-eligible cultural resources. Impacts considered include "direct", in which project construction, components, or other aspects may physically alter a cultural resource. "Indirect" impacts are those which may introduce features, qualities, or other characteristics into the setting of a cultural resource. In the case of solar projects, direct impacts are typically introduced by the location of proposed arrays, access roads, fence lines, and utility easements. Indirect impacts are typically limited to the introduction of visual features.

As such, the archaeological survey area included the entire limits of the study area, where arrays, substations, workspaces, access roads, and/or any other areas where ground-disturbing activities directly related to the project may take place. The survey strategy was further guided by, and conducted in accordance with, the testing strategy outlined in the *Phase IA Cultural Resource Assessment of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar project area in Isle of Wight and Surry counties, Virginia* (D+A 2023) and subsequent coordination with the VDHR (DHR File No. 2023-4691).

The architectural survey area includes the project area properties, as well as the geographic area around the project within which the associated project components may be seen. The default viewshed survey area for solar project according to the VDHR guidance for Solar Energy Projects is one-half mile, unless topography, vegetation, or other aspects of the landscape warrant a more refined distance. In the case of the Sycamore Cross Solar Project, the half-mile buffer was deemed appropriate and utilized. A map of the defined survey area for archaeological and architectural resources is illustrated in Figure 2-1.

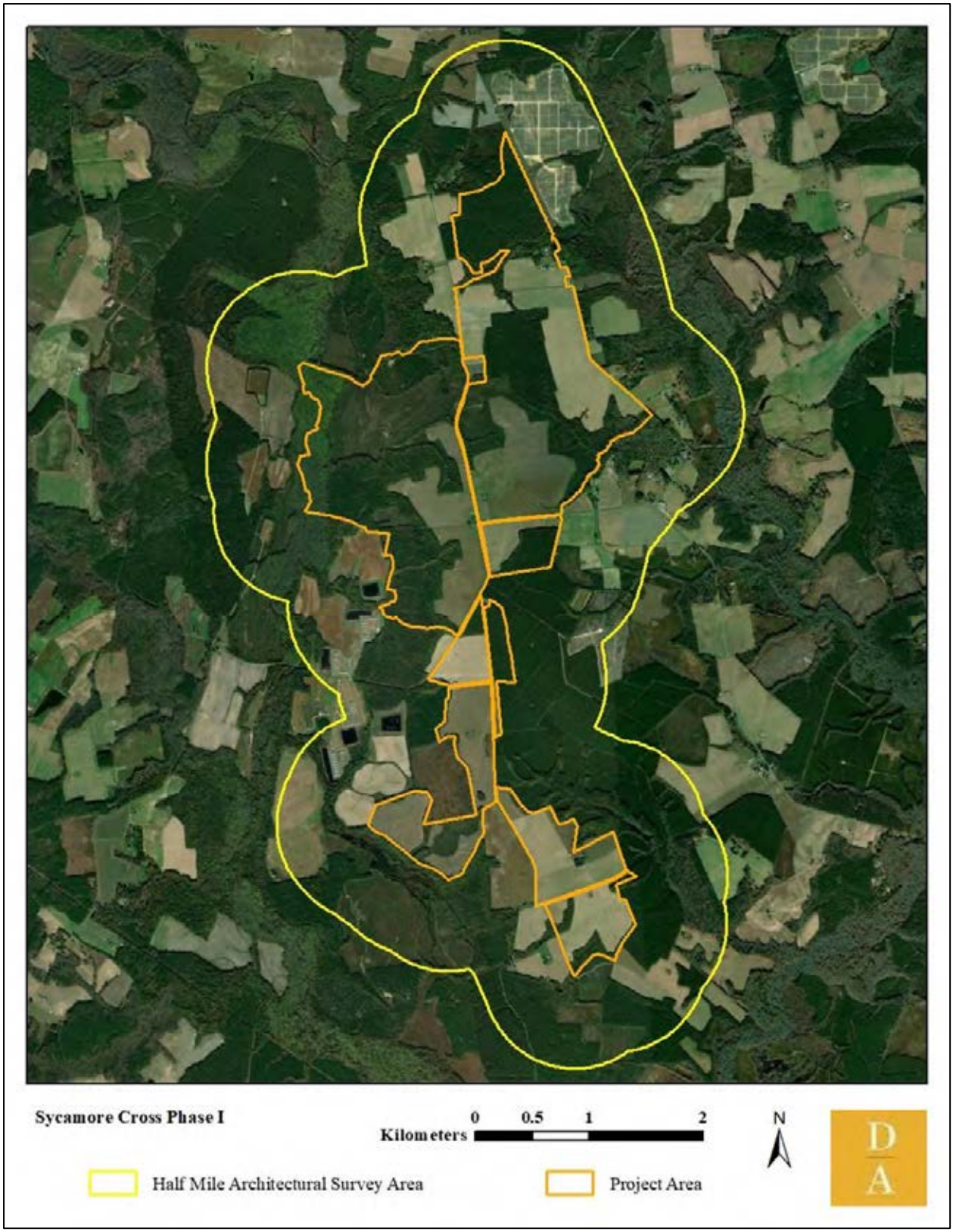


**Figure 2-1: Sycamore Cross Project Area and Survey Areas.**

# 3. RESEARCH DESIGN

The Phase I cultural resource survey of the Sycamore Cross Solar Project was undertaken in order to identify cultural resources within the project area, evaluate those resources for NRHP eligibility, and assess potential project impacts to NRHP-eligible resources. The Phase I survey methodology is summarized below and was further guided by the testing strategy outlined in the *Phase IA Cultural Resource Assessment of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar project area in Isle of Wight and Surry counties, Virginia* (D+A 2023).

### ARCHIVAL RESEARCH

In December 2023, D+A conducted background research with the goal of identifying all previously recorded historic properties located within one mile of the project area in accordance with VDHR's guidance document titled *Guidelines for Conducting Cultural Resources Survey in Virginia* (Revised 2017). Background research was conducted at the VDHR and on the internet and including the following sources:

- VDHR V-CRIS site files; and
- National Park Service, American Battlefield Protection Program, maps and related documentation.

In further preparation for the Phase I survey, D+A conducted additional review of the following documents and sources for information relative to unrecorded historic property locations in the project area:

- County Tax Assessors records;
- USDA Historic Aerial Imagery;
- U.S. Geological Survey Topographic Maps;
- Previous historic resource survey documents; and
- Local historical society archives.

The additional review conducted in support of the Phase I survey was designed to identify all properties greater than 50 years of age located within the survey area. Historic properties include architectural resources, historic and cultural landscapes, battlefields, and historic districts.

### CONTEXT DEVELOPMENT

Information from the literature review and background search was used in conjunction with additional research to develop a cultural and historical context to place the project area and any identified historic resources within their appropriate context for evaluations of historical significance. This context was developed through review of previous cultural resource studies, published and unpublished manuscripts, historic maps, aerial photographs, local histories, and a variety of internet sources.

For the purposes of this effort, a comprehensive cultural context of the Isle of Wight and Surry counties was prepared summarizing general historical trends, settlement patterns, and development

with a focus on the vicinity of the study area. Further analysis and context development were undertaken for the defined survey area so that newly recorded resources could be effectively evaluated.

## FIELD SURVEY

### *Archaeological Resources*

Archaeological testing was conducted in accordance with the model approved by the VDHR in the Phase IA probability map. At the outset of the Phase I field investigations, a limited pedestrian survey was conducted to document existing conditions and to note any observed changes since the Phase IA was completed.

Following the pedestrian survey, systematic shovel testing was conducted throughout portions of the project deemed to have the potential for intact archaeological deposits. Shovel tests were excavated at a maximum of 15-meter (50-foot) intervals along transects spaced 15 meters (50 feet) apart with shovel test pit placement avoiding areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.30 meters (1 foot) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

For any archaeological resources identified during the survey, photographs were taken of the general vicinity and of any visible features. A field map was prepared showing site limits, feature locations, permanent landmarks, topographic and vegetational variation, sources of disturbance, and all surface and subsurface investigations. GPS coordinates for all identified site locations were recorded and sufficient information was included on maps to permit easy relocation of sites. Notes were taken on surface and vegetational conditions, soil characteristics, dimensions and construction of features evident, and the amount and distribution of cultural materials present. All subsurface archaeological excavations were backfilled and returned to pre-survey conditions.

### *Architectural Resources*

The background research conducted in support of the Phase I reconnaissance survey was designed to identify architectural properties greater than 50 years of age located within the survey area. A reconnaissance field survey was undertaken to identify and document all buildings, objects, structures, sites, and districts within the survey area that were constructed in 1974 or earlier and meet (or will soon) the 50-year threshold for NRHP-consideration. Construction dates for resources were established through a combination of archival research, property records search, map analysis, and field inspection.

For each surveyed resource, field forms were completed with information from site observations including a physical description of the resource with information such as relationship to adjacent buildings and structures, general condition, surrounding setting, description of exterior materials, identifiable architectural or structural treatments, and retention of historic physical integrity. Site

plans depicting the built environment around each property were sketched. Each identified resource was then marked on both USGS 7.5-Minute Quadrangle maps and current aerial photographs. Representative digital photographs were taken to document each property's existing conditions, setting, and secondary resources.

All field survey identification and documentation were conducted from public ROW and included exterior features only. No interior inspections were conducted as part of this effort. In cases where a resource was not visible or accessible from the public ROW, the property was noted as such. All field documentation was organized and labeled with a unique identification number. Previously recorded resources subject to survey were numbered using their existing VDHR ID# while newly recorded resources were assigned a field recorder number.

All buildings and structures surveyed as part of this study were documented in accordance with VDHR's standards and guidelines and evaluated to determine potential significance in accordance with NRHP criteria. Concentrations of historic resources within or adjacent to the survey area were assessed in terms of their potential for inclusion in historic districts. Each resource's present condition, location relative to other resources, and distinguishing neighborhood characteristics were noted and photographed for an accurate assessment of NRHP Historic District eligibility.

*Assessment of Project Impacts*

Following identification and field inspection of historic properties, D+A assessed each resource for potential impacts brought about by the proposed project. Assessment of impacts was conducted through a combination of field inspection, digital photography, and review of topography and aerial photography. When assessing impacts, D+A considered those qualities and characteristics that qualify the property for listing in the NRHP and whether the project had the potential to alter or diminish the integrity of the property and its associated significance. Specific attention was given to determining whether or not the proposed project would introduce new visual elements into a property's setting or viewshed, which would either directly or indirectly alter those qualities or characteristics that qualify the historic property for listing in the NRHP. Identified impacts were assessed according to DHR's *Guidelines for Assessing Impacts of. Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* and characterized as **severe** (fully visible and incompatible with character-defining viewshed or setting), **moderate** (partially visible and incompatible with character-defining viewshed or setting), **minimal** (partially visible, but screened by intervening vegetation and/or not out of character with existing viewscape) or **no impact** (not visible).

## REPORT AND RECORD PREPARATION

Information from field survey was used in conjunction with background research and context development to assess each identified architectural resource for potential NRHP-eligibility. A results section was prepared that summarizes the field findings, assessment of significance and NRHP-eligibility. The results of the study are accompanied by maps and photographs as appropriate and were synthesized and summarized in this report along with the research design, archives search, and cultural contexts. All research material and documentation generated by this project are on file at D+A's office in Midlothian, Virginia. VDHR site forms (Virginia Cultural

Resources Information System (V-CRIS) were completed for all cultural resources, 50 years of age or older, identified during the survey.

## QUALIFICATIONS AND STANDARDS

The D+A personnel who directed and conducted this survey meet the professional qualification standards of the Department of the Interior (48 FR 44738-9). All work was conducted in accordance with the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (Federal Register 48:44716-44742, September 29, 1983), and VDHR's *Guidelines for Conducting Historic Resource Survey in Virginia* (rev. 2017).

# 4. ARCHIVES SEARCH

This section includes a summary of all the cultural resource management events that have taken place within the study area registered at VDHR through December 2023. It also lists all previously identified architectural resources and archaeological sites located within the project area, as well as within one mile of the study area.

### PREVIOUS SURVEYS RELEVANT TO THE STUDY AREA

VCRIS reveals that three Phase I cultural resource surveys have been conducted within one mile of the project area, one of which included portions of the project area (Table 4-1 and Figure 4-1). These surveys are archaeological in nature, although some include architectural resource investigations as well. The three surveys were conducted as part of assorted utility and infrastructure projects.

**Table 4-1: Previously conducted Phase I surveys within one mile of the project area. Orange highlight denotes survey including portions of the study area.**

| Report Number | Survey Title | Author/ Affiliation | Year | VDHR Review File |
|---|---|---|---|---|
| IW-105 | Phase I Cultural Resources Survey for the Align RNG Virginia – Waverly Renewable Natural Gas Project, Isle of Wight County, Virginia | TRC | 2022 | 2021-0097 |
| SY-079 | Phase I Cultural Resource Survey of the ±2,106.02-Hectare (±5,204.1-Acre) Cavalier Solar Study Area, Isle of Wight and Surry Counties, Virginia | DUTTON | 2020 | 2020-0521 |
| VA-176 | Phase I Archaeological Survey, Virginia Reliability Project, Cities of Chesapeake and Suffolk, and Greensville, Isle of Wight, Prince George, Southampton, Surry, and Sussex Counties, Virginia | ERM | 2022 | 2021-0026 |

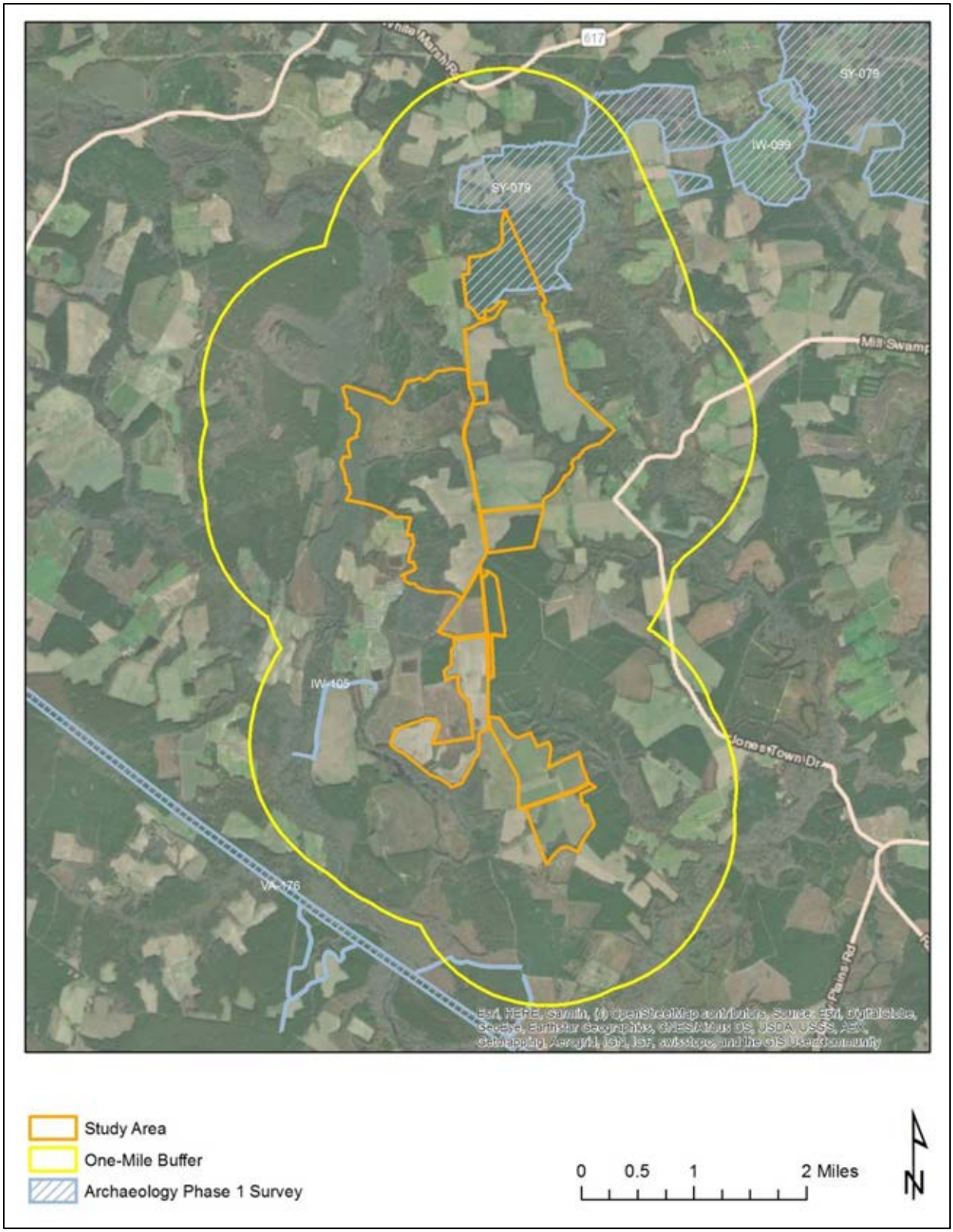


**Figure 4-1: Previous Phase I surveys conducted within one mile of the project area Source: V-CRIS**

## PREVIOUSLY IDENTIFIED ARCHAEOLOGICAL SITES WITHIN ONE MILE

There are ten (10) previously recorded archaeological sites located within one mile of the project area, two of which are located within the project area (Table 4-2 and Figure 4-2). The sites within one mile include prehistoric lithic scatters and camps; as well as historic period domestic sites and refuse scatters. Of the sites within one mile, eight (8) have been determined not eligible and two (2) have not been formally evaluated by the VDHR. Of the two sites within the project area, both are historic period artifact scatters that have been determined not eligible for listing in the NRHP.

**Table 4-2: Table detailing all archaeological resources within one mile of the project area. Orange highlight denotes site is within the limits of the project area.**

| VDHR # | Site Type | Cultural Designation | Temporal Association | NRHP Status |
|---|---|---|---|---|
| 44IW0327 | Camp | Native American | Early Archaic Period (8500 - 6501 B.C.E), Middle Archaic Period (6500 - 3001 B.C.E), Late Archaic Period (3000 - 1201 B.C.E), Early Woodland (1200 B.C.E - 299 C.E), Middle Woodland (300 - 999 C.E) | Not Evaluated |
| 44IW0336 | Lithic scatter | Native American | Pre-Contact | DHR Staff: Not Eligible |
| 44SY0128 | Dwelling, single | Indeterminate | Historic/Unknown | Not Evaluated |
| 44SY0316 | Dwelling, single | Indeterminate | World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0317 | Artifact scatter | Indeterminate | Reconstruction and Growth (1866 - 1916) | DHR Staff: Not Eligible |
| 44SY0318 | Dwelling, single | Indeterminate | Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0319 | Artifact scatter | Indeterminate | Reconstruction and Growth (1866 - 1916) | DHR Staff: Not Eligible |
| 44SY0320 | Dwelling, single | Indeterminate | World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0321 | Outbuilding | Indeterminate | Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945) | DHR Staff: Not Eligible |
| 44SY0322 | Artifact scatter, Lithic scatter | Indeterminate | Pre-Contact, Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991) | DHR Staff: Not Eligible |

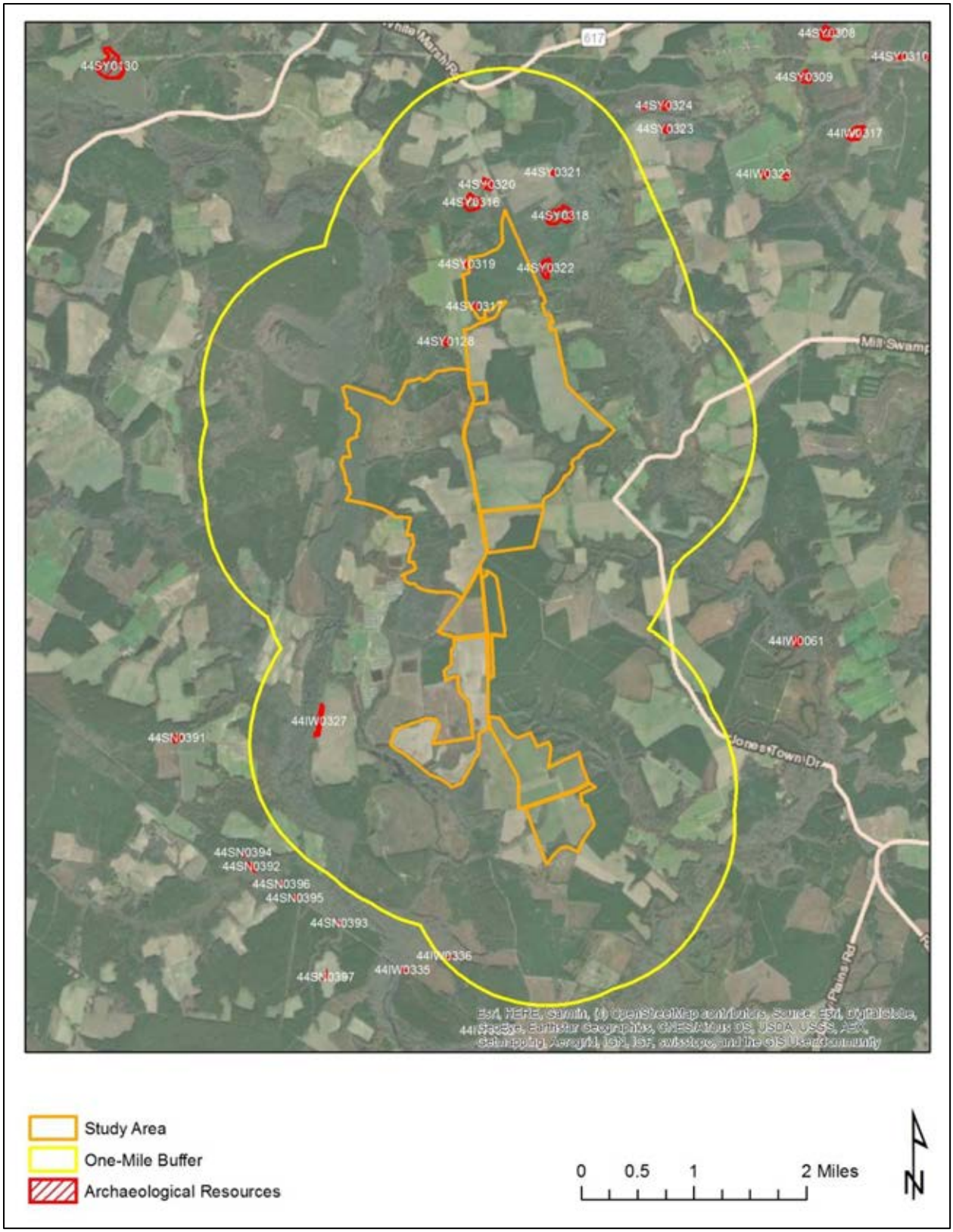


**Figure 4-2: Previously recorded archaeological sites located within one mile of the project area. Source: V-CRIS**

## PREVIOUSLY IDENTIFIED ARCHITECTURAL RESOURCES WITHIN ONE MILE

There are thirty-two (32) previously recorded architectural resources located within one mile of the project area, nine (9) of which are located within the project area (Table 4-3 and Figure 4-3). The resources within one mile include single-family homes from the mid-eighteenth to mid-twentieth century, a commercial building from the turn-of-the-twentieth century, a church from the early-twentieth century, and a family cemetery from the early-twentieth century. Thirteen of the resources have been determined not eligible for listing in the NRHP by the VDHR and the rest have not been formally evaluated. Of the nine resources within the project area, nine are dwellings with four from the early-nineteenth century, four from the late-nineteenth century, and one from the early-twentieth century; and one is a late-nineteenth century commercial building. One late-nineteenth and one early-twentieth century dwelling have been determined not eligible for listing in the NRHP and the rest have not been formally evaluated.

**Table 4-3: Previously identified architectural resources located within one mile of the project area. Orange highlight denotes resource is located within the project area.**

| VDHR ID# | Resource Name | Type | Year | NRHP Status |
|---|---|---|---|---|
| 046-0029 | House, Route 622 (Function/Location) | Single Dwelling | c.1800 | Not Evaluated |
| 046-0030 | Betts House (Historic) | Single Dwelling | c.1802 | Not Evaluated |
| 046-0032 | Dudley House and Outbuildings (Historic) | Single Dwelling | c.1820 | Not Evaluated |
| 046-0055 | Tenant House, Sycamore Crossroads (Historic/Current) | Secondary Dwelling | c.1800 | Not Evaluated |
| 046-0056 | Grays' Brick House (Historic/Current) | Single Dwelling | c.1825 | Not Evaluated |
| 046-0057 | Brick House (Descriptive) | Single Dwelling | c.1825 | Not Evaluated |
| 046-0068 | Wilson Hollemon House, Mill Swamp Rd (Rt 621) (Historic/Location) | Single Dwelling | c.1830 | Not Evaluated |
| 046-5147 | Farmhouse, 14537 Rattlesnake Trail (Function/Location) | Single Dwelling | 1850 | Not Evaluated |
| 046-5148 | Farmhouse, 13407 Ramsey Road (Function/Location) | Single Dwelling | 1880 | Not Evaluated |
| 046-5149 | Store, Intersection of Mill Swamp Road and Sycamore Cross Drive (Function/Location) | Commercial Building | 1899 | Not Evaluated |
| 046-5150 | Farmhouse, 11356 Proctors Bridge Road (Function/Location) | Single Dwelling | 1899 | Not Evaluated |
| 046-5151 | Mill Swamp Baptist Church & Cemetery (Historic/Current) | Church/Chapel | 1928 | Not Evaluated |
| 046-5152 | Store, 6159 Jones Town Road (Function/Location) | Service Station | c.1930 | Not Evaluated |
| 046-5234 | William Gray House (Historic/Current) | Single Dwelling | c.1825 | Not Evaluated |
| 046-5260 | House, 6330 Mill Swamp Road (Function/Location), Mill Swamp Baptist Church Parsonnage (Historic) | Single Dwelling | c.1900 | Not Evaluated |
| 046-5550 | Dwelling, 10126 White Hill Trail (Function/Location) | Single Dwelling | 1890 | DHR Staff: Not Eligible |
| 046-5551 | Dwelling, 10106 White Hill Trail (Function/Location) | Single Dwelling | 1944 | DHR Staff: Not Eligible |
| 046-5552 | Dwelling, 10088 White Hill Trail (Function/Location) | Single Dwelling | c.1930 | DHR Staff: Not Eligible |
| 087-0003 | Binford House (Historic) | Single Dwelling | c.1750 | Not Evaluated |

| VDHR ID# | Resource Name | Type | Year | NRHP Status |
|---|---|---|---|---|
| 087-5328 | Brantley Home (Historic), Pretlow Farm (Historic) | Single Dwelling | c.1900 | Not Evaluated |
| 087-5509 | 1760 Henley Pretlow House (Historic), Captain Pretlow House (Historic), House 4071 Proctor's Bridge Road (Function/Location) | Single Dwelling | 1760 | Not Evaluated |
| 090-0051 | Stratman House (Historic/Current) | Single Dwelling | c.1750 | Not Evaluated |
| 090-5160 | Dwelling, 9091 White Marsh Road (Function/Location) | Single Dwelling | 1905 | DHR Staff: Not Eligible |
| 090-5161 | Dwelling, 9100 White Marsh Road (Function/Location) | Single Dwelling | 1949 | DHR Staff: Not Eligible |
| 090-5162 | Dwelling, 274 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1890 | DHR Staff: Not Eligible |
| 090-5163 | Dwelling, 337 Berrymans Corner Road (Function/Location) | Single Dwelling | 1942 | DHR Staff: Not Eligible |
| 090-5164 | Dwelling, 285 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1900 | DHR Staff: Not Eligible |
| 090-5165 | Simmons and Brown Cemetery (Current Name) | Cemetery | c.1900 | DHR Staff: Not Eligible |
| 090-5166 | Dwelling, 1122 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1930 | DHR Staff: Not Eligible |
| 090-5167 | Dwelling, 1097 Berrymans Corner Road (Function/Location) | Single Dwelling | c.1965 | DHR Staff: Not Eligible |
| 090-5168 | Dwelling, 1676 Berrymans Corner Road (Function/Location) | Single Dwelling | 1870 | DHR Staff: Not Eligible |
| 090-5174 | House, Berrymans Corner Road (Function/Location) | Single Dwelling | c.1920 | DHR Staff: Not Eligible |

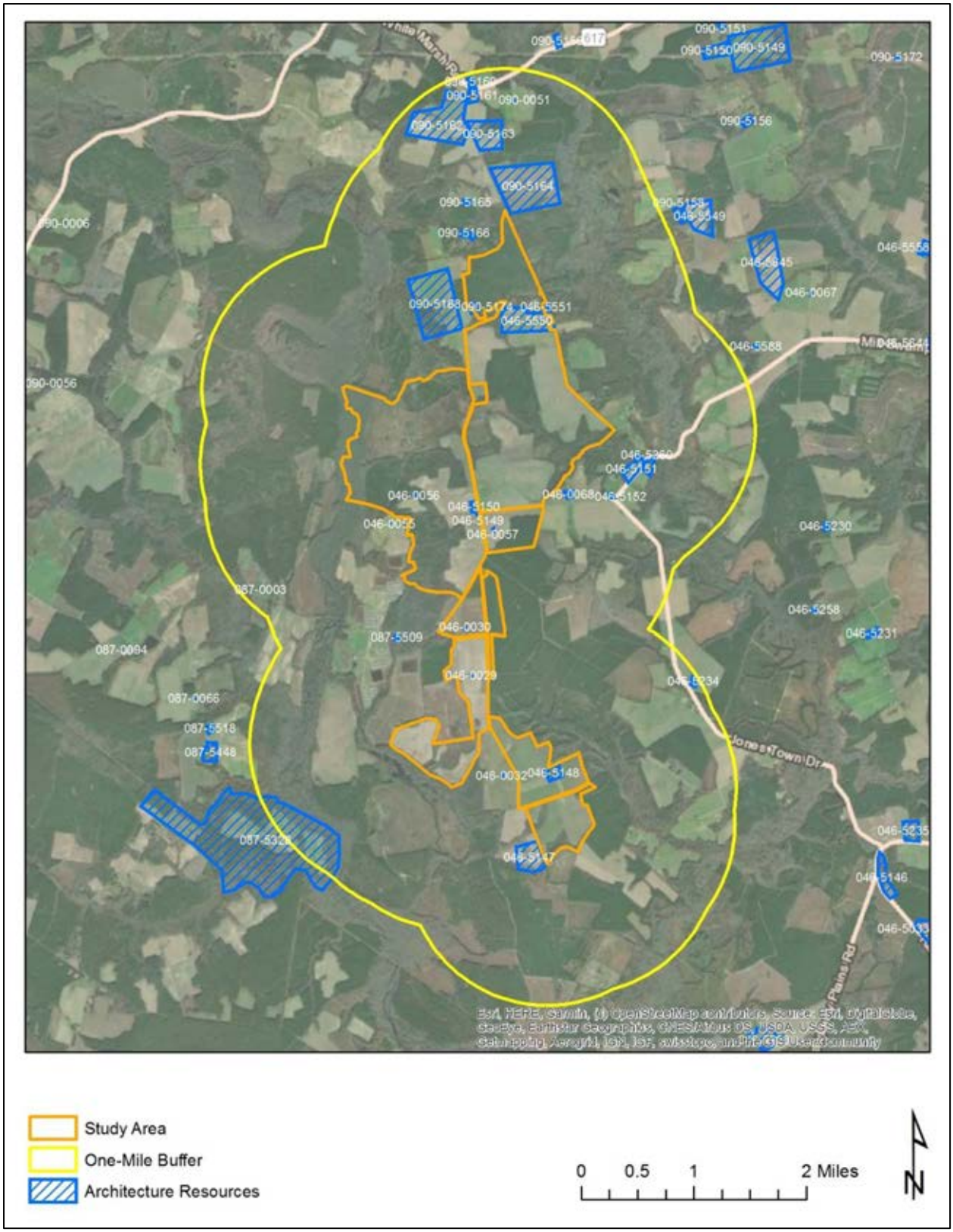


**Figure 4-3: Previously recorded architectural resources within one mile of the project area. Source: V-CRIS**

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# 5. ENVIRONMENTAL CONTEXT

## PHYSICAL DESCRIPTION AND LOCATION

The Sycamore Cross Solar project area consists of ±817.46 hectares (2,020 acres) of land divided into multiple contiguous and discontiguous parcels. The project area is located along the border of Isle of Wight and Surry counties within a primarily rural area of the Coastal Plain of Southside Virginia. The landscape within and bordering the project area is a mix of cultivated agricultural field, planted timber stands, and native woodland, particularly bordering the numerous drainages and swamps that dissect the area (Figure 5-1).

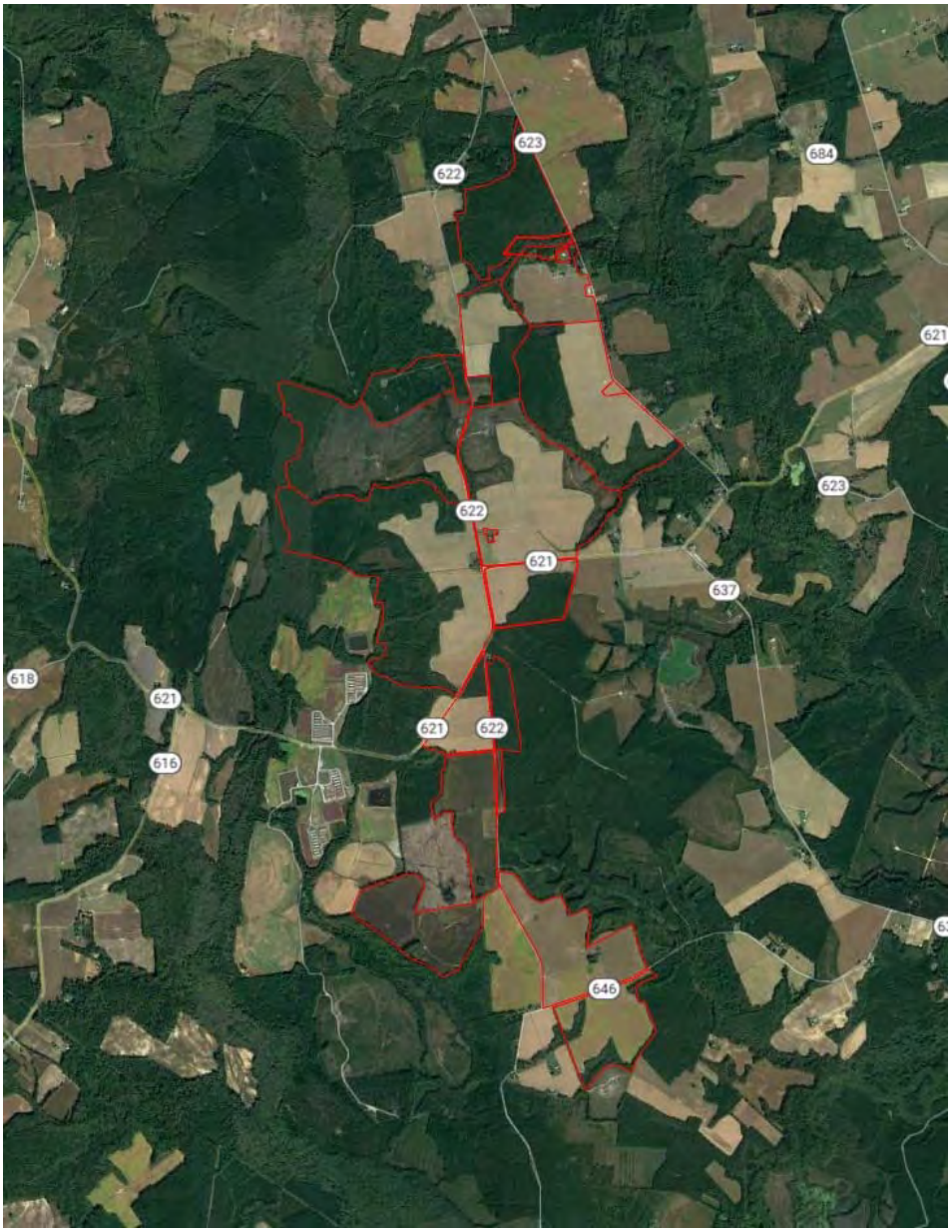


**Figure 5-1. Aerial view of project area illustrating existing conditions.**

## GEOLOGY AND TOPOGRAPHY

The project area topography is characterized by flat level terrain associated with the Lowland subprovince of the Coastal Plain region. The area is underlain by a thick wedge of sediments resting on an eroded surface of Precambrian to early Mesozoic rock. Generally, a lightly dissected, dendritic drainage pattern occurs throughout this region with broad, low landforms and shallow, sluggish drainageways. The elevation of the project area ranges from approximately ±7.9 meters (26 feet) to ±27.4 meters (90 feet) above mean sea level with the highest elevations located along the crest of a broad ridge along the eastern edge of the project area and the lowest elevations bordering the Blackwater River along the western edge.

## HYDROLOGY

Most of the project area drains west into Blackwater River, although portions of the eastern edge drain eastward into Mill Swamp which flows into Rattlesnake Swamp and ultimately into Blackwater River. This flows south into North Carolina where it empties into the Chowan River, which flows into Albemarle Sound, which empties into the Currituck Sound before ultimately draining into the Atlantic Ocean.

## PEDOLOGY

The project area is dominated by sandy loams and sandy clay loams formed from marine sediments. The most prominent soil type is Slagle fine sandy loam which is moderately well drained and covers about 25% of the study area. The second most prominent soil type is Kinston loam, which represents about 17.8% of the project area and is considered poorly drained. Well-drained Emporia fine sandy loam is the only other soil type that accounts for a significant portion of the project area at 15.2%. The rest of the study area is comprised of assorted sandy loams and complexes. Approximately 39.7% of the soils within the project area are classified as poorly to somewhat poorly drained (Figure 5-2 and Table 5-1).

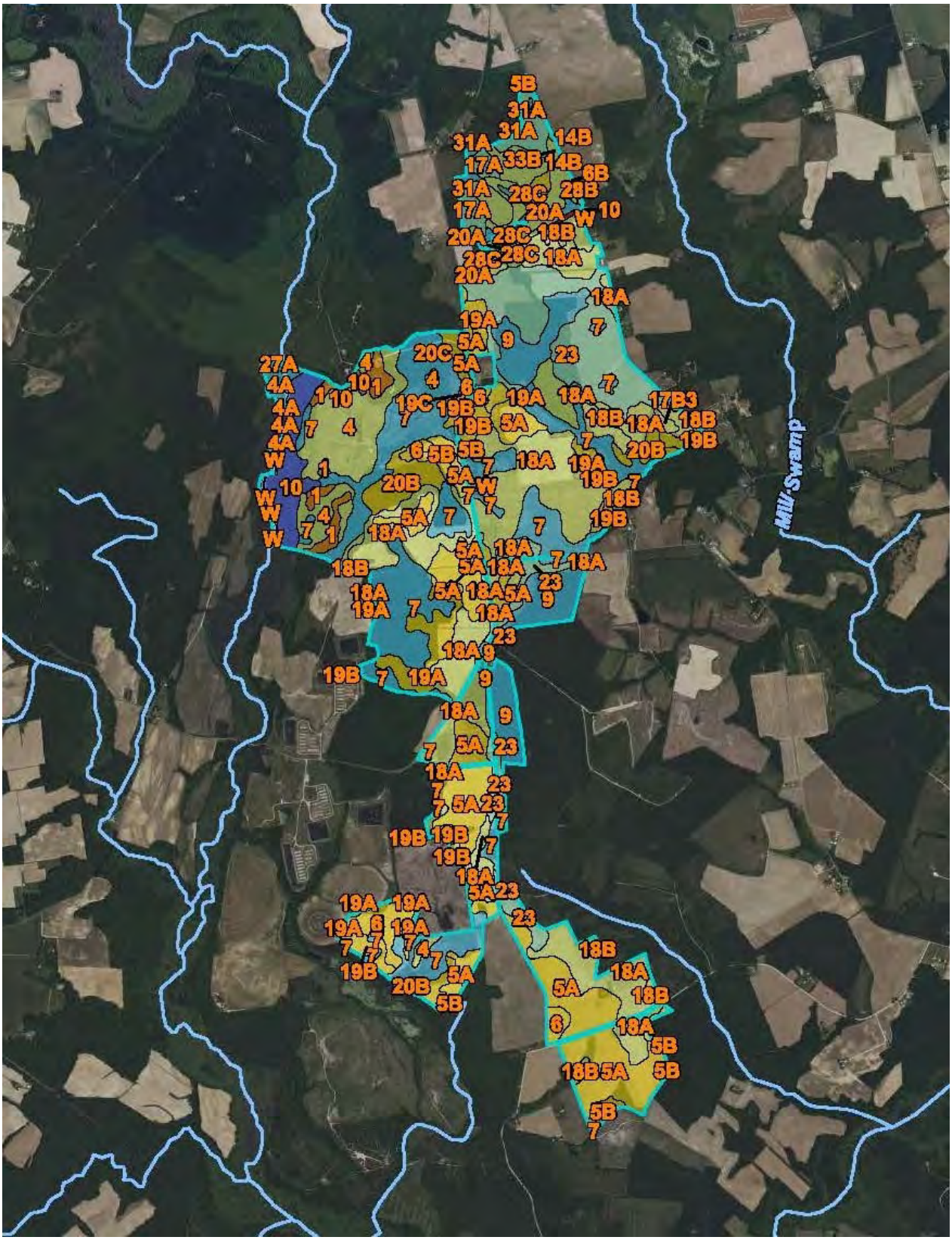


**Figure 5-2: Soil survey of the Sycamore Cross project area showing drainage class (USDA 2023).**

**Table 5-1: Soil survey data for the project area, showing drainage rating. Source: USDA.**

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 1 | Alaga fine sand | Somewhat excessively drained | 29.3 | 1.5% |
| 4 | Chipley sand | Moderately well drained | 116.0 | 5.7% |
| 5A | Emporia fine sandy loam, 0 to 2 percent slopes | Well drained | 286.6 | 14.2% |
| 5B | Emporia fine sandy loam, 2 to 6 percent slopes | Well drained | 21.0 | 1.0% |
| 6 | Kenansville loamy sand | Well drained | 41.6 | 2.1% |
| 7 | Kinston loam | Poorly drained | 347.0 | 17.2% |
| 9 | Myatt fine sandy loam | Poorly drained | 119.0 | 5.9% |
| 10 | Nawney loam | Very poorly drained | 55.9 | 2.8% |
| 17B3 | Slagle sandy loam, 2 to 6 percent slopes, severely eroded | Moderately well drained | 3.7 | 0.2% |
| 18A | Slagle fine sandy loam, 0 to 2 percent slopes | Moderately well drained | 401.5 | 19.9% |
| 18B | Slagle fine sandy loam, 2 to 6 percent slopes | Moderately well drained | 56.9 | 2.8% |
| 19A | Uchee loamy sand, 0 to 2 percent slopes | Well drained | 66.8 | 3.3% |
| 19B | Uchee loamy sand, 2 to 6 percent slopes | Well drained | 40.1 | 2.0% |
| 19C | Uchee loamy sand, 6 to 10 percent slopes | Well drained | 2.1 | 0.1% |
| 20B | Uchee-Peawick complex, 2 to 6 percent slopes | Well drained | 57.3 | 2.8% |
| 20C | Uchee-Peawick complex, 6 to 10 percent slopes | Well drained | 9.2 | 0.5% |
| 23 | Yemassee fine sandy loam | Somewhat poorly drained | 205.4 | 10.2% |
| W | Water | | 4.1 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **1,863.4** | **92.2%** |
| **Totals for Area of Interest** | | | **2,020.4** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 4A | Bibb sandy loam, 0 to 2 percent slopes, frequently flooded | Poorly drained | 3.9 | 0.2% |

**Table 3-1 (cont.): Soil survey data for project area, showing drainage rating. Source: USDA.**

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| W | Water | | 3.4 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **7.3** | **0.4%** |
| **Totals for Area of Interest** | | | **2,020.4** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 5B | Burrowsville loamy sand, 2 to 6 percent slopes | Moderately well drained | 0.1 | 0.0% |
| 6B | Caroline silt loam, 2 to 6 percent slopes | Well drained | 0.0 | 0.0% |
| 14B | Emporia fine sandy loam, 2 to 6 percent slopes | Well drained | 0.5 | 0.0% |
| 17A | Jedburg loam, 0 to 2 percent slopes | Somewhat poorly drained | 40.1 | 2.0% |
| 20A | Kinston loam, 0 to 2 percent slopes, frequently flooded | Poorly drained | 13.0 | 0.6% |
| 21B | Lakeland sand, 2 to 6 percent slopes | Excessively drained | 1.7 | 0.1% |
| 27A | Nawney and Mattan soils, 0 to 1 percent slopes, frequently flooded | Poorly drained | 9.4 | 0.5% |
| 28B | Nevarc-Remlik complex, 2 to 6 percent slopes | Moderately well drained | 0.5 | 0.0% |
| 28C | Nevarc-Remlik complex, 6 to 10 percent slopes | Moderately well drained | 28.4 | 1.4% |
| 28D | Nevarc-Remlik complex, 10 to 15 percent slopes | Moderately well drained | 5.7 | 0.3% |
| 31A | Rains fine sandy loam, 0 to 2 percent slopes | Poorly drained | 5.3 | 0.3% |
| 33A | Slagle fine sandy loam, 0 to 2 percent slopes | Moderately well drained | 1.1 | 0.1% |
| 33B | Slagle fine sandy loam, 2 to 6 percent slopes | Moderately well drained | 39.7 | 2.0% |
| 35B | Uchee loamy fine sand, 2 to 6 percent slopes | Well drained | 4.2 | 0.2% |
| **Subtotals for Soil Survey Area** | | | **149.6** | **7.4%** |
| **Totals for Area of Interest** | | | **2,020.4** | **100.0%** |

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# 6. CULTURAL CONTEXT

The following section provides a brief summary of the general overarching regional prehistoric and historic themes relevant to Virginia and Isle of Wight and Surry counties. The primary emphasis of this context focuses on the anthropological and material culture trends in prehistory and history and describes how people throughout time could have left their archaeological mark on the landscape of the project area specifically. Prehistoric and historic occupation statistics and trends were analyzed, as were historic maps and available first-hand accounts which aided in establishing the appropriate cultural context for the project area as defined by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* and the Virginia Department of Historic Resources' *How to use Historic Contexts in Virginia: A Guide for Survey, Registration, Protection, and Treatment Projects* (VDHR 2017). Descriptions of settlement patterns, cultural characteristics, and a general description of relevant material culture of the time periods are presented below.

### PALEOINDIAN PERIOD (PRIOR TO 8000 B.C.)

Recent archaeological findings in Virginia have found the first Paleoindians are projected to have arrived in southeastern North America between 15,000 and 11,000 years ago, or approximately 13000 to 9000 B.C. (McAvoy and McAvoy 1997). Three of the earliest archaeological sites associated with Paleoindian occupation in Virginia are the Cactus Hill site (VDHR #44SX0202) located along the Nottoway River in Sussex County, the Thunderbird Site (VDHR #44WR0011) in Warren County, and the Saltville site (VDHR #44SM0037) in Smyth County. These early populations coincided with the late glacial era when sea levels were approximately 230 feet below their present-day level (Anderson et al. 1996:3). The Laurentide Ice Sheet covered much of northern North America, lowering temperatures in the region and creating an ideal environment for a boreal forest (Delcourt and Delcourt 1981). Paleoindians apparently survived in this environment through opportunistic hunting and gathering of smaller mammals, fish, and wild plants (Anderson 2001). Seasonably mobile, these Paleoindians utilized different food sources at different times of the year, an extensive subsistence pattern that required a large territory.

Accordingly, the Paleoindians may have maintained a central base camp located either in a diverse ecozone where flora and fauna were easily procured or near lithic sources that contained cryptocrystalline stone. Wider ranging satellite camps would then have been seasonally occupied to exploit other natural resources, be they lithic material, flora, or fauna (Anderson et al 1996; Daniel 1996; Binford 1980). Most Paleoindian sites are small and scattered, suggesting that the groups lived in small familial bands distributed across the landscape. The lack of status items among their archaeological remains suggests that these groups recognized little differentiation in status, and probably employed an egalitarian social structure. Ethnographic analogies suggest that Paleoindians might have maintained this rough equality by shunning aspiring leaders, and methods of property redistribution.

The Paleoindians relied upon durable and easily shaped cryptocrystalline materials such as chert and jasper for their tools. They fashioned these rocks into a variety of instruments, among which were scrapers, gravers, and adzes. Paleoindian projectile points tended to be fluted and bifacially

sharpened. Due to time and rising sea levels, many Paleoindian material culture finds are limited to isolated projectile points. Researchers differentiate the Paleoindian Period into three smaller periods reflecting changes in the morphology of projectile points. These periods include the Early Paleoindian (9500-9000 B.C.), the Middle Paleoindian (9000-8500 B.C.), and the Late Paleoindian (8500-8000 B.C.).

During the Early Paleoindian, Paleoindians produced large fluted Clovis points, a style widespread throughout North America, which could be affixed to a spear shaft. Sites from this period are found throughout the eastern seaboard in very low densities. Regions depicting greater concentrations of these sites are in Tennessee, the Cumberland and Ohio River Valley, western South Carolina, the northern Piedmont of North Carolina, and southern Virginia (Anderson 1990:164-71; Daniel 1996; Ward and Davis 1999).

The Middle Paleoindian saw a modification of Clovis points, such as the disappearance of the fluting in some cases and the addition of "ears" at the base of the point. The appearance of these new types, such as the Cumberland, Simpson, Clovis variants, and Suwanee points, might reflect changes in subsistence patterns as the result of rising global temperatures. During this time, it is theorized that American Indians began to radiate out from their previous range of occupation to exploit resources from more distant environments (Anderson 1990; Anderson et al. 1996; Ward and Davis 1999:31).

Changes to the projectile points intensified during the final centuries of the Paleoindian Period resulting in an increased number of changes in projectile point morphology. The Dalton and Hardaway types and other variants allowed late Paleoindian peoples to hunt new species.

The Paleoindian's scattered settlement pattern and simple culture contribute to the limited number of associated sites in the region, fewer than 75 sites have been identified in present-day Virginia and only 25 have been positively identified in the entire Chesapeake (Turner 1989; Dent 1995). Those Paleoindian sites that have been located tend to be quarry sites, which groups frequently visited and areas where several bands gathered (Meltzer 1988; McAvoy 1992). Many sites were likely destroyed when warming global temperatures melted the glaciers and inundated the low-lying Paleoindian settlements.

### ARCHAIC PERIOD (8000 TO 1200 B.C.)

Dramatic climatic changes beginning about 10,000 years ago prompted a reconfiguration of prehistoric people's subsistence strategies and social organization. Specifically, global temperatures began rising with the dawn of the Holocene geological period, simultaneously shrinking the glaciers and raising sea levels. In North America, the Laurentide Ice Sheet gradually receded northward, making the southeastern portion of the modern-day United States warmer and drier. The boreal forest of the Pleistocene era slowly gave way to a mixed conifer and northern hardwood forest. The area began to assume its modern-day climate and floral and faunal species. This warming also resulted in dramatic hydrological changes for coastal Virginia. As the sea level gradually climbed, the land was flooded; as a result, the lower reaches of the Susquehanna River flooded to form the Chesapeake Bay.

These climatic changes created new food sources for prehistoric people. The warmer, drier climate led to greater biodiversity, especially floral, as spruce and fir forests gave way to nut- and fruit-bearing trees (Aaron 2009:17). This allowed humans to rely more heavily on gathering wild plants, nuts, and berries. Indeed, archaeologists have discovered tools, such as nutting stones and pestles, for processing vegetable materials. The creation of the Chesapeake Bay, furthermore, allowed Archaic people to exploit seafood, such as anadromous fish and shellfish. The appearance of shell middens during the period testifies to the importance of mollusks to the Archaic diet (Dent 1995).

To exploit these new resources, Archaic people likely intensified their seasonal movement, splitting their time between a semi-permanent base camp and smaller, dispersed hunting and gathering camps. Bands of as many as 30 people may have gathered in the base camp for part of the year, and then dispersed into "microbands," composed of a single family or two, in other seasons (Griffin 1952; Anderson and Hanson 1998; Ward and Davis 1999). The range of band movement would have occurred over relatively large regions. These larger base camps are theorized to have been located along rich environmental areas near the Fall Line or along main rivers.

New subsistence patterns also required new technologies and the adaptation of existing technologies to be suitable to existing game. "The spear thrower [called an atlatl] added range and power to the hunter's arm. The axe enabled people to fell trees. The mortar and pestle made it easy to pound and grind nuts, seeds, and roots" (quoted in Aaron 2009:18). With new technologies, smaller game could be more easily hunted and plants could be processed more effectively. The resulting products of these technologies differentiate the Archaic Period into three smaller periods. The period also saw innovations in projectile point manufacturing. In a further divergence with the paleoindians who relied heavily on cryptocrystalline lithics, Archaic people utilized more materials, such as quartzite and quartz.

The Early Archaic (8000-6500 B.C.) is characterized by projectile points with corner and side-notches, rather than hafting the points to a wood shaft by fluting as the Paleoindians did. The resulting points, such as the Kirk Stemmed and Notched, Palmer Corner-Notched, Fort Nottoway, Kessell, Charleston, and Amos, are thus readily distinguishable from Paleoindian points (Custer 1990). Early Archaic people hunted caribous, elk, moose, deer, and bears (Egloff and Woodward 1992:12). Additionally, there appears to be an increase in population at this time.

The Middle Archaic (6500-3000 B.C.) is defined primarily by the appearance of stemmed projectile points which were fitted into a hold in the spear shaft. Therefore, points such as the LeCroy, Stanly, Morrow Mountain, and Guilford are diagnostic of middle Archaic assemblages. Some evidence also points to the use of grinding technology to make atlatls, or spear throwers, in this period. Mortar and pestles also began to appear during the Middle Archaic, as did axes. The ability to more easily clear forests, resulted in a change in hunting as deer, bears, turkey, and other animals came to the cleared land to eat the new, low-lying growth (Egloff and Woodward 1992:14-15).

Researchers have also pointed out that contexts from this period contain a larger amount of "expedient" stone tools, owing in part to the rapid environmental changes of the Climatic Optimum, which dates from 6000 to 2000 B.C. (Wendland and Bryson 1974; Claggett and Cable

1982; Ward and Davis 1999). These tools were makeshift and less formal, allowing their owners to use them for a wider variety of activities than tools designed for specific uses. The greater density and disbursement of archaeological sites from this period indicates a consistent rise in American Indian populations.

By the Late Archaic (3000-1200 B.C.), a more congenial climate and more abundant food sources led to dramatic population increases, there are estimates of tens of thousands of Virginia Indians during this time (Egloff and Woodward 1992:20). To be certain, this apparent increase might be exaggerated because late Archaic people had a richer material culture than previous peoples and hence left more archaeological evidence of their existence (Klein and Klatka 1991). Nonetheless, the greater number of late Archaic sites relative to earlier periods suggests that the human population did in fact expand over the course of the Archaic Period. According to Barber et al. (1992), late Archaic sites were more than twice as numerous as middle Archaic sites. As humans occupied the land more densely, they also became more sedentary and less mobile, perhaps owing to the greater reliance on plant-based food resources compared to hunting and fishing. Late Archaic people settled along fertile flood plains (Egloff and Woodward 1992:20).

American Indians from this region may also have begun to domesticate plants such as goosefoot, squash, and gourds (Yarnell 1976:268; Chapman and Shea 1981:70). They also used squash and gourds for food storage, in addition to earthen pits (Egloff and Woodward 1992:22). The projectile point technology of the Late Archaic Period is dominated by stemmed and notched point forms, many with broad blades, likely used as projectiles or knives. These points diminish in size towards the latter portion of this period (Dent 1995; Justice 1995).

It should also be noted that prehistoric sites that consist of lithic debitage, no diagnostic artifacts, and an absence of ceramic artifacts likely date to the Archaic Period. These sites are described in the records as "Prehistoric/Unknown," however they are most likely to date to this period despite not having a specific temporal designation.

**WOODLAND PERIOD (1200 B.C. TO 1600 A.D.)**

The American Indians of the Woodland Period began to maintain a greater reliance on horticulture and agriculture based on the cultivation of maize, imported from Mesoamerica via the Mississippi Valley, as well as squash, beans, and other crops. This increased sedentism and the nucleating of societies (Klein and Klatka 1991; Mouer 1991). Populations during this time began to consolidate into villages near rivers and floodplains with fertile soil, favorable terrain, and access to fauna. Satellite procurement camps are far less frequent than in the Archaic Period.

The Woodland Period is defined foremost by the development of ceramic technology for storing and cooking food. Although Archaic people had carved out vessels from soft soapstone, prehistoric Americans did not begin shaping ceramic vessels until around 1200 B.C. The earliest pottery produced on the coastal plain, the Marcey Creek Plain, and other types, in fact resembled those soapstone vessels, suggesting that they were used for similar purposes. Woodland peoples, however, modified the square- or oval-shape soapstone inspired vessels. They began decorating the pieces with cord and tempering them with soapstone and other types of grit to make them stronger. Examples include Selden Island ceramics (tempered with soapstone) and Accokeek

pieces (which used sand and grit for tempering). Anthropologists divide the period up into smaller periods based on changing projectile points and ceramics, as well as settlement patterns.

The beginning of the Early Woodland (1200 B.C.-A.D. 300) is defined by the appearance of ceramics from prehistoric archaeological context. Ceremonialism associated with the burial of the dead also appears at about 500 B.C. with stone and earth burial cairns and cairn clusters in the Shenandoah Valley (McLearen 1992; Stewart 1992). Early Woodland settlements in the Piedmont region of Virginia are located along rivers as well as in interior areas and there is evidence to suggest the Piedmont areas developed a more sedentary lifestyle during this time (Klein and Klatka 1991; Mouer 1991). Many Early Woodland sites in the Piedmont are permanent or semi-permanent villages that are large and intensively occupied. This corresponds with the domestication of weedy plants such as the goosefoot and sunflower along intentionally cleared riverine areas.

During the Middle Woodland (A.D. 300-1000), there is an increase in sites along major trunk streams and estuaries as people move away from smaller tributary areas and begin to organize into larger groups (Hantman and Klein 1992). The Middle Woodland diet becomes more complex as people begin to exploit nuts, amaranth, and chenopod seeds in addition to fish, deer, waterfowl, and turkey. Corn by this time had transformed into the large ears familiar today. The bow and arrow replaced spears for hunting (Egloff and Woodward 1992:25). With more specialized crafts and increased trade came status. Evidence of rank societies emerges more clearly with the spreading of religious and ritual behavior including symbols and regional styles apparent in ceramic styles and other sociotechnic and ideotechnic artifacts.

Variance in ceramic manufacture is a hallmark of the Middle Woodland Period. Pope's Creek ceramics are associated with the beginning of this period, and Mockely ceramics with the later. Pope's Creek ceramics are tempered with medium to coarse sand, with occasional quartz inclusions, and interior scoring has also been recorded (Stephenson 1963:94; McLearen and Mouer 1989). The majority of Pope's Creek ceramics have net-impressed surfaces (Egloff and Potter 1982:99; McLearen and Mouer 1989:5). Shell-tempered Mockley ceramics first appeared around 200 A.D. in Virginia to southern Delaware. There was a variation in surface treatments for Mockley that included plain, cord-marked, and net-impressed (Egloff and Potter 1982:103; Potter 1993:62).

By the Late Woodland Period (A.D. 1000-1606), the use of domesticated plants had assumed a role of major importance in the prehistoric subsistence system. The arrival and cultivation of beans joined corn and squash as the three major crops (Egloff and Woodward 1992:26). The adoption of agriculture represented a major change in the prehistoric subsistence economy and settlement patterns. Expanses of arable land became a dominant settlement factor, and sites were located on fertile floodplain soils or, in many cases, on higher terraces or ridges adjacent to them.

Virginia Indians became more settled and developed strong identities to their local settings. They began to organize into villages and small hamlets with more substantial housing that may have been placed in rows around a plaza (Egloff and Woodward 1992:26). These villages were highly nucleated and occasionally fortified with palisades. The fortifications demonstrate inter-group conflict.

Around 1150 A.D. Cashie Ware began to appear. Cashie Ware was made "with wicker-fabric of medium to narrow width, simple stamped, and plain surface treatments" and had slightly angular to rounded quartz pebbles for temper (Egloff and Potter 1982:109). While Cashie Ware was widespread throughout the interior Coastal Plain of North Carolina, it occurred in Greensville, Southampton, and Sussex counties of Virginia as Branchville Ware (Egloff and Potter 1982:109). This indicates that type was shared by the Iroquois Tribe.

Most of the coastal Virginia Indians, with the exception of the Meherrins and the Nottoways, were Algonquian-speaking people (Egloff and Woodward 2000:43). The majority of this population of approximately 14,000 to 21,000 were brought under the rule of Wahunsunacock, who formed the Powhatan chiefdom by the early seventeenth century (Egloff and Woodward 2000:43).

### SETTLEMENT TO SOCIETY (1607 – 1750)

Upon the arrival of Europeans to Virginia, American Indian towns and villages lined the James River (Figure 6-1). The vicinity of present-day Isle of Wight County was occupied by the Worrosquoyackes living in the two major villages of Mathomank, near present-day Burwell's Bay, and Mokete, at Pagan Point. Though the tribes' primary villages were along the James River, they used interior lands up to at least 20 miles inland (King 1993:1). The Quiyoughcohannock occupied Surry County in four towns dotting the roughly 100 square miles between the Upper and Lower Chippokes creeks (Geraghty 2019).

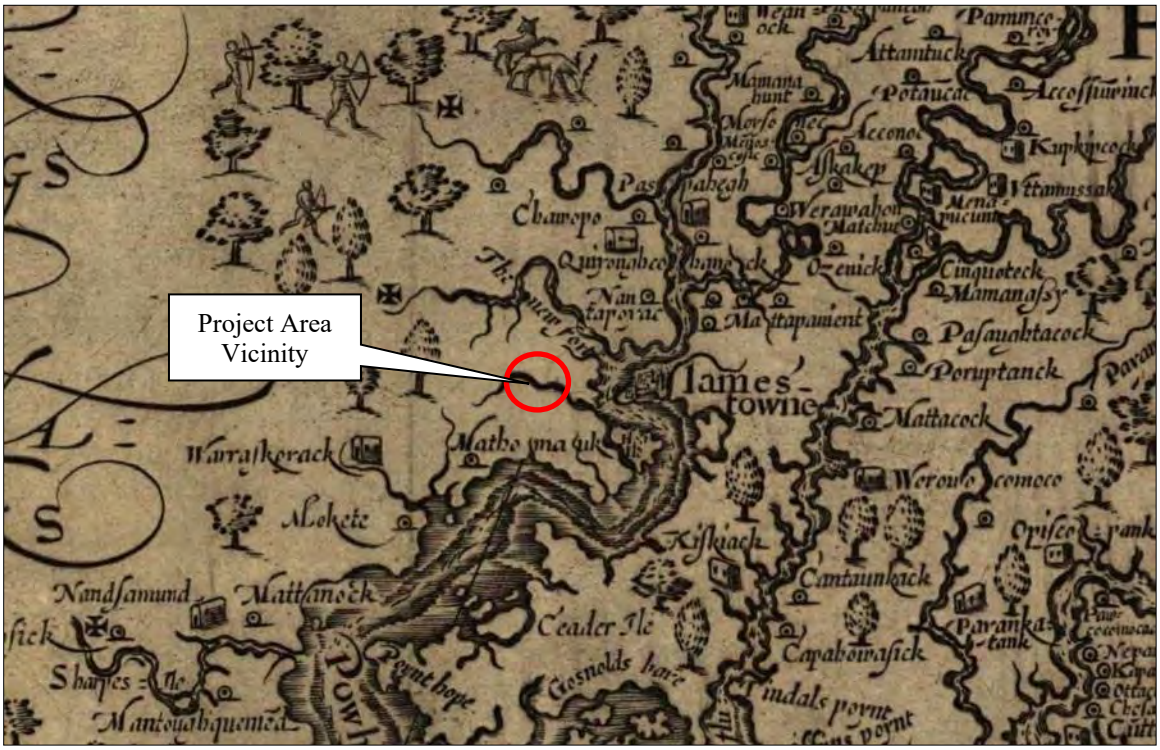


**Figure 6-1: Detail of *Virginia,* by John Smith, depicting the general vicinity of the project area. Source: Library of Congress**

On April 26, 1607, three ships commanded by Capt. Christopher Newport and sponsored by the proprietary London Company section of the Virginia Company made their first landfall in North America at Cape Henry, in the northeastern part of present-day Virginia Beach (City of). The crew landed just temporarily, and soon left the cape to seek a site further inland which would be more sheltered from ships of competing European countries. They sailed roughly 50 miles up the James River to where they established a fort at Jamestown in May 1607. Life at Jamestown was initially harsh, with the settlers suffering from starvation, disease, and attack by the native peoples.

In the spring of 1608, Capt. John Smith was driven by the necessity of finding food for the famished settlers. He crossed the James River into what is now Isle of Wight County and obtained bushels of corn from the Warraskoyak. While these American Indians initially acted kindly to the suffering settlers, in a few years they nearly killed every colonist on the south side of the James River (Morrison and Gwaltney 2006). The new settlers made some attempts to make use of the land to aid in their survival and in 1608 they began keeping hogs on Hog Island, approximately 14 miles northeast of the project area; a garrison was also placed on the island to warn Jamestown of approaching European enemies.

The Virginia Company's search for an income producing product in the colony came to fruition with John Rolfe's successful experimentation with tobacco in the early 1610s. The crop became the dominant crop of the colony and determined the pattern of nearly every aspect of life, encompassing the economy, the cultural landscape, and social relations (Kulikoff 1986; Moore 1976). Increased growth of the labor-intensive crop also led to more land hungry planters and increased use of indentured servants followed by enslaved individuals.

English settlement slowly spread along the James River. By 1619, Captain Christopher Lawne and Sir Richard Worsely initiated settlement on the south side of the James at Lawne's Creek, now roughly the dividing line of Isle of Wight and Surry Counties. Originally known as Lawne's Plantation, the London Company changed the name of the area to Isle of Wight Plantation in 1625. By 1620, there had been six land patents in what would become Surry County (Atkins 2008). While the south side of the James River was rich, the lands were fringed by swamps and the harbors were fewer and shallower making the area a bit less desirable (Rouse 1968:17). The continued spreading of European settlement, however, increasingly stressed relations between them and American Indians.

Chief Powhatan died in 1619 and control over the chiefdom was passed to his brother Opechancanough who planned to eradicate the English from Virginia (Tyler 1990:13). The murder of the Indian Nemattanew in early March 1622 provided pretext for a mass attack. On the morning of March 22, members of the Powhatan Confederacy and the Chickahominy Tribe killed English colonists along a 70-mile stretch on both sides of the James River. The result was the loss of more than a quarter of the total European population. Some English were saved through the actions of the Virginia Indian Chanco who warned Richard Pace, a resident of Surry County (King 1993:4). For the next decade, Virginia was in a state of open warfare between the two entities.

English settlement continued to spread, and some individuals were able to gain vast tracts of land, first along the major navigable waterways and then on the interior lands. In Virginia, the head right system was followed in the distribution of land. During the first hundred years of settlement, a

grant of fifty acres was given for the importation of every emigrant (Morrison and Gwaltney 2006). In this way, the size of land granted varied greatly. Using this system, many patents were distributed. The river front on the James was largely settled in the 1630s; in Surry County alone 147 original land patents have been identified in this decade (Atkins 2008).

By 1634, the population of the Virginia Colony had grown to the point that King Charles I directed the formation of eight shires (counties). James City County spanned both sides of the James River and encompassed Surry County. To the east of it was Warroaquyoake, later renamed Isle of Wight and the wharf village of Smithfield was chosen as the county seat (Rouse 1969:67). With the land patented on the south side of the river, Surry County historian James Kornwulf observed that "Today the region is one of the most heavily forested and least densely settled regions of the county…although there is ample evidence it was heavily planted in the seventeenth century" (quoted in Laird et al. 2017:16).

The growth in population saved the colony when Opechancanough planned a second uprising in 1644. Although more than 500 settlers lost their lives, by this time the colony was well established, and the loss did not seriously threaten its survival (Whittenburg and Coski 1989:21). The resulting treaty, Treaty of 1646, saw the loss of Virginia Indian's land between the York and Blackwater rivers (Egloff and Woodward 2000:45).

Approximately eight miles south of the James River was the upland (Kelly 1979:184). From this point south, waterways drained into the Blackwater River which, in turn, drained into the Albemarle Sound in North Carolina. The Sound, unlike the Chesapeake Bay, had no ports which placed a constraint on settlement and early planters trying to get products to markets. It is likely for this reason that the land was worth less than that closer to the James River. In the 1690s, the average land value was 51.1 pounds of tobacco per acre along the James and only 16.9 pounds around the Blackwater (Atkins 2008). The Blackwater River forms a portion of the western boundary of the project area.

Land was first settled along the James River and its tributaries after which colonists were forced to move farther inland (Figure 6-2). Several swamps drain into the Blackwater. Settlers, and Virginia Indians before them, would have found an abundance of game in the swampy lands (Bohannan 2002:75). The swamps that drained into the Blackwater River appear to have been numbered north to south. For example, Second Swamp (also known as Delk's Swamp, Passenger Swamp, and Pouches Swamp) extends south along the project area (King 1993:441). The present-day Mill Swamp, or Rattlesnake Swamp, near the eastern border of the project area may be First Swamp. It appears that patenting of land around First Swamp began in the mid-seventeenth century.

As indicated earlier by the Surry County historian, lands on the south side of the James River had ample forests. This would lead to a second good produced by the region: timber. Timber was exported as early as the European settling of the colony when Captain Newport took oak poles back to England for ships' masts in 1607 (Rouse 1968:33). This industry continues to the present day. The original use of Hog Island to keep hogs portended to another industry in the region: the raising of hogs. Many dwellings had large, deep, brick cellars which could be used for the storage of bacon and lard, among other things. As such, a trade in bacon began and continued to the

present. Bacon was traded in the West Indies for sugar, coffee, and rum (Morrison and Gwaltney 2006). With the growth and success on the south side, a new county was created in 1652. It was called Surry in reference to London south of the Thames River, Surrey (Rouse 1968:18). The original county extended south to the North Carolina border (Apel and Watson 2006:29).

The relative calm that had settled within the colony would soon be disrupted with Bacon's Rebellion in 1676. Nathaniel Bacon and his followers led a revolt against their perceived aggressors, American Indians, and the Governor of Virginia, Sir William Berkeley. In Surry County, Bacon's supporters seized an early dwelling owned by Arthur Allen, less than nine miles northeast of the project area. The dwelling may have been used as a fort, possibly leading to the name of Bacon's Castle (Bohannan 2002:16). Unrest would repeat in the region in the early eighteenth century. Slave insurrections were planned in 1709 and 1710 in Surry and Isle of Wight counties. In the 1709 plan, the foiled uprising involved both African and American Indian slaves (Holloway n.d.).

After the first legal settlement south of the Blackwater River in 1701, settlement quickly accelerated. By 1730, there were more residents south of the Blackwater than north for the first time leading to the creation of new counties from Isle of Wight and Surry counties in the 1740s and 1750s (Atkins 2008).

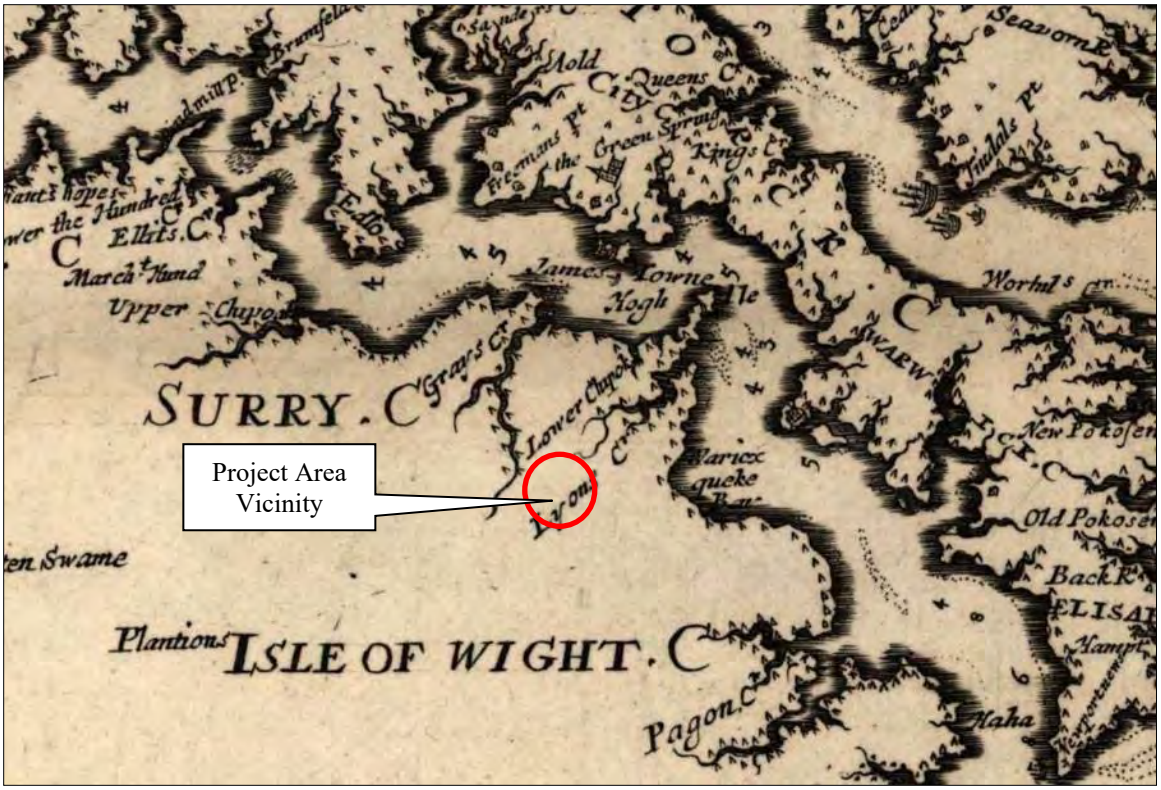


**Figure 6-2: Detail of *Virginia and Maryland as it is planted and inhabited this present year 1670* depicting the vicinity of the project area. Source: Library of Congress**

## COLONY TO NATION (1750 – 1789)

The economy continued to grow as additional agricultural land was cleared and cultivated. Tobacco continued to be the principal crop during this period, however as the century entered the fourth quarter the tobacco economy began to falter. Severe soil depletion from continuous cultivation of tobacco, particularly in the sandy soils in the counties that were not conducive for growing tobacco, coupled with the collapse of the European tobacco market precipitated a shift the economy and farmers began to diversify. The farms in Isle of Wight County at this time were typically between 500 to 1,700 acres (David 2007:9). One of the earliest homesteads erected in the general vicinity of the project area was the Henley Pretlow House (VDHR# 087-5509). This home, one of multiple owned by the Pretlow family in Isle of Wight and Surry counties, was constructed in 1760 on present-day Route 621 in Isle of Wight. In 1988, the building was moved to its current location in Surry County, roughly 1.25 miles southwest of its original location, to save it from demolition. The Binford Home (VDHR #087-0003) was constructed in 1802 near the intersection of Routes 621 and 616 (Macon 1938).

To aid in getting their goods to market, two early major north-south roads extended through the two counties; the project area was situated between them. Additionally, the village of Surry, eight miles north of the project area, grew as a crossroads. A stagecoach route connecting Petersburg and Portsmouth crossed the town by 1787 (Apel and Watson 2006:18). By this time, the town boasted of two stores, a tavern, an armory, and a cotton factory (Apel and Watson 2006:18). Smithfield, approximately ten miles east of the project area, officially became a town in 1752 and the main stage road from Norfolk to Richmond passed through it (Morrison and Gwaltney 2006).

As the population grew with the economy, early churches began appearing in Isle of Wight and Surry counties. One of the earliest Baptist churches in Isle of Wight was Mill Swamp Church. The church was established in 1774 by charter members of the disbanded Burleigh Church with David Barrow as its first pastor. Originally known as David Barrow's Church or the Church in Isle of Wight, the name was changed to Mill Swamp Church in 1791 for the old mill that stood a few miles away along the Surry County Line. Mill Swamp was the "mother church" to other Baptist churches in the county, including Smithfield, Moore's Swamp, Tucker Swamp, and Bethesda (King 1983:110). The current chapel on the site, located in the general vicinity east of the project area, was first built in 1832 and remodeled in 1895 (Morrison 2022:23).

While the market for crops grown in Virginia and throughout America was in high demand in European markets, tensions between the colonies and England began to put a strain on trade. At the end of the Seven Years' War (or the French and Indian War in North America) in 1763, the British government had an immense amount of debt. To pay for it, Parliament imposed heavy taxes on its subjects and tightened the administration of trade and navigation acts (Salmon 1983:22). These actions sparked a strong response from the colonies. In 1774, the Virginia Convention adopted resolves against the importation of British goods and the importation of enslaved laborers. It also required each county to form a volunteer company of cavalry or infantry to prepare for an armed conflict.

Counties on the south side of the James River prepared to fight, supplying men and materials to the cause (Atkins 2008). For example, in addition to the "725 men of military age", residents of

Isle of Wight County provided relief vessels and financed privateering vessels (King 1993:64; David 2007:9). Additionally, the seventeenth century fort on Burwell Bay was fortified and renamed Fort Boykin (David 2007:9). The British passed through the region twice under British Cavalry Colonel Tarleton (Figure 6-3). He and his men made a raid on Smithfield with the intent to destroy the records; the records were previously removed. The British left a wake of destruction wherever they went (Morrison and Gwaltney 2006).

Following the Battle of Greenspring, the main body of the British Army under Charles Cornwallis crossed the James River traveled to Portsmouth. No battles were fought in Isle of Wight and Surry counties and the war was won on the Virginia Peninsula.

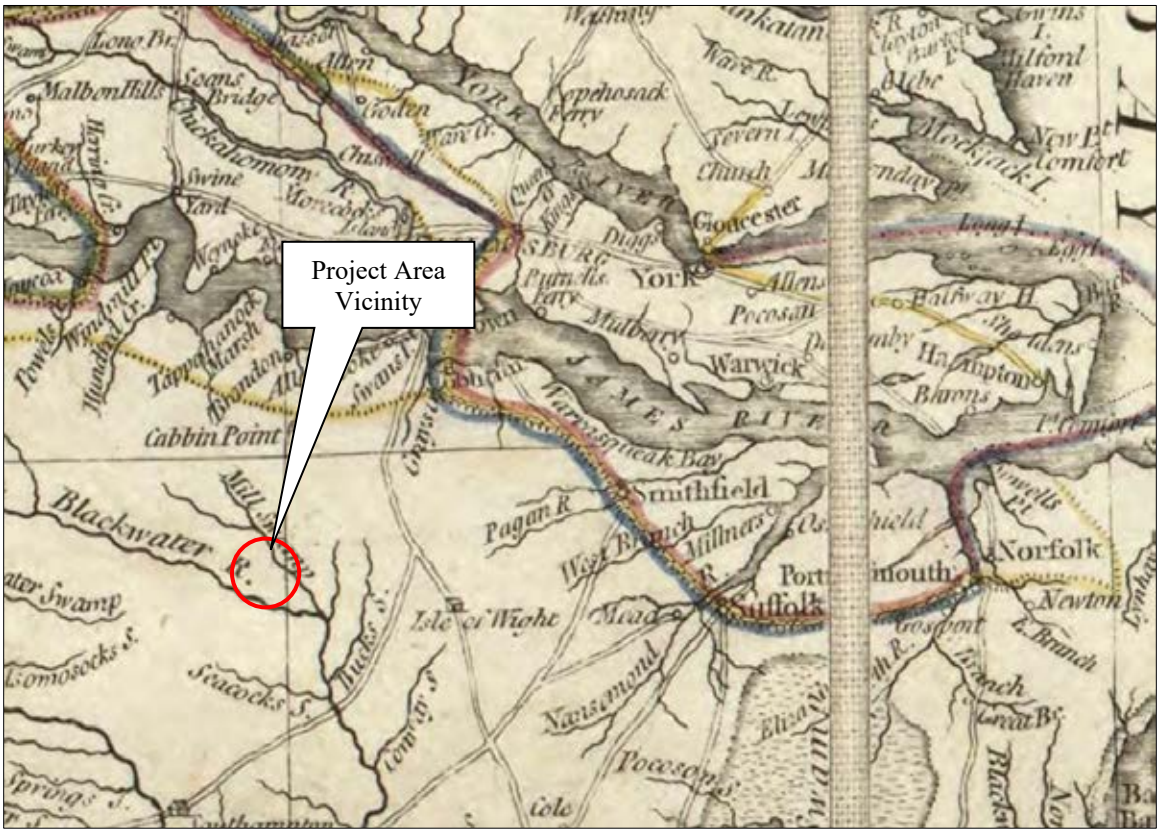


**Figure 6-3: Detail of *The marches of Lord Cornwallis, with Virginia and Maryland, and the Delaware counties*, 1787, depicting the vicinity of the project area. Source: Library of Congress**

## EARLY NATIONAL PERIOD (1789 – 1830)

Following American independence, Virginia entered a period of considerable change. The intensive tobacco cultivation previously pursued in the area had succeeded in severely depleting the area's soils of much-needed nutrients, making the crop unprofitable and leading farmers to explore other options. Over time, farmers in southeast Virginia turned to corn and grains, cotton, orchards, livestock, and finally peanuts and soybeans (King 1993:192). The value of farmland in the region increased dramatically in the early nineteenth century (Agee 1969). In Surry County, for example, the value of land, per acre, in 1800 was $1.65; in 1820 it had jumped to $4.81 (Agee 1969:36).

The almost exclusively agrarian society was beginning to accommodate urban centers and small hamlets, although farming continued to be the primary means of livelihood (Traceries 1993). While the population remained relatively steady, there was a shift to the southern half of the county as people were enticed by the open lands and inland roadways. At the first federal census in 1790, Surry County had 6,227 residents and Isle of Wight County had 9,028 (USCB). During this period the population of each county rose slightly to 7,109 residents in Surry and 10,517 in Isle of Wight (USCB).

When war broke out with Great Britain once more in 1811, the young men of Virginia stood ready to fight. Because the War of 1812 was primarily a sea war in Virginia, Norfolk was a highly vulnerable spot though towns along the shores of the state's major rivers were also at risk (King 1993:66). One of the major issues to wealthy white citizens that the war caused concerned slavery and Britain's declaration of freedom if enslaved laborers stood alongside the Great Britain.

Among the major issues facing farmers throughout Virginia in the early nineteenth century was that of inadequate roads which hampered their ability to get goods to markets. The poor condition of the network of roads and bridges, lack of navigable watercourses, and long distances to larger markets restricted growth of the area's economy. The solution to these problems was found in the internal improvement movement of the early nineteenth century. The construction and maintenance of roads had long been the responsibility of localities. Finally, in 1816, the General Assembly created the Fund for Internal Improvement and appointed the Board of Public Works to oversee its use; transportation improvement projects would receive the funding they needed to complete projects (O'Dell 1989). By the late 1820s, it appears that several major roads were in the general vicinity of the project area (Figure 6-4).

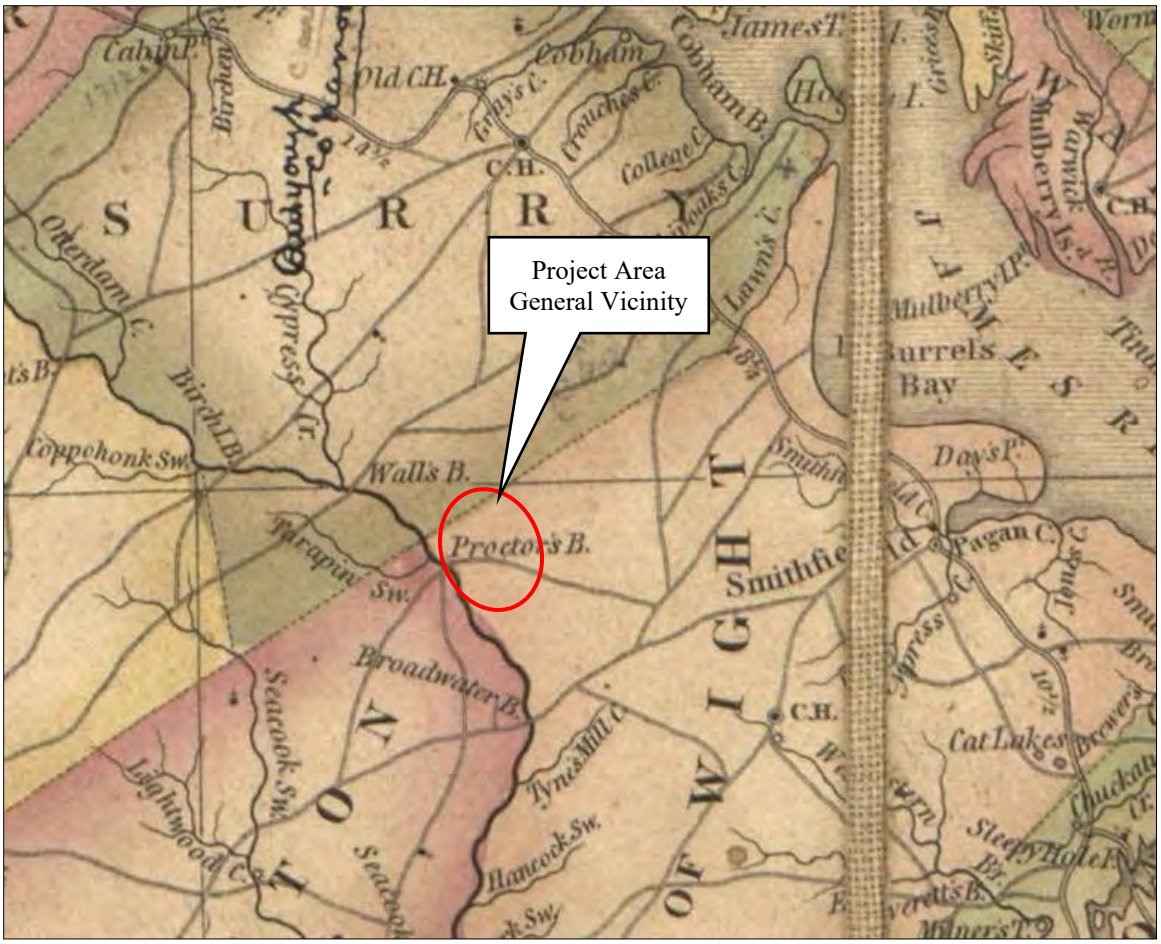


**Figure 6-4: Detail of *A map of the state of Virginia*, 1827, depicting the vicinity of the project area. Source: Library of Congress**

## ANTEBELLUM PERIOD (1830 – 1860)

By the 1830s, a lasting migration from older settled regions of Virginia to lands opening in the west and an agricultural depression affected area's commerce and population. Between 1830 and 1850, the population of Isle of Wight County decreased 11 percent and that of Surry County fell by more than 13 percent (USCB). Despite the drop in population, the enslaved and free black population remained about 50 percent of the total population. The high enslaved population led to unease and in 1831 there was an insurrection in nearby Southampton County; it became known as Nat Turner's Rebellion. Troops from Isle of Wight, Nansemond, and Surry counties guarded the borders of the counties to prevent an escape of the insurgents to the Dismal Swamp (Drewry 1900:83). The insurrection prompted scared white citizens to strengthen rules regarding enslaved workers and free blacks (Atkins 2008).

Approximately 90 percent of this total population was involved in agriculture and identified as farmers (David 2007:10). The diversification of crops throughout the Commonwealth continued and by 1859 Virginia was producing only 28.4 percent of the nation's tobacco (Agee 1969:21). Crops that took the place of tobacco in southeast Virginia included cotton, corn, and peanuts. Before the Civil War, peanuts, also known as "goober peas" or "ground peas" were little known

outside of the southern states (Morrison and Gwaltney 2006). Isle of Wight's first peanut export was in 1849; the county would eventually become the center of the peanut belt (David 2007:10). As agricultural industry grew, more mills were built in Isle of Wight and Surry counties. One of these mills was Pretlow's Mill, mapped to the west of the project area near the site of the Binford Home. This mill was presumably owned and operated by the Pretlows, who owned multiple properties, including the Binford home for roughly a decade, in the general vicinity in the early to mid-nineteenth century (Macon 1938). Another mill that appears on maps from this time period is White's Mill located north of the project area, however no documentation of this structure could be identified. Additionally, the ham and bacon industry continued growing. Before the coming of the railroad, the bacon trade reached out 30 to 40 miles into surrounding counties and hogs were driven in by foot from as far away as Kentucky, Tennessee, and North Carolina (Morrison and Gwaltney 2006). The railroad would create a bigger market.

The Norfolk and Petersburg Railroad was chartered in 1851 and completed in 1858, approximately five miles southwest of the project area, and extended through southern Isle of Wight County (King 1993: 241). The first railroad in Surry County, in 1854, was located at the northern end of the county and was related to the timber business (Atkins 2008).

Despite the number of marshes in the region, several structures were located within the project area and its general vicinity by the mid-nineteenth century (Figure 6-5 and Figure 6-6). Names that appear within the project area on Civil War period maps include Betts and Barlow, both in Isle of Wight County. Affluent families in the local community, both the Betts and the Barlow families owned large plots of land featuring grand, high-style plantation homes. Members of the Betts family presided over two properties in the general vicinity of the project area (VDHR# 046-0030 and 046-5811), built circa 1802 and 1850, respectively. The Barlow family owned a house off of what is now Ramsey Road (VDHR# 046-5148), constructed in 1880. Located on the north side of Mill Swamp Road just outside of the project area was the Mayfield post office. Built in 1830, Mayfield was one of the earliest post offices in Isle of Wight County and was discontinued in 1886 when replaced by the Sycamore Crossroads post office. The post office operated out of the Hollemon home with Wilson Hollemon as both the first owner of the house and the first postmaster (King 1993:328-330).

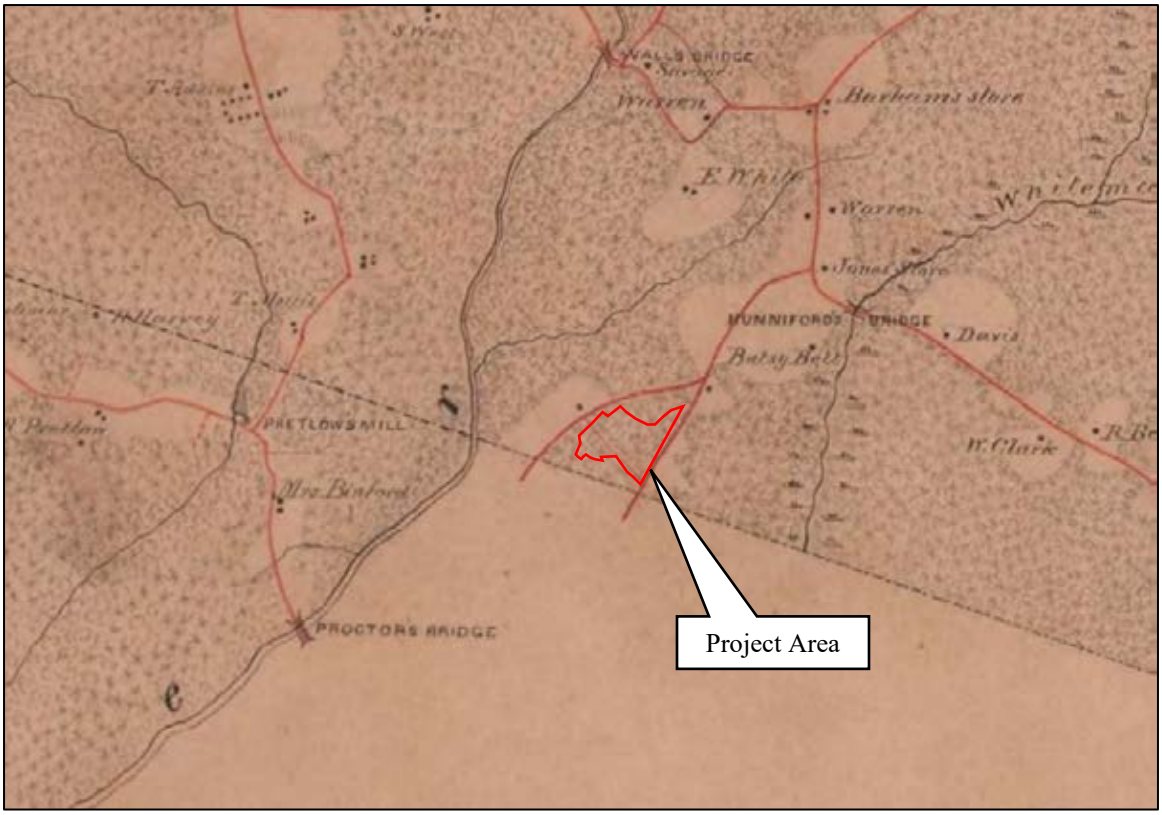


**Figure 6-5: Detail of *Map of Surry Sussex and Southampton counties, Virginia*, 1863, depicting the project area in Surry County. Source: Library of Congress**

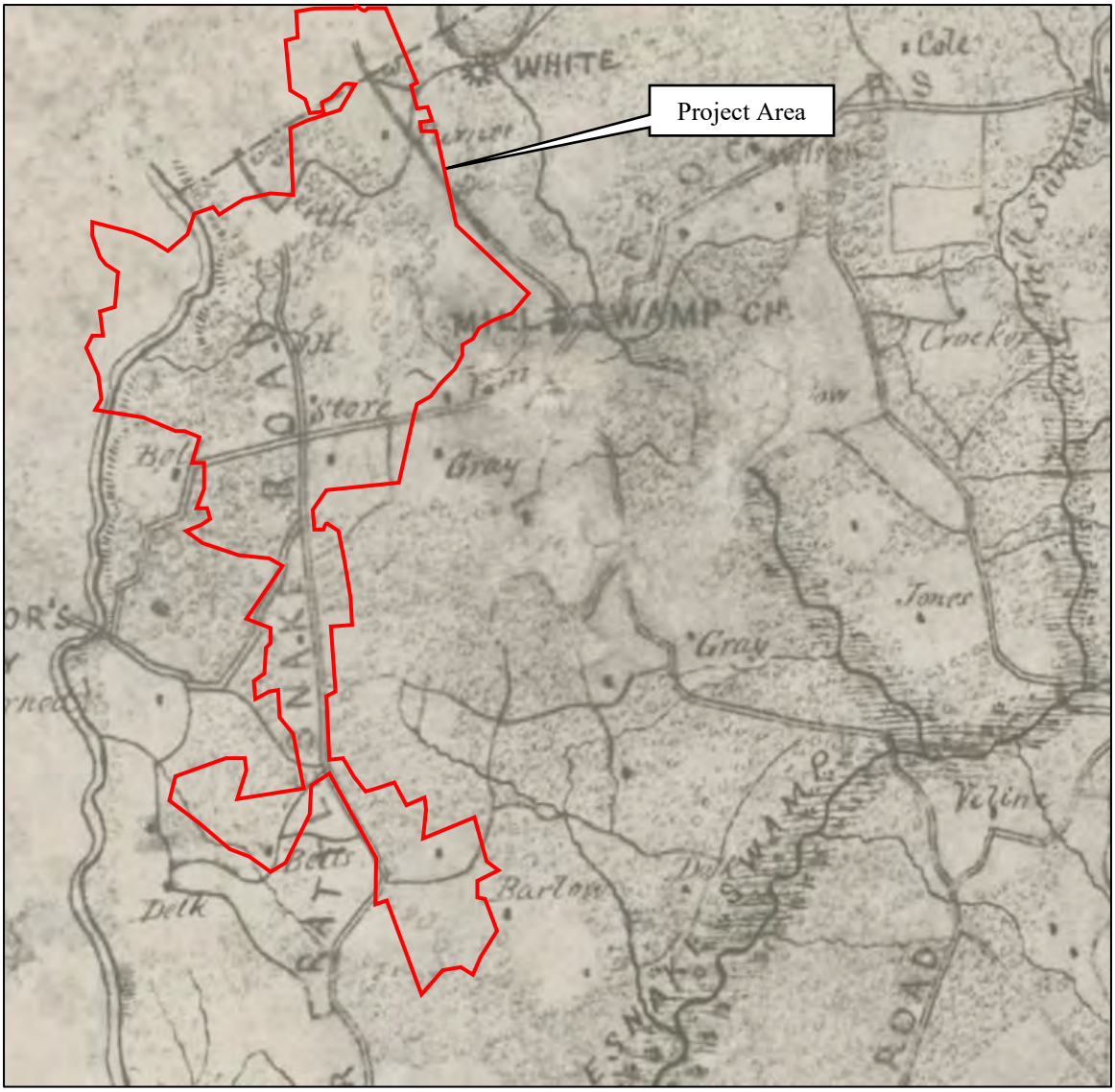


**Figure 6-6: Detail of *Map of Isle of Wight and part of Nansemond*, 1864, depicting the project area in Isle of Wight County. Source: Library of Congress**

## CIVIL WAR (1861 – 1865)

As an old, settled area of Tidewater Virginia, Isle of Wight and Surry counties continued to have a large proportion of residents that were enslaved. When the counties voted on the issue of secession on April 17, 1861, both were pro-secession. On the coast of Isle of Wight County, two forts were constructed or reinstituted during the war, Fort Huger and Fort Boykin. With their proximity to Union forces in Hopewell and Petersburg, Surry County soldiers served as scouts (Atkins 2008).

No major battles took place in Isle of Wight or Surry counties. A skirmish did occur in Smithfield in 1864. Early in 1862, Confederates were forced out of the Smithfield area and all bridges were burned and by 1864 Union gunboats controlled the James River. In January of that year, a federal steamer was fired upon by a Confederate contingent in Smithfield. The steamer was soon refloated

and got aid from Newport News. The Federals came ashore and forced the Rebels to flee. While waiting for their return boat to Newport News, the Rebels fired upon Union forces. The Federals were able to board their boat only to get stuck in mud at which point they were taken prisoner and the boat was burned (King 1993:172, 174).

There was also a skirmish in Surry County on the Blackwater River. Confederate soldiers were holding a bridge over the river when, in May, Federals attempted to cross. Having much larger numbers, Union forces succeeded and the Rebels abandoned their position (Atkins 2008).

On the home front, the succulent flavor of Smithfield meat emerged during the Civil War. As farms were not operating to the same capacity as previously, farmers began to let pigs root in fields where peanuts had been dug. They found peanut-fed hogs far more palatable than those which had foraged the woods (Rouse 1968:15).

### RECONSTRUCTION AND GROWTH (1865 – 1917)

While no large battles were fought in Isle of Wight and Surry counties, the economies were devastated and redevelopment of the agricultural economy was slow. Though Surry County was generally quiet after the war, around Bacon's Castle there was unrest between former enslaved individuals and the white population. In 1868 and 1869, homes, schools, and churches were burned (Atkins 2008).

The longstanding agricultural economy of Tidewater Virginia began to recover. The production of peanuts increased, their cultivation improved, and, by the aid of special implements, their production was cheapened. The value of the crop was estimated to be not less than three million dollars for the nuts alone (Morrison and Gwaltney 2006). P.D. Gwaltney and Company was created in 1870 for the shipping of ham and peanuts. The company grew dramatically in the late nineteenth century and by 1898 it had become the largest peanut company in the world (David 2007:13). Added to this is the value of the peanut vines in serving as a forage crop for horses and cattle and nuts on the ground for hogs (Morrison and Gwaltney 2006). In addition to peanuts, Isle of Wight County produced oats, potatoes, fruits, vegetables, and oysters (Morrison and Gwaltney 2006). Farms, growing peanuts and other products, were sprinkled throughout the project area.

Timbering also prospered during this period aided by northern investors (Rouse 1968:34). For example, David Steel, of Delaware, began the Surry Lumber Company in 1873 (Rouse 1968:34). The town of Dendron, about six miles northwest of the project area, grew around this company and the construction of several sawmills (Apel and Watson 2006:22). The lumber company also chartered the Surry, Sussex & Southampton Railway (SS&S) to haul products (Apel and Watson 2006:22). A small lumber railroad would eventually extend from Passenger Swamp to the town of Surry. Included among the various lumber companies in Isle of Wight were Watkins Lumber Company, Cumberland Lumber Company, and Kirk Lumber Company (David 2007:13).

Finally, Smithfield's early trade in bacon and ham gave rise to attention in the feeding and slaughtering of hogs and curing of bacon. In the early twentieth century, Smithfield's shipment of cured hams was about 40,000 (Morrison and Gwaltney 2007). With these important industries, the financial condition of counties improved by the close of the nineteenth century and population

increased. Between 1870 and 1910, the population of Isle of Wight County increased by 79 percent from 8,320 residents to 14,929; the population of Surry County increased by 74 percent from 5,585 inhabitants to 9,715 (USCB).

As population increased, commerce also grew, particularly along the intersections of major inland roadways in the form crossroad stores. With improved inland transportation corridors, crossroads stores became more common. Many of these crossroads merchants took advantage of the expanded postal system and operated post offices from their stores. Between 1865 and 1900, the number of post offices increased dramatically from 28,882 post offices nationwide to 76,688 post offices in 1900 (David 2007:15). A circa-1892 map of Virginia illustrates a number of post offices in the general vicinity of the project area (Figure 6-7). Rural free delivery came to the county in 1907. This would eliminate the need for the multiple post offices found in crossroads stores. Located at the intersection of Routes 621 and 622 within the project area, the Sycamore Crossroads post office opened in 1886, replacing the earlier Mayfield post office, and operated until it was discontinued in 1917. William Henry (Harry) McClelland was Sycamore Crossroads' first postmaster, in addition to operating a store in the same building set in the front yard of the neighboring Guy Betts House (King 1993:331; Figure 6-8).

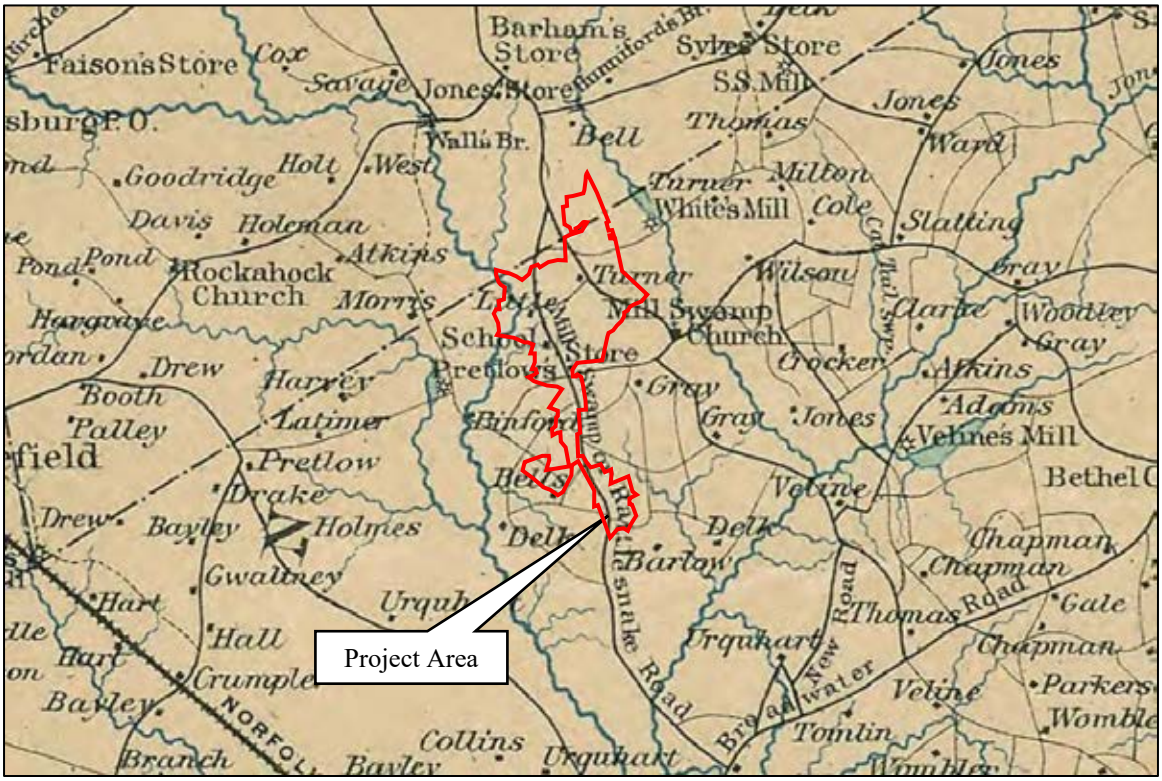


**Figure 6-7: Detail of *Preliminary map of a part of the south side of James River, Va.: from surveys and reconnaissances*, c.1892, depicting the approximate location of the project area in Isle of Wight and Surry counties. Source: Library of Congress**

**Figure 6-8: Detail of *Battlefields of Virginia 1865*, 1900, depicting the approximate location of the project area in Isle of Wight County. Source: Library of Congress**

## WORLD WAR I TO WORLD WAR II (1917 – 1945)

The peanut, lumber, and hog industries in Tidewater Virginia continued as the twentieth century progressed. The peanut industry took a downfall in 1921 when P.D. Gwaltney's factories were destroyed by fire. Although processing of the legume ended in Smithfield, neighboring Suffolk became a major peanut processing hub with the growth of Planters Peanuts (David 2007:18). With the loss of the peanut factories, in Isle of Wight County the primary industry transitioned to meat packing, most notably of ham (Morrison and Gwaltney 2007).

The Surry Lumber Company reached its peak in the 1920s (Apel and Watson 2006:22). However, the supply of trees decreased leading to the closing of mills in 1927 and the termination of the SS&S Railway (Apel and Watson 2006:23).

Among other agricultural endeavors in the county was the dairy industry. Cows had long been important in the region, requiring little attention as they were able to forage in the marshes and swamps. By the 1930s, there were many dairies (King 1993:208).

The two world wars' demanded sacrifices from the Commonwealth's residents while they also prepared the way for new opportunities. Residents of the counties did their part to serve the war effort, either by continuing to produce food and products for use or enlisting in the military.

As farmers faced hardships and the industry became more mechanized, the population in the counties fell. While the population of Isle of Wight County population decreased by seven percent from 14,433 to 13,381 residents; that of Surry County fell by 33 percent from 9,305 to 6,193 inhabitants (USCB). Despite hardships brought on by weather, mechanization, and the Great Depression, agriculture remained the economic mainstay of counties and commercial centers provided processing facilities for the products and access to export goods (David 2007:18).

Despite the fall in population in Isle of Wight and Surry counties, progress continued. By the 1930s, electric and telephone services were expanded into many of the rural areas in Isle of Wight. An Act by the Virginia General Assembly in 1918 provided for the improvement of roads and bridges within the county. Major roads were paved and others were widened to improve and facilitate transportation. Additionally, the prosperity of the 1920s brought the construction of new churches and schools (David 2007:18). One of these early schools was likely McClelland's School, which appears on mid-twentieth century maps, however no other documentation has been located at this time.

A 1919 topographic map depicting the project area shows several buildings within and in the general vicinity of the project area, including the Sycamore Crossroads Post Office (Figure 6-9). Proctor's Bridge, which appears on maps as early as the Civil War though it had been destroyed and rebuilt multiple times by the early twentieth century, is mapped to the west of the project area. The project area itself is comprised of a mix of wooded areas and open fields, with Blackwater River crossing the landscape to its west and Mill Swamp and Rattlesnake Swamp to the east. The crossroads community of Johnsons Corner appears on maps to the west of the project area dating to this time period. The community is located at the intersection of Routes 621 and 616 near the sites of Proctors Mill and the Binford Home, which was later owned by J.F. Johnson (Macon 1938).

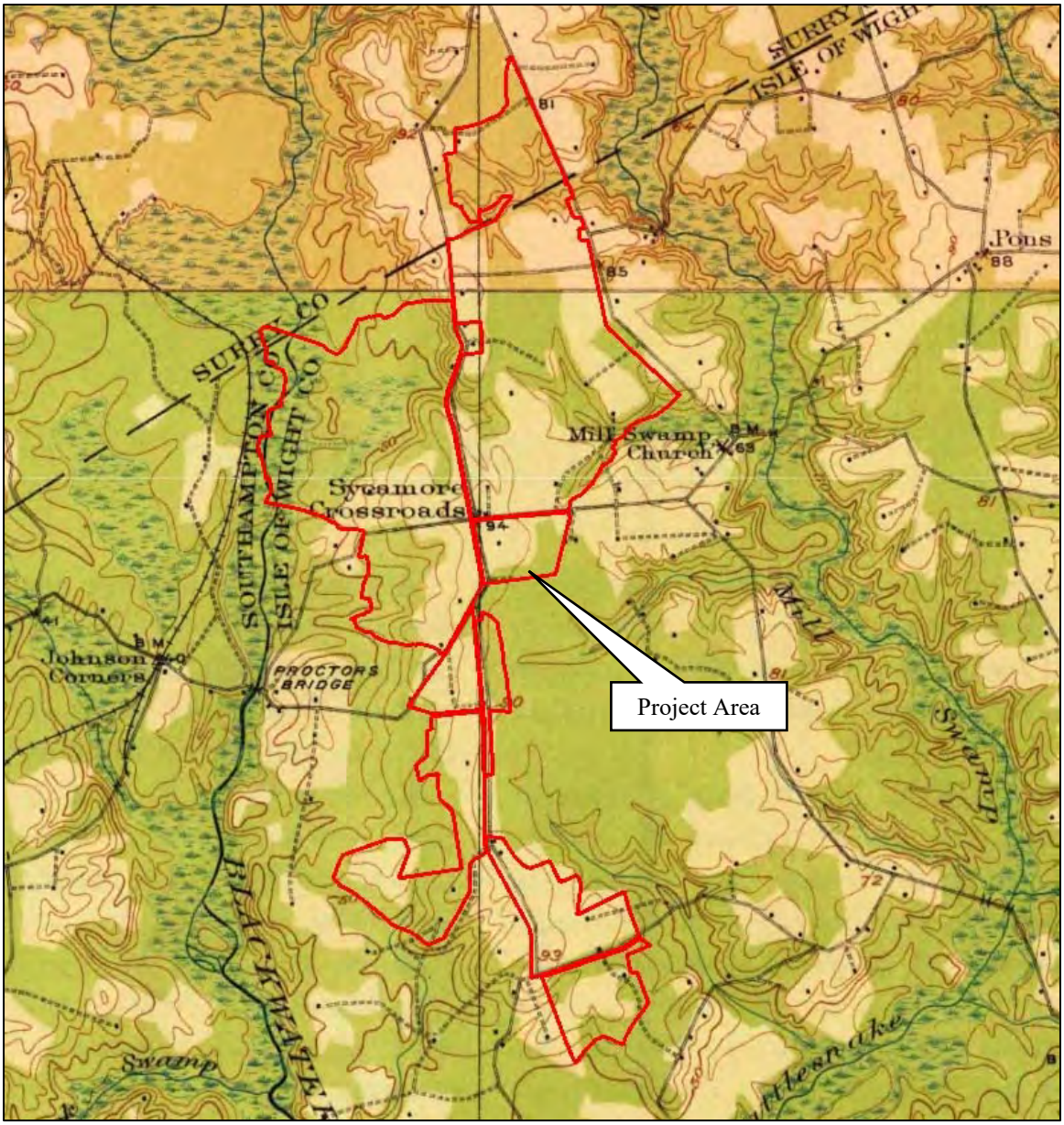


**Figure 6-9: Detail of the 1919 topographic map, *Surry,* and the 1920 topographic map, *Ivor*, depicting the project area. Source: USGS**

## NEW DOMINION (1945 – PRESENT)

The end of World War II brought with it a building boom that would begin to change the character of Virginia as a whole and the counties in which the project area lay, particularly Isle of Wight County. With its proximity to Newport News, Portsmouth, and Norfolk, the county began to become a bedroom community. With the spread of the cities and improved transportation routes, the northern half would be impacted, and more single-family dwellings began to line the roadways shielding the vast open field behind (David 2007:19).

The face of agriculture also began to change. By the end of World War II, Virginia was no longer the leading producer of peanuts. In 2002, the end of government support and allotment forced

many smaller farmers out of business. While peanuts are still a force in Western Tidewater and they continued to be the most reliably profitable crop even for smaller-scale producers, China and Brazil are now the dominant players in the global peanut market (Bearinger n.d.). Over time, the dairies in the region also went out of business (King 1993:209).

Conversely, the meat packing industry of Isle of Wight County and the hog and cattle farms in Surry County would continue to grow, and the timbering industry in the region as a whole contributes to its economy. Isle of Wight County would become home to two Fortune 500 companies: Smithfield Foods and International Paper Company. Because of the significant amount of timbering that has taken place throughout the Commonwealth, in the second half of the twentieth century Virginia Forests, Inc. became active (Rouse 1968:37). Among their work was providing pine seedlings to any landowners willing to plant them in cut-over forests and eroding fields (Rouse 1968:37). In addition to stabilizing the soil it would continue the industry since the trees would be ready for harvesting after a period of twenty years (Rouse 1969:37).

The landscape within and in the general vicinity of the project area continued to be developed. By the mid-twentieth century, major pipelines would cross the landscape to the northwest and southwest of the project area. Construction on Virginia's first nuclear energy plant on Hog Island began in 1971 (Apel and Watson 2006:27). In the early twenty-first century, Beaver Dam Airpark was opened approximately 3.5 miles northeast of the project area along the Isle of Wight-Surry county line. Despite changes in the landscape, agriculture continues to be an economic mainstay in Isle of Wight and Surry counties with important crops being cotton, soy, and, of course, peanuts (Morrison and Gwaltney 2006). The project area remains a mixture of agricultural and forested land with few buildings which would decrease in number over time. Additionally, portions of the project area would be subject to heavy timbering as the industry gained importance in the county. The landscape in the general vicinity of the project area would continue to be developed, with structures mostly consisting of churches and small, roadside homes (Figure 6-10 through Figure 6-14).

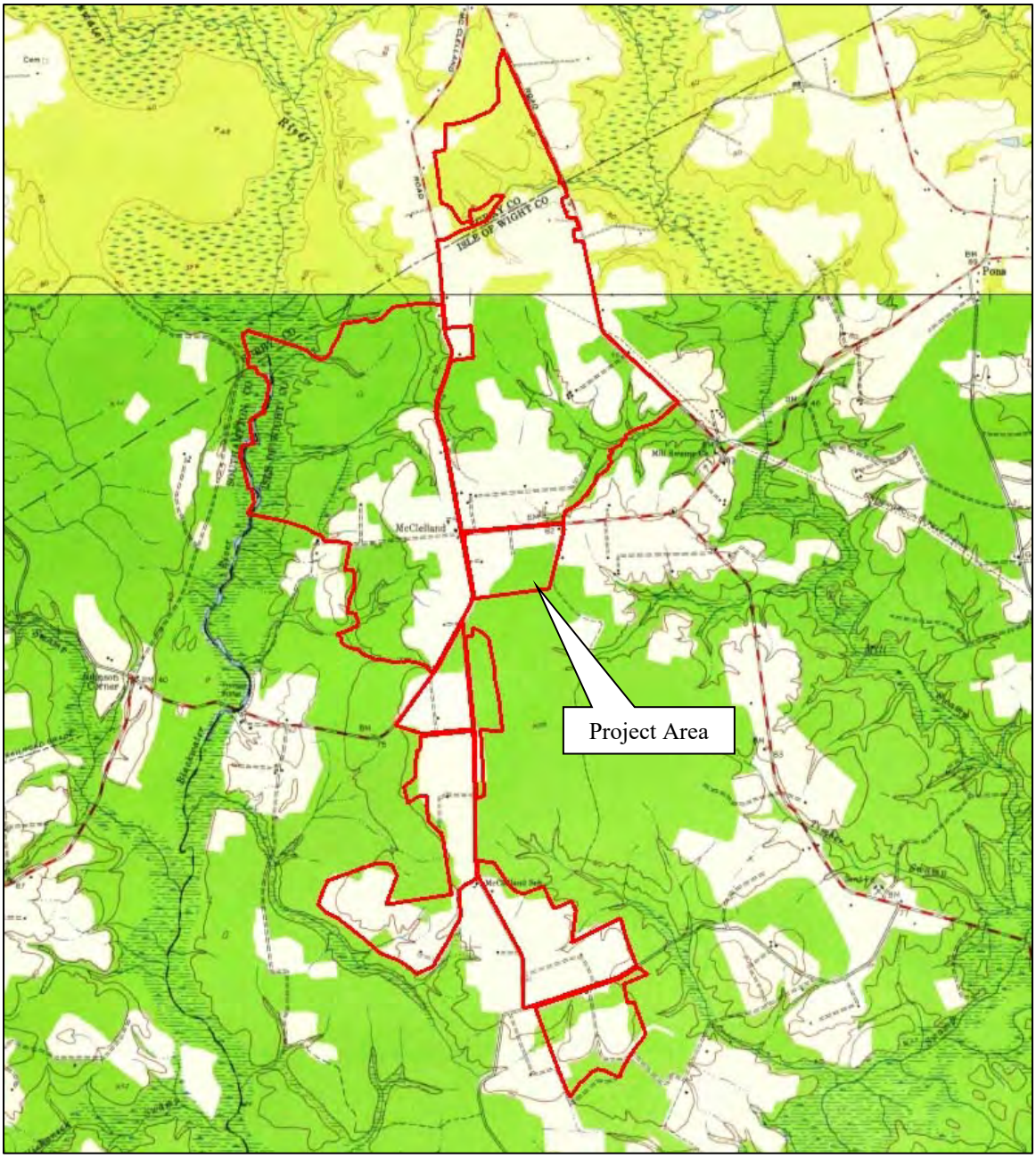


**Figure 6-10: Detail of the 1944 topographic map, *Raynor*, and the 1954 topographic map, *Runnymede,* depicting the project area. Source: USGS**

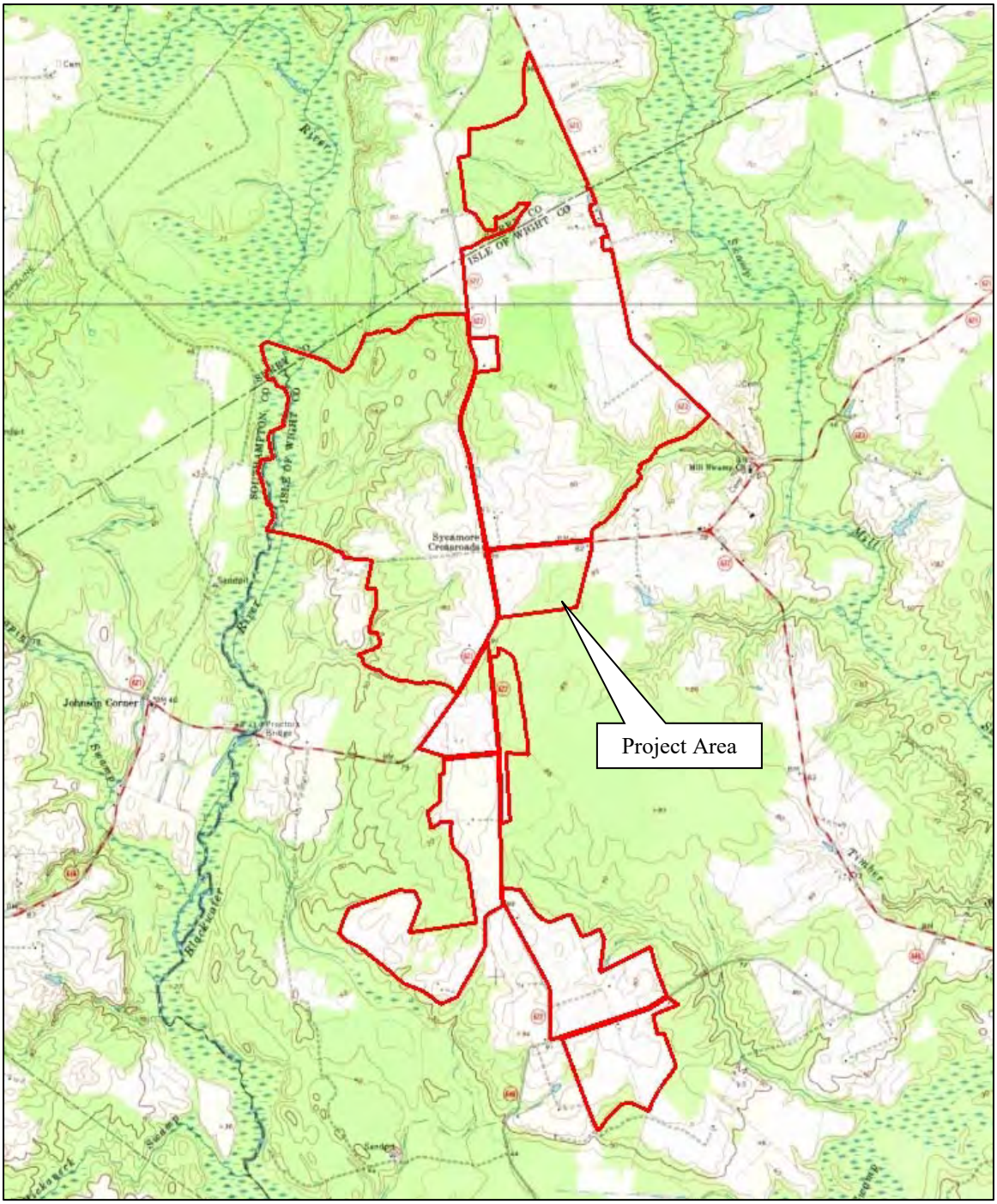


**Figure 6-11: Detail of the 1968 topographic map, *Raynor,* and the 1971 topographic map, *Runnymede*, depicting the project area. Source: USGS**

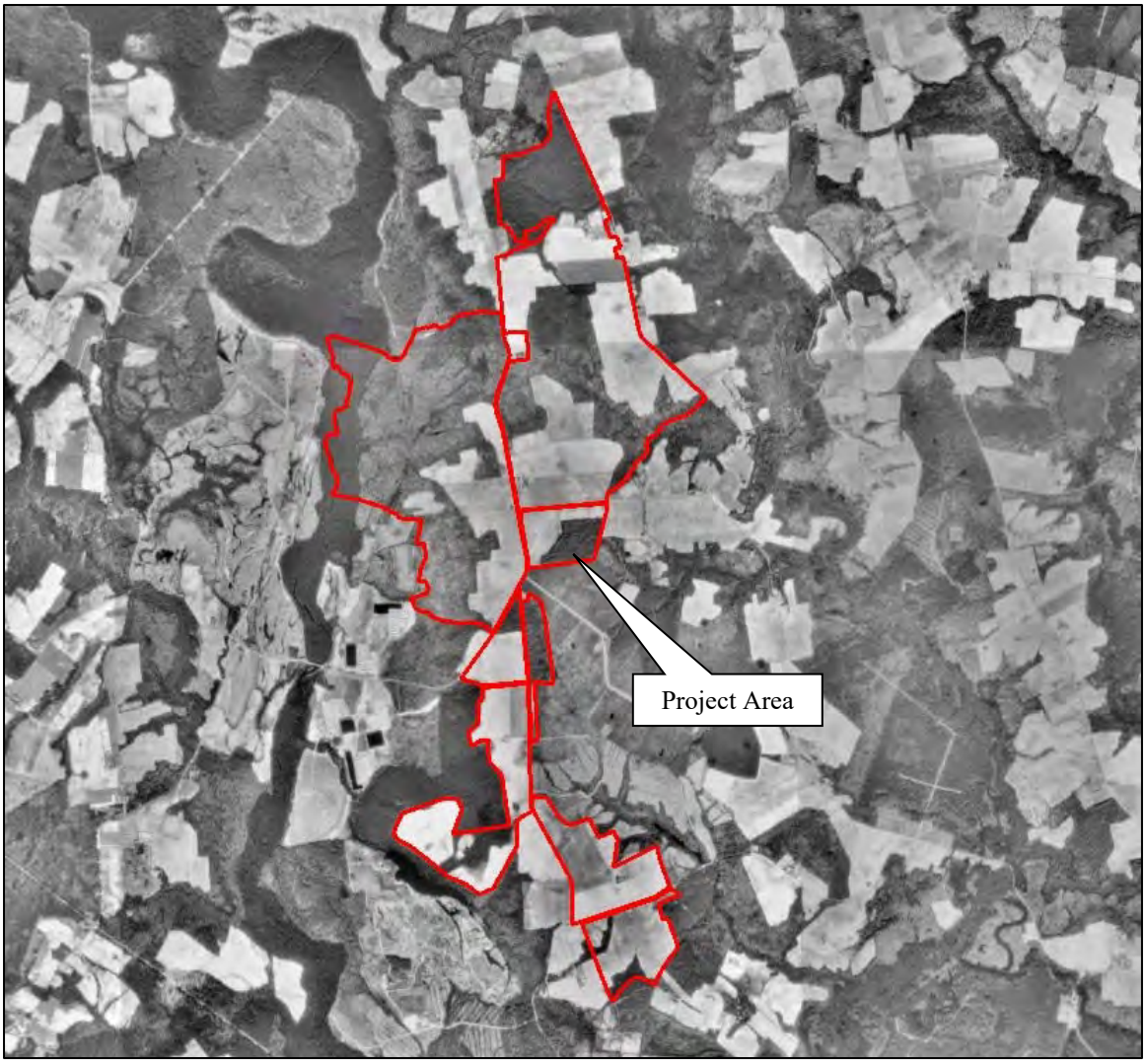


**Figure 6-12: A 1990 aerial depicting the project area. Source: Google Earth**

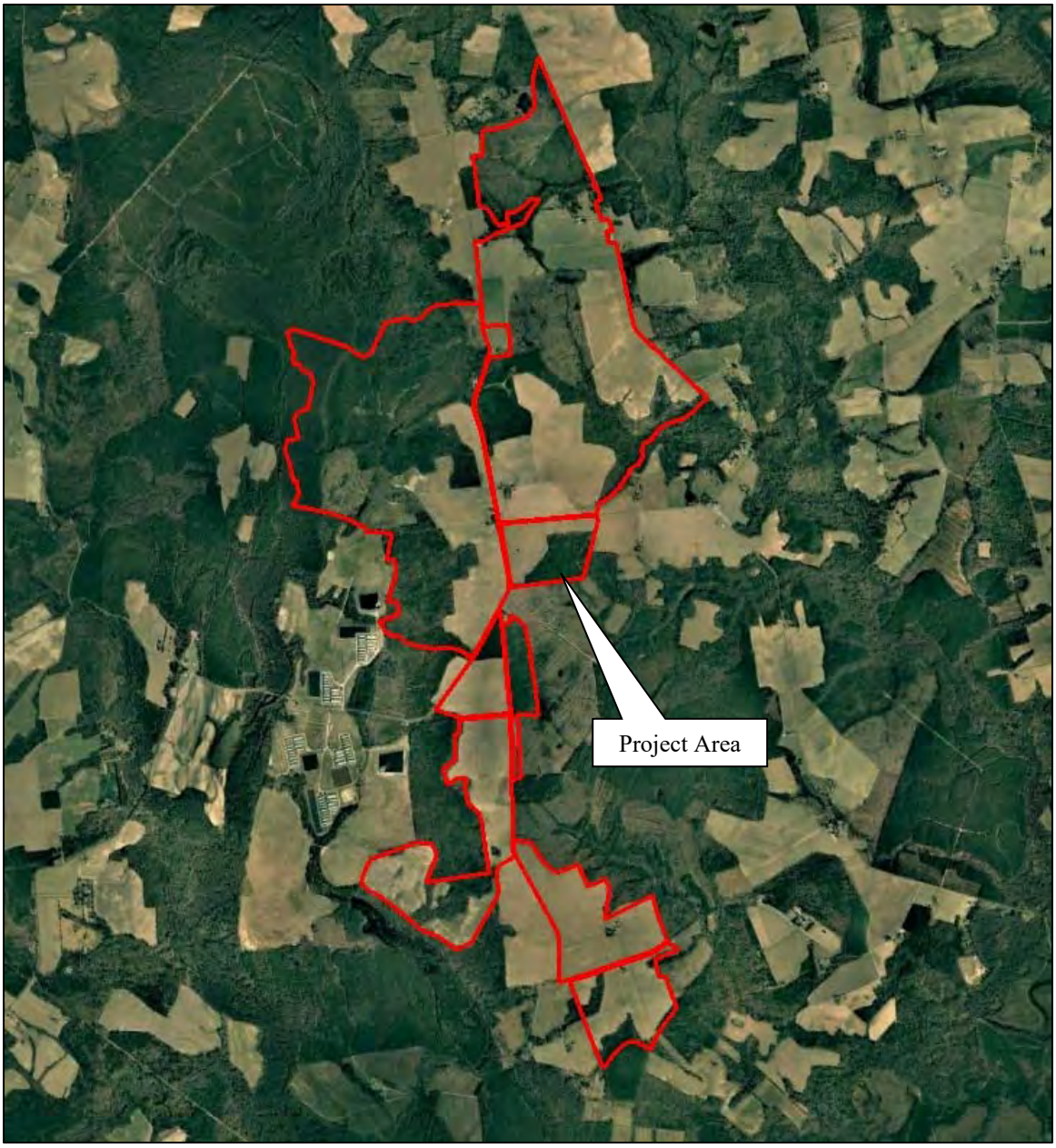


**Figure 6-13: A 2007 aerial depicting the project area. Source: Google Earth**

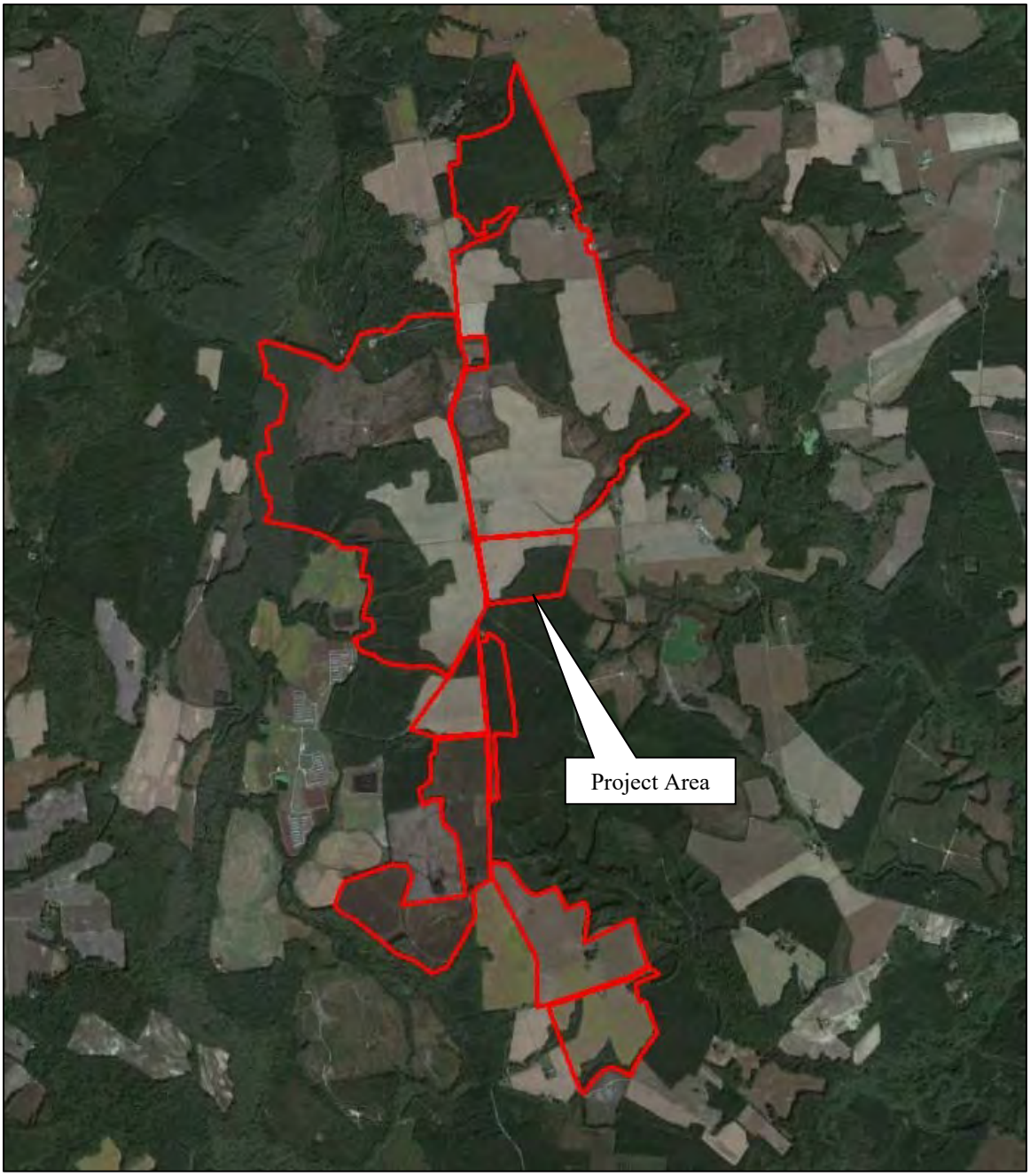


**Figure 6-14: A 2021 aerial depicting the project area. Source: Google Earth**

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# 7. EXPECTED RESULTS

Prior to initiation of fieldwork, D+A submitted a Phase IA cultural resources assessment and testing plan to VDHR for approval. The results of that assessment and testing strategy are presented below.

Analysis of historic maps and aerial photographs from the mid-nineteenth to early-twentieth century reveal a well-established network of roads and a number of dwellings scattered across the project area during that period. Previous cultural resource survey has recorded a number of buildings from that period, although many have since been demolished and the project area is now sparsely developed. Just seven building/building complexes remain extant within the study area, although they range from good condition and occupied to ruinous and abandoned. Several additional homes and building complexes are within or bordering the overall study area limits but are in carve-out parcels excluded from development. Buildings/complexes within the project area include two ruinous early-nineteenth century dwellings, three late-nineteenth century dwellings, a vacant early-twentieth century dwelling, and a mid-twentieth century dwelling. Field inspection revealed evidence of two additional map projected buildings that remain only as sites.

The project area is bordered by Blackwater River and Mill Swamp and crossed by numerous swamps, drainages, and pocosins. These natural resources would have been attractive to prehistoric hunters and gatherers, but the terrain within the project area was not likely to have supported large, permanent settlements. The primary prehistoric resources that are likely to be present are small, temporary procurement camps located above the wetlands, however, no such sites have been previously recorded within the project area limits.

Although the project area contains a number of site-predictive factors, such as the natural resources, a historic road network, and mapped buildings, land use throughout the twentieth and twenty-first centuries has negatively impacted the stratigraphic integrity of the soils. Much of the project area has been used to produce timber for an extended period of time and multiple harvests resulting in multiple episodes of clearcutting, planting, and regrowth. Most of the regrowth has been in the form of trees planted in steeply-banked rows interspersed with deep furrows, and in most cases the topsoil and eluviated layers have been destroyed or displaced. Areas not put to use for timber have been used agriculturally and therefore subject to regular plow and tilling.

Based on the above observations, the locations of the map-projected buildings that were field verified as well as previously recorded architectural resources should be considered high potential for historic sites. Together, these account for an area covering about **34 hectares (85 acres)** total. The map-projected locations of buildings that were not visible through surface reconnaissance but reveal evidence of prior disturbance from logging should be considered moderate potential for historic sites. Landforms bordering Blackwater River should likewise be considered moderate potential for prehistoric sites, in addition to open, well-drained fields that have not been previously disturbed by logging. Together, the moderate potential area covers an area of about **365 hectares (901 acres)** total. A 25% sample of the moderate potential areas should be subjected to targeted subsurface testing. This sample should include the least disturbed landforms that correspond to or share similar characteristics as the locations of buildings depicted on historic maps. The remainder

of the project area that does not lie in wetland should be considered low potential for archaeological resources. A sample constituting 10% of the low-potential area should be subjected to subsurface testing. This 10% should include the least-disturbed terraces overlooking wetlands and intersections of streams to test for prehistoric resources; along the edges of roads and fields depicted on Civil War-era maps to test for early historic sites; and any other areas that appear to be less disturbed in the field. The total low probability area is about **170 hectares (421 acres).** A large tract of land at the northern end of the project area has been subject to recent, approved phase I survey and that area will not require further investigation as part of this effort (Table 7-1 and Figure 7-1 and Figure 7-2).

**Table 7-1: Summary of archaeological potential within the project area.**

| Potential | Reason | STP Sample | Total Area | STP Area |
|---|---|---|---|---|
| **High** | Yard space around extant and map-projected architectural resources | 100% | 34 hectares<br>85 acres | 34 hectares<br>85 acres |
| **Moderate** | Yard space around map-projected architectural resources in areas of documented disturbance. Finger ridges and terraces overlooking Blackwater River and confluences. | 25%, chosen based on field conditions, pedestrian survey of remainder | 365 hectares<br>901 acres | 91 hectares<br>225 acres |
| **Low** | Areas with no site predictors | 10%, chosen based on field conditions, pedestrian survey of remainder | 170 hectares<br>421 acres | 17 hectares<br>42 acres |
| **No Subsurface Testing** | Wetlands, water-saturated soils, slopes greater than 15%, previously surveyed areas | Pedestrian survey where possible | 248 hectares<br>613 acres | Pedestrian survey where possible |
| **Total** | | | **817.46 hectares<br>2,020 acres** | **142 hectares<br>352 acres** |

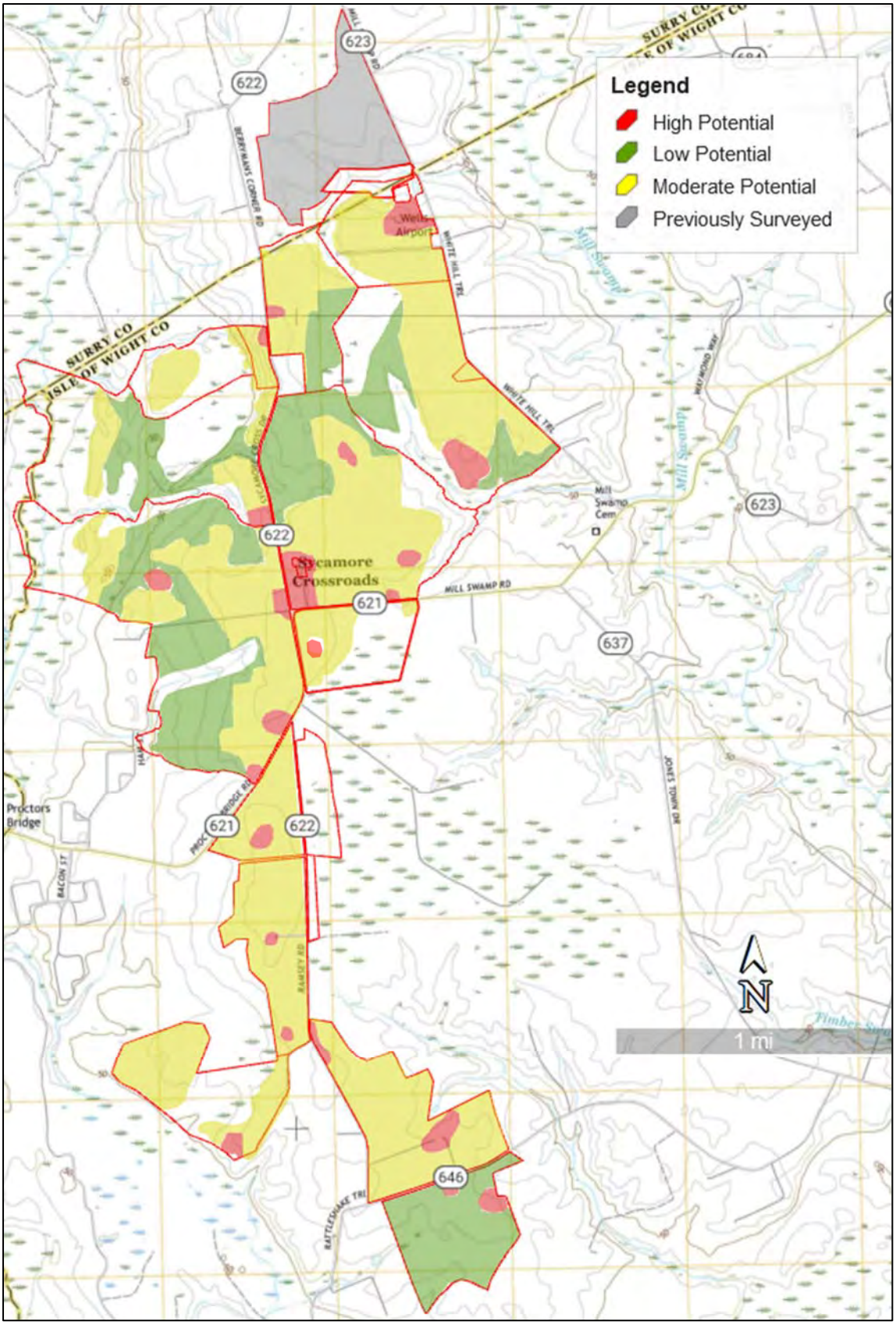



**Figure 7-1: USGS topographic map with project area showing areas of archaeological potential.**

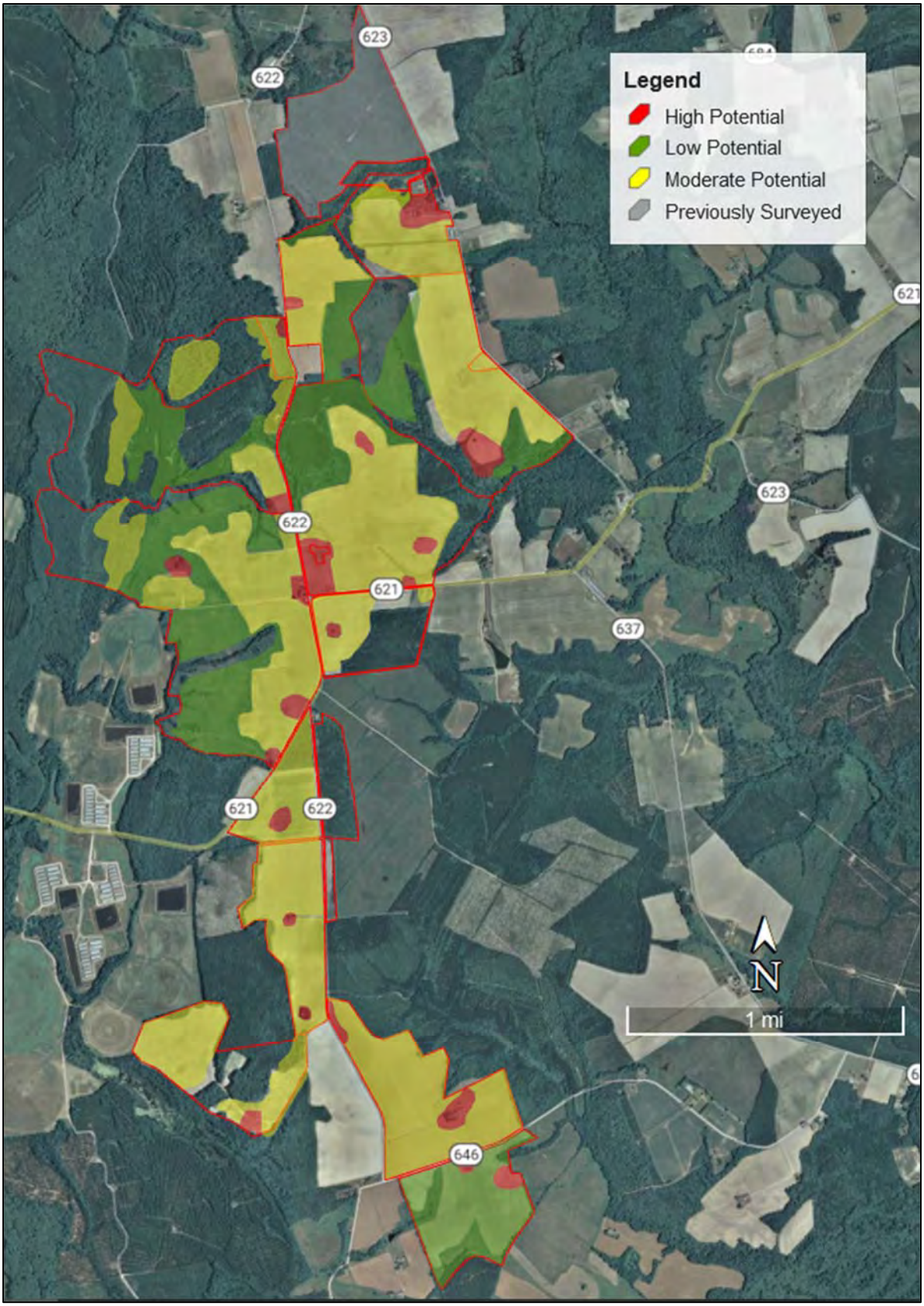



**Figure 7-2: Aerial map with project area showing areas of archaeological potential.**

# 8. FIELD SURVEY RESULTS

Phase I cultural resource survey of the Sycamore Cross Solar project area was conducted from December 2023 through April 2024. The effort included both architectural and archaeological investigations according to the survey methodology outlined in the research design and Phase IA. The results of the survey are summarized below.

### ARCHITECTURAL FIELD RESULTS

The architectural resources survey for the Sycamore Cross Solar Project resulted in the identification and recordation of forty-four (44) architectural resources greater than 50 years of age (constructed in 1974 or earlier) located within the one-half mile architectural survey area. Of the surveyed resources, twenty-five (25) were previously recorded (VDHR# VDHR# 046-0029, 046-0030, 046-0032, 046-0055, 046-0068, 046-5147/5152, 046-5260, 046-5550/5552, 087-5509, 090-5163/5168, and 090-5174) and nineteen (19) were newly recorded during this Phase I Survey (VDHR# 046-5804/5817 and 090-5208/5212). Ten (10) of the previously recorded sites were recently surveyed and determined not eligible for listing in the NRHP by the VDHR within the last five years, and therefore not subject to re-survey as part of this effort (VDHR# 046-5550/5552, 090-5163/5168, and 090-5174) and another previously recorded resource was relocated outside of the survey area and therefore also not subject to re-survey at this time (VDHR# 087-5509). Survey at this time also found that an additional five (5) previously recorded resources have been demolished since they were last updated (VDHR# 046-0029, 046-0030, 046-0032, 046-0055, and 046-5260). VCRIS site file forms were prepared or updated for each resource subject to survey as part of this effort.

The 28 extant resources within the survey area and surveyed as part of this effort consist primarily of domestic buildings and farmsteads from the early-nineteenth to mid-twentieth century. Also surveyed were several twentieth century commercial buildings, a former late-nineteenth century post office, a nineteenth century small family cemetery, and a mid-twentieth century church.

The survey area occupies a large rural area of southern Surry and western Isle of Wight counties, situated roughly eight miles east of Wakefield. There are no incorporated or unincorporated communities within or in the immediate vicinity of the survey area, however, it is centered on the former crossroads community of Sycamore Cross. It is crossed or bordered by several local transportation corridors including Sycamore Cross Road and White Hill Trail that extend generally north-south through the survey area, and Mill Swamp Road and Proctors Bridge Road that extend generally east-west. The landscape of the survey area is characterized by mostly flat to gently rolling terrain that is a mix of open field and woodland bisected by low wetlands, swamps, and creeks. Most of the open and cleared areas are put under agricultural use while the woodlands are a mix of wild growth and planted timber.

Development patterns in the area are diverse, with older homes and farmsteads generally set back from the road on large properties while more recent, twentieth century homes tend to be set in clusters on small lots bordering the roads.

The earliest resources in the survey area are believed to date from the first and second quarters of the nineteenth century, although many of these were found to have been demolished since they were last documented. Four early-nineteenth century homes have been completed demolished and cleared from their sites, while two resources believed to both date circa 1825 remain in ruinous condition with only the brick exterior walls standing. Another four Antebellum homes, dating from c.1830, two c.1850, and 1852 all remain extant and occupied. These homes tend to be Vernacular in nature although one exhibits fairly high-style Federal to Greek Revival transitional architectural influences. There are also several resources that date from the late-nineteenth century, including two homes and a former post office. The homes reflect Folk Victorian influences popular at that time, while the post office reflects a stripped Vernacular example of a rural crossroads building. The vast majority of resources from the twentieth century, including the homes and commercial buildings reflect national trends in building styles of their period including Colonial Revival/Cape Cod, Minimal Traditional, and Ranch.

Of the surveyed resources, four (4) are considered potentially eligible for listing in the NRHP. This includes two Antebellum homes that represent the earliest extant development within the survey area and an important reflection of the architectural evolution of rural Isle of Wight County during that period. The other two resources are a late-nineteenth century post office and associated dwelling that remain as an example of a historically significant aspect of the crossroads community of Sycamore Cross at the turn-of-the-twentieth century. The rest of the surveyed properties generally do not appear to reflect any unique or significant design or historical associations, and as such, are recommended to be not eligible for listing in the NRHP individually or collectively.

Provided in the following pages are a table of all surveyed resources (Table 8-1), a map with the location of each resource surveyed (Figure 8-1), and descriptive narratives and photographs of each of the identified historic resources. Resource narratives include a physical description, discussion of history, integrity, and NRHP-eligibility. For those resources considered NRHP-eligible, an assessment of project impacts is also provided.

**Table 8-1: Architectural resources surveyed. Bold Font denotes resource is NRHP-Eligible. Orange Highlighted resources are located directly within the project area. Green highlight indicates resource was determined not NRHP-eligible within the last five years and not resurveyed at this time.**

| VDHR ID# | Resource Name/Address | Year Built | NRHP Eligibility |
|---|---|---|---|
| 046-0029 | House, 12462 Ramsey Road | c.1800 | D+A: Demolished |
| 046-0030 | Betts House, Proctors Bridge Road | c.1802 | D+A: Demolished |
| 046-0032 | Dudley House and Outbuildings, Ramsey Road | c.1820 | D+A: Demolished |
| 046-0055 | Tenant House, Proctors Bridge Road | c.1800 | D+A: Demolished |
| 046-0056 | Grays' Brick House, Proctors Bridge Road | c.1825 | D+A: Not Eligible (Ruins) |
| 046-0057 | Brick House, Mill Swamp Road | c.1825 | D+A: Not Eligible (Ruins) |
| **046-0068** | **Wilson Hollemon House, 5499 Mill Swamp Road** | **1830** | **D+A: Potentially Eligible** |
| 046-5147 | House, 14385 Rattlesnake Trail | 1850 | D+A: Not Eligible |
| 046-5148 | House, 13407 Ramsey Road | 1880 | D+A: Not Eligible |
| **046-5149** | **Sycamore Cross Post Office, Mill Swamp Road** | **1899** | **D+A: Potentially Eligible** |
| **046-5150** | **House, 11356 Sycamore Cross Drive** | **c.1899** | **D+A: Potentially Eligible** |

| VDHR ID# | Resource Name/Address | Year Built | NRHP Eligibility |
|---|---|---|---|
| 046-5151 | Mill Swamp Baptist Church & Cemetery; Church, 6329 Mill Swamp Road | 1928 | D+A: Not Eligible |
| 046-5152 | Store, 6159 Mill Swamp Road | 1946 | D+A: Not Eligible |
| 046-5260 | Mill Swamp Baptist Church Parsonage | c.1900 | D+A: Demolished |
| 046-5550 | Dwelling, 10126 White Hill Trail | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 046-5551 | Dwelling, 10106 White Hill Trail | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 046-5552 | Dwelling, 10088 White Hill Trail | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 046-5804 | House, 10325 White Hill Trail | 1953 | D+A: Not Eligible |
| 046-5805 | House, 10261 White Hill Trail | 1972 | D+A: Not Eligible |
| 046-5806 | House, 6262 Mill Swamp Road | 1955 | D+A: Not Eligible |
| 046-5807 | Industrial Complex, 11321 Jones Town Drive | 1959 | D+A: Not Eligible |
| 046-5808 | House, 6177 Mill Swamp Road | 1968 | D+A: Not Eligible |
| 046-5809 | Commercial Building, 6143 Mill Swamp Road | c.1970 | D+A: Not Eligible |
| 046-5810 | House, 5498 Mill Swamp Road | 1899 | D+A: Not Eligible |
| **046-5811** | **Betts Farm, 5191 Mill Swamp Road** | **1850** | **D+A: Potentially Eligible** |
| 046-5812 | House, 14195 Rattlesnake Trail | 1950 | D+A: Not Eligible |
| 046-5813 | Commercial Building, 14472 Rattlesnake Trail | c.1950 | D+A: Not Eligible |
| 046-5814 | House, 11235 White Hill Trail | c.1950 | D+A: Not Eligible |
| 046-5815 | House, 13484 Ramsey Road | 1970 | D+A: Not Eligible |
| 046-5816 | House, 12085 Ramsey Road | 1971 | D+A: Not Eligible |
| 046-5817 | Hollemon Cemetery | Pre-1900 | D+A: Not Eligible |
| 087-5509 | Captain Pretlow House, 4071 Proctor's Bridge Road | 1760 | VDHR- Relocated (1988) / D+A: Now outside of survey area |
| 090-5163 | Dwelling, 337 Berrymans Corner Road | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5164 | Dwelling, 3285 Berrymans Corner Road | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5165 | Simmons and Brown Cemetery | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5166 | House, 1122 Berrymans Corner Road | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5167 | House, 1097 Berrymans Corner Road | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5168 | House, 10676 Berrymans Corner Road | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5174 | House, Berrymans Corner Road | | VDHR: Not eligible (2021)/ D+A: Not Re-Surveyed |
| 090-5208 | House, 1314 Berrymans Corner Road | c.1960 | D+A: Not Eligible |
| 090-5209 | House, 1209 Berrymans Corner Road | c.1970 | D+A: Not Eligible |
| 090-5210 | House, 1167 Berrymans Corner Road | c.1970 | D+A: Not Eligible |
| 090-5211 | House, 1141 Berrymans Corner Road | c.1970 | D+A: Not Eligible |
| 090-5212 | House, Berrymans Corner Road | c.1910 | D+A: Not Eligible |

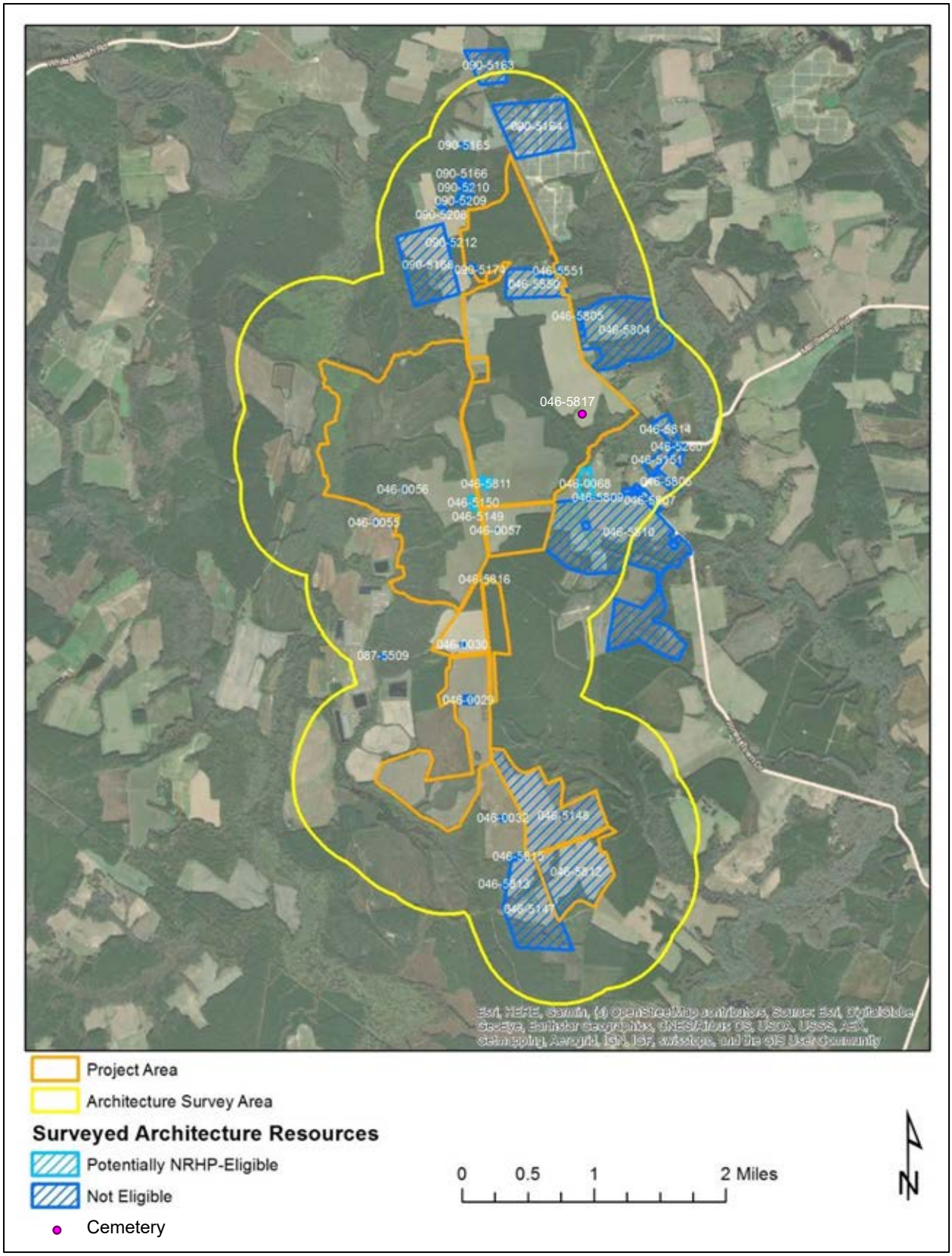



**Figure 8-1: Location of surveyed architectural resources in relation to the project area.**

# RESOURCE NARRATIVES

**VDHR# 046-0029**
**House, 12462 Ramsey Road**

The house at 12462 Ramsey Road was constructed circa 1800 according to a previous survey. According to a previous survey, this structure was a one-and-a-half-story wood frame structure featuring a hall-parlor plan, beaded weatherboard siding, and brick exterior end chimneys laid in an American bond. This structure was not observed at the time of survey and a review of historic aerial imagery reveals that this structure has been demolished and removed from the site.

The site of the demolished resource is located on the west side of Ramsey Road between Proctors Bridge Road and Rattlesnake Trail. The landscape in the general vicinity of the site is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. The former homesite is located at the center of a large agricultural field and is accessed by a long, gravel driveway. The only structure remaining on the property is a dilapidated shed.

As the primary resource is no longer extant, this property is considered ***not eligible*** for listing in the NRHP.

**VDHR# 046-0030**
**Betts House, Proctors Bridge Road**

Betts House, located off of Proctors Bridge Road, was constructed circa 1802 according to a previous survey. According to a previous survey, this house was a one-story wood frame structure with a gable roof and two brick exterior end chimneys. This structure was not observed at the time of survey and inspection of historic aerial imagery indicates that it has been demolished and cleared from the site.

The site of the demolished resource is located on the southeast side of Proctors Bridge Road just south of its intersection with Ramsey Road. The landscape in the general vicinity of the site is gently rolling and characterized by a mix of wooded areas and agricultural fields with relatively light development. The house was previously mapped at the center of what is now a wide, open agricultural field. No outbuildings or other associated resources remain on the property.

As the primary resource is no longer extant, this property is considered ***not eligible*** for listing in the NRHP.

**VDHR# 046-0032**
**Dudley House and Outbuildings, Ramsey Road**

Dudley House, located off of Ramsey Road, was constructed circa 1820 according to a previous study. According to a previous survey, this building was a one-and-a-half-story wood frame structure featuring a hall-parlor plan, dormers on the front slope of its gable roof, and brick exterior end chimneys laid in an American bond. The house was not observed at the time of survey and inspection of historic aerial imagery reveals that the structure has been demolished and cleared from the site.

The site of the demolished resource is located on the west side of Ramsey Road between Proctors Bridge Road and Rattlesnake Trail. The landscape in the general vicinity of the site is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. The former homesite is located at the center of a large agricultural field, however no structures remain on the property.

As the primary resource is no longer extant, this property is considered ***not eligible*** for listing in the NRHP.

**VDHR# 046-0055**
**Tenant House, Proctors Bridge Road**

The tenant dwelling off of Proctors Bridge Road was constructed circa 1800 according to a previous survey. According to a previous survey, this building was a one-story wood frame structure with a hall-parlor plan, a metal-sheathed gable roof, and brick exterior end chimneys. The site was not accessible at the time of survey, however a review of historic aerial imagery suggests that the structure has been demolished and removed from the site.

The site of the demolished resource is located on the north side of Proctors Bridge Road between Old Blackwater Road and the end of Mill Swamp Road. The landscape in the general vicinity of the site is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. The former homesite is located at the center of a large agricultural field, however no structures appear to remain on the property.

As the primary resource is no longer extant, this property is considered ***not eligible*** for listing in the NRHP.

**VDHR# 046-0056**
**Grays' Brick House, Proctors Bridge Road**

The Grays' Brick House ruins, located off of Proctors Bridge Road, was constructed circa 1825 according to a previous survey. Although the home likely exhibited stylistic influences and features, any such detail is no longer extant in its current ruinous condition. All that remains of the structure are the walls of the primary block. The two-and-a-half-story masonry structure is constructed of brick laid in a 5:1 American bond and rests on a continuous foundation of the same construction. Scarring in the exterior brick indicates that it had been topped by a gable roof with a one-story gabled wing on one side, however neither of these features remain. A large, brick chimney laid in a 3:1 American bond is located on one side of the structure. Multiple door and window openings are present on the structure, however none contain their former occupants. On the interior of the structure, remnants of scratch coat plaster remain on the walls in some places.

This property is located on the west side of Proctors Bridge Road near its intersection with Mill Swamp Road. The landscape in the general vicinity of the property is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. The ruins is set far from the road within a densely forested area with no formal access points leading to the structure. No associated structures or other extant resources were observed on the property, however, a variety of evidence on the surrounding landscape is suggestive of archaeological features.

This property represents the remains of an early nineteenth century single dwelling in the region, that now remains in a ruinous condition. As all that remains of the building are the brick exterior walls and all other structural materials and features are gone, the ruins lack historical integrity and are therefore considered ***not eligible*** for listing in the NRHP as an architectural resource, however, warrants further archaeological investigation (recorded as Site 44IW0407).

**VDHR# 046-0057**
**Brick House, Mill Swamp Road**

The brick house ruins off of Mill Swamp Road was constructed circa 1825 according to a previous survey. Although the home likely exhibited stylistic influences and features, any such detail is no longer extant in its current ruinous condition. The two-story structure is constructed of brick laid in a 3:1 American bond and rests on a raised English Basement brick foundation of the same construction. It appears that it was once topped by a gable roof, however the roof is not intact. A large, brick chimney is located on the east side of the ruins, with hearths present on both the first and second floors in the interior of the building. The elevations appear symmetrical, with evenly spaced window openings, however none of the windows remain intact.

The ruins are located on a large, rural lot on the southeast corner of Mill Swamp Road and Proctors Bridge Road. The property is located in the small crossroads community of Sycamore Cross within an otherwise lightly developed area characterized by gently rolling topography and a mix of wooded areas and agricultural fields. The ruins are set far back from the road within a large, open agricultural field and is immediately surrounded by overgrown vegetation in on an otherwise sparsely vegetated lot. There are no formal access points or associated structures on the property.

This property represents the remains of an early nineteenth century single dwelling in the region, that now remains in a ruinous condition. As all that remains of the building are the brick exterior walls and all other structural materials and features are gone, the ruins lack historical integrity and are therefore considered ***not eligible*** for listing in the NRHP as an architectural resource, however, warrants further archaeological investigation (recorded as Site 44IW0424).

**VDHR# 046-0068**
**Wilson Hollemon House, 5499 Mill Swamp Road**

The Wilson Hollemon House, located at 5499 Mill Swamp Road, was constructed in 1830 according to local land records. It remains in good condition and exhibits Georgian style influences. The two-story, five-bay, L-shaped masonry structure is constructed of brick laid in a 3:1 American bond and rests on a continuous foundation of the same construction. It is topped by a half-hipped gable roof sheathed in asphalt shingles and embellished with dentils lining its molded cornice. Three chimneys flank the roof – one on each gable end – and are laid in a 3:1 American bond with corbelled bases. Fenestration on the structure consists of two-over-two double-hung windows set in wood frames with wide, flared lintels. The primary entrance is centered on the symmetrical front (south) elevation and consists of a single door with a transom featuring elliptical filagree. Sheltering part of the façade is a one-story, three-bay porch supported by fluted Ionic columns and pilasters. A central, one-bay balcony rests on the flat roof of the first story porch, being a later addition constructed in 1917. This balcony is sheltered by a pedimented gable roof with the same supports as the first story porch and is enclosed by a wood balustrade with turned balusters.

This property is located on the north side of Mill Swamp Road between Proctors Bridge Road and the end of Jones Town Drive with the crossroads community of Sycamore Crossroads. The landscape in the general vicinity of the property is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields. Set back approximately 250 feet from the road, the house rests on a gently sloping grass lawn and is accessed by a long, gravel driveway. Vegetation surrounding the house includes rows of mature shade trees and some planted shrubs along the edges of the house, along with a garden in the backyard. Several domestic and agricultural outbuildings are clustered behind the house as well as a cemetery.

The Wilson Hollemon House was constructed in 1830 according to previous documentation and functioned as both the Holleman family home and the Mayfield Post Office. Mayfield was one of the earliest post offices in Isle of Wight County and was later replaced by the nearby Sycamore Crossroads Post Office. Wilson Hollemon was both the original owner of the home and the first postmaster at Mayfield (Kind 1993:328-330). The post office was discontinued circa 1886, however the house has been passed down through the generations of the Holleman family and presently remains owned by the family. Additionally, the house represents a remarkably well-preserved example of an early Georgian-style home predating the Civil War in Isle of Wight County, as it has undergone little alteration since its original construction. For its association with Wilson Hollemon and the Mayfield Post Office, as well as its standing as a significant example of historic architecture in Isle of Wight County, this resource will be considered ***potentially eligible for listing in the NRHP*** under Criteria A and C for the purposes of this effort.

As a potentially NRHP-eligible resource within the survey area, an assessment of potential impacts brought about by the project is necessary. Because the property is located outside of the project area and not within the limits of any proposed sitework, this assessment was focused on indirect (visual) impacts. To assess impacts, inspection was performed and photographs taken from representative vantage points within and bordering the property to document existing setting, visibility, and lines of sight.

The Wilson Hollemon House is set on a rural lot on the north side Mill Swamp Road to the east of the project area. Although the rear edge of the property is adjacent to the project limits, the home is set closer to the front of the property and is roughly 515 feet from the project area limits at the nearest point with proposed improvements setback an additional 130 feet. The landscape between the property and the project area is characterized by open agricultural field with a treeline bordering a draw that runs along the edge of the project area.

Inspection from Mill Swamp Road along the front of the property revealed that the treeline extending between it and the project area generally screens views of the portion of the project area on the north side of the road. The treeline is a mix of deciduous trees and low evergreen shrubs, and at generally 250 feet wide, it is anticipated that it would provide screening year-round. The treeline stops short of the road, however, and therefore there is a narrow "window" in which the front edge of the project area along the road is visible, however, project improvements will be setback from the road by a minimum of 100 feet and as such would be mostly screened. While a large, wooded area screens views of the majority of the portion of the project area on the south side of the road, a narrow strip of the development area set between the road and the wooded area is visible.

As such, the project as currently designed has the potential to introduce a change to the viewshed and setting of the property. While the vast majority of the project and associated improvements are anticipated to be screened from view by existing vegetation patterns coupled with project setbacks, there are discrete areas where project components may be visible from the public road along the front of the property, as well as from within the property and in the vicinity of the house. To minimize the potential from views within these areas, supplemental landscape buffer will be planted within the 100-foot project setback. With the proposed setbacks and supplemental landscape buffer, it is D+A's recommendation that the project will be mostly screened from view

from the house and public vantage along the road to the front, and therefore result in no more than a ***minimal impact*** to the Wilson Hollemon House per VDHR's impact characterization.

Figure 8-2 illustrates the location of the Wilson Hollemon House in relation to the project area, along with array layout, setback, and proposed landscape buffer; as well as the location and direction of representative photographs. Figure 8-3 provides a detail pf the proposed supplemental landscape plan and plant list. Figure 8-4 through Figure 8-7 provide representative photographs of and from the resource towards the project area.

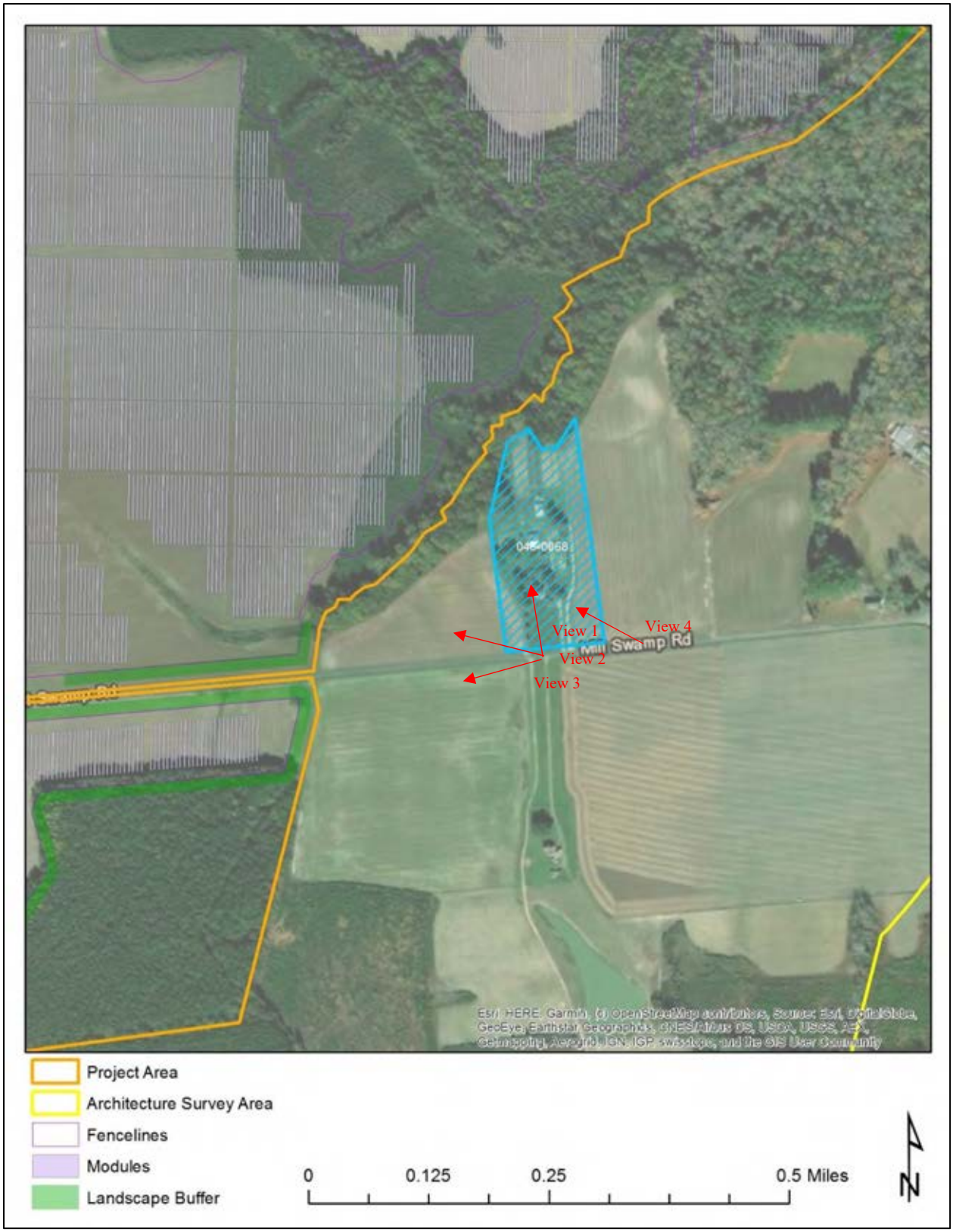
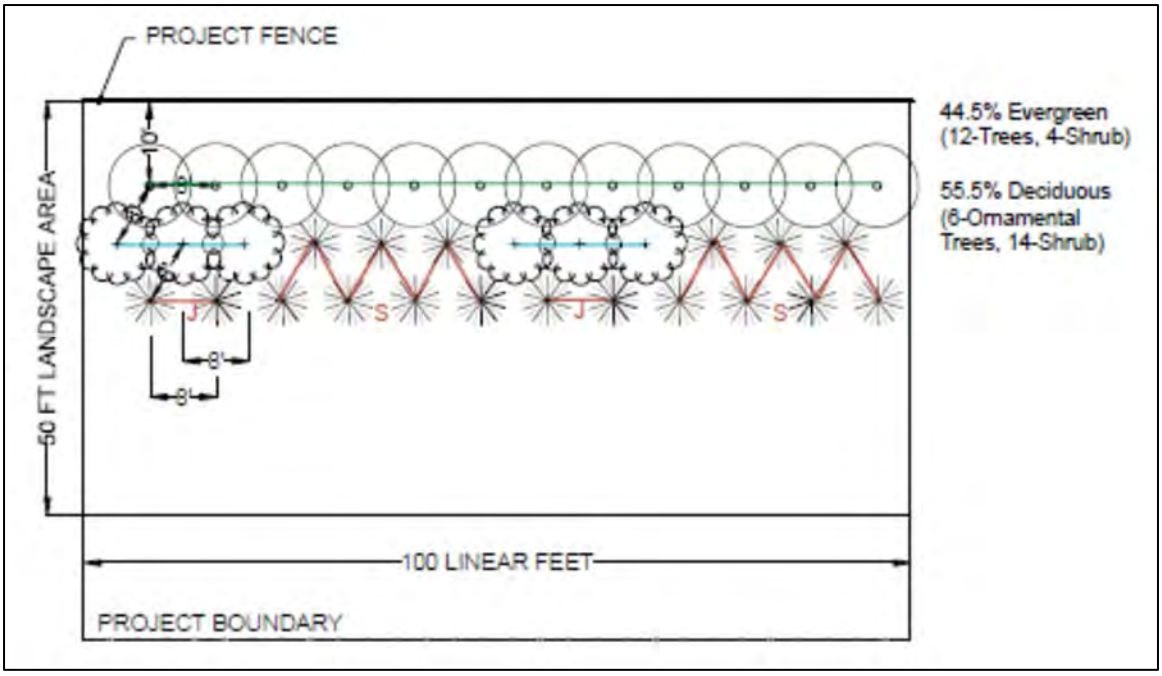



**Figure 8-2: Wilson Hollemon House in relation to the project area with locations and directions of representative photographs.**




| CONCEPT PLANT LIST | | | | |
|---|---|---|---|---|
| Botanical Name | Common Name | Height at Planting | Mature height | Mature Spread |
| EVERGREEN | | | | |
| Ilex X 'Conap' oakleaf | Red Holly/ Oakleaf Holly | 6 FT | 15 FT | 9 FT |
| Ilex X mary nell | Mary Nell Holly | 6 FT | 20 FT | 10 FT |
| Juniperus virginiana 'Brodie' | Eastern Red Cedar | 6 FT | 15 FT | 6 FT |
| Myrica cerifera | Southern Wax Myrtle | 6 FT | 15 FT | 20 FT |
| Thuja Occidentalis 'techny' | Eastern Arborvitae | 6 FT | 15 FT | 10 FT |
| ORNAMENTAL | | | | |
| Amelanchier canadensis | Shadblow serviceberry | 6 FT | 25 FT | 15 FT |
| Chionanthus virginicus | Fringetree | 6 FT | 20 FT | 20 FT |
| Magnolia Virginiana | Sweetbay Magnolia | 6 FT | 20 FT | 20 FT |
| SHRUB | | | | |
| Juniperus communis var. depressa | Juniper | 1.5 FT | 4 FT | 10 FT |
| Lindera benzion | Spicebush | 1.5 FT | 10 FT | 10 FT |

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SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

**Figure 8-3: Supplemental landscape planting schematic and plant list. Source: AES Clean Energy**

**Figure 8-4: View 1 – View from Mill Swamp Road in front of the Wilson Hollemon House looking towards the project area, facing north. (project area not visible – screened by treeline)**

**Figure 8-5: View 2 - View from Mill Swamp Road in front of the Wilson Hollemon House looking towards the project area, facing northwest. (project area mostly screened by treeline; small area visible)**

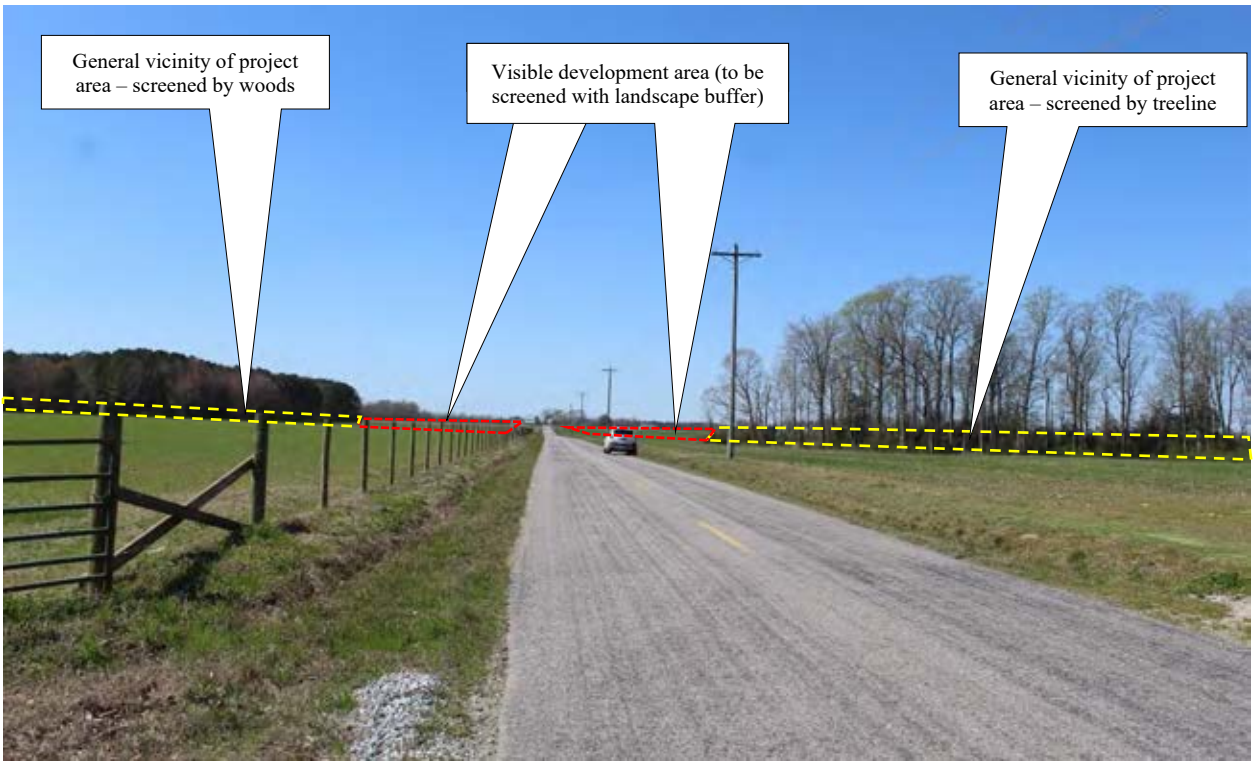



**Figure 8-6: View 3 - View from Mill Swamp Road in front of the Wilson Hollemon House looking towards the project area, facing west. (project area mostly screened with exception of portions near the road that are visible)**

**Figure 8-7: View 4 - View from Mill Swamp Road east of the Wilson Hollemon House looking towards the project area, facing northwest. (project area not visible – screened by treeline)**

**VDHR# 046-5147**
**House, 14385 Rattlesnake Trail**

The house at 14385 Rattlesnake Trail was constructed in 1850 according to local land records. It remains in fair condition and exhibits a Vernacular style. The wood frame structure is comprised of a two-and-a-half-story, three-bay main block with a two-story, two-bay wing on its east side. Both blocks are sheathed in asbestos siding and topped by a gable roof sheathed in standing seam metal. The roof of the primary block is pierced by a brick interior end chimney on its west side and embellished with gable returns. Fenestration on the structure includes four-over-four double-hung sash windows on the main block and six-over-six double-hung sash windows on the west wing. The primary entrance is located on the left side of the front (north) elevation on the main block and consists of a set of double-leaf doors flanked by sidelights. Sheltering the entrance is a one-story, one-bay entry porch with a shed roof supported by metal posts.

This property is located on the southeast side of Rattlesnake Trail adjacent to its intersection with Ramsey Road. The landscape within and around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The house is set far back from the road at the center of a large agricultural field and is accessed by a long, gravel driveway that extends from the road to the south side of the lot. Vegetation surrounding the house includes several mature shade trees as well as rows of boxwoods along the edges of the structure. Parts of the lot are divided by wood and wire fencing, ponds, and thickets of trees. Several domestic and agricultural outbuildings are scattered in the fields to the north, south, and east of the house.

This property is an example of a typical mid-nineteenth century rural home in the region. This building reflects a Vernacular style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and has been subject to a variety of additions and alterations. Reconnaissance-level research revealed no

known significant historical associations and therefore the property is considered ***not eligible*** for listing in the NRHP.

**VDHR# 046-5148**
**House, 13407 Ramsey Road**

The house at 13407 Ramsey Road was constructed in 1880 according to local land records. It remains in poor condition and exhibits Colonial Revival style influences as applied to an I-house form. The two-story, three-bay wood frame structure rests on a continuous brick foundation laid in an American bond and is topped by side gable roof sheathed in asphalt shingles. The roof is pierced by two brick interior central chimneys at its ridge and is embellished with pedimented gable ends. A two-story rear ell topped by a gable roof is attached to the east side of the structure and features a third brick interior central chimney. Piercing the weatherboard siding are six-over-six double-hung sash windows. The primary entrance is centered on the symmetrical front (west) elevation, consisting of a single door with a transom and sidelights. Sheltering the entrance is a two-story, one-bay porch featuring a pedimented gable, square Doric columns, and wood balustrades. A door on the second story of the house leads to the second story balcony.

This property is located on the northeast corner of Ramsey Road and Rattlesnake Trail. The landscape within and around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields. The house is set far back from the road at the center of a wide, open agricultural field. The homesite is surrounded by a wood fence with brick entry posts and vegetated with several mature shade trees and a substantial amount of overgrown shrubbery. The property is accessed by two long, gravel driveways – one that extends from Ramsey Road to the front of the house and one that extends from Rattlesnake Trail to the outbuildings behind the house. Outbuildings on the property include a barn and a vehicle shed located behind the house.

This property is an example of a typical late nineteenth century single dwelling in the region. This building reflects a Colonial Revival style as applied to a Vernacular I-house form. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. Additionally, the structure remains in poor condition and appears to have been vacant for an extended period. Therefore, the resource is considered ***not eligible*** for listing in the NRHP..

**VDHR# 046-5149**
**Sycamore Cross Post Office, Mill Swamp Road**

The Sycamore Cross Post Office, located off of Mill Swamp Road, was constructed in 1899 according to a previous survey. It remains in fair condition and exhibits a vernacular style typical of contemporary rural commercial buildings in southeastern Virginia. The two-story wood frame structure rests on a brick pier foundation and is clad in weatherboard siding. It is topped by a gable roof sheathed in standing seam metal and embellished with gable returns. Extending from the east and west sides of the structure are two one-story, shed-roofed wings. Fenestration on the structure includes six-over-six double-hung sash windows, however few remain on the structure. The primary entrance consists of a single door centered on the symmetrical front (north) elevation and approached by a small, wood stoop.

The Sycamore Cross Post Office is located on the west side of Mill Swamp Road adjacent to its intersection with Proctors Bridge Road. The property is located in the small crossroads community of Sycamore Cross within an otherwise lightly developed area characterized by gently rolling topography and a mix of wooded areas and agricultural fields. The building is set close to the road on a flat, sparsely vegetated grass lawn with a short, chain fence extending along the road. The property is accessed by two short, gravel driveways off of Mill Swamp Road. The only outbuilding on the property is a shed located just south of the post office.

The Sycamore Cross Post Office opened in 1886 as McClelland's Post Office and operated until 1917 with William Henry (Harry) McClelland serving as its first postmaster. Harry McClelland operated the post office out of a store he ran in the yard of the neighboring home, known as the Guy Betts House. The post office was discontinued in 1917 and the mail rerouted to Ivor (King 1993:331). This resource represents a well-preserved example of an early post office in Isle of Wight County and warrants further investigation to determine the extent of its significance within the local community. As such, this property is considered ***potentially eligible for listing in the NRHP***.

As a potentially NRHP-eligible resource within the survey area, an assessment of potential impacts brought about by the project is necessary. Because the property is located directly within the project area, this assessment considered both direct and indirect impacts. To assess impacts, inspection was performed and photographs taken from representative vantage points within and bordering the property to document existing setting, visibility, and lines of sight.

The Sycamore Cross Post Office is situated on a small roadside lot on the west side of Sycamore Cross Road, just across from the intersection with Mill Swamp Road. The entire property is located within the project lease area, however, it is situated within a proposed exclusion area. As such, solar arrays, infrastructure, and other improvements will be made around the resource boundary, although the building and its associated property will be excluded from the development footprint. Therefore, there will be no direct impact to the resource.

As solar arrays will be spread through the area adjoining and bordering the resource, the project also has the potential for indirect, visual impacts to the resource. Project improvements are proposed within the landscape bordering the property to the west, as well as across Sycamore Cross Road on both sides of Mill Swamp Road. In all areas, the fenceline and solar arrays will be setback a minimum of 75 feet from the roads with larger setbacks in some areas. With these setbacks, the project fenceline will be roughly 150 feet from the post office building at the nearest point.

Inspection from the vicinity of the property revealed that the project area and development areas are generally openly visible across open field in all directions. With setbacks and exclusion areas the several other historic buildings that remain within the Sycamore Crossroads community, including the c.1852 dwelling associated with the post office immediately to the north, the c.1850 Betts Farm house, and the c.1825 Brick House ruins will all remain visible from the post office, however, would be seen amongst and bordered by solar arrays. To minimize visibility of the project, supplemental landscape buffers will be planted along portions of the road frontage in the vicinity of the property, as well as within the setback area between the project fenceline and the building complex.

As such, the project as currently proposed would result in a change to the viewshed and setting of and from the property as a result of the introduction of visible solar arrays, however, the visible extent of the project would be reduced through supplemental landscape buffer. Therefore, it is D+A's opinion that because the building and property will be excluded the project will have no direct impact on the resource, but as it will be visible in some directions, the Sycamore Cross Solar Project has the potential to result in a ***moderate impact*** overall to the Sycamore Cross Post Office per VDHR's impact characterization.

Figure 8-8 illustrates the location of the Sycamore Cross Post Office in relation to the project area, along with array layout, setback, and proposed landscape buffer; as well as the location and direction of representative photographs. Figure 8-9 provides a detail pf the proposed supplemental landscape plan and plant list. Figure 8-10 through Figure 8-13 provide representative photographs of and from the resource towards the project area.

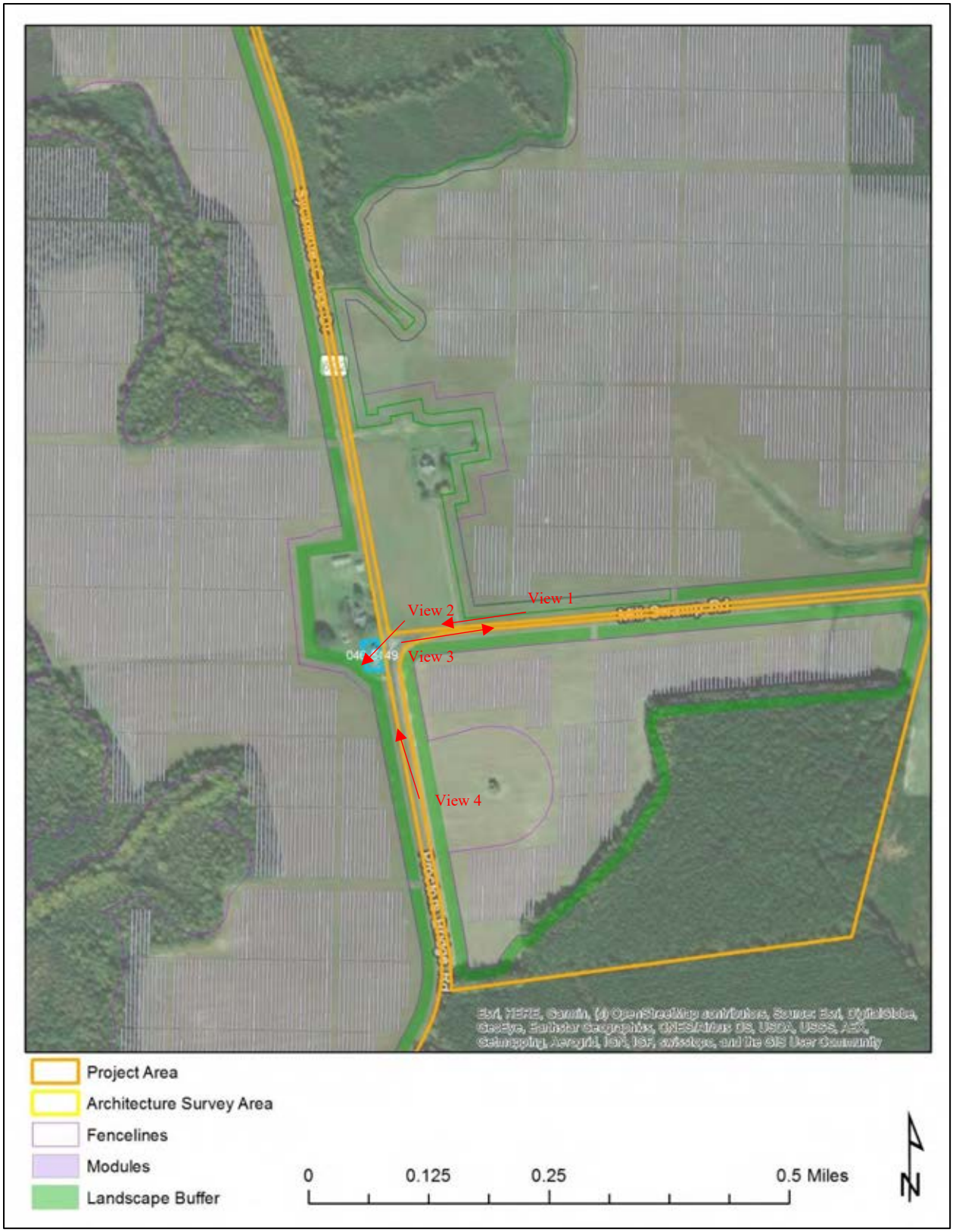
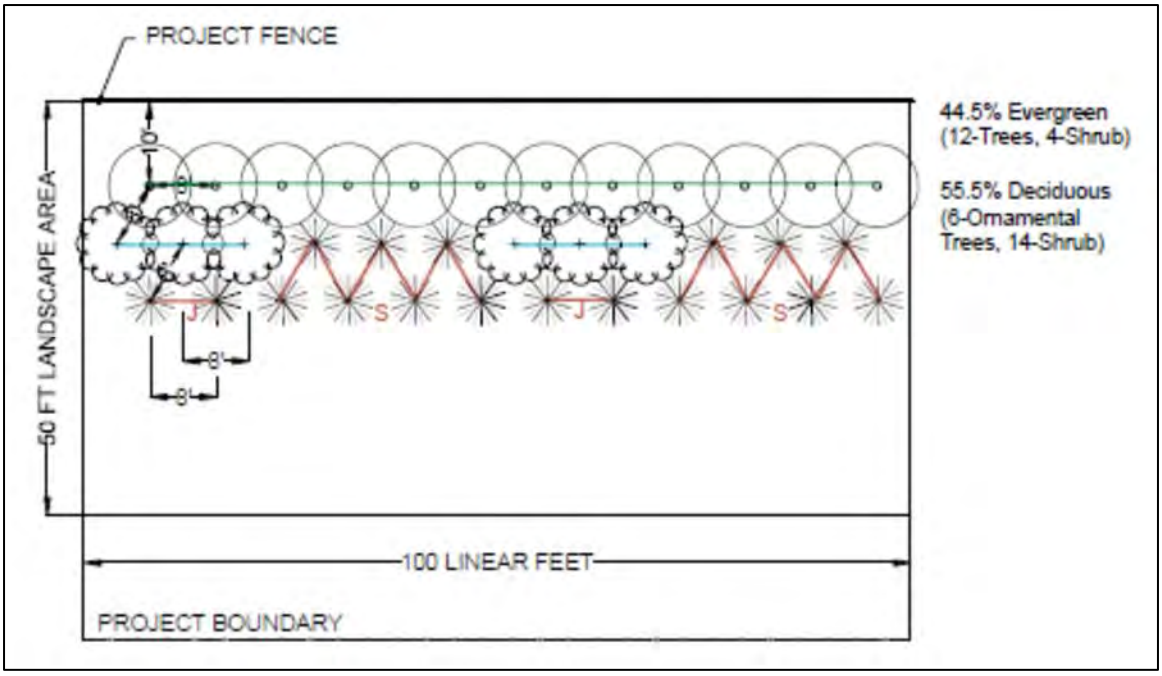



**Figure 8-8: Sycamore Cross Post Office in relation to the project area with locations and directions of representative photographs.**




| CONCEPT PLANT LIST | | | | |
|---|---|---|---|---|
| Botanical Name | Common Name | Height at Planting | Mature height | Mature Spread |
| EVERGREEN | | | | |
| Ilex X 'Conap' oakleaf | Red Holly/ Oakleaf Holly | 6 FT | 15 FT | 9 FT |
| Ilex X mary nell | Mary Nell Holly | 6 FT | 20 FT | 10 FT |
| Juniperus virginiana 'Brodie' | Eastern Red Cedar | 6 FT | 15 FT | 6 FT |
| Myrica cerifera | Southern Wax Myrtle | 6 FT | 15 FT | 20 FT |
| Thuja Occidentalis 'techny' | Eastern Arborvitae | 6 FT | 15 FT | 10 FT |
| ORNAMENTAL | | | | |
| Amelanchier canadensis | Shadblow serviceberry | 6 FT | 25 FT | 15 FT |
| Chionanthus virginicus | Fringetree | 6 FT | 20 FT | 20 FT |
| Magnolia Virginiana | Sweetbay Magnolia | 6 FT | 20 FT | 20 FT |
| SHRUB | | | | |
| Juniperus communis var. depressa | Juniper | 1.5 FT | 4 FT | 10 FT |
| Lindera benzion | Spicebush | 1.5 FT | 10 FT | 10 FT |

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SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

**Figure 8-9: Supplemental landscape planting schematic and plant list. Source: AES Clean Energy**

**Figure 8-10: View 1 – View of Sycamore Cross Post Office from Mill Swamp Road, facing west. (Development area visible along road in foreground and beyond property)**

**Figure 8-11: View 2 - View of Sycamore Cross Post Office from intersection of Sycamore Cross and Mill Swamp Roads, facing southwest. (Development area visible in field beyond property)**

**Figure 8-12: View 3 - View from Sycamore Cross Post Office, facing east. (Development area visible along both sides of Mill Swamp Road)**

**Figure 8-13: View 4 - View of Sycamore Cross Post Office from Sycamore Cross Road, facing north. (Development area visible along both sides of road)**

**VDHR# 046-5150**
**House, 11356 Sycamore Cross Drive**

The house at 11356 Sycamore Cross Drive was likely constructed circa 1899, contemporary to the adjacent Sycamore Cross Post Office with which it was historically associated. It remains in good condition and exhibits Folk Victorian style influences. The two-story, L-shaped building is comprised of a three-bay I-house front block topped by a side gable roof with a rear ell topped by a cross gable. The wood frame structure rests on a continuous foundation and is clad in vinyl siding. The roof is sheathed in asphalt shingles and pierced by a brick interior central chimney and two brick interior end chimneys, as well as a small, central cross gable on its front slope. Fenestration on the structure includes single and paired two-over-two double-hung sash windows. The primary entrance is centered on the symmetrical front (south) elevation and consists of a single door topped by a transom. Sheltering the entrance is a one-story hipped porch that wraps around the east side of the house and is supported by Doric columns.

This house is located on a large, rural lot on the west side of Sycamore Cross Drive adjacent to its intersection with Mill Swamp Road. The property is located in the small crossroads community of Sycamore Cross within an otherwise lightly developed area characterized by gently rolling topography and a mix of wooded areas and agricultural fields. Set back roughly 60 feet from the road, the house rests on a flat grass lawn enclosed by a wood fence and vegetated with several mature shade trees and clusters of planted boxwoods. The property is accessed by a short, gravel driveway that extends from the road to a detached garage. Outbuildings on the property include the garage, a gazebo, a shed, and several agricultural outbuildings.

This property represents an example of a well-preserved rural home featuring a Folk Victorian style. Although the original owner of the property is unknown, historical writings refer to the home as the “Guy Betts House” and thus likely belonged to the Betts family, whose name appears on mid-nineteenth century maps within and in the general vicinity of the project area. Additionally, it appears that this property was historically associated with a neighboring property that functioned

as an early store and post office servicing the Sycamore Crossroads community. As such, this property warrants further study to determine the extent of its significance and is therefore considered ***potentially eligible for listing in the NRHP*** for the purposes of this effort.

As a potentially NRHP-eligible resource within the survey area, an assessment of potential impacts brought about by the project is necessary. Because the property is located directly within the project area, this assessment considered both direct and indirect impacts. To assess impacts, inspection was performed and photographs taken from representative vantage points within and bordering the property to document existing setting, visibility, and lines of sight.

The house is situated on a small roadside lot on the west side of Sycamore Cross Road, just across from the intersection with Mill Swamp Road. The entire property is located within the project lease area, however, it is situated within a proposed exclusion area. As such, solar arrays, infrastructure, and other improvements will be made around the resource boundary, although the building and its associated property will be excluded from the development footprint. Therefore, there will be no direct impact to the resource.

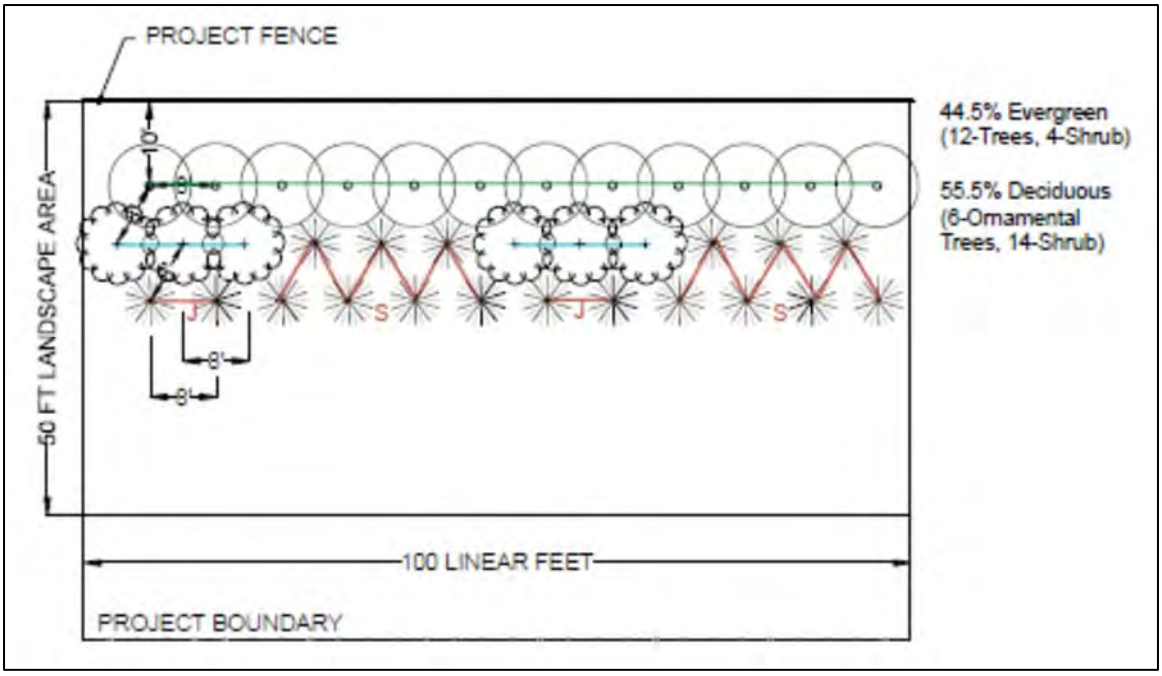
As solar arrays will be spread through the area adjoining and bordering the resource, the project also has the potential for indirect, visual impacts to the resource. Project improvements are proposed within the landscape bordering the property to the west, as well as across Sycamore Cross Road on both sides of Mill Swamp Road. In all areas, the fenceline and solar arrays will be setback a minimum of 75 feet from the roads with larger setbacks in some areas. With these setbacks, the project fenceline will be roughly 275 feet from the house at the nearest point.

Inspection from the vicinity of the property revealed that the project area and development areas are generally openly visible across open field in all directions. With setbacks and exclusion areas the several other historic buildings that remain within the Sycamore Crossroads community, including the c.1899 Sycamore Cross Post Office immediately to the south, the c.1850 Betts Farm house, and the c.1825 Brick House ruins will all remain visible from the Guy Betts House, however, would be seen amongst and bordered by solar arrays. To minimize visibility of the project, supplemental landscape buffers will be planted along portions of the road frontage in the vicinity of the property, as well as within the setback area between the project fenceline and the building complex.

As such, the project as currently proposed would result in a change to the viewshed and setting of and from the property as a result of the introduction of visible solar arrays, however, the visible extent of the project would be reduced through supplemental landscape buffer. Therefore, it is D+A's opinion that because the building and property will be excluded the project will have no direct impact on the resource, but as it will be visible in some directions, the Sycamore Cross Solar Project has the potential to result in a ***moderate impact*** overall to the house at 11356 Sycamore Cross Drive per VDHR's impact characterization.

Figure 8-14 illustrates the location of the house in relation to the project area, along with array layout, setback, and proposed landscape buffer; as well as the location and direction of representative photographs. Figure 8-15 provides a detail pf the proposed supplemental landscape plan and plant list. Figure 8-16 through Figure 8-21 provide representative photographs of and from the resource towards the project area.

**Figure 8-14: House at 11356 Sycamore Cross Drive in relation to the project area with locations and directions of representative photographs.**




| CONCEPT PLANT LIST | | | | |
|---|---|---|---|---|
| Botanical Name | Common Name | Height at Planting | Mature height | Mature Spread |
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| Ilex X 'Conap' oakleaf | Red Holly/ Oakleaf Holly | 6 FT | 15 FT | 9 FT |
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| Juniperus virginiana 'Brodie' | Eastern Red Cedar | 6 FT | 15 FT | 6 FT |
| Myrica cerifera | Southern Wax Myrtle | 6 FT | 15 FT | 20 FT |
| Thuja Occidentalis 'techny' | Eastern Arborvitae | 6 FT | 15 FT | 10 FT |
| ORNAMENTAL | | | | |
| Amelanchier canadensis | Shadblow serviceberry | 6 FT | 25 FT | 15 FT |
| Chionanthus virginicus | Fringetree | 6 FT | 20 FT | 20 FT |
| Magnolia Virginiana | Sweetbay Magnolia | 6 FT | 20 FT | 20 FT |
| SHRUB | | | | |
| Juniperus communis var. depressa | Juniper | 1.5 FT | 4 FT | 10 FT |
| Lindera benzion | Spicebush | 1.5 FT | 10 FT | 10 FT |

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SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

**Figure 8-15: Supplemental landscape planting schematic and plant list. Source: AES Clean Energy**

**Figure 8-16: View 1 – View of House at 11356 Sycamore Cross Drive from Mill Swamp Road, facing west. (Development area visible along road in foreground and beyond property)**

**Figure 8-17: View 2 - View of House at 11356 Sycamore Cross Drive from intersection of Sycamore Cross and Mill Swamp Roads, facing northwest. (Development area visible in field beyond property)**

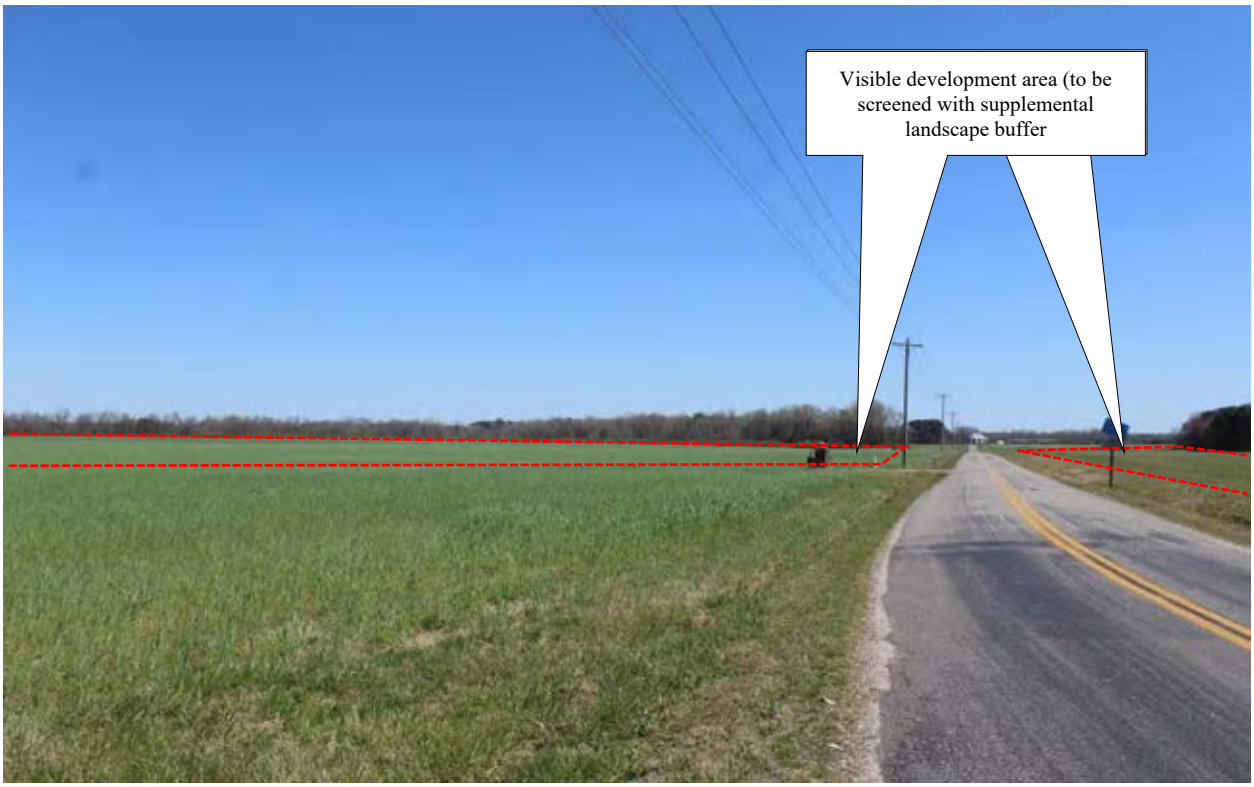



**Figure 8-18: View 3 - View from House at 11356 Sycamore Cross Drive, facing east. (Development area visible along both sides of Mill Swamp Road)**

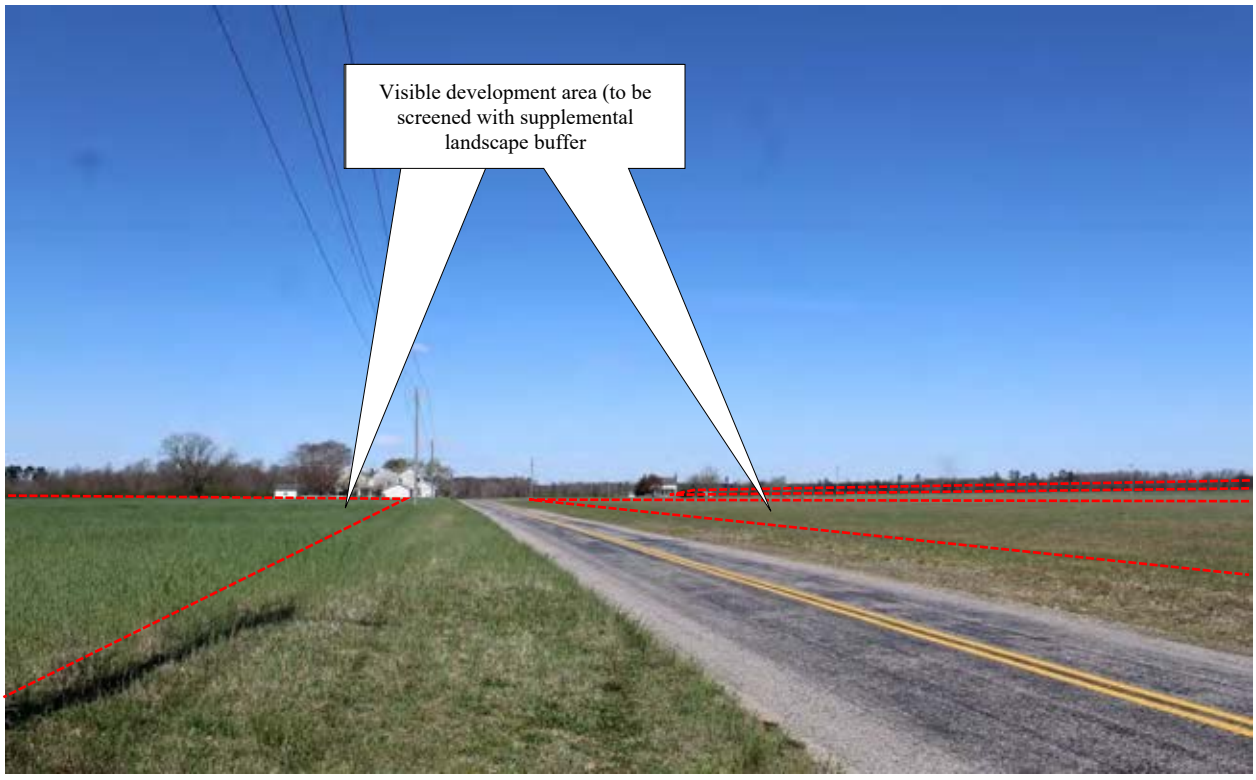



**Figure 8-19: View 4 - View towards House at 11356 Sycamore Cross Drive from Sycamore Cross Road, facing north. (Development area visible along both sides of road)**

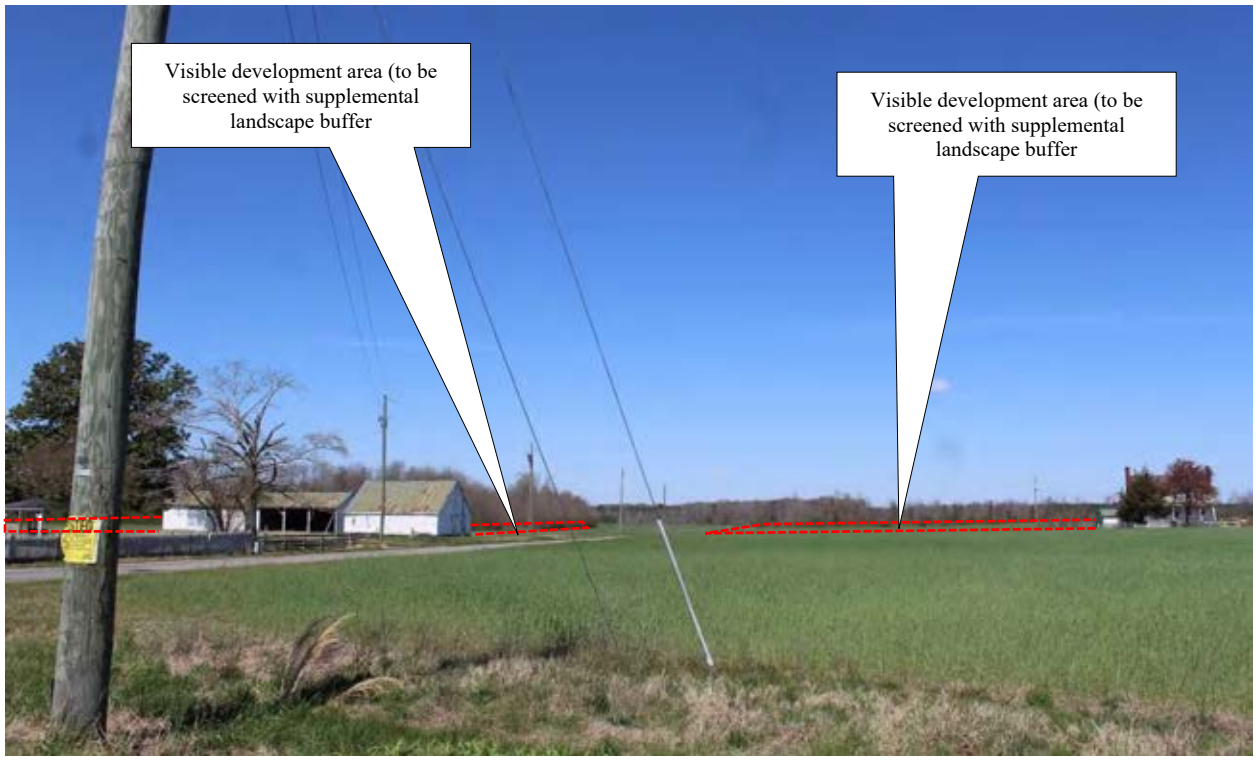



**Figure 8-20: View 5 - View from Mill Swamp Road near the House at 11356 Sycamore Cross Drive, facing northwest. (Development area visible along both sides of Sycamore Cross Road)**

**Figure 8-21: View 6 - View of the House at 11356 Sycamore Cross Drive property from Sycamore Cross Road, facing south. (Development area visible in field bordering the property)**

**VDHR# 046-5151**
**Mill Swamp Baptist Church & Cemetery, 6329 Mill Swamp Road**

Mill Swamp Baptist Church, located at 6329 Mill Swamp Road, was constructed in 1928 according to a previous survey. It remains in good condition and exhibits Colonial Revival style influences. The structure is comprised of a one-story main block topped by a front gable roof with a one-story, T-shaped rear addition topped by a metal-sheathed cross gable roof. The front block rests on a continuous concrete foundation and is clad in a brick veneer. Its roof is sheathed in asphalt shingles and embellished with modillions lining its pedimented gable. Piercing the roof of the primary block is a tall steeple near the front of the structure. Fenestration on the structure includes large stained glass windows on the main block and one-over-one double-hung sash windows on the rear addition. Three entrances are located on the front (south) elevation of the main block, each consisting of a pair of double-leaf, partially-glazed doors topped with a multi-light transom. Sheltering these entrances is a three-bay portico with a pedimented gable supported by fluted Doric columns and approached by a wide set of concrete steps.

This church is located on a rural property on the northwest corner of Mill Swamp Road and White Hill Trail. Around the property, the landscape is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The church is set close to the road at the top of a slight knoll and is surrounded by a large, paved parking lot accessed via driveways off of both Mill Swamp Road and White Hill Trail. Vegetation on the property is limited to sparse landscaping around the church and several mature trees shading the cemetery. To the north and west of the property is a densely forested area. There are no associated structures remaining on the property, however a large cemetery associated with the church is located to its southwest.

This property is an example of a typical early twentieth century church in the region. This building reflects a Colonial Revival style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-

level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5152**
**Store, 6159 Jones Town Road**

The store at 6159 Jones Town Road was constructed in 1946 according to local land records. It remains in poor condition and exhibits a Vernacular style. The one-story, three-bay wood frame structure rests on a continuous concrete block foundation and is clad in vinyl siding. It is topped by a hipped roof sheathed in standing seam metal and pierced by a concrete block interior end chimney. The roof extends past the front elevation creating a porch on the front of the structure supported by wood posts resting on concrete piers. Fenestration on the structure includes one-over-two double-hung sash windows. The primary entrance consists of a single door centered on the symmetrical front (south) elevation.

This structure is located on the northwest side of Mill Swamp Road adjacent to its intersection with Jones Town Drive in a rural portion of Isle of Wight County. The landscape around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The structure is set close to the road and is surrounded by overgrown trees and scrub brush that partially obscures it from view. No outbuildings were observed on the property.

This property is an example of a typical mid-twentieth century rural commercial building in the region. This building reflects a Vernacular style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The

building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5260**
**Mill Swamp Baptist Church Parsonage, 6330 Mill Swamp Road**

The house at 6330 Mill Swamp Road was constructed circa 1900 and historically functioned as the parsonage of the adjacent Mill Swamp Baptist Church according to a previous survey. This structure was previously recorded as a two-story wood frame structure with weatherboard siding and a side gable roof flanked by brick exterior end chimneys. A site visit, coupled with inspection of historic aerial imagery, reveals that this structure has been demolished and removed from the site.

The site of the demolished resource is located on the southeast side of Mill Swamp Road adjacent to its intersection with White Hill Trail. The landscape around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The only remaining structures on the property are a concrete block wellhouse and a garage.

As the primary resource is no longer extant, this resource is considered ***not eligible*** for listing in the NRHP.

**VDHR# 046-5804**
**House, 10325 White Hill Trail**

The house at 10325 White Hill Trail was constructed in 1953 according to local land records. It remains in poor condition and exhibits a Craftsman style. The one-and-a-half-story wood frame structure rests on a continuous foundation clad in a brick veneer and topped by a side gable roof sheathed in asphalt shingles. Piercing the roof is a brick interior central chimney at its ridge as well as a large, gabled dormer on its front slope. The structure is clad in vinyl siding and features six-over-six double-hung sash windows. A one-story screened-in porch supported by square wood posts resting on brick piers spans the full width of the front (west) elevation.

This house is located on a large, rural lot on the east side of White Hill Trail northwest of its intersection with Mill Swamp Road. Around the property, the landscape is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The house is set far back roughly 110 feet from the road on a flat grass lawn vegetated with overgrown trees and scrub brush that partially obscures the structure from view. There are no remaining formal access points on the property. The only outbuilding on the property is a small, dilapidated shed set behind the house.

This property is an example of a typical mid-twentieth century single dwelling in the region. This building reflects a Craftsman style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5805**
**House, 10261 White Hill Trail**

The house at 10261 White Hill Trail was constructed in 1972 according to local land records. It remains in good condition and exhibits a Ranch style. The one-story masonry structure rests on a continuous foundation and is clad in a brick veneer. It is topped by a hipped roof sheathed in asphalt shingles and pierced by a brick interior slope chimney. Fenestration on the structure includes single and paired two-over-two double-hung sash windows as well as a picture window to the left of the entrance. The primary entrance consists of a single door on the front (west) elevation sheltered by the slightly overhanging eaves of the roof and approached by a small brick stoop. The eaves of the roof extend beyond the southwest corner of the structure creating an attached carport.

This house is located on the east side of White Hill Trail northwest of its intersection with Mill Swamp Road. Around the property, the landscape is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. Set close to the road, the house rests on a grass lawn vegetated with several mature evergreen trees and scattered boxwoods. The property is accessed by a paved driveway that extends from the road to the attached carport. The only outbuilding on the property is a small, prefabricated shed located just off the southeast corner of the house.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects a Ranch style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5806**
**House, 6262 Mill Swamp Road**

The house at 6262 Mill Swamp Road was constructed in 1955 according to local land records. It remains in good condition and exhibits a Ranch style. The one-story masonry structure is clad in a brick veneer and topped by a hipped roof sheathed in asphalt shingles. Piercing the roof are two brick interior central chimneys and a single brick interior end chimney at the rear of the structure. Fenestration on the structure includes single and paired six-over-six double-hung sash windows as well as a large picture window to the left of the front entrance. The primary entrance consists of a single door slightly recessed beneath the eaves of the roof on the front (northwest) elevation.

This house is located on the southeast side of Mill Swamp Road just south of its intersection with White Hill Trail. The landscape around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The house is set far back from the road on a grass lawn surrounded by a wood fence. Vegetation on the property includes a variety of shade trees as well as rows of boxwoods along the edges of the house. The property is accessed by a long, unpaved driveway that extends past the side of the house to the detached garage. Outbuildings on the property include the garage as well as a shed located behind the house.

This property is an example of a typical mid-twentieth century single dwelling in the region. This building reflects a Ranch style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5807**
**Industrial Complex, 11321 Jones Town Drive**

The industrial complex at 11321 Jones Town Drive was constructed in 1959 according to local land records. It remains in fair condition and exhibits no discernable style. This complex is comprised of a tall granary surrounded by several large grain silos and a large, adjacent metal barn. Each component of the complex is a metal frame structure clad in metal siding with a metal-sheathed roof. The barn is topped by a gable roof and the silos are topped by conical roofs.

This complex is located on the southeast corner of Jones Town Drive and Mill Swamp Road. Around the property, the landscape is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. The complex is set close to the road at the edge of an open agricultural field and accessed by a short, gravel driveway. Other structures on the property include an office building and a large vehicle shed.

This property is an example of a typical mid-twentieth century commercial granary within a rural setting in the region. The structures reflect no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The structure is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5808**
**House, 6177 Mill Swamp Road**

The house at 6177 Mill Swamp Road was constructed in 1968 according to local land records. It remains in poor condition and exhibits no discernable style. The one-story wood frame structure rests on a continuous concrete block foundation and is clad in asbestos siding. It is topped by a side gable roof sheathed in asphalt shingles and pierced by a concrete block interior chimney on its front slope. Fenestration on the structure includes one-over-one double-hung sash windows as well as a large, fixed window to the left of the front entrance. The primary entrance consists of a single door on the front (southeast) elevation approached by a small concrete stoop.

This house is located on the northwest side of Mill Swamp Road adjacent to its intersection with Jones Town Drive in a rural portion of Isle of Wight County. The landscape around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. Set back roughly 50 feet from the road, the house rests at the top of a berm extending along the road and is surrounded by overgrown trees and shrubbery. Outbuildings on the property include three sheds, a wellhouse, and a vehicle shed.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5809**
**Commercial Building, 6143 Mill Swamp Road**

The commercial building at 6143 Mill Swamp Road remains in fair condition and exhibits no discernable style. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this building was constructed circa 1970. The one-story. L-shaped concrete block structure rests on a continuous concrete block foundation and is topped by a cross gable roof with overhanging eaves and exposed rafters. The roof is sheathed in asphalt shingles and pierced by a brick interior central chimney. Fenestration on the structure includes one-over-one and six-over-six double-hung sash windows. Other bays on the structure include wide loading docks and a single pedestrian entrance on its south elevation.

This structure is located on the northwest side of Mill Swamp Road adjacent to its intersection with Jones Town Drive in a rural portion of Isle of Wight County. The landscape around the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. Set close to the road, the building rests on a flat, sparsely vegetated grass lawn. No associated structures or other resources were observed on the property.

This property is an example of a typical late twentieth century commercial building in the region. This building reflects no discernable style with little architectural distinction, and based upon its form, likely functioned as an automotive shop. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5810**
**House, 5498 Mill Swamp Road**

The house at 5498 Mill Swamp Road was constructed in 1899 according to local land records. It remains in good condition and exhibits Folk Victorian style influences as applied to an expanded I-house form. The wood frame structure is comprised of a two-and-a-half-story, five-bay front block topped by a side gable roof with a two-story rear ell and a one-and-a-half-story wing on its east elevation. The entire structure is clad in vinyl siding and both roofs are sheathed in asphalt shingles. Piercing the roof are two brick interior central chimneys and one brick interior end chimney, as well as a small cross gable centered on the front slope of the front roof. Fenestration on the structure includes single and paired two-over-one double-hung sash windows. The primary entrance is centered on the symmetrical front (north) elevation and consists of a single door with sidelights and a transom. Sheltering the entrance is a one-story, full-width hipped porch supported by Doric columns.

This house is set on a large, rural lot on the south side of Mill Swamp Road between Proctors Bridge Road and Jones Town Drive. The property is located in the small crossroads community of Sycamore Cross within an otherwise lightly developed area characterized by gently rolling topography and a mix of wooded areas and agricultural fields. Set far back from the road, the homesite is located at the center of an expansive agricultural field on a grass lawn vegetated only with sparse scattered shrubbery and a single mature shade tree. The property is enclosed by a wire fence extending along Mill Swamp Road and Jones Town Drive and is accessed via a long, gravel driveway that extends from the road directly to the house. Outbuildings on the property include a garage and two sheds set directly behind the house and a barn set along the east edge of the lot.

This property is an example of a typical late nineteenth century commercial building in the region. This building reflects a Folk Victorian style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and

reconnaissance-level research revealed no known significant historical associations. Additionally, any historically significant architectural features have been obscured by modern alteration. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5811**
**Betts Farm, 5191 Mill Swamp Road**

The house at 5191 Mill Swamp Road, known locally as the Betts Farm, was constructed in 1850 according to local land records. It remains in fair condition and exhibits a Federal style as applied to an expanded I-house form. The T-shaped building is comprised of a two-and-a-half-story, five-bay front block topped by a side gable roof with a two-story rear ell and one-story wing attached to the ell, both topped by gable roofs. The wood frame structure rests on a continuous brick foundation and is clad in weatherboard siding. The roofs are sheathed in asphalt shingles and embellished with modillions, gable returns, and cornice skirts. A brick interior end chimney pierces the roof of the rear ell, while two brick exterior end chimneys featuring brick corbelling flank the side of the front block. Fenestration on the structure includes nine-over-nine double-hung sash windows on the first story and six-over-nine double-hung sash windows on the second story. The primary entrance is centered on the symmetrical front (south) elevation and consists of a single door with sidelights and a transom. Sheltering the entrance is a one-story, full-width hipped porch supported by Doric columns and accessed by a small set of concrete steps.

This house is located on a rural lot on the northeast corner of Mill Swamp Road and Proctors Bridge Road. The property is located in the small crossroads community of Sycamore Cross within an otherwise lightly developed area characterized by gently rolling topography and a mix of wooded areas and agricultural fields. The homesite is set far back from the road within a wide, open agricultural field and is enclosed by a wood fence. Vegetation immediately surrounding the house includes scattered shrubs and bushes, as well as a few mature shade trees. The property is

accessed by a long gravel driveway that loops around the house. Outbuildings on the property include a well and shed, a garage, and a domestic outbuilding that appears to have historically functioned as a kitchen or quarters.

This house, referred to locally as the "Betts Farm," represents a rare, well-preserved example of a relatively high-style Federal to Greek Revival transitional style home dating to the mid-nineteenth century within a rural setting in the region. In addition to the primary dwelling, several contemporary outbuildings also remain extant on the property. While reconnaissance-level research did not reveal any notable historical associations, the property warrants further investigation as a rare surviving example of antebellum rural high-style architecture in Isle of Wight County and is therefore considered ***potentially eligible for listing in the NRHP*** for the purposes of this effort.

As a potentially NRHP-eligible resource within the survey area, an assessment of potential impacts brought about by the project is necessary. Because the property is located directly within the project area, this assessment considered both direct and indirect impacts. To assess impacts, inspection was performed and photographs taken from representative vantage points within and bordering the property to document existing setting, visibility, and lines of sight.

The house is situated on a small rural lot that has been partitioned off a larger property occupying the northeast corner of the intersection of Mill Swamp and Sycamore Cross roads. While the home lot and large rural property bordering it is located within the project lease area, the home lot itself is situated within a proposed exclusion area. As such, solar arrays, infrastructure, and other improvements will be made around the resource boundary, but the building and its associated property tract will be excluded from the development footprint. Therefore, there will be no direct impact to the resource.

As solar arrays will be spread through the area adjoining and bordering the resource, the project also has the potential for indirect, visual impacts to the resource. Project improvements are proposed within the landscape adjacent to the property to the north and east, as well as across Sycamore Cross Road to the west and Mill Swamp Road to the south. In all areas, the fenceline and solar arrays will be setback a minimum of 75 feet from the roads and 115 feet from the property. With these setbacks, the project fenceline will be roughly 215 feet from the house at the nearest point.

Inspection from the vicinity of the property revealed that the project area and development areas are generally openly visible across open field in all directions. With setbacks and exclusion areas the several other historic buildings that remain within the Sycamore Cross community, including the c.1825 Brick House ruins across Mill Swamp Road and the c.1899 Sycamore Cross Post Office and house across Sycamore Cross Road will all remain visible from the Betts Farm, however, would be seen amongst and bordered by solar arrays. To minimize visibility of the project, supplemental landscape buffers will be planted along portions of the road frontage bordering the property.

As such, the project as currently proposed would result in a change to the viewshed and setting of and from the property as a result of the introduction of visible solar arrays. The visible extent of the project would be reduced through supplemental landscape buffer bordering the property,

however, the portions of the project located on the adjacent fields would remain visible. Therefore, it is D+A's recommendation that because the building and property will be excluded the project will have no direct impact on the resource, but as it will be visible in the bordering fields, the Sycamore Cross Solar Project will result in a ***moderate impact*** overall to the Betts Farm per VDHR's impact characterization.

Figure 8-22 illustrates the location of the Betts Farm in relation to the project area, along with array layout, setback, and proposed landscape buffer; as well as the location and direction of representative photographs. Figure 8-23 provides a detail pf the proposed supplemental landscape plan and plant list. Figure 8-24 through Figure 8-32 provide representative photographs of and from the resource towards the project area.

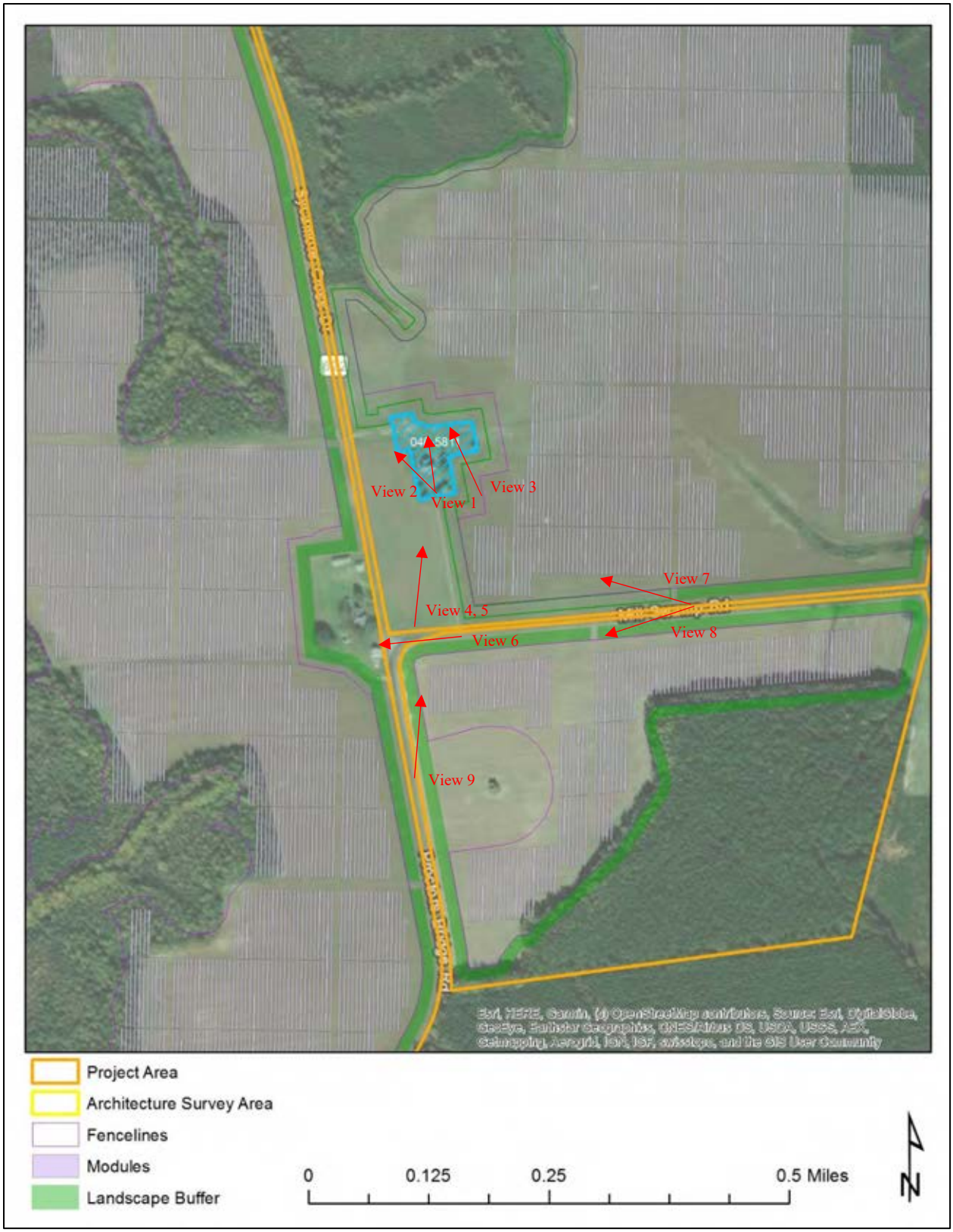
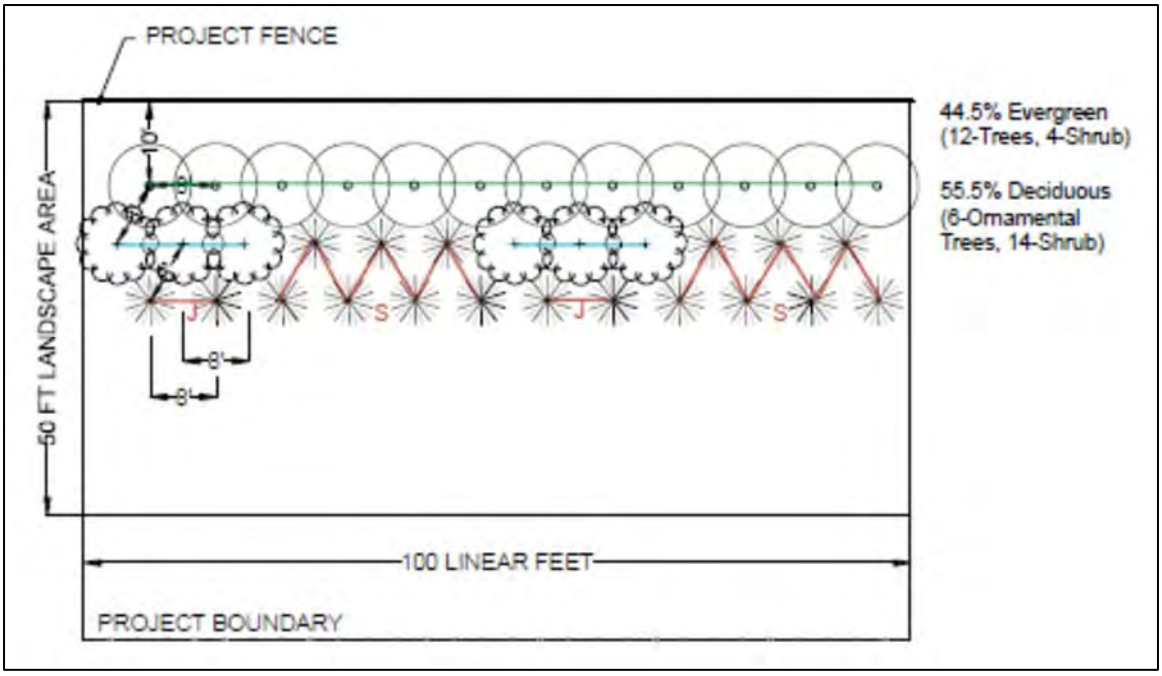



**Figure 8-22: Betts Farm in relation to the project area with locations and directions of representative photographs.**




| CONCEPT PLANT LIST | | | | |
|---|---|---|---|---|
| Botanical Name | Common Name | Height at Planting | Mature height | Mature Spread |
| EVERGREEN | | | | |
| Ilex X 'Conap' oakleaf | Red Holly/ Oakleaf Holly | 6 FT | 15 FT | 9 FT |
| Ilex X mary nell | Mary Nell Holly | 6 FT | 20 FT | 10 FT |
| Juniperus virginiana 'Brodie' | Eastern Red Cedar | 6 FT | 15 FT | 6 FT |
| Myrica cerifera | Southern Wax Myrtle | 6 FT | 15 FT | 20 FT |
| Thuja Occidentalis 'techny' | Eastern Arborvitae | 6 FT | 15 FT | 10 FT |
| ORNAMENTAL | | | | |
| Amelanchier canadensis | Shadblow serviceberry | 6 FT | 25 FT | 15 FT |
| Chionanthus virginicus | Fringetree | 6 FT | 20 FT | 20 FT |
| Magnolia Virginiana | Sweetbay Magnolia | 6 FT | 20 FT | 20 FT |
| SHRUB | | | | |
| Juniperus communis var. depressa | Juniper | 1.5 FT | 4 FT | 10 FT |
| Lindera benzion | Spicebush | 1.5 FT | 10 FT | 10 FT |

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SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

**Figure 8-23: Supplemental landscape planting schematic and plant list. Source: AES Clean Energy**

**Figure 8-24: View 1 - View of front of Betts Farm house, facing north. (Development area visible in field to rear)**

**Figure 8-25: View 2 - View from front of Betts Farm house, facing northwest. (Development area visible in field to rear)**

**Figure 8-26: View 3 - View from front of Betts Farm house, facing northwest. (Development area visible in field to rear)**

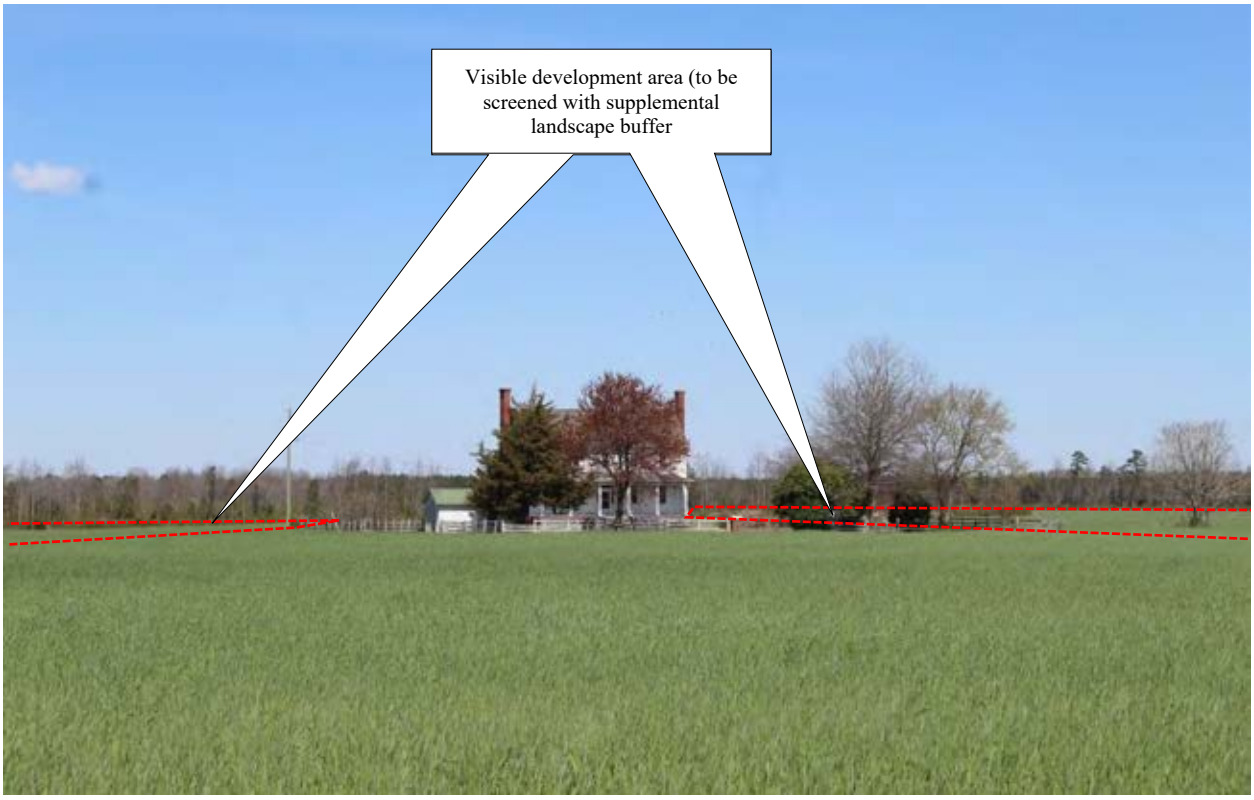



**Figure 8-27: View 4 - View of Betts Farm from Mill Swamp Road, facing northeast. (Development area visible in field to rear and side)**

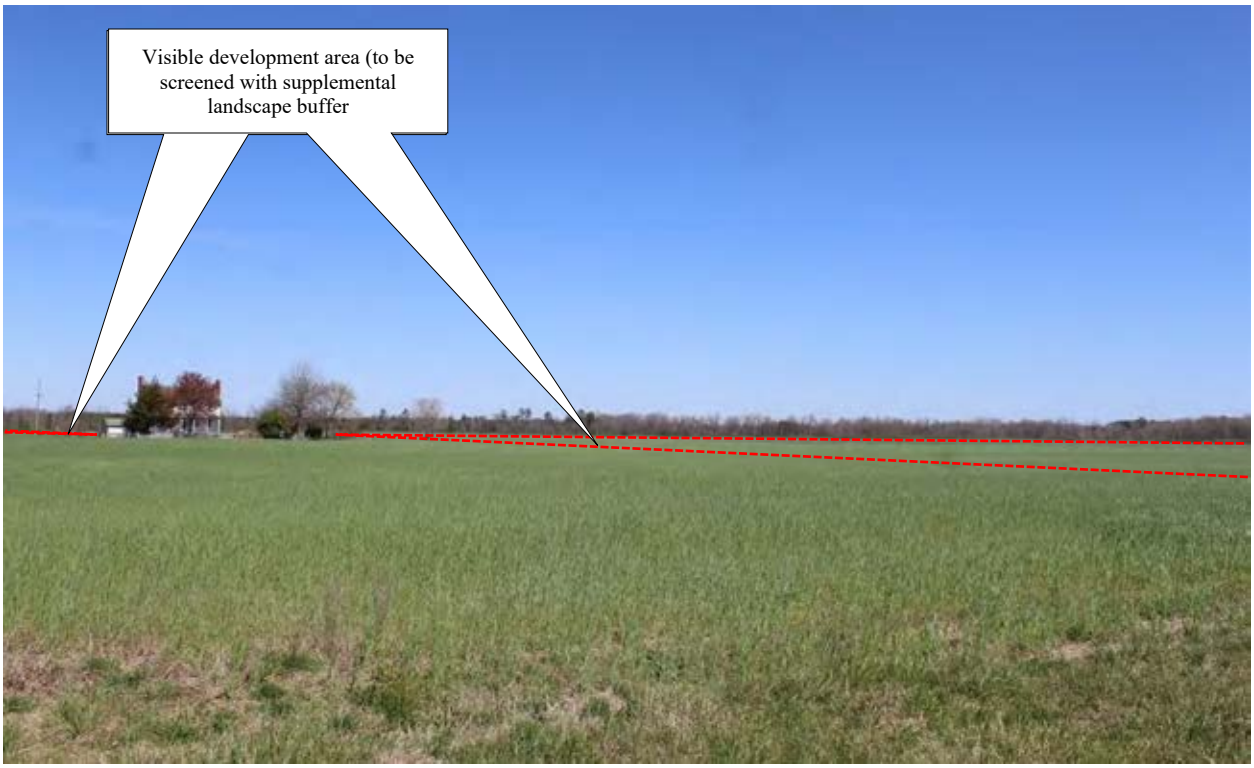



**Figure 8-28: View 5 - View of Betts Farm from Mill Swamp Road, facing northeast. (Development area visible in field to rear and side)**

**Figure 8-29: View 6 – View from Mill Swamp Road in front of Betts Farm, facing west. (Development area visible along road in foreground and beyond property)**

**Figure 8-30: View 7 – View from Mill Swamp Road east of Betts Farm, facing west. (Development area visible along road in foreground and beyond property)**

**Figure 8-31: View 8 – View from Mill Swamp Road east of Betts Farm, facing southwest. (Development area visible along road across from property)**

**Figure 8-32: View 9 - View towards Betts Farm from Sycamore Cross Road, facing north. (Development area visible along both sides of road)**

### VDHR# 046-5812
### House, 14195 Rattlesnake Trail

The house at 14195 Rattlesnake Trail was constructed in 1950 according to local land records. It remains in good condition and exhibits a Vernacular hall-and-parlor form. The one-story, four-bay wood frame structure rests on a continuous concrete block foundation and is clad in vinyl siding.

It is topped by a side gable roof sheathed in standing seam metal and pierced by a brick interior central chimney. Fenestration on the structure includes one-over-one double-hung sash windows. The primary entrance consists of a single door on the front (north) elevation sheltered by a two-bay porch.

This house is located on the south side of Rattlesnake Trail just east of its intersection with Ramsey Road. Around the property, the landscape is gently rolling and characterized by a mix of wooded areas and agricultural fields with light development. The house is set close to the road at the edge of a wide, open agricultural field. Vegetation around the house is limited to sparse, scattered shrubbery. The only outbuilding on the property is a small wellhouse set behind the house.

This property is an example of a typical mid-twentieth century single Vernacular dwelling in the region. This building reflects no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5813**
**Commercial Building, 14472 Rattlesnake Trail**

The building at 14472 Rattlesnake Trail remains in poor condition and exhibits no discernable style. Although the structure remains vacant, it appears to have historically functioned as a commercial building. As evidenced by its form and construction, this building was constructed circa 1950. The one-story, three-bay concrete block structure rests on a continuous concrete block foundation and is topped by a side gable roof sheathed in standing seam metal. Fenestration on the structure is sparse but consists of large hopper windows on either side of the primary entrance. The

primary entrance consists of a single door centered on the symmetrical front (east) elevation. Remaining wood supports above the door suggest that it was historically sheltered by an awning however the awning no longer remains intact.

This building is located on the west side of Rattlesnake Trail near its intersection with Ramsey Road. The landscape in the general vicinity of the property is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. Set close to the road, the building rests on a flat grass lawn vegetated with overgrown scrub brush and surrounded by a densely forested area. No formal access points or associated structures were observed on the property.

This property is an example of a typical mid-twentieth century commercial building in the region. This building reflects no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. Additionally, the structure remains in poor condition and appears to have been vacant for an extended period. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5814**
**House, 11235 White Hill Trail**

The house at 11235 White Hill Trail remains in good condition and exhibits a Colonial Revival style as applied to a Cape Cod form. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this building was constructed circa 1950. The wood frame structure is comprised of a one-and-a-half-story, three-bay primary block with a one-story, three-bay wing on its east side. Both blocks are sheathed in vinyl siding and topped by gable roofs

sheathed in asphalt shingles. Brick exterior end chimneys are located on the east and west sides of the structure and three gabled dormers pierce the front slope of the primary roof. Fenestration on the structure includes single and paired one-over-one double-hung sash windows. The primary entrance is centered on the symmetrical front (south) elevation of the primary block and consists of a single door. Sheltering the façade of the main block is a one-story, full-width porch supported by battered wood posts resting on brick piers.

This property is located on the northeast side of White Hill Trail just north of its intersection with Mill Swamp Road. Around the property, the landscape is gently rolling and largely rural, characterized by a mix of wooded areas and agricultural fields with light development. Set back roughly 350 feet from the road, the house rests on a sloping grass lawn surrounded by a densely forested area and is accessed by a long, gravel driveway. Vegetation on the property includes several mature shade trees and some planted shrubbery immediately surrounding the house, as well as a line of trees extending along the road and the southwest edge of property. Several outbuildings are scattered around the house, however only some were visible with others obscured by vegetation and topography.

This property is an example of a typical mid-twentieth century single dwelling in the region. This building reflects a Colonial Revival style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5815**
**House, 13484 Ramsey Road**

The house at 13484 Ramsey Road was constructed in 1950 according to site inspection. It remains in good condition and exhibits a Vernacular style. The one-story concrete block structure rests on a continuous concrete block foundation and is topped by a hipped roof sheathed in asphalt shingles. A brick interior chimney pierces the roof near the center of the structure. Fenestration on the structure includes one-over-one and six-over-six double-hung sash windows. The primary entrance consists of a single door centered on the symmetrical front (east) elevation sheltered by a one-bay shed roofed porch.

This house is located on a rural lot on the northwest corner of Ramsey Road and Rattlesnake Trail. The landscape in the general vicinity of the property is gently rolling and characterized by a mix of wooded areas and agricultural fields. Set back roughly 60 feet from the road, the house rests on a grass lawn vegetated with a variety of shade trees and scattered planted shrubbery. The property is accessed by short gravel driveways off of Ramsey Road and Rattlesnake Trail. The only outbuilding on the property is a shed located directly behind the house.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects a Vernacular style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5816**
**House, 12085 Ramsey Road**

The house at 12085 Ramsey Road was constructed in 1971 according to local land records. It remains in good condition and exhibits a Ranch style. The one-story masonry structure rests on a

continuous foundation and is clad in a brick veneer. It is topped by a hipped roof sheathed in asphalt shingles. Piercing the façade are one-over-one double-hung sash windows and a large, fixed window to the left of the entrance. The primary entrance consists of a single door on the front (west) elevation approached by a small, uncovered brick stoop. A one-story sunroom featuring large, fixed windows and a shed roof is attached to the north side of the structure.

This house is located on a rural lot on the southeast corner of Ramsey Road and Proctors Bridge Road. The landscape in the general vicinity of the property is gently rolling and largely rural, characterized by a mis of wooded areas and agricultural fields with light development. Set back roughly 80 feet from the road, the house rests on a flat grass lawn surrounded by a densely forested area. Vegetation on the property includes a row of boxwoods along the edges of the house and small trees and shrubs scattered on the lawn. The property is accessed by a gravel driveway that extends from the road to a parking area next to the house. Outbuildings on the property include three sheds and a mobile home.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects a Craftsman style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 046-5817**
**Hollemon Cemetery, White Hill Trail**

This small family cemetery contains just one memorial with a surname only and no associated dates. The marker is a granite tablet inscribed with “Holleman” which is a surname known to have historically been associated with a home to the south along Mill Swamp Road. Leaning against the

granite tablet is what appears to be an older, displaced footstone inscribed with J.J.H. The cemetery is not enclosed by a fence or any signage.

This cemetery is set on the west side of White Hill Trail roughly 0.6 miles north of the intersection with Mill Swamp Road. It is set back from the road within a copse of trees in the middle of an agricultural field. While there is evidence of relic cedar trees and groundcover, there is no enclosure or other markings.

This small family cemetery represents a typical private burial in a rural setting within the region. The one marked memorial reads the surname "Holleman" which was the family associated with a dwelling to the south along Mill Swamp Road in the mid-nineteenth century. What is believed to be a footstone that is now leaning against the granite marker reads J.J.H. which likely represents an unknown member of Holleman family. Another Holleman Cemetery is known to be located in closer proximity to the Wilson Hollemon House. As this small cemetery does not reflect any distinctive design or physical characteristics and is not known to be associated with people of transcendent significance, it does not meet Criteria Consideration D, and is considered not eligible for listing in the NRHP.

However, as the cemetery is located within the limits of the project area, it should be avoided as part of the project.

**VDHR# 090-5208**
**House, 1314 Berrymans Corner Road**

The house at 1314 Berrymans Corner Road remains in good condition and exhibits a Ranch style. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this house was constructed circa 1960. The one-story masonry structure rests on a continuous

foundation and is clad in a brick veneer. It is topped by a hipped roof sheathed in asphalt shingles and pierced by a brick interior central chimney. Fenestration on the structure includes one-over-one double-hung sash windows as well as a large picture window to the right of the entrance. The primary entrance consists of a single door on the front (south) elevation flanked by sidelights and approached by a small, brick stoop. A large garage door is located on the right side of the façade.

This house is located on the northwest side of Berrymans Corner Road between White Hill Trail and Mill Swamp Road. The property is located in a small cluster of residential properties within an otherwise lightly developed, rural area of Surrey County. Set back roughly 160 feet from the road, the house rests on a grass lawn vegetated with a variety of trees and planted shrubbery. The property is accessed by a gravel driveway that extends from the road to the attached garage. The only outbuilding on the property is a small shed set behind the house.

This property is an example of a typical mid-twentieth century single dwelling in the region. This building reflects a Ranch style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 090-5209**
**House, 1209 Berrymans Corner Road**

The house at 1209 Berrymans Corner Road remains in good condition and exhibits a Ranch style. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this house was constructed circa 1970. The one-story masonry structure rests on a continuous

foundation and is clad in a brick veneer. It is topped by a side gable roof sheathed in asphalt shingles and flanked by a brick exterior end chimney on its southwest side. Fenestration on the structure includes single and paired one-over-one double-hung sash windows. The primary entrance consists of a single door on the front (northwest) elevation approached by a small, brick stoop. An open, wood deck is located on the south side of the house.

This house is located on the southeast side of Berrymans Corner Road between White Hill Trail and Mill Swamp Road. The property is located in a small cluster of residential properties within an otherwise lightly developed, rural area of Surrey County. The house is set close to the road on a sparsely vegetated grass lawn with a densely forested area located to its south and east. The property is accessed by a gravel driveway that extends from the road past the side of the house to the outbuildings behind the house. Outbuildings on the property include a carport and a shed located behind the house.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects a Ranch style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 090-5210**
**House, 1167 Berrymans Corner Road**

The house at 1167 Berrymans Corner Road remains in good condition and exhibits no discernable style. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this house was constructed circa 1970. The one-story, four-bay wood frame structure rests

on a continuous concrete block foundation and is topped by a side gable roof sheathed in asphalt shingles. A brick interior end chimney and a gabled, one-bay wing are located on northeast side of the structure. Piercing the asbestos siding are one-over-one double-hung sash windows, some of which are sheltered by vinyl awnings. The primary entrance consists of a single door on the front (northwest) elevation accessed by a small, uncovered, wood stoop.

This house is located on the southeast side of Berrymans Corner Road between White Hill Trail and Mill Swamp Road. The property is located in a small cluster of residential properties within an otherwise lightly developed, rural area of Surrey County. Set back roughly 90 feet from the road, the house rests on a flat grass lawn vegetated only with a couple mature shade trees in the backyard. The property is accessed by a gravel driveway that extends from the road to a parking area behind the house. Outbuildings on the property include a mobile home, a garage, a shed, and a wellhouse.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 090-5211**
**House, 1141 Berrymans Corner Road**

The house at 1141 Berrymans Corner Road remains in good condition and exhibits a Ranch style. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this house was constructed circa 1970. The one-story masonry structure rests on a continuous

foundation and is clad in brick veneer. It is topped by a side gable roof sheathed in asphalt shingles and pierced by a brick interior end chimney near the center of the front elevation. Fenestration on the structure consists of single and paired one-over-one double-hung sash windows. Two entrances are located on the front (northwest) elevation, each consisting of a single door approached by a small, uncovered brick stoop.

This house is located on the southeast side of Berrymans Corner Road between White Hill Trail and Mill Swamp Road. The property is located in a small cluster of residential properties within an otherwise lightly developed, rural area of Surrey County. Set back roughly 80 feet from the road, the house rests on a flat grass lawn and is accessed by a gravel driveway that extends to a parking lot behind the structure. Vegetation on the property is limited to rows of shrubs and bushes along the edges of the house. Outbuildings on the property include a garage and two carports.

This property is an example of a typical late twentieth century single dwelling in the region. This building reflects no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

**VDHR# 090-5212**
**House, Berrymans Corner Road**

The house off Berrymans Corner Road exhibits no discernable style and remains in ruinous condition, appearing to have been vacant for an extended period. As evidenced by its form and construction, in conjunction with a review of historic maps of the area, this house was constructed

circa 1910. The one-story wood frame structure is clad in weatherboard siding and appears to have been topped by a side gable roof. The roof appears to have collapsed, however two central brick chimneys remain extant. Fenestration on the structure includes three-over-three double-hung sash windows.

This house is located on the east side of Berrymans Corner Road between White Hill Trail and Mill Swamp Road. The landscape in the general vicinity of the property is gently rolling and characterized by a mix of wooded areas and agricultural fields with generally light development. The house is set close to the road at the edge of a densely forested area and is partially obscured by overgrown vegetation. No formal access points or other structures were observed on the property.

This property is an example of a typical early twentieth century single dwelling in the region. This building reflects no discernable style with little architectural distinction. It does not embody distinctive characteristics or possess significant or unique architectural or design features and reconnaissance-level research revealed no known significant historical associations. Additionally, the structure remains in ruinous condition and appears to have been vacant for an extended period. The building is located in an area of discontiguous historic resources, and is, therefore, considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

### ARCHAEOLOGICAL FIELD RESULTS

Archaeological fieldwork included both systematic pedestrian survey and subsurface testing to determine the presence of archaeological resources. The work was completed in accordance with VDHR guidelines for conducting historic resources survey in Virginia and proceeded according to the approved testing plan laid out in the document *Phase IA Cultural Resource Assessment of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area* (D+A August 2023). For the purposes of survey and reporting, the project area was divided into six areas labeled A through F. These areas were further subdivided into 24 discrete sub-areas for testing, with placement of shovel test grids determined by surface evidence of cultural activity, terrain, disturbance, and environmental considerations (Figure 8-33).

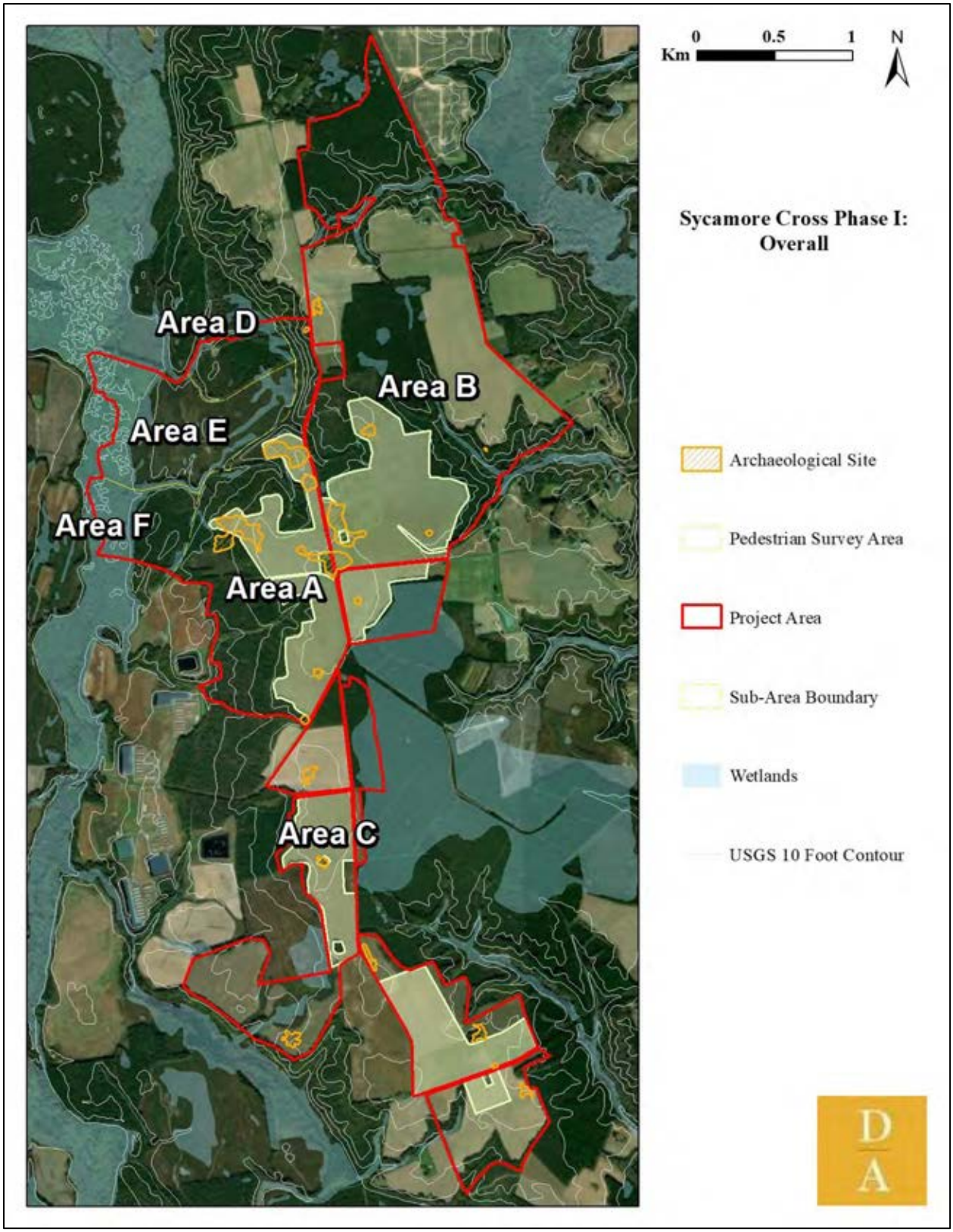



**Figure 8-33: Overall map of testing areas.**

A total of 1,175 shovel tests were systematically excavated throughout the project area, leading to the identification of twenty (20) new archaeological sites (Figure 8-34). The results of both the pedestrian and subsurface testing are provided below by area.

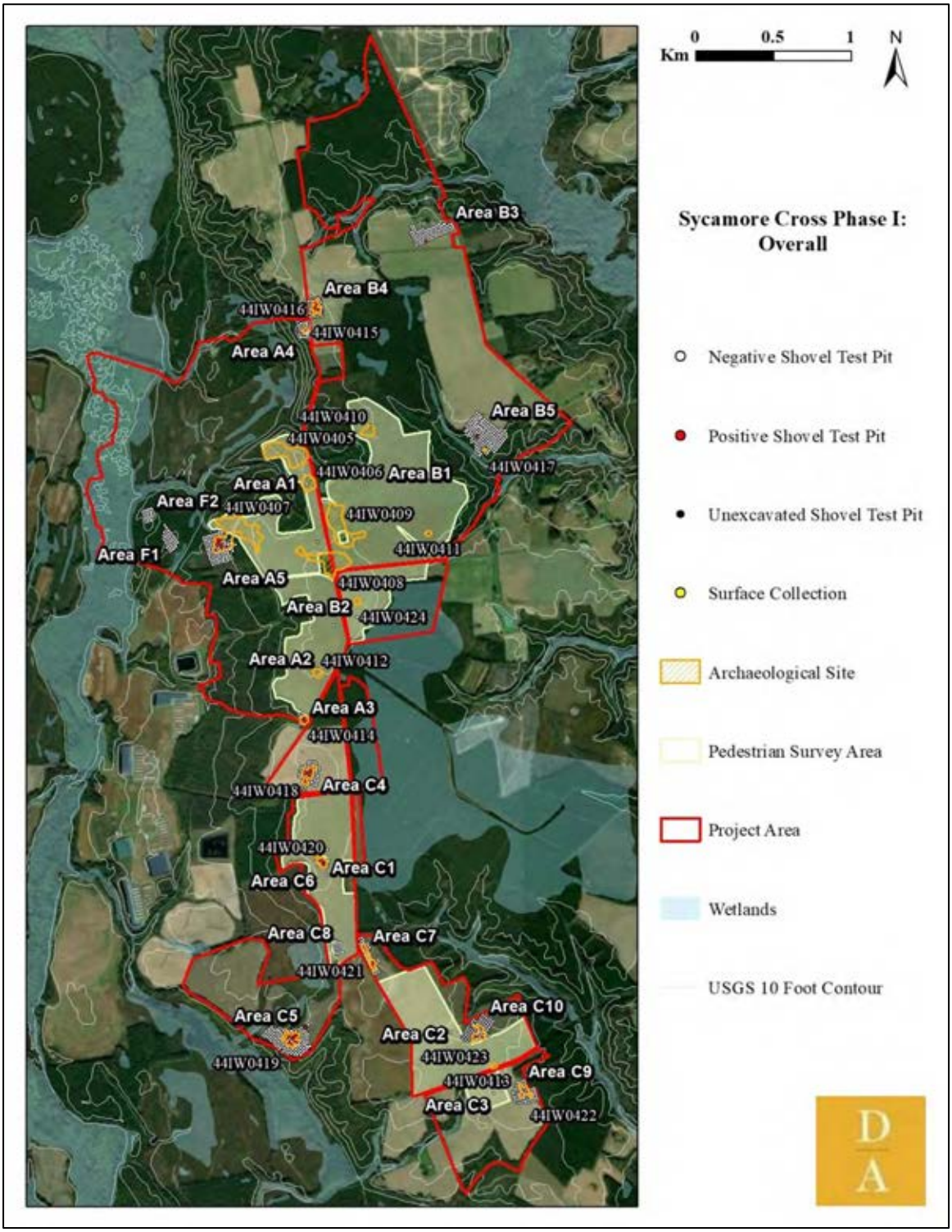



**Figure 8-34: Overall view of project area with testing areas and archaeological sites.**

AREA A

Area A consists of the parcels to the west of Proctors Bridge Road (Route 621) and Sycamore Cross Drive (Route 622) (Figure 8-35). Terrain in this area includes one primary large, irregular finger ridge with numerous drainages and unnamed tributaries down to Blackwater River. These drainages form smaller ridges, knolls, and terraces overlooking the river. Large, harvested agricultural fields cover the tops of the landforms. These fields exhibited excellent surface visibility at the time of survey, and pedestrian surveys were conducted in each, discussed in depth below. Vegetation outside of the agricultural fields consists of mature mixed woodland and pine forest. The narrow corridors around streams and drainages have been avoided by timbering and contain mature mixed deciduous woodland vegetation. Planted pine woodland across the area can be found at different stages of regrowth following the last clearcutting event. Slopes within the project are gentle to moderate.

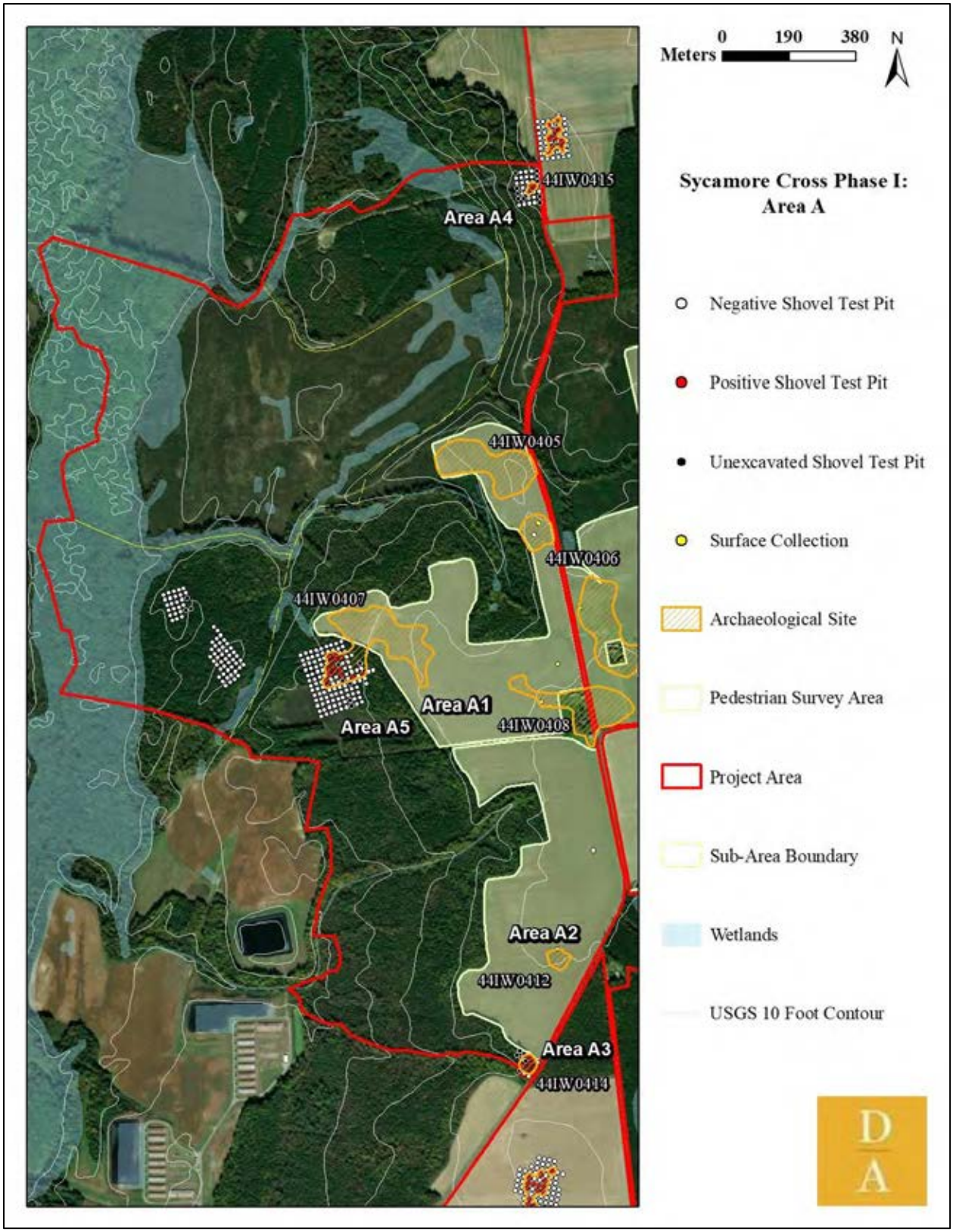



**Figure 8-35: Overall map of Area A.**

*Area A1*

This area consists of the large horseshoe-shaped agricultural field to the northeast of Sycamore Crossroads. This field sits on the north half of the top of the overall Area A landform, overlooking the Blackwater River to the west and bounded by Sycamore Cross Drive (Route 622) to the east. Access is provided by a series of farm roads running east to west off of Sycamore Cross Drive and Mill Swamp Road (Figure 8-36).

**Figure 8-36: Farm road and overview of Area A1 facing east.**

This part of the Area A landform is interrupted by two drainage cuts leading down to Blackwater River, forming one narrow finger ridge and a broad rectangular terrace. Vegetation bordering the agricultural field consists primarily of mature mixed woodland, with common privet and clusters of pine (Figure 8-37). Vegetation in Area A1 at the time of survey consisted of the remains of harvested soy and sparse, short grasses (Figure 8-38). A farm complex and store associated with Architectural Resources #046-5149 and 046-5150 sit at the southeast corner of the area (Figure 8-39).

**Figure 8-37: Vegetation at the edge of the Area A1 agricultural field facing west.**

**Figure 8-38: Overview of Area A1, facing west.**

**Figure 8-39: Architectural Resources #046-5149 and 046-5150, facing southwest.**

Surface exposure in this agricultural field was high, and systematic pedestrian survey was conducted in lieu of shovel test survey (Figure 8-40, Figure 8-41). Transects were walked in 7.5-meter (25-foot) intervals east to west across the entirety of this field. Many artifact fragments were observed, particularly in four dense artifact scatters. These surface concentrations were designated Sites 44IW0405 through 44IW0408, which are described in greater detail below.

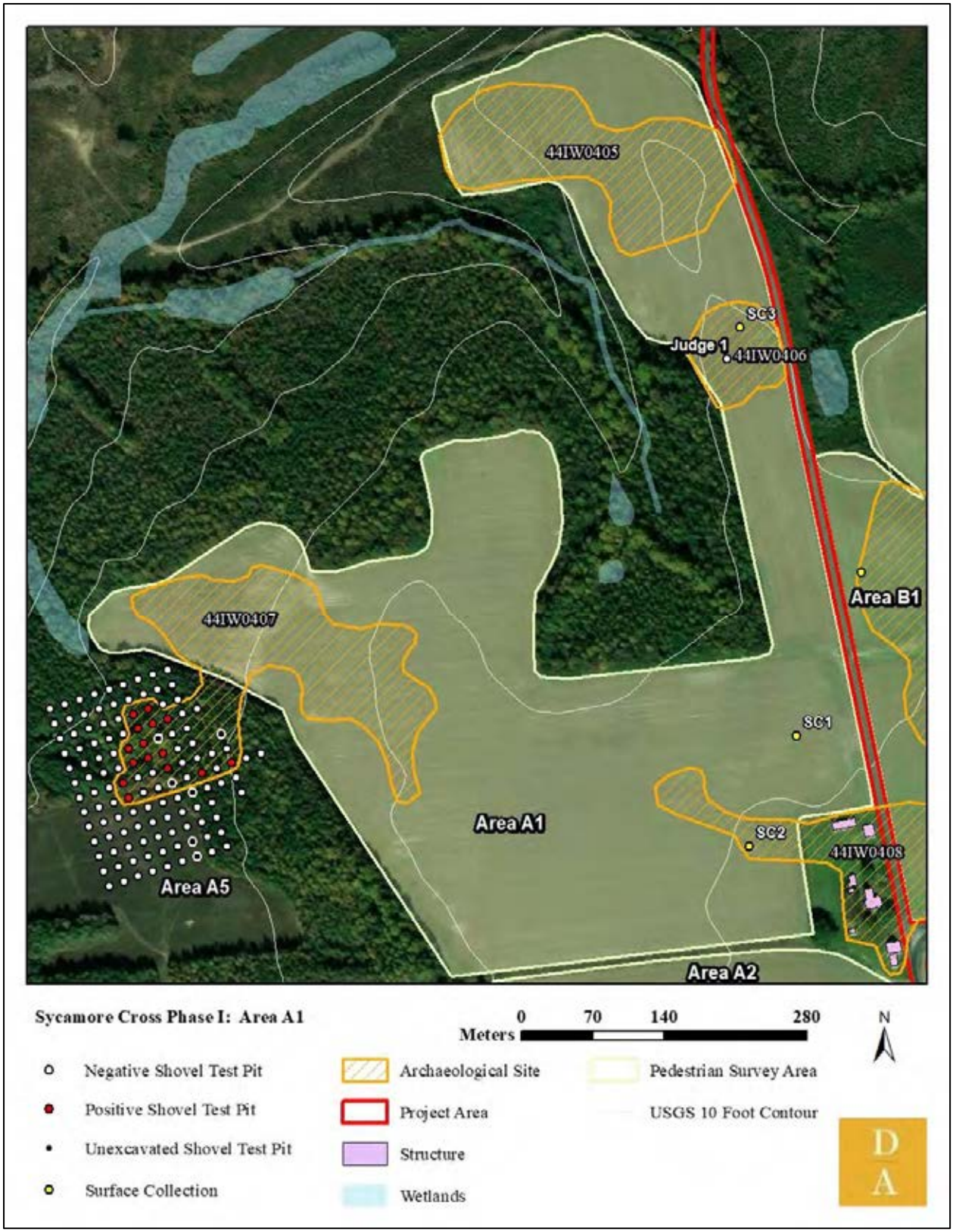



**Figure 8-40: Aerial view of Area A1 survey.**

**Figure 8-41: Surface exposure in Area A1.**

One shovel test was excavated in this artifact scatter to investigate the integrity of the soil strata. This shovel test, labeled Judgmental Shovel Test 1, exhibited a three-stratum profile of plowzone which cuts an intact transition layer over subsoil. Stratigraphy consisted of 2.5Y 3/2 very dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand transition layer (AB horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-42).

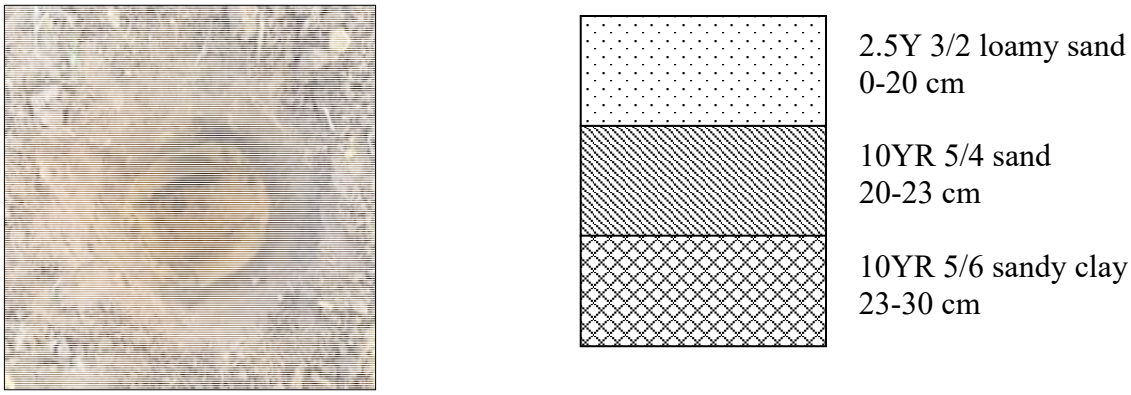



**Figure 8-42: Soil profile of Judgmental Shovel Test 1 in Area A1.**

44IW0405

This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter in the northernmost part of Area A1. No artifacts were collected during the pedestrian survey, but cobalt glass, blue transferware, yellowware, aqua vessel glass, a Prosser button, ironstone, and Bristol stoneware were observed.

44IW0406

This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter in Area A1, south of Site 44IW0405 (Figure 8-43). An aqua bottle finish was the only artifact collected (Figure 8-44). A dwelling is indicated here by historic topographic maps, though no surface features were observed. Artifacts observed here included fragments of ironstone, and colorless and vessel glass.

**Figure 8-43: Artifacts on the surface in Site 44IW0406.**

**Figure 8-44: Aqua vessel finish collected in Site 44IW0406.**

44IW0407

This site was first observed in the western half of Area A1, and later in Area A5 associated with Architectural Resource #046-0056. All artifacts collected are from Area A5 shovel tests; these are representative of those observed in the Area A1 portion of Site 44IW0407 as well (Figure 8-45). This site consists of a late-nineteenth to mid twentieth century domestic artifact scatter. A total of 54 artifacts were recovered from fifteen positive shovel tests, including a milk glass canning jar lid liner, one wire nail, colorless vessel glass, solarized vessel glass, aqua window and vessel glass, oyster shell, and Bristol stoneware.

**Figure 8-45: Artifact summary of Site 44IW0407.**

The ruin is a brick structure with exterior end chimneys and an English basement that was previously recorded as being built circa 1825. In addition to the main dwelling, two rectangular depressions and some areas of brick scatter were observed in association with this site (Figure 8-46; Figure 8-47).

**Figure 8-46: Interior view showing cellar entrance and fireplaces.**

**Figure 8-47: Square depression, facing west.**

44IW0408

This field site was first observed in the southeastern corner of Area A1 and was further delineated in the southwest corner of Area B1. This site surrounds Architectural Resources #046-5149 and 046-5150. It consists of a late nineteenth to early twentieth century domestic artifact scatter. Artifacts observed here included dipped ware, brick fragments, ironstone, colorless vessel glass, terra cotta drain pipe, solarized vessel glass, aqua vessel glass, and porcelain (Figure 8-48).

**Figure 8-48: Dipped ware collected in Site 44IW0408.**

*Area A2*

This area consists of a long irregular agricultural field to the southeast of Sycamore Crossroads. This field is located south of Area A1 and bounded to the east by Proctors Bridge Road (Route 621). Access to this area is provided by Proctors Bridge Road and a farm road to the north. This field covers the southern half of the top of the overall Area A landform. This part of Area A is cut by two drainages, which flow west into an unnamed tributary of the Blackwater River. Vegetation in this area is the same as Area A1 (Figure 8-49).

**Figure 8-49: Overview of Area A2, facing west.**

Surface exposure in this agricultural field was high, and pedestrian survey was conducted in lieu of shovel test survey (Figure 8-50, Figure 8-51). Transects were walked in 7.5-meter (25-foot) intervals east to west across the entirety of this field. Surface artifacts were observed in a scatter in the southern end of the field. These surface observations were designated Site 44IW0412, which is described in greater detail below.

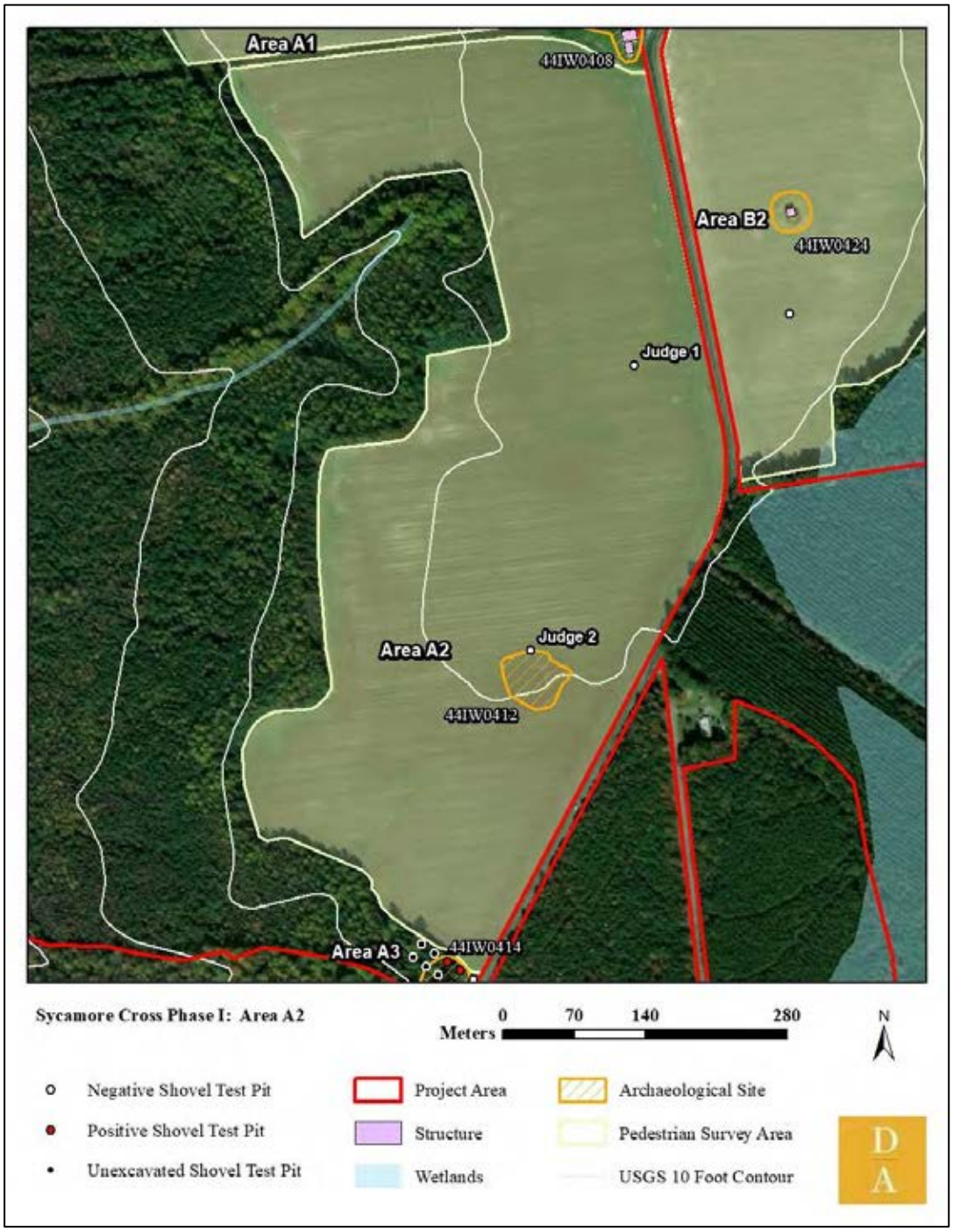



**Figure 8-50: Aerial view of Area A2 survey.**

**Figure 8-51: Surface exposure in Area A2.**

Two judgmental shovel tests were excavated in this area to investigate the integrity of the soil strata. These shovel tests exhibited a three-stratum profile of plowzone which cut an intact transition layer over subsoil. Stratigraphy consisted of 10YR 4/2 dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand transition layer (AB horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-52).

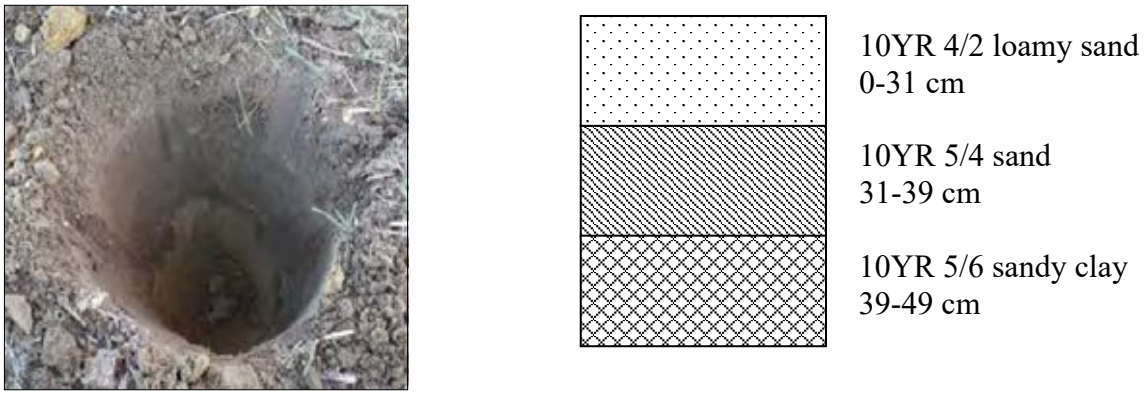



**Figure 8-52: Soil profile of Judgmental Shovel Test 2 in Area A2.**

44IW0412

This field site was observed in the southern part of Area A2, in the same location as a dwelling indicated on historic topographic maps. No surface features were observed; only a domestic artifact scatter was observed. Surface artifacts included yellowware, milk glass, and brick fragments, indicating a date range of early-to-mid-twentieth century.

*Area A3*

This area sits at the southernmost point of the overall Area A, south of the Area A2 field and bounded to the east by Proctors Bridge Road (Route 621). Wetland bounds this area to the northwest (Figure 8-53). Area A3 is located at the head of a draw that drains down to the Blackwater River. This grid was placed to investigate a dwelling that is indicated in this area on historic topographic maps.

**Figure 8-53: Wetland flagging in Area A3, facing southwest.**

Vegetation in this area consists of mature mixed woodland with holly shrubs and vines composing the undergrowth (Figure 8-54). Terrain is flat, with minimal surface evidence of subsurface disturbance. The remains of several cars are scattered throughout the area (Figure 8-55). A scatter of twentieth century trash sits in the middle of the grid (Figure 8-56).

**Figure 8-54: Vegetation in Area A3, facing south.**

**Figure 8-55: Fragments of old cars, facing northwest.**

**Figure 8-56: Twentieth century trash scatter in Area A3, facing southeast.**

A total of sixteen shovel tests were laid out at 15-meter (50-foot) intervals in four transects labeled A through D, six of which could not be excavated due to wetland (Figure 8-57). A total of seven shovel tests were positive for cultural material with fragments of window glass, vessel glass, lantern glass, and iron wire. These positive shovel tests were designated Site 44IW0414, which is described in greater detail, below.

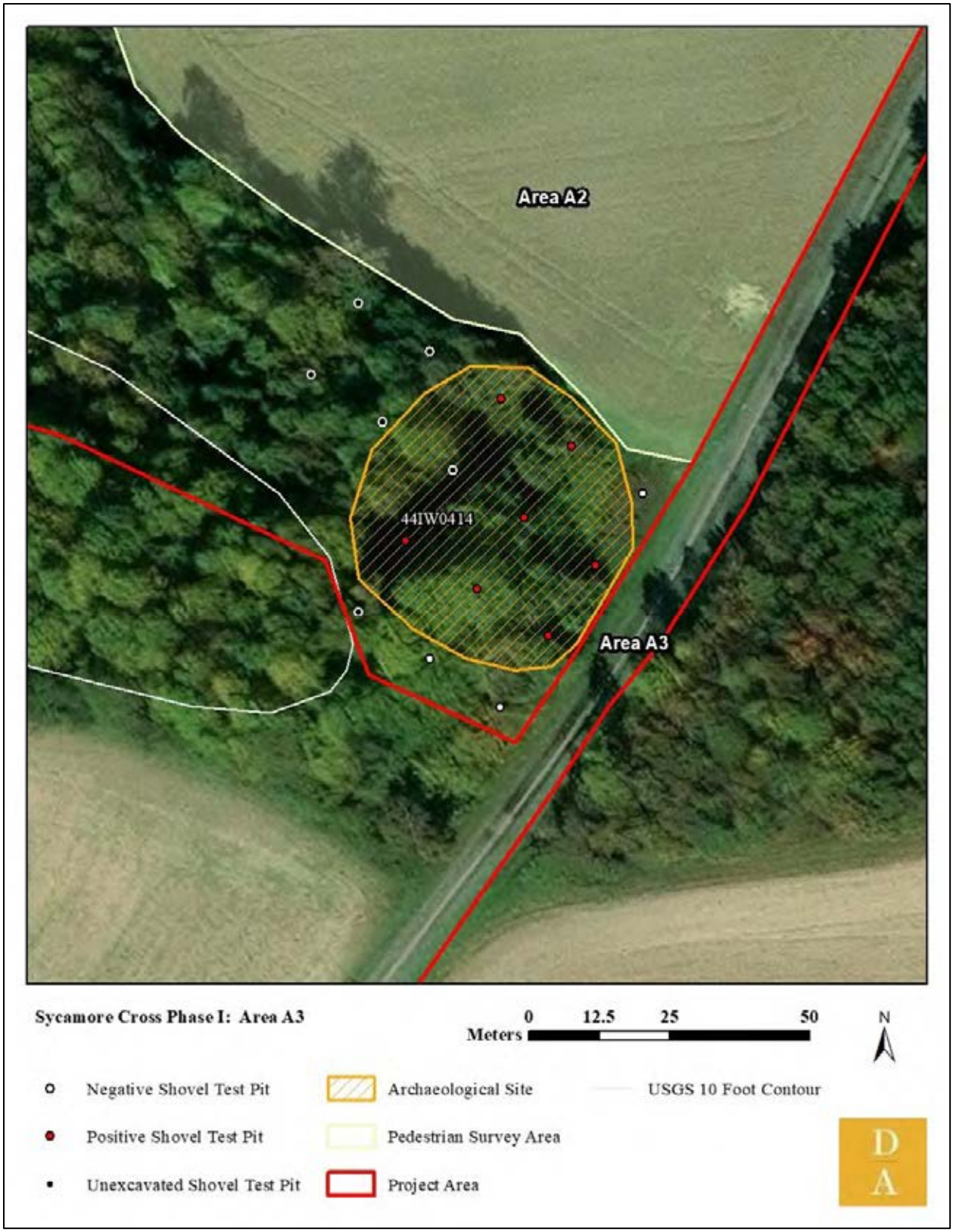



**Figure 8-57: Aerial view of Area A3 shovel test grid.**

Shovel tests in this area exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 10YR 4/4 yellowish brown sandy loam plowzone (Ap horizon) over 2/5Y 7/2 light gray sandy clay subsoil (B horizon) (Figure 8-58).

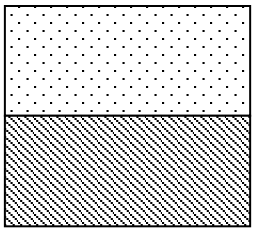



**Figure 8-58: Soil profile of Judgmental Shovel Test 1 in Area A3.**

44IW0414

This site consists of an early-to-mid twentieth century domestic artifact scatter associated with a dwelling indicated here by historic topographic maps. Forty-three artifacts were collected from seven positive shovel tests, including aqua and colorless window glass, lantern glass, colorless and brown vessel glass, milk glass, and wire (Figure 8-59). Vessel glass makes up most of this assemblage, with 26 recovered fragments.

**Figure 8-59: Artifact summary of Site 44IW0414.**

*Area A4*

This area consists of the mixed woodland across Sycamore Cross Drive from Area B4. Access is provided by a deeply eroded logging road (Figure 8-60, Figure 8-61). Terrain is disturbed with pushpiles throughout the grid. It sits on the edge of slope down to wetlands associated with Blackwater River.

**Figure 8-60: Logging road running through Area A4, facing southwest.**

**Figure 8-61: Erosion along logging road through Area A4, facing east.**

Vegetation in Area A4 consists primarily of young deciduous forest with briary undergrowth and occasional pine (Figure 8-62). Pushpile disturbance from past timbering activity is common throughout the grid and prevented the excavation of several shovel tests (Figure 8-63). Soils in this area are also wet, with some shovel tests filling with water.

**Figure 8-62: Vegetation in Area A4, facing west.**

**Figure 8-63: Pushpiles in Area A4, facing north.**

A total of 43 shovel tests were laid out at 15-meter (50-foot) intervals in seven transects labeled A through G, fourteen of which could not be excavated due to pushpile disturbance (Figure 8-64). A total of five shovel tests were positive for cultural material, including fragments of window glass, screws, and other metal hardware fragments. These positive shovel tests were designated Site 44IW0415, which is described in greater detail, below.

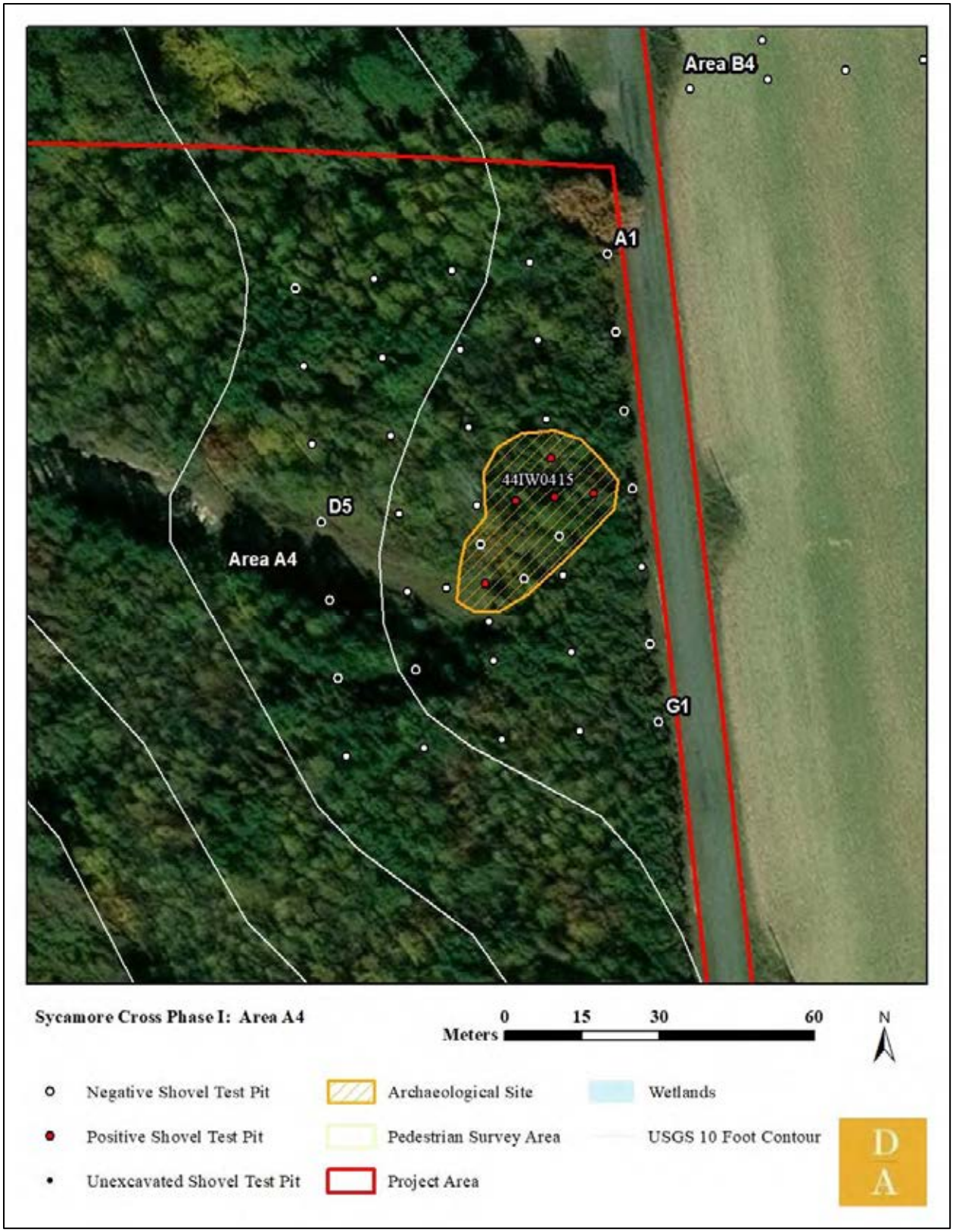



**Figure 8-64: Aerial view of Area A4 shovel test grid.**

Shovel tests in this area exhibited a three-stratum profile of plowzone which cuts an intact topsoil over subsoil. Stratigraphy consisted of 10YR 5/2 grayish brown sandy loam plowzone (Ap horizon) over 10YR 6/4 light yellowish brown sand topsoil (A horizon) over 10YR 7/4 very pale brown sand subsoil (B horizon) (Figure 8-65).

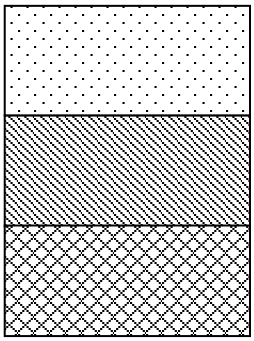



**Figure 8-65: Soil profile of Shovel Test B3 in Area A4.**

44IW0415

This site consists of a dense early-to-mid twentieth century artifact scatter in Area A4. 178 artifacts were recovered from five positive shovel tests including aqua and colorless window glass, washers, screws, wire, terra cotta drain pipe, and colorless vessel glass (Figure 8-66). Window glass and unidentified melted glass make up the majority of this assemblage, with 128 fragments.

**Figure 8-66: Artifact summary of Site 44IW0415.**

*Area A5*

This area covers a round knoll west of the Area A1 pedestrian survey. Access is provided by a series of farm roads. This grid surrounds several large, potentially structural depressions and a three-story brick structure with a large cellar (Figure 8-67). This structure is associated with Architectural Resource #046-0056 (Figure 8-68).

**Figure 8-67: Structural depression in Area A5, facing east.**

**Figure 8-68: Brick structure in Area A5, Architectural Resource #046-0056, facing south.**

Vegetation in this area consists primarily of mature pine forest with common holly and briar undergrowth (Figure 8-69). Terrain in this part of the grid is somewhat disturbed by timbering activities, seen on the surface in the form of subtle windrows. Around the architectural remains, vegetation changes and is primarily deciduous trees with minimal undergrowth (Figure 8-70).

**Figure 8-69: Vegetation in Area A5, facing south.**

**Figure 8-70: Vegetation in Area A5 around structural remains, facing south.**

A total of 128 shovel tests were laid out at 15-meter (50-foot) intervals in nine transects labeled A through J, six of which could not be excavated due to standing water (Figure 8-71). A total of fifteen shovel tests were positive for cultural material with fragments of refined earthenware, wire nails, vessel and window glass, and oyster shell. These positive shovel tests are part of Site 44IW0407, discussed above with Area A1.

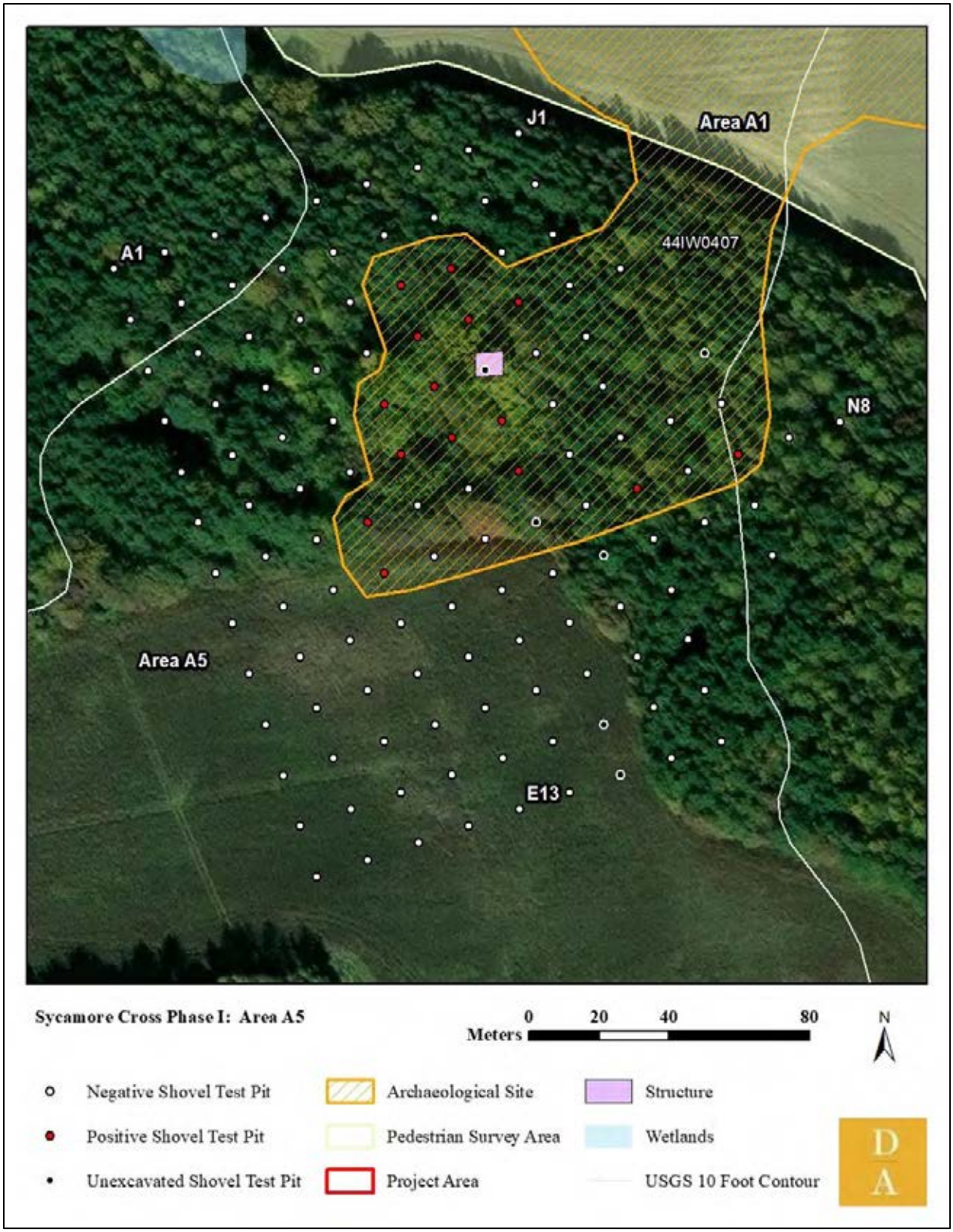



**Figure 8-71: Aerial view of Area A5 shovel test grid.**

Shovel tests in this area exhibited a three-stratum profile of topsoil over transitional layer over subsoil. Stratigraphy consisted of 10YR 3/2 very dark grayish brown sandy loam topsoil (A horizon) over 10YR 6/4 light yellowish brown sand transition layer (AB horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-72).

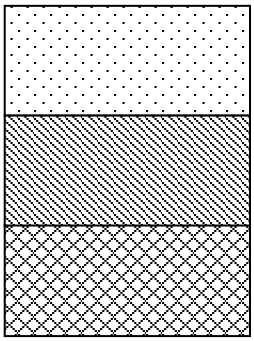



**Figure 8-72: Soil profile of Shovel Test D5 in Area A5.**

AREA B

The overall Area B consists of parcels to the east of Proctors Bridge Road (Route 621) and Sycamore Cross Drive (Route 622), and west of White Hill Trail (Route 623) (Figure 8-73). Terrain in this area includes two primary large, irregular finger ridges with numerous drainages and unnamed tributaries down to Mill Swamp to the east. These drainages form smaller ridges, knolls, and terraces overlooking the swamp. Large, harvested agricultural fields cover the tops of the landforms. These fields have very good surface visibility, and systematic pedestrian surveys were conducted in each, discussed in depth below. Vegetation outside of the agricultural fields consists of mature mixed woodland and pine forest. The narrow corridors around streams and drainages have been avoided by timbering and contain mature mixed deciduous woodland vegetation. Planted pine woodland across the area can be found at different stages of regrowth following the last clearcutting event. Slopes within the area are gentle to moderate. One previously known cemetery, the Hollemon Cemetery (VDHR# 046-5817) sits in the center of Area B5.

**Figure 8-73: Overall map of Area B.**

*Area B1*

This area consists of the large agricultural field northeast of Sycamore Crossroads. This field is located in the southern part of the overall Area B and bounded to the west by Sycamore Cross Drive (Route 622) and to the south by Mill Swamp Road (Route 621). Access to this area is provided by Sycamore Cross Drive and a farm road through the center of the field.

This part of Area B is cut by numerous small drainages as well as one major one, which flows east into an unnamed tributary of Mill Swamp. Vegetation in this area consists of harvested soy remnants and short, sparse grass, with mature mixed woodland and pine forest bordering the agricultural field. A small parcel is excluded from the project area on the interior of Area B1, which encompasses a complex of one dwelling and several outbuildings (Figure 8-74).

**Figure 8-74: Dwelling and outbuildings in parcel cut out in Area B1, facing northwest.**

Surface exposure in this agricultural field was high, and pedestrian survey was conducted in lieu of shovel test survey (Figure 8-75). Transects were walked in 7.5-meter (25-foot) intervals north to south across the entirety of this field. Surface artifacts were observed in a scatter in the southeastern part of the field, and in the southwestern corner. These surface observations were designated Sites 44IW0409 through 44IW0411, which are described in greater detail below.

**Figure 8-75: Aerial view of Area B1 survey.**

**Figure 8-76: Overview and ground cover in Area B1, facing north.**

Two judgmental shovel tests were excavated in this area to investigate the integrity of the soil strata. These shovel tests exhibited a three-stratum profile of plowzone which cut an intact topsoil over subsoil. Stratigraphy consisted of 10YR 4/2 dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand transition layer (AB horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-77).

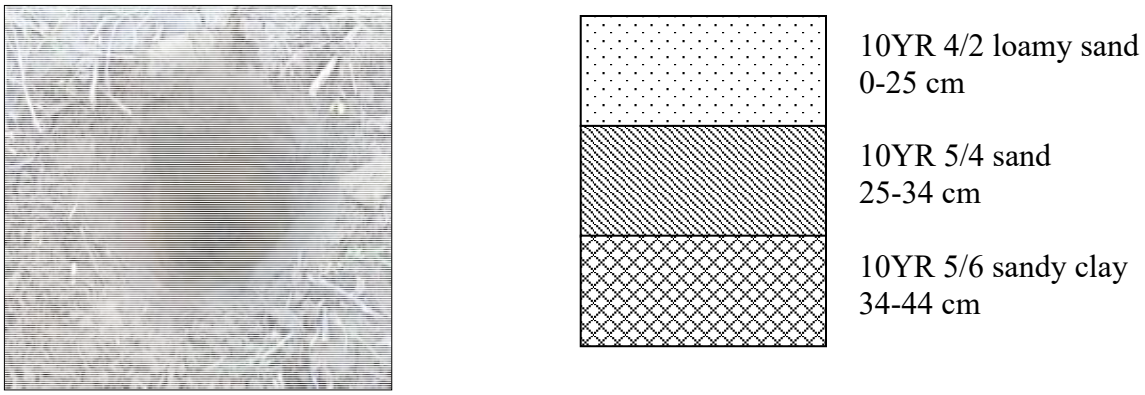



**Figure 8-77: Soil profile of Judgmental Shovel Test 2 in Area B1.**

44IW0409

This field site was observed by pedestrian survey in the western part of Area B1. It consists of a mid-nineteenth to mid-twentieth domestic artifact scatter, including green shell edged earthenware; redware; ironstone; colorless window glass; aqua, colorless, and solarized vessel glass; porcelain; stoneware, brick fragments; and one pipe stem that was the only artifact collected (Figure 8-78). This site is associated with Architectural Resource 046-5811, a circa 1850 standing dwelling.

**Figure 8-78: Pipe stem collected in Site 44IW0409.**

44IW0410

This site consists of a small late-nineteenth to early-twentieth century domestic artifact scatter observed in the northern part of Area B1. A sample of artifacts were collected, and observed artifacts included solarized and colorless vessel glass, aqua window glass, ironstone, and refined earthenware, Bristol and Albany-slip stoneware, and a reed pipe (Figure 8-79).

**Figure 8-79: Artifact sample collected from Site 44IW0410.**

44IW0411

This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter observed in the southeast part of Area B1. Artifacts observed included ironstone, refined earthenware, and aqua and colorless vessel glass (Figure 8-80, Figure 8-81). Artifacts were densely clustered. No artifact samples were collected.

**Figure 8-80: Artifacts flagged during pedestrian survey of Area B1 and delineating Site 44IW0411, facing west.**

**Figure 8-81: Artifacts on the surface in Site 44IW0411.**

*Area B2*

This area consists of the triangular agricultural field southeast of the intersection of Sycamore Cross and Mill Swamp Roads. This field is located in the southern part of the overall Area B and bounded to the west by Proctors Bridge Road (Route 621) and to the north by Mill Swamp Road (also Route 621). In the eastern leg of Area B2, terrain slopes gently to wetland between two drainage cuts, one to the northeast and another to the southeast. Standing water prevented survey in this area. Vegetation in this area consists of harvested cotton remnants and short, sparse grass, with mature mixed woodland and pine forest bordering the agricultural field (Figure 8-82). A brick ruin stands in the western side of the field, previously recorded as Architectural Resource 046-0057. Although no artifacts were observed in association with the ruin, it has the potential for subsurface features and was recorded as an archaeological resource with the temporary designation of Site 44IW0424.

**Figure 8-82: Overview of Area B2 showing Architectural Resource #046-0057, facing north.**

Surface exposure in this agricultural field was high, and pedestrian survey was conducted in lieu of shovel test survey (Figure 8-84). Transects were walked in 7.5-meter (25-foot) intervals east to west across the field. Surface artifacts were observed in a scatter in the southern end of the field. No artifact scatters were observed in this area.

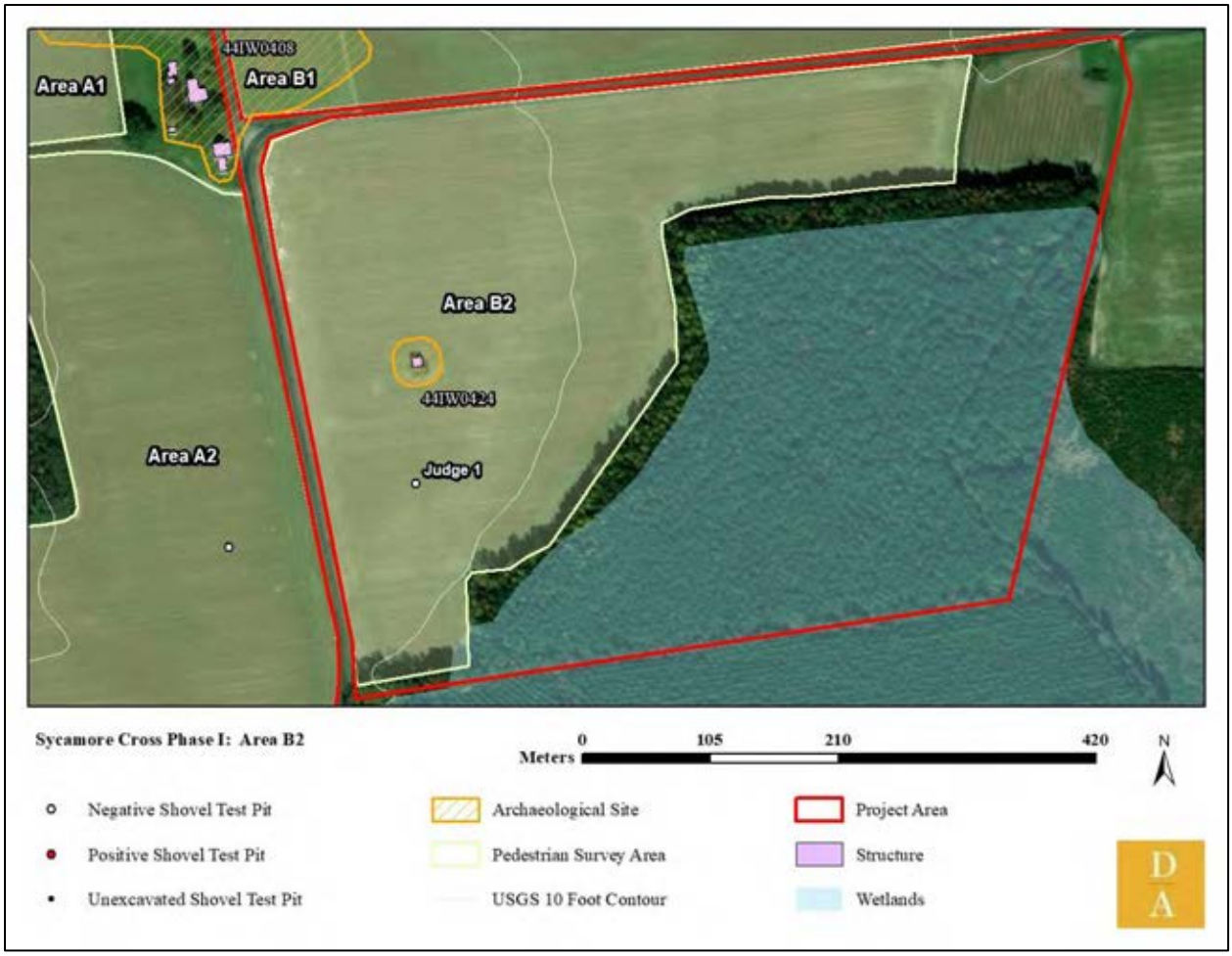
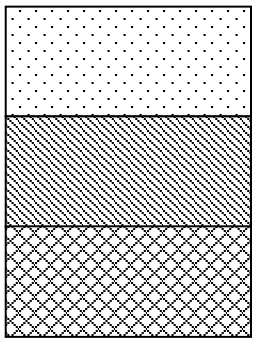



**Figure 8-83: Aerial view of Area B2 survey.**

**Figure 8-84: Surface exposure in Area B2.**

One judgmental shovel test was excavated in this area to investigate the integrity of the soil strata. This shovel test exhibited a three-stratum profile of plowzone which cut an older topsoil or relict plowzone over subsoil. Stratigraphy consisted of 10YR 4/2 dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand topsoil (A horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-85).



10YR 4/2 loamy sand
0-32 cm

10YR 5/4 sand
32-49 cm

10YR 5/6 sandy clay
49-62 cm

**Figure 8-85: Soil profile of Judgmental Shovel Test 1 in Area B2.**

*Area B3*

This area sits at the northern end of the long, irregular agricultural field in the northeastern part of the project area. A farm complex with several dwellings, outbuildings, and a parcel cut-out sit just to the north of this shovel test grid. This farm complex and a nearby dwelling are associated with Architectural Resources #046-5550 and 046-5551 respectively (Figure 8-86). White Hill Trail (Route 623) bounds this area to the east. Runoff from this area drains north into an unnamed tributary of Mill Swamp.

**Figure 8-86: Farm complex (Architectural Resource #046-5550) and driveway in Area B3, facing west.**

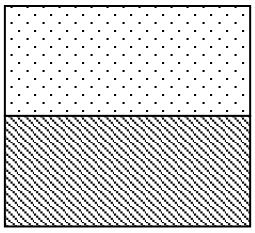
Vegetation in Area B3 at the time of survey consisted of the remains of harvested corn and short grasses (Figure 8-87). Surface visibility was too low for pedestrian survey. Mowed grasses and deciduous trees border the agricultural field.

**Figure 8-87: Overview of Area B3, facing west.**

A total of 97 shovel tests were laid out at 15-meter (50-foot) intervals in six transects labeled A through F, two of which could not be excavated due to road disturbance (Figure 8-88). One shovel test was positive for cultural material with brick. This does not constitute a field site.

**Figure 8-88: Aerial view of Area B3 shovel test grid.**

Shovel tests in this area exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 2.5Y 5/4 light olive brown sandy clay loam (Ap horizon) over 2.5Y 6/8 olive yellow clay subsoil (B horizon) (Figure 8-89).



2.5Y 5/4 sandy clay loam
0-34 cm

2.5Y 6/8 clay
34-44 cm

**Figure 8-89: Soil profile of Shovel Test A4 in Area B3.**

*Area B4*

This area consists of a small part of the agricultural field in the northwest part of the overall Area B. This field sits on the western edge of a large terrace overlooking forest and lowlands to the west. This grid was placed to investigate a dwelling indicated on historic topographic maps.

Vegetation in this area at the time of survey consisted of young winter wheat (Figure 8-90). Surface exposure was too low for pedestrian survey, though brick fragments were observed on the surface. Sycamore Cross Road bounds this grid to the west.

**Figure 8-90: Sycamore Cross Road along the Area B4 baseline, facing north.**

A total of 74 shovel tests were laid out at 15-meter (50-foot) intervals in eight transects labeled A through G (Figure 8-91). A total of 20 shovel tests were positive for cultural material including fragments of vessel glass, refined earthenware, window glass, terra cotta drain pipe, and unidentified nails. These positive shovel tests were designated Site 44IW0416, which is described in greater detail below.

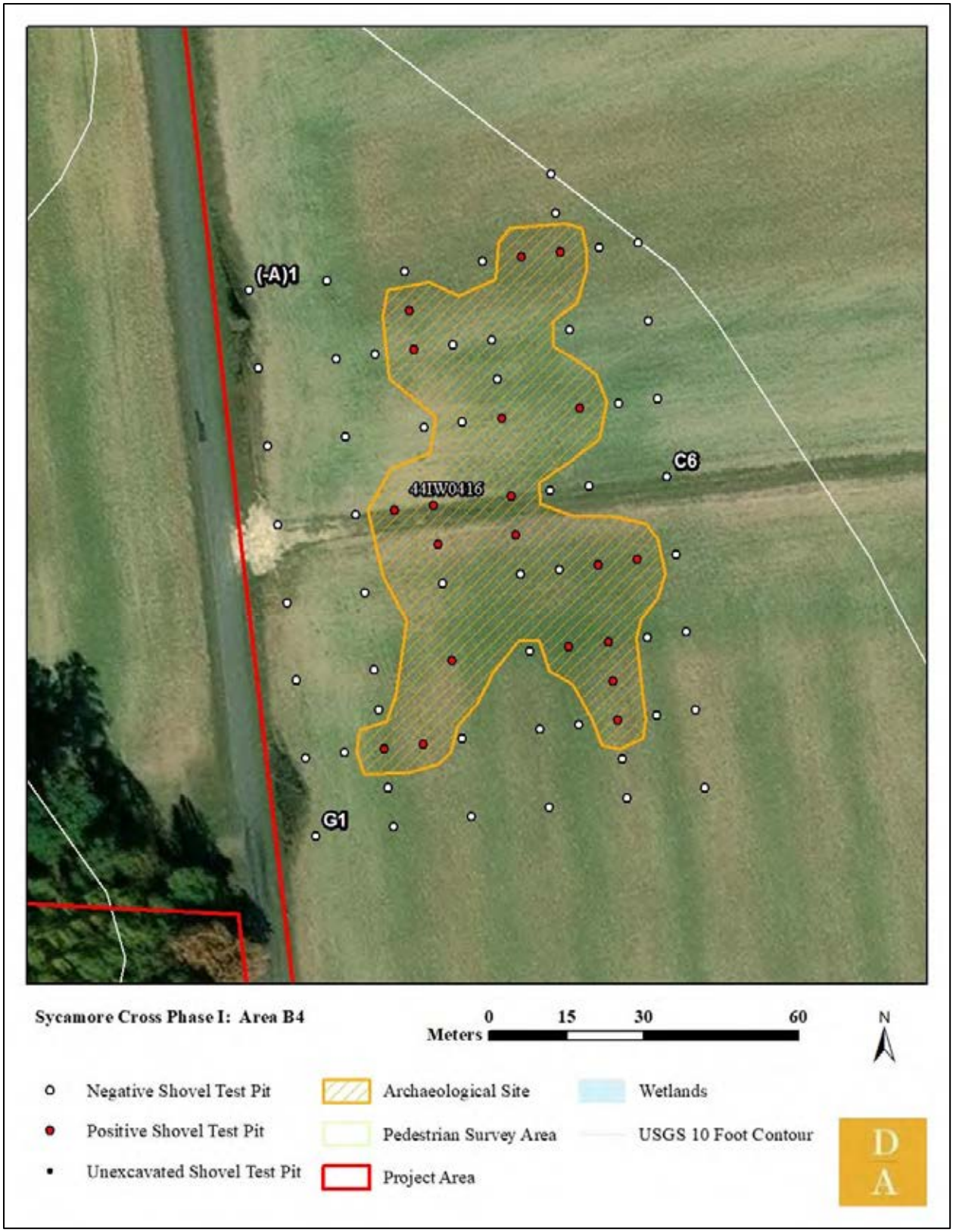



**Figure 8-91: Aerial view of Area B4 shovel test grid.**

Shovel tests in this area exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 10YR 6/4 light yellowish brown sand plowzone (Ap horizon) over 10YR 6/6 brownish yellow compact sandy clay subsoil (B horizon) (Figure 8-92).

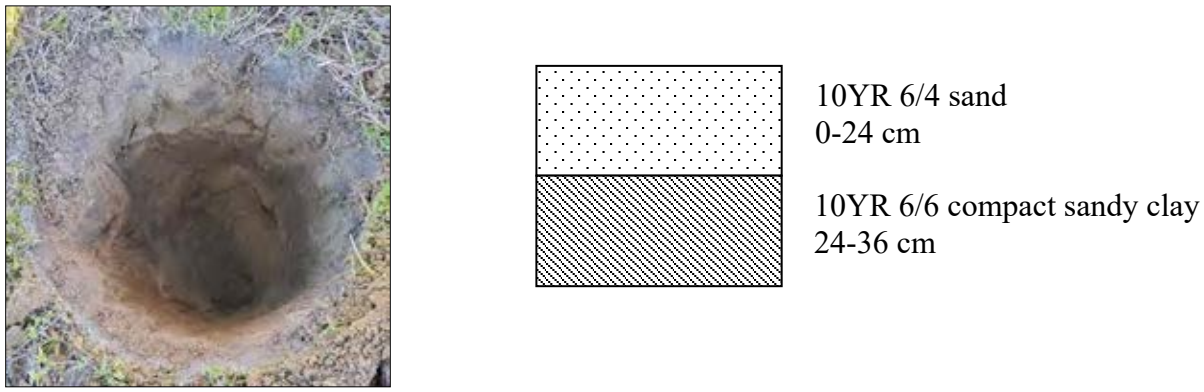



**Figure 8-92: Soil profile of Shovel Test C3 in Area B4.**

44IW0416

This site consists of an early-to-mid twentieth century domestic artifact scatter in Area B4. It is located in the same place as a dwelling indicated on historic topographic maps. A total of 65 artifacts were recovered from 20 positive shovel tests, including brick fragments; colorless vessel glass, milk glass, colorless and aqua window glass, terra cotta drain pipe, molded refined earthenware, a spark plug, and heavily corroded nails (Figure 8-93).

**Figure 8-93: Artifact summary of Site 44IW0416.**

*Area B5*

This area is located in the southeastern part of the overall Area B, bounded to the west and south by wetlands. It covers a portion of agricultural land as well as some woodland. Access is provided by White Hall Trail (Route 623) and by farm roads. A small, previously recorded cemetery sits in the middle of the grid surrounded by agricultural activity, and it contains only one headstone labeled "Holleman" and a displaced footstone labeled "J.J.H." (Figure 8-94). Mature oak, holly, and cedar surround the burial (Figure 8-95).

**Figure 8-94: Head and footstone in Area B5 cemetery.**

**Figure 8-95: Holleman cemetery in Area B5, facing southwest.**

Vegetation in this area varied between the agricultural field and the wooded part of the area. In the agricultural part of the grid vegetation consisted of harvested corn and young winter wheat (Figure 8-96). Vegetation in the woodland consisted of mature deciduous trees with a dense undergrowth of holly (Figure 8-97).

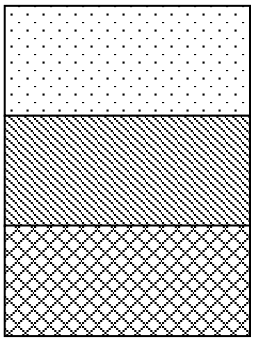
**Figure 8-96: Vegetation in the agricultural field of Area B5, facing north and the Holleman cemetery.**

**Figure 8-97: Vegetation and wetland flagging in the wooded part of Area B5, facing south.**

A total of 205 shovel tests were laid out at 15-meter (50-foot) intervals in seventeen transects labeled A through R, fourteen of which could not be excavated due to wetland (Figure 8-98). A total of three shovel tests were positive for cultural material with fragments of colorless and aqua vessel glass, terra cotta drain pipe, and colorless window glass. These positive shovel tests were designated Site 44IW0417, which is described in greater detail, below.

**Figure 8-98: Aerial view of Area B5 shovel test grid.**

Shovel tests in this area exhibited a three-stratum profile of plowzone which cuts an intact topsoil over subsoil. Stratigraphy consisted of 10YR 5/4 yellowish brown sandy loam plowzone (Ap horizon) over 10YR 4/6 dark yellowish brown sandy clay topsoil (Ab horizon) over 10YR 6/8 brownish yellow clay subsoil (B horizon) (Figure 8-99).



10YR 5/4 sandy loam
0-7 cm

10YR 4/6 sandy clay
7-30 cm

10YR 6/8 clay
30-38 cm

**Figure 8-99: Soil profile of Shovel Test E5 in Area B5.**

44IW0417

This site consists of a small domestic artifact scatter in Area B5. Artifacts recovered include two fragments of aqua vessel glass, two fragments of colorless window glass, and 83 fragments of terra cotta drain pipe (Figure 8-100).

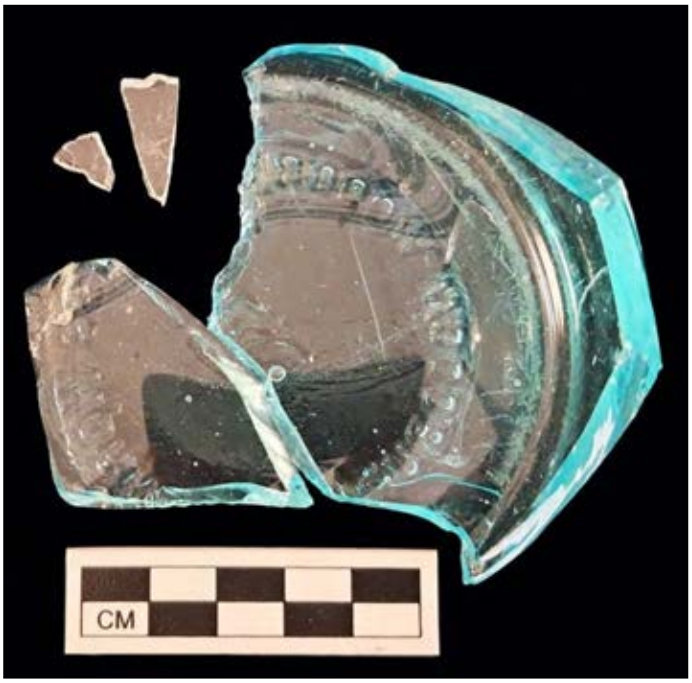



**Figure 8-100: Artifact summary of Site 44IW0417.**

AREA C

The overall Area C consists of the parcels south of Proctors Bridge Road (Route 621) and along Ramsey Road (Route 622) (Figure 8-101). Terrain in this area includes three primary large, irregular finger ridges with numerous drainages and unnamed tributaries down to Blackwater River to the west and Mill Swamp to the east. These drainages form smaller ridges, knolls, and terraces overlooking the wetlands. Large, harvested agricultural fields cover the tops of the landforms. These fields have very high surface visibility, allowing for systematic pedestrian

survey. Vegetation outside of the agricultural fields consists of mature mixed woodland and pine forest. The narrow corridors around streams and drainages have been avoided by timbering and contain mature mixed deciduous woodland vegetation. Planted pine woodland across the area can be found at different stages of regrowth following the last clearcutting event. Slopes within the project are gentle to moderate.

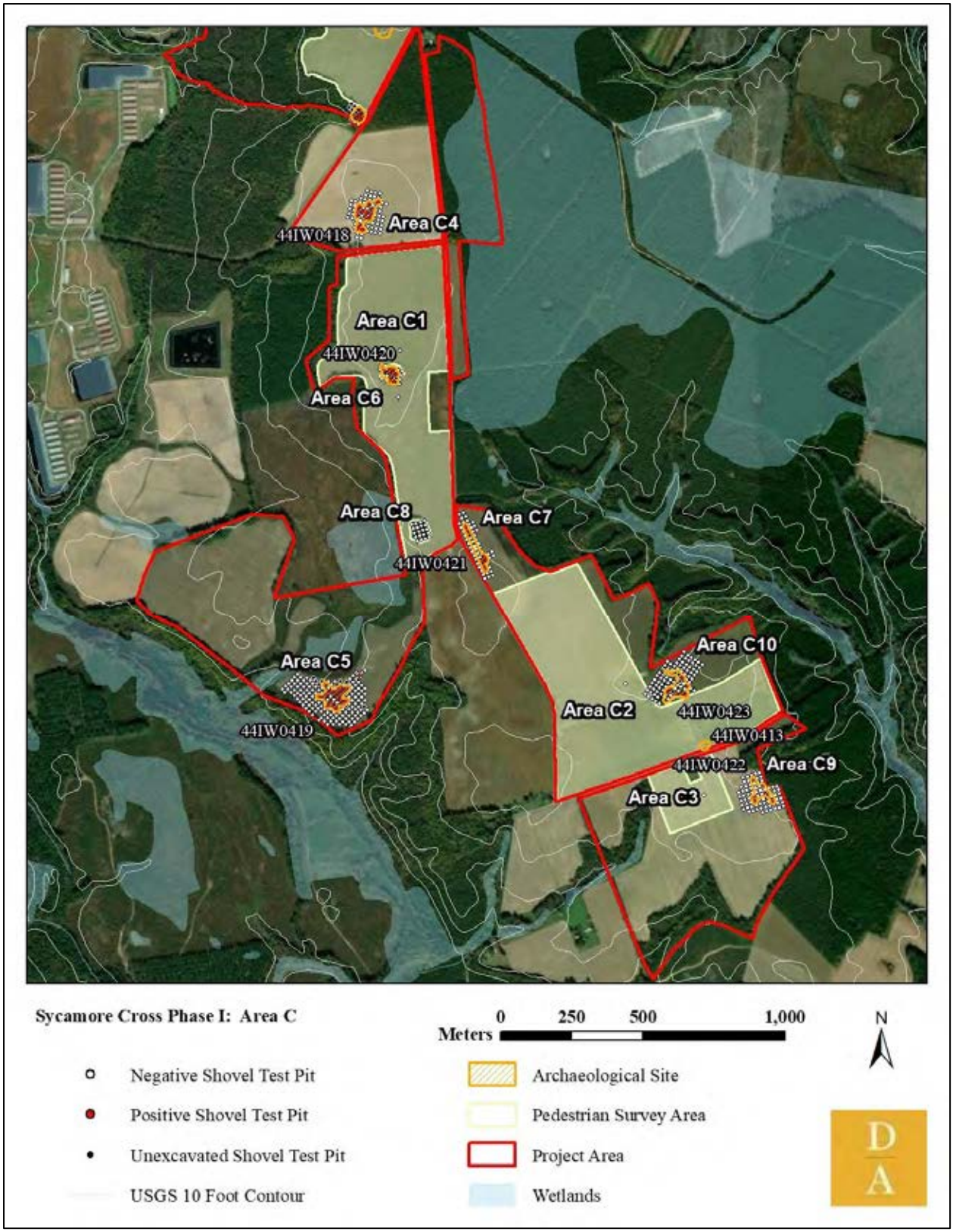



**Figure 8-101: Overall map of Area C.**

*Area C1*

This area consists of a long irregular agricultural field in the northern part of the overall Area C. It is bounded to the east by Ramsey Road (Route 622). Access to this area is provided by a short farm road running east to west in the center of the area. Terrain in this area consists of one long irregular finger ridge. Vegetation consists of harvested soy remnants with mixed woodland at the edges of the field (Figure 8-102). A dwelling is indicated on historic topographic maps, though only a grassy space, several mature trees, an outbuilding, and several utility poles remain on the surface: these surface features are associated with Architectural Resource #046-0029. An evenly rectangular space in the central and eastern part of the field was uncultivated and overgrown, for unknown reasons (Figure 8-103).

**Figure 8-102: Overview of Area C1, showing Architectural Resource #046-0029, facing north.**

**Figure 8-103: Overgrown area in middle of Area C1, facing southeast.**

Surface exposure in this area was high, and pedestrian survey was conducted in lieu of shovel test survey (Figure 8-104, Figure 8-105). Transects were walked in 7.5-meter (25-foot) intervals east to west across the entirety of this field. Only a few surface artifacts were observed across this area, including aqua vessel glass, transferware, blue shell edged refined earthenware.

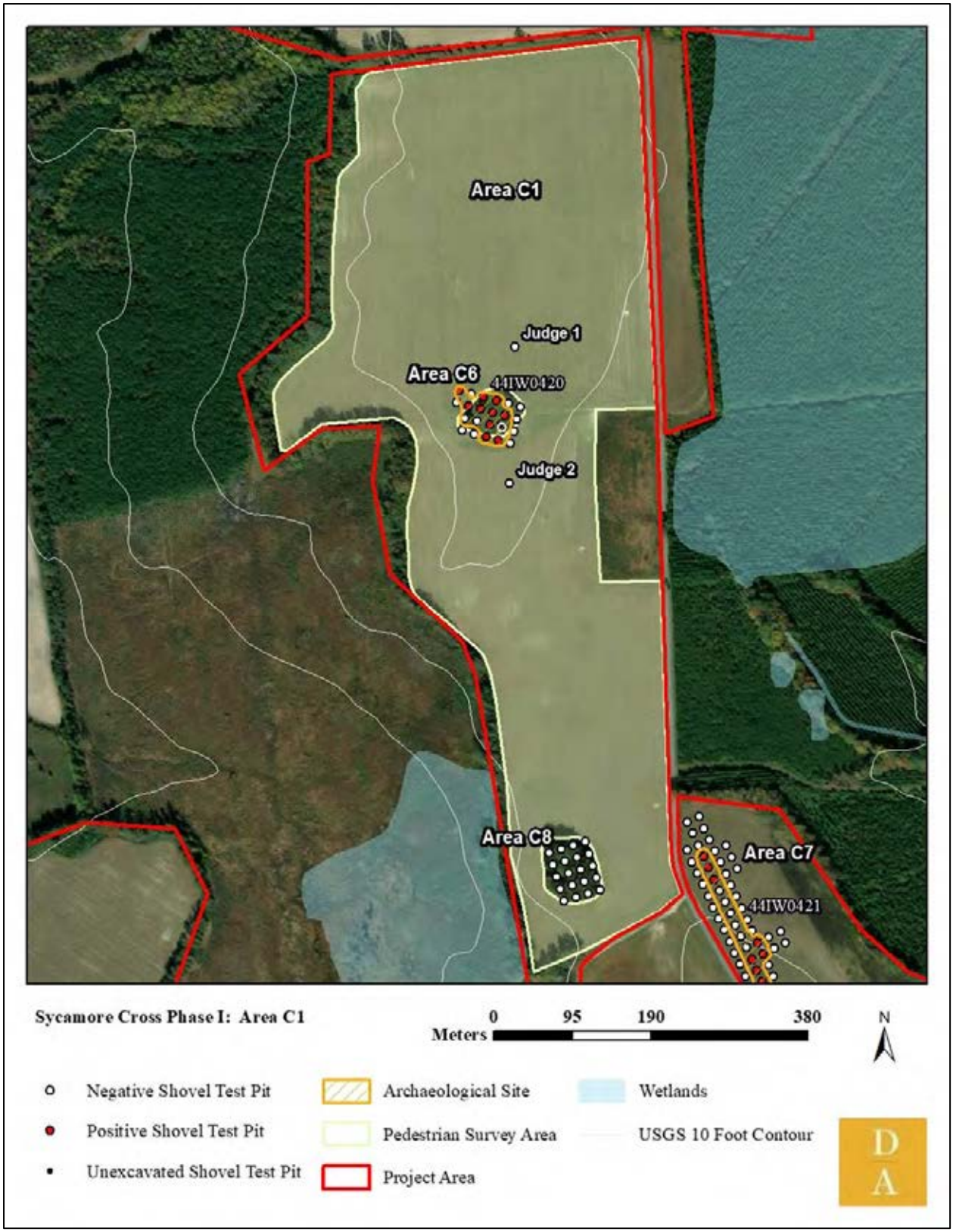



**Figure 8-104: Aerial view of Area C1 survey.**

**Figure 8-105: Surface exposure in Area C1.**

Two judgmental shovel tests were excavated in this area to investigate the integrity of the soil strata. These shovel tests exhibited a three-stratum profile of plowzone which cut an intact topsoil over subsoil. Stratigraphy consisted of 10YR 4/2 dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand transition layer (AB horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-106).

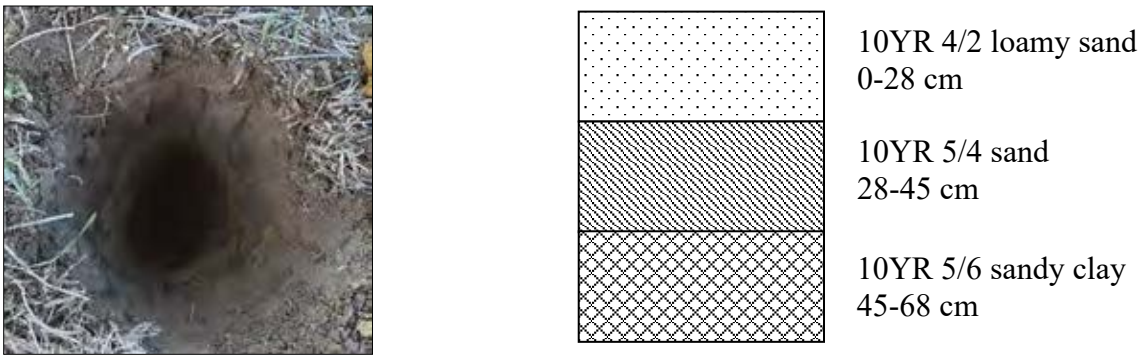



**Figure 8-106: Soil profile of Judgmental Shovel Test 1 in Area C1.**

*Area C2*

This area consists of the "L"-shaped agricultural field in the southern part of the Sycamore Cross project area and is bounded to the west by Ramsey Road (Route 622) and to the south by Rattlesnake Trail (Route 646). Access to this area is provided by farm roads to the east and south (Figure 8-107).

**Figure 8-107: Farm road in Area C2, facing south.**

Terrain in this area consists of two broad, flat finger ridges that overlook an unnamed tributary of Rattlesnake Swamp to the south. Vegetation consists of soy remnants and short, sparse grasses (Figure 8-108). A complex of structures associated with Architectural Resource #046-5148 is located in the southern part of this area (Figure 8-109). This complex includes a dwelling and several outbuildings.

**Figure 8-108: Overview of Area C2, facing northwest.**

**Figure 8-109: Architectural Resource #046-5148 in Area C2, facing north.**

Surface exposure in this agricultural field was high, and pedestrian survey was conducted in lieu of shovel test survey (Figure 8-110, Figure 8-111). Transects were walked in 7.5-meter (25-foot) intervals east to west across the entirety of this field. Surface artifacts were observed in a scatter in the southern end of the field. These surface observations were designated Site 44IW0413, which is described in greater detail below.

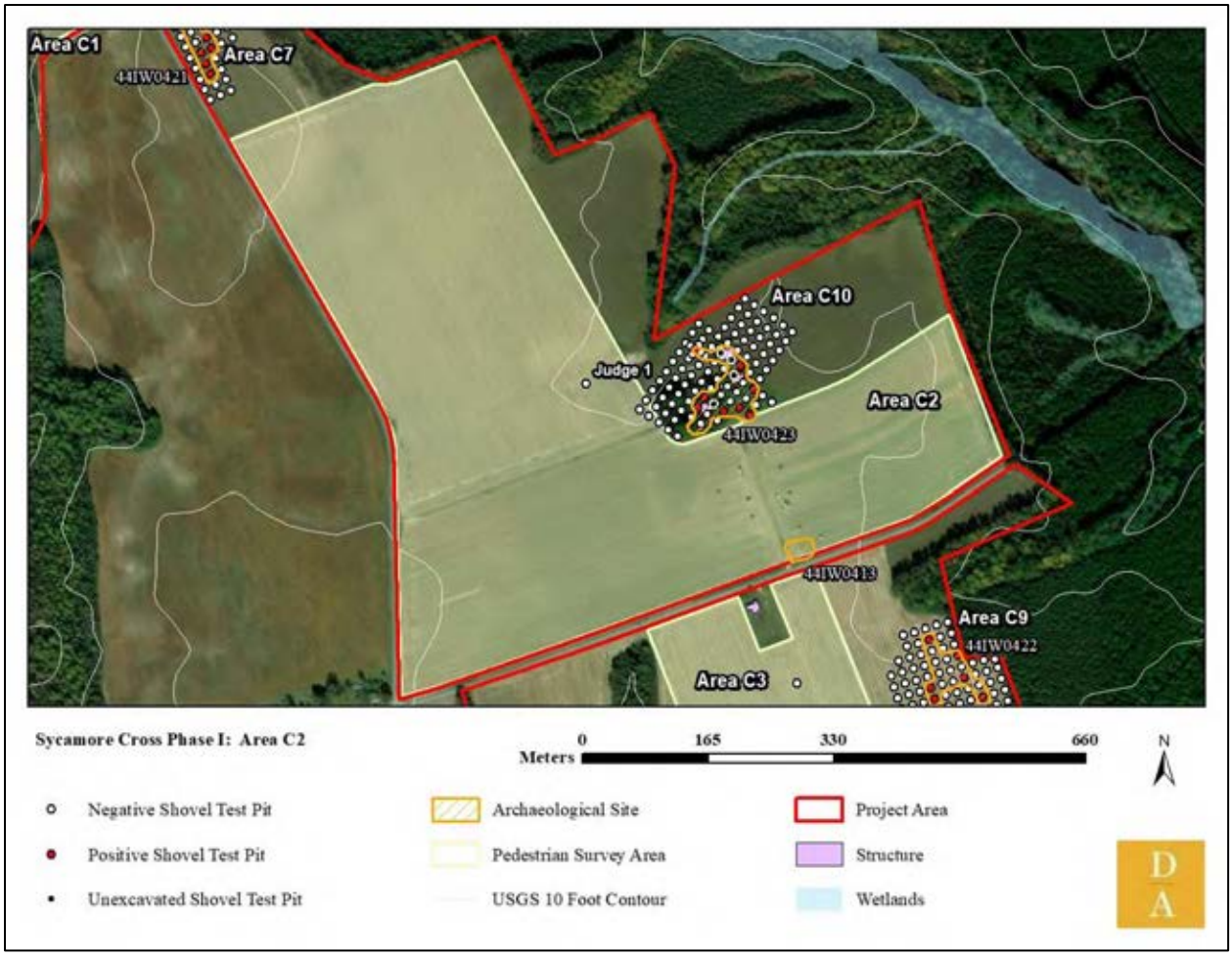



**Figure 8-110: Aerial view of Area C2 survey.**

**Figure 8-111: Surface exposure in Area C2.**

One judgmental shovel test was excavated in this area to investigate the integrity of the soil strata. This shovel test exhibited at least a two-stratum profile of 10YR 4/2 dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand transition (AB horizon), and excavation reached the water table before subsoil could be observed (Figure 8-112).

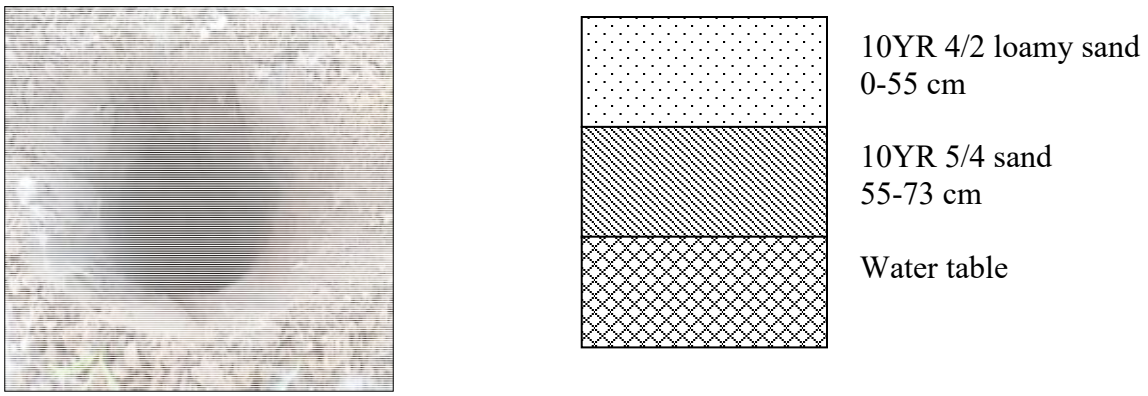



**Figure 8-112: Soil profile of Judgmental Shovel Test 1 in Area C2.**

44IW0413

This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C2. No artifacts were collected, but artifacts observed included aqua and colorless vessel glass, brick fragments, and refined earthenware (Figure 8-113). No surface features were observed.

**Figure 8-113: Artifacts on the surface in Site 44IW0413.**

*Area C3*

This area consists of a smaller rectangular section of a larger agricultural field in the southernmost part of the Sycamore Cross project area (Figure 8-114). This area is south of Area C2 and bounded to the north by Rattlesnake Trail (Route 646). Access to this area is provided by a short drive off of Rattlesnake Trail, in the middle of the area.

**Figure 8-114: Overview of Area C3, facing south.**

Terrain in this area consists of a broad finger ridge overlooking three large drainages to the east and west, which lead to both Blackwater River and Rattlesnake Swamp. Vegetation in this area is the same as that of Area C2. One dwelling stands at the northern edge of the field (Figure 8-115).

**Figure 8-115: Dwelling in Area C3, facing southwest.**

Surface exposure in this agricultural field was high, and pedestrian survey was conducted in lieu of shovel test survey (Figure 8-116, Figure 8-117). Transects were walked in 7.5-meter (25-foot) intervals east to west across the entirety of this field. No artifact scatters were observed.

**Figure 8-116: Aerial view of Area C3 survey.**

**Figure 8-117: Surface exposure in Area C3.**

One judgmental shovel test was excavated in this area to investigate the integrity of the soil strata. This shovel test exhibited a three-stratum profile of plowzone which cut an intact topsoil over subsoil. Stratigraphy consisted of 10YR 4/2 dark grayish brown loamy sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand topsoil (Ab horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-118).

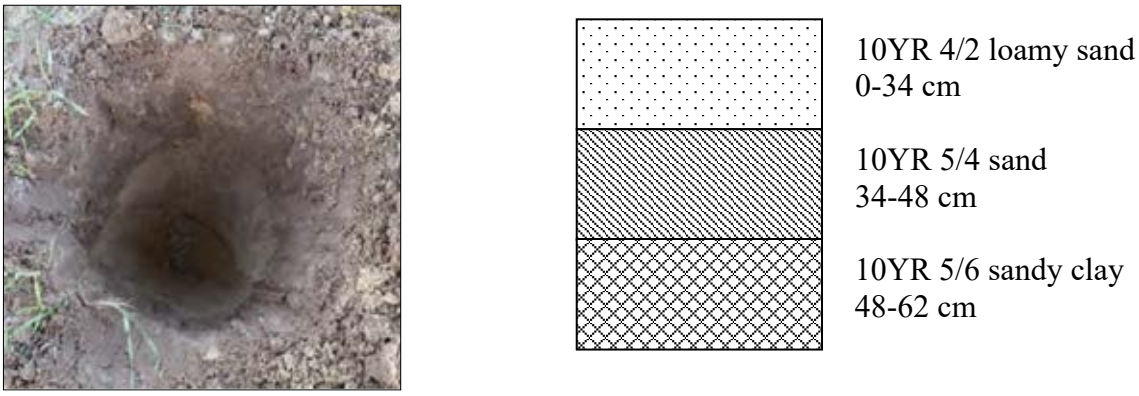



**Figure 8-118: Soil profile of Judgmental Shovel Test 1 in Area C3.**

*Area C4*

This area consists of a large rectangular agricultural field in the northern part of the overall Area C. This field sits on the top of a long, broad finger ridge that makes up much of Area C. It is bounded to the northwest by Proctors Bridge Road (Route 621), to the east by Ramsey Road (Route 622), and to the south by an unnamed farm road (Figure 8-119). This grid was placed where two outbuildings are indicated on historic maps, though no surface features remain. These outbuildings may be associated with Architectural Resource #046-0030, which is no longer standing.

**Figure 8-119: Towards farm road south of Area C4, facing southwest.**

Vegetation in Area C4 at the time of survey consisted of the remains of harvested corn and sparse, short grasses (Figure 8-120). Standing water earlier in the year prevented systematic pedestrian survey. Buried utilities run through the field, indicating at least some surface disturbance by farming activity.

**Figure 8-120: Vegetation and utilities in Area C4, facing north.**

A total of 76 shovel tests were laid out at 15-meter (50-foot) intervals in nine transects labeled -B through G (Figure 8-121). A total of fourteen shovel tests were positive for cultural material with fragments of vessel glass, refined earthenware, oyster shell, nails, brick, and window glass. These positive shovel tests were designated Site 44IW0418, which is described in greater detail below.

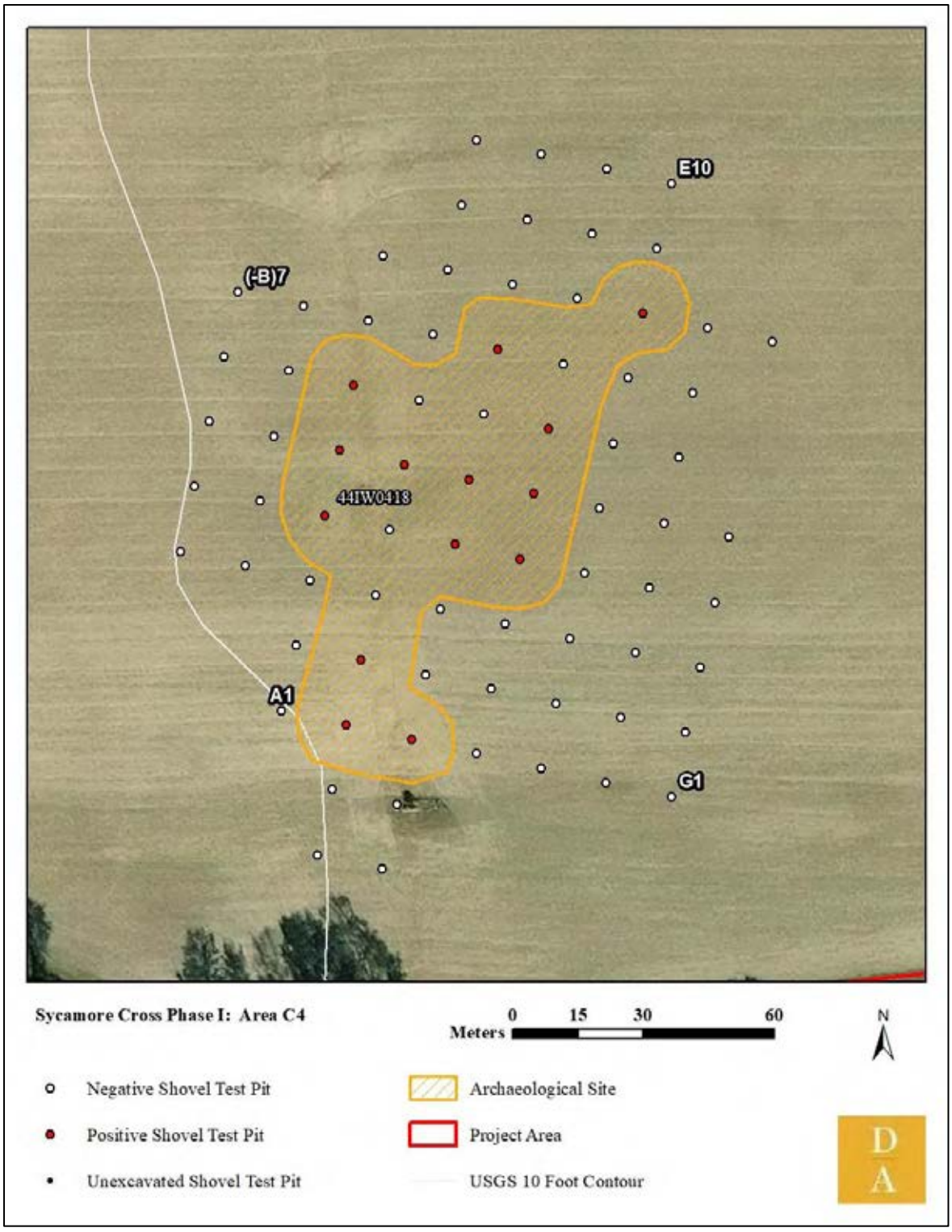



**Figure 8-121: Aerial view of Area C4 shovel test grid.**

Shovel tests in this area exhibited a three-stratum profile of plowzone which cuts an intact topsoil over subsoil. Stratigraphy consisted of 7.5Y 4/3 brown sandy loam plowzone (Ap horizon) over 10YR 6/3 pale brown sandy loam transition layer (AB horizon) over 7.5YR 6/4 light brown sandy clay loam subsoil (B horizon) (Figure 8-122).

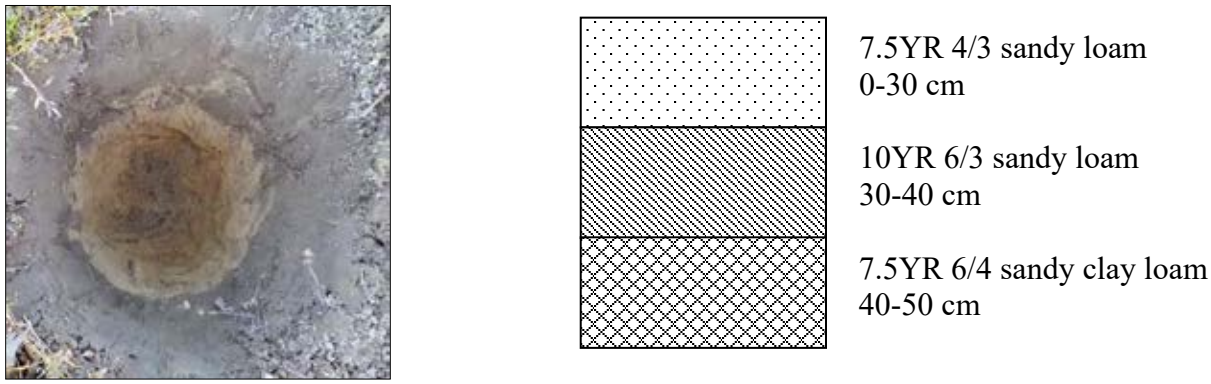



**Figure 8-122: Soil profile of Shovel Test C8 in Area C4.**

44IW0418

This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter associated with Architectural Resource #046-0030. This resource is no longer standing. A total of 89 artifacts were recovered from fourteen positive shovel tests, including refined earthenware, oyster shell, solarized vessel glass, milk glass, green vessel glass, cobalt vessel glass, brick fragments, corroded nails, yellowware, and aqua window glass (Figure 8-123).

**Figure 8-123: Artifact summary of Site 44IW0418.**

*Area C5*

This area consists of the small horseshoe-shaped agricultural field to the southwest of the Sycamore Cross project area. This field sits at the end of a narrow, rectangular finger ridge

overlooking the headwaters of an unnamed tributary of Blackwater River. Slope is gentle and rolling. Access is provided by a farm road that runs along the finger ridge (Figure 8-124).

**Figure 8-124: Farm road in Area C5, facing south.**

Vegetation in Area C5 at the time of survey consisted of young winter wheat (Figure 8-125). Scrubby grasses and mixed woodland border this area. Historic topographic maps show a dwelling and associated outbuilding at the end of this landform. This grid was placed to find evidence of these structures.

**Figure 8-125: Overview of Area C5, facing north.**

A total of 178 shovel tests were laid out at 15-meter (50-foot) intervals in 0 transects labeled A through S, nine of which could not be excavated due to road disturbance and standing water (Figure 8-126, Figure 8-127). A total of 20 shovel tests were positive for cultural material with fragments of vessel glass, lantern glass, refined earthenware, machine cut and wire nails, and copper pipe. These positive shovel tests were designated Site 44IW0419, which is described in greater detail below.

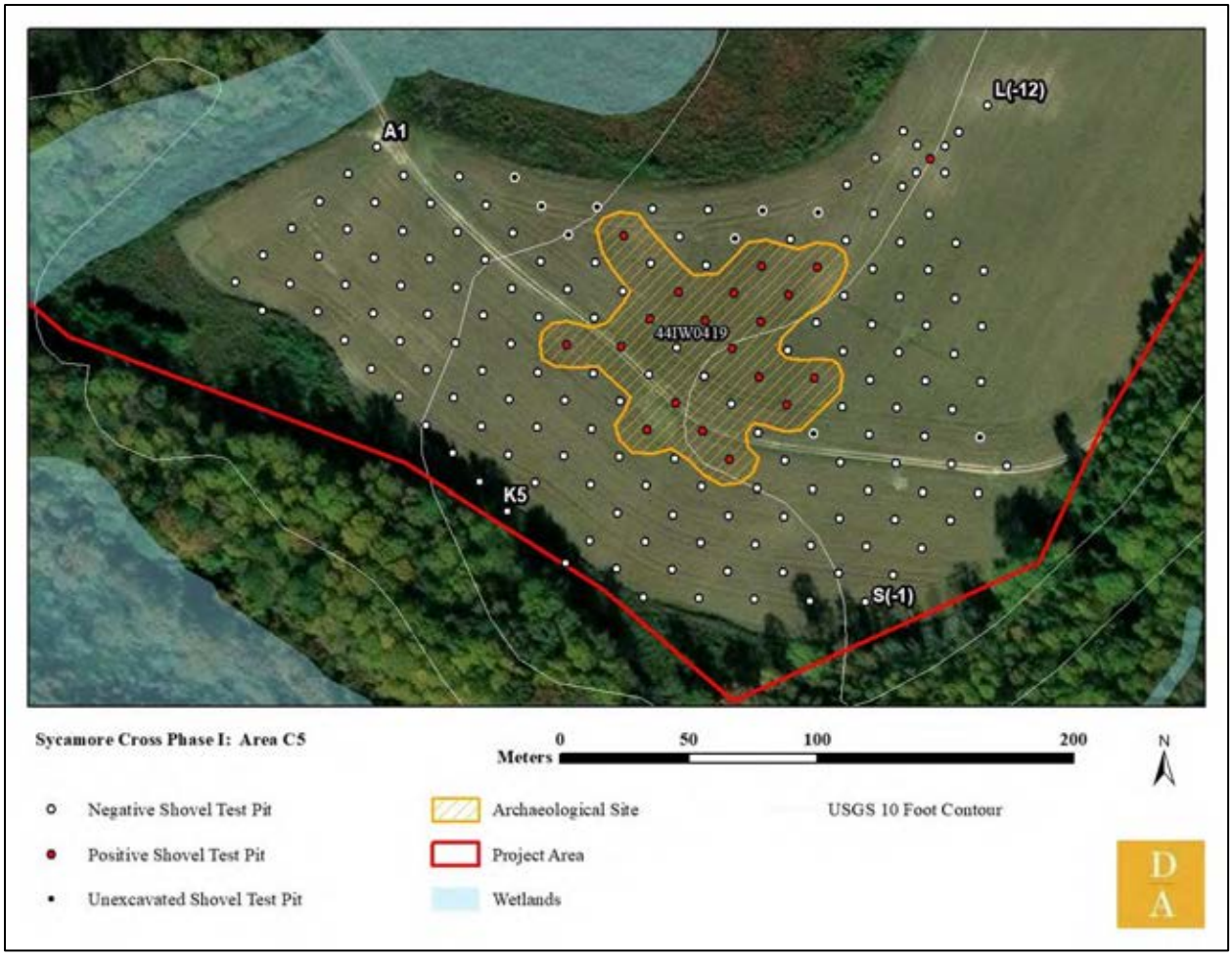
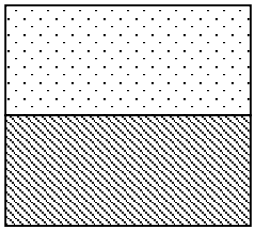



**Figure 8-126: Aerial view of Area C5 shovel test grid.**

**Figure 8-127: Standing water in Area C5.**

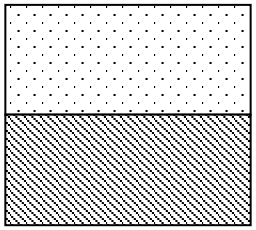
Shovel tests exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 2.5Y 5/4 light yellowish brown sandy clay loam plowzone (Ap horizon) over 10YR 4/6 dark yellowish brown clay subsoil (B horizon) (Figure 8-128). Shovel Test J(-1) encountered an impasse of concrete or mortar at 20 cm below the surface (Figure 8-129).



2.5Y 5/4 sandy clay loam
0-45 cm

10YR 4/6 clay
45-55 cm

**Figure 8-128: Soil profile of Shovel Test N(-4) in Area C5.**



10YR 4/2 sandy loam
0-20 cm

Concrete and mortar impasse
20- cm

**Figure 8-129: Shovel Test J(-1), showing concrete impasse.**

44IW0419

This site consists of a mid-nineteenth to early-twentieth century domestic artifact scatter in Area C5. A total of 51 artifacts were recovered from 20 positive shovel tests, including brick fragments, machine-cut and wire nails, aqua vessel glass, solarized vessel glass, colorless vessel glass, dark green vessel glass, blue shell edged ceramic, industrial porcelain, lantern glass, and a fragment of copper pipe (Figure 8-130).

**Figure 8-130: Artifact summary of Site 44IW0419.**

*Area C6*

This area sits in the center of the long rectangular agricultural field of the Area C1 pedestrian survey. It focuses on a grassy space that could not be systematically pedestrian surveyed and where historic topographic maps indicate one dwelling and one outbuilding. Structural remains, one

standing structure, and farm equipment were observed on the surface (Figure 8-131, Figure 8-132). Vegetation in this area consisted of tall grasses and a few mature shrubs.

**Figure 8-131: Vegetation and outbuilding in Area C6, facing west.**

**Figure 8-132: Structural rubble in Area C6.**

A total of 22 shovel tests were laid out at 15-meter (50-foot) intervals in four transects labeled A through D, one of which could not be excavated due to structural remains (Figure 8-133). A total of ten shovel tests were positive for cultural material with fragments of unidentified farm equipment, window and vessel glass, and refined earthenware. These positive shovel tests were designated Site 44IW0420, which is described in greater detail, below. In order to get negative space around positive shovel tests, a portion of the Area C6 shovel test grid overlaps with the Area C1 pedestrian survey.

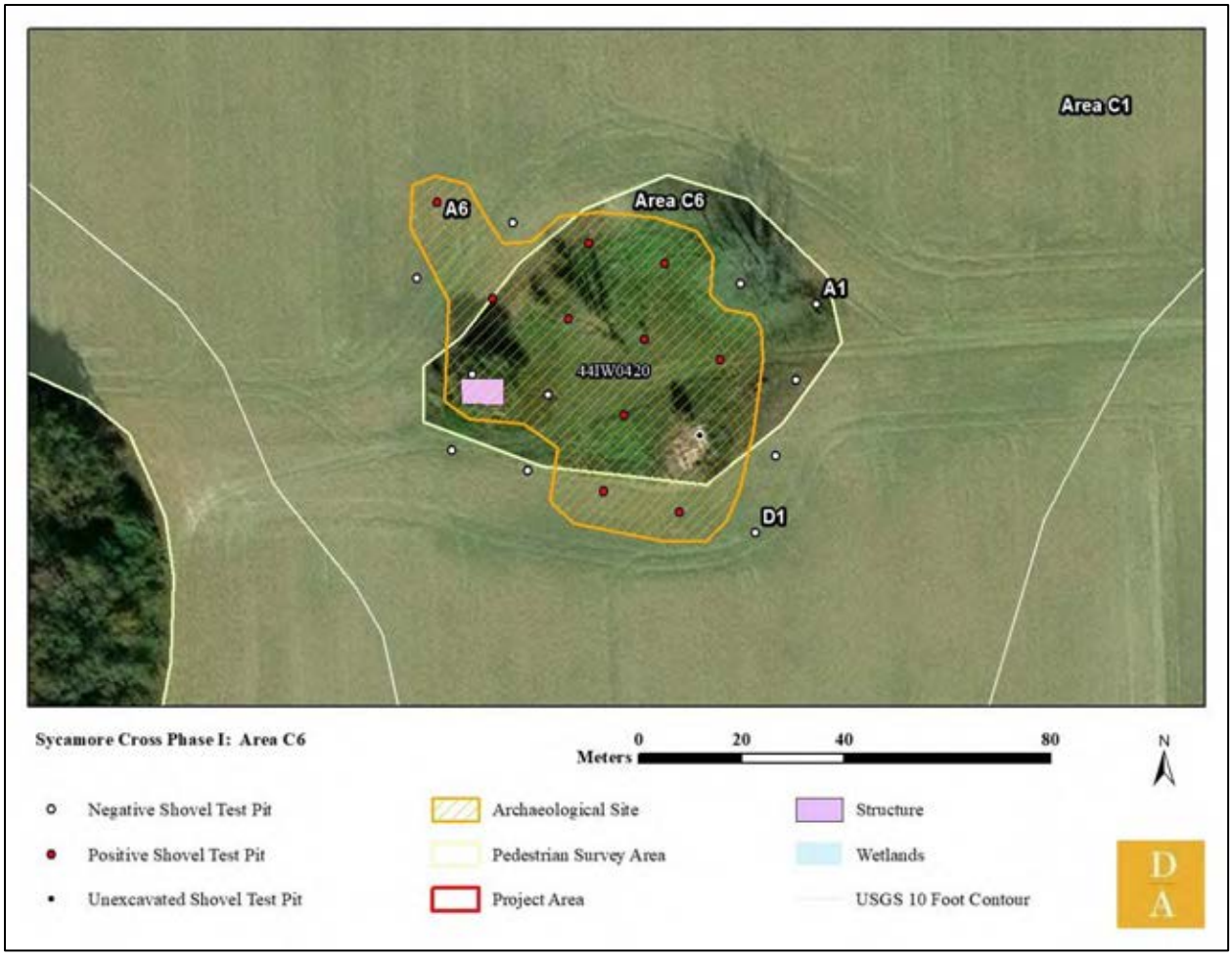
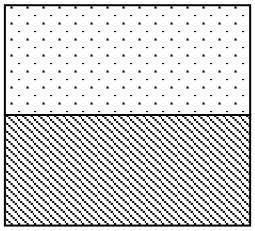



**Figure 8-133: Aerial map of Area C6 shovel test grid.**

Shovel tests in this area exhibited a three-stratum profile of plowzone which cuts an intact topsoil over subsoil. Stratigraphy consisted of 10YR 5/2 grayish brown sandy loam topsoil (A horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-134).



10YR 5/2 sandy loam
0-35 cm

10YR 5/6 sandy clay
35-51 cm

**Figure 8-134: Soil profile of Shovel Test B3 in Area C6.**

44IW0420

This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C6. This grid also overlaps slightly with the Area C1 pedestrian survey. This site is also associated with Architectural Resource #046-0029. A total of 20 artifacts were recovered from ten positive shovel tests, including a length of chain, two fragments of unidentified farm equipment, brown vessel glass, colorless vessel and window glass, aqua vessel glass, brick fragments, and one machine cut nail (Figure 8-135). Colorless vessel glass was most common in this area, with five fragments recovered.

**Figure 8-135: Artifact summary of Site 44IW0420.**

*Area C7*

This area sits in the center of the overall Area C, north of the Area C2 pedestrian survey and bounded on the west by Ramsey Road (Route 622) (Figure 8-136). It sits at the top of a large finger ridge, pinched between drainages to tributaries of the Blackwater River and Mill Swamp. This grid was excavated to find evidence of a dwelling marked on historic topographic maps. Vegetation in this area is primarily short grasses consistent with fallow agricultural fields (Figure 8-137).

**Figure 8-136: Ramsey Road bounding the west of Area C7, facing south.**

**Figure 8-137: Vegetation and overview of Area C7, facing south.**

A total of 56 shovel tests were laid out at 15-meter (50-foot) intervals in five transects labeled A through E (Figure 8-138). A total of eight shovel tests were positive for cultural material with fragments of vessel glass, unidentified nails, refined earthenware, window glass, and a glass marble. These positive shovel tests were designated Site 44IW0421, which is described in greater detail, below.

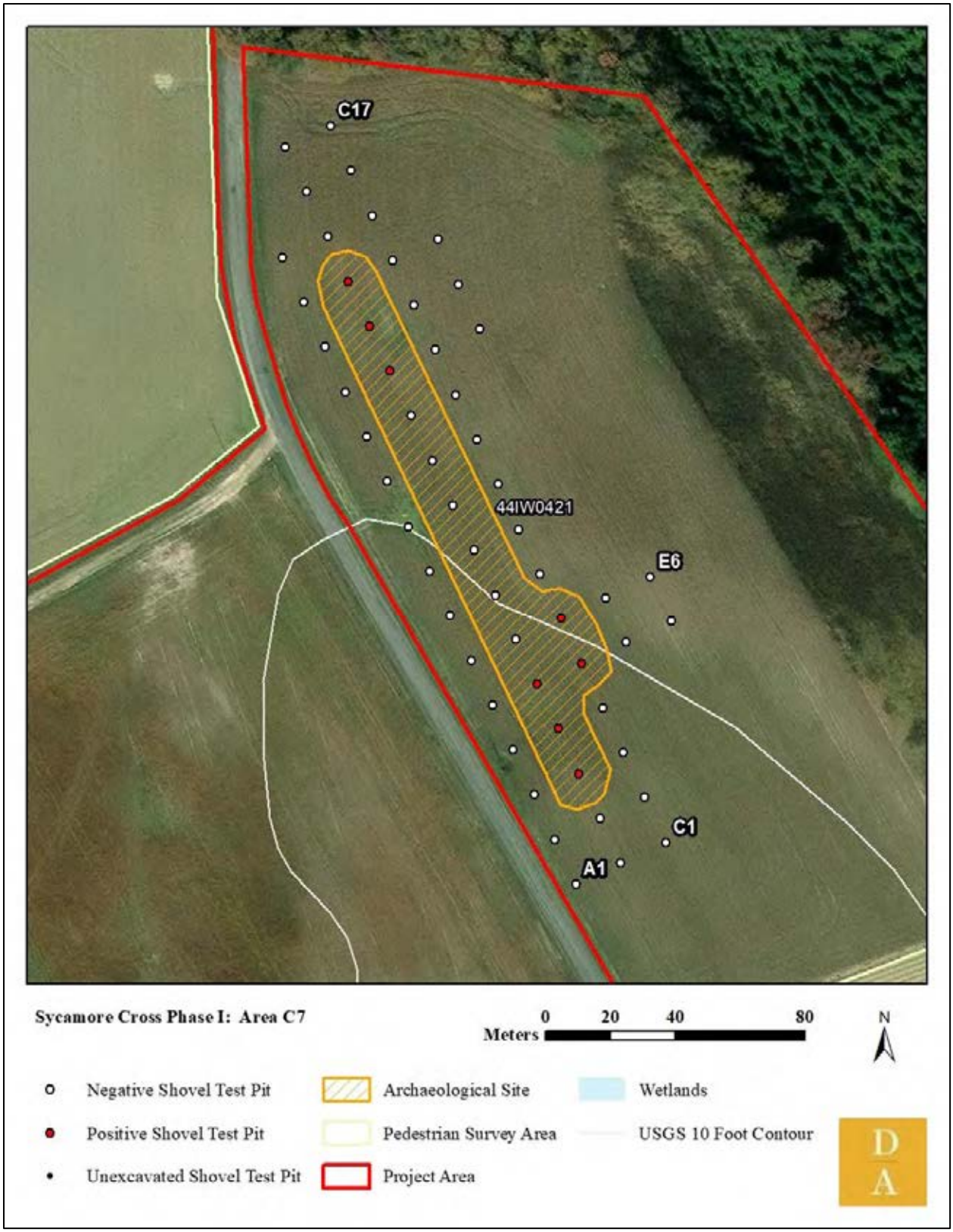
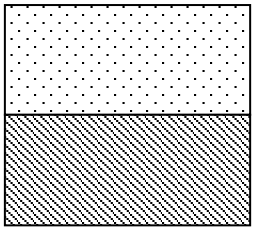



**Figure 8-138: Aerial view of Area C7 shovel test grid.**

Shovel tests in this area exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 10YR 3/2 very dark grayish brown sandy loam plowzone (Ap horizon) over 10YR 5/4 yellowish brown sand subsoil (B horizon) (Figure 8-139).



10YR 3/2 sandy loam
0-31 cm

10YR 5/4 sand
31-50 cm

**Figure 8-139: Soil profile of Shovel Test B12 in Area C7.**

44IW0421

This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C7. Fifty artifacts were recovered from eight positive shovel tests, including corroded nails, aqua vessel glass, colorless vessel and window glass, brown vessel glass, refined earthenware, brick fragments, and a glass marble (Figure 8-140).

**Figure 8-140: Artifact summary of Site 44IW0421.**

*Area C8*

This area covers the copse of trees in the southern end of the agricultural field that constitutes the Area C1 pedestrian survey. This small grid overlooks a large, flat, terraced finger ridge to the west.

Fence posts, sheet metal, farm equipment, and fragments of brick and plaster can be found scattered across the ground surface of this area (Figure 8-141, Figure 8-142).

**Figure 8-141: Fence post in Area C8, facing east.**

**Figure 8-142: Equipment remnants in Area C8, facing south.**

Vegetation in Area C8 at the time of survey consisted of mature deciduous trees ringing a dense briar thicket (Figure 8-143). A thick, loamy humus layer can be found across this area (Figure 8-144). Terrain in this grid is unnatural and bowl-shaped, with trees growing around the "rim" of the "bowl."

**Figure 8-143: Vegetation in Area C8, facing east.**

**Figure 8-144: Shovel Test C4, showing 35 cm humus layer.**

A total of 20 shovel tests were laid out at 15-meter (50-foot) intervals in four transects labeled A through D (Figure 8-145). No cultural material was recovered, and no historic surface features were observed.

**Figure 8-145: Aerial view of Area C8 shovel test grid.**

Shovel tests in this area exhibited a three-stratum profile of topsoil over transitional layer over subsoil. Stratigraphy consisted of 10YR 3/2 very dark grayish brown sandy loam topsoil (A horizon) over 10YR 6/4 light yellowish brown sand transition layer (AB horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-146).

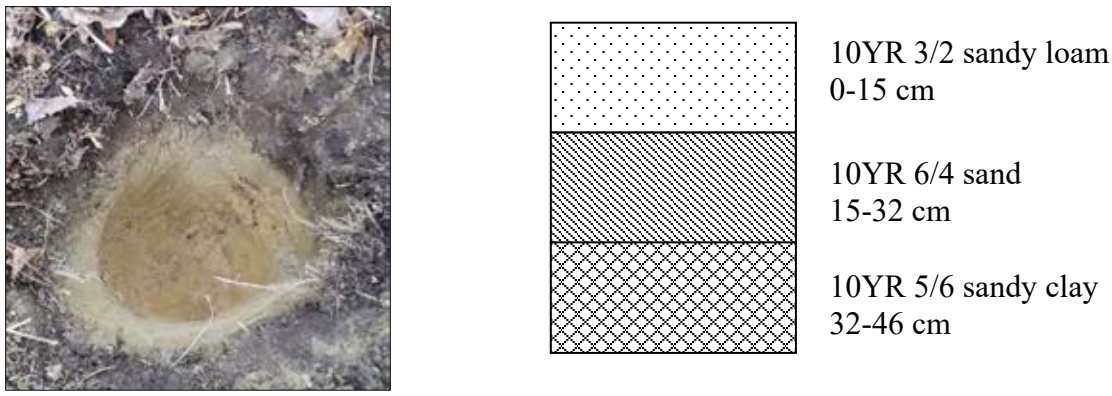



**Figure 8-146: Soil profile of Shovel Test B5 in Area C8.**

*Area C9*

This area consists of a portion of the southernmost agricultural field in Area C9, at the eastern project area boundary. It shares this agricultural field with the Area C3 pedestrian survey, though these areas do not overlap. This area overlooks several broad terraces that themselves overlook drainages down to Mill Swamp. Vegetation in Area C9 at the time of survey consisted of waist-high winter wheat, with mature mixed forest at the edge of the agricultural field (Figure 8-147). Terrain is broad and flat.

**Figure 8-147: Overview of Area C9, facing north.**

A total of 78 shovel tests were laid out at 15-meter (50-foot) intervals in ten transects labeled A through K (Figure 8-148). A total of six shovel tests were positive for cultural material including fragments of vessel and window glass, ironstone, and refined earthenware. These positive shovel tests were designated Site 44IW0422, which is described in greater detail, below.

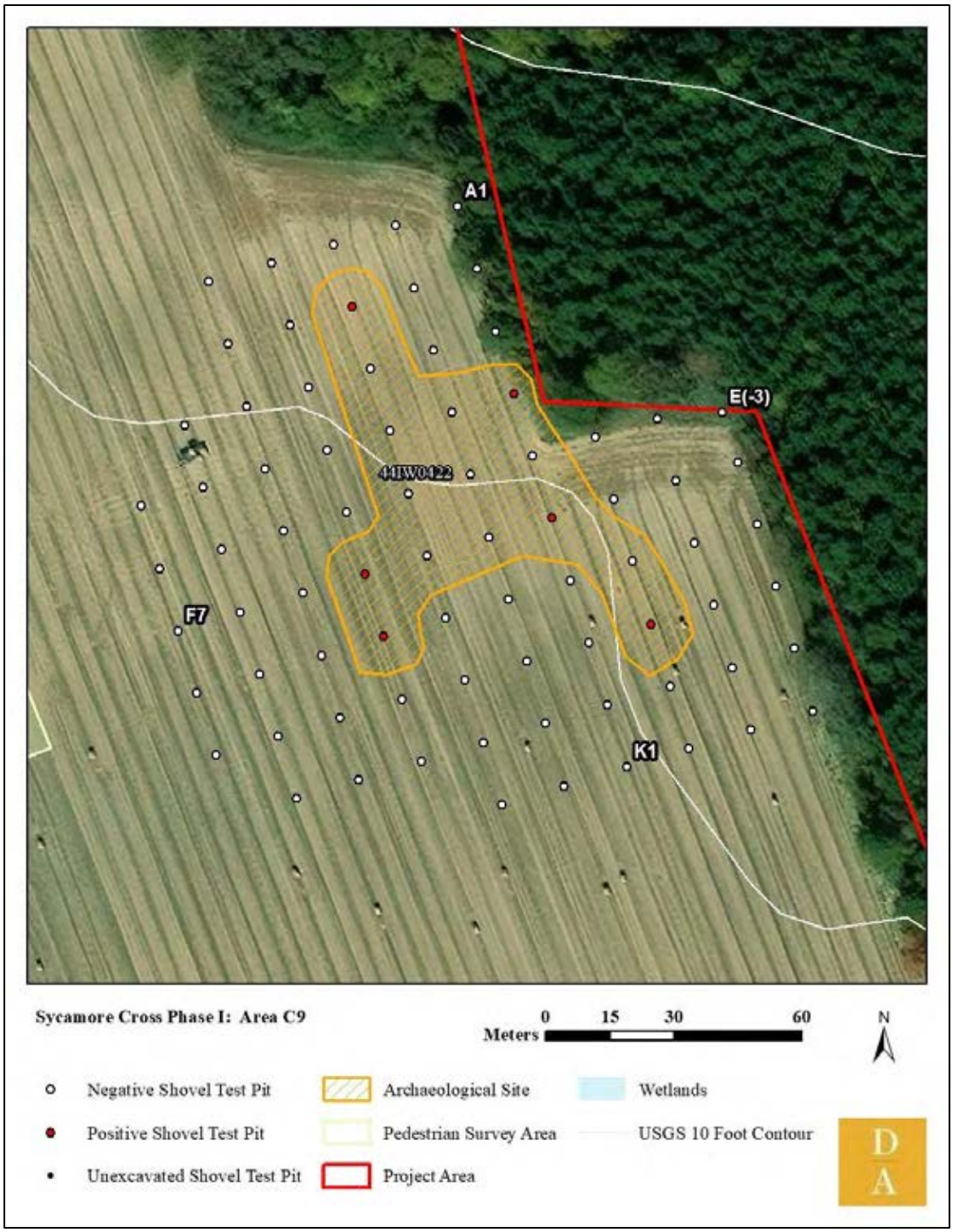



**Figure 8-148: Aerial view of Area C9 shovel test grid.**

Shovel tests exhibited a three-stratum profile of plowzone which cuts an intact topsoil over subsoil. Stratigraphy consisted of 10YR 5/4 yellowish brown sand plowzone (Ap horizon) over 10YR6/4 light yellowish brown sand topsoil (A horizon) over 10YR 5/6 yellowish brown sandy clay subsoil (B horizon) (Figure 8-149).

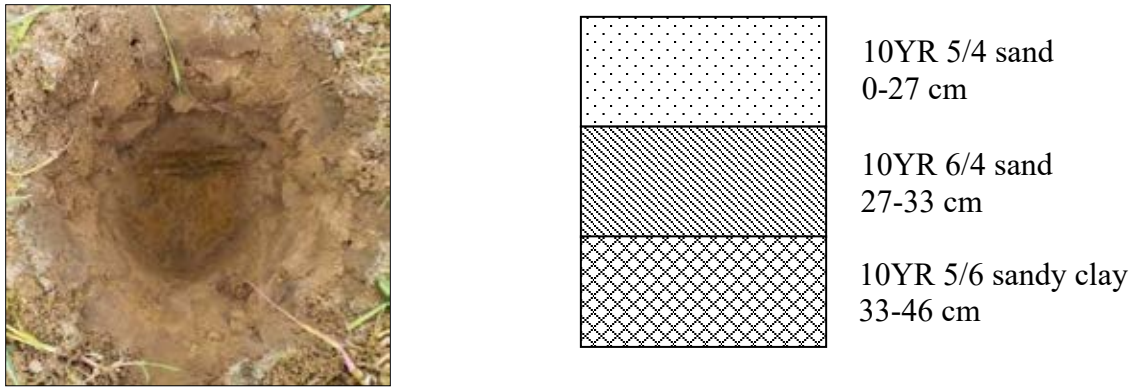



**Figure 8-149: Soil profile of Shovel Test B4 in Area C9.**

44IW0422

This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C9. 13 artifacts were recovered from six shovel tests, including colorless, aqua, cobalt, and solarized vessel glass; ironstone; refined earthenware; and unidentified iron (Figure 8-150). The most common artifact was colorless vessel glass, with four fragments.

**Figure 8-150: Artifact summary of Site 44IW0422.**

*Area C10*

This area rests in the southern part of the overall Area C, bounded by Area C2 to the west and south and by the Sycamore Cross project area boundaries to the north. This area was excavated to investigate a part of the project that could not be systematically pedestrian surveyed due to low surface visibility, as well as its proximity to Architectural Resource #046-5148 (Figure 8-151). It

sits on a narrow finger ridge at the headwaters of an unnamed tributary of Mill Swamp, where human activity has formed a dam and artificial wetland outside of the project area.

**Figure 8-151: View towards an outbuilding associated with Architectural Resource #046-5148, facing east.**

Vegetation in Area C10 at the time of survey varied. In the open field, vegetation consisted of short grasses (Figure 8-152). Around the farm complex, vegetation consisted of tall grasses, woody shrubs, privet, and mature trees (Figure 8-153).

**Figure 8-152: Vegetation in the agricultural field in Area C10, facing west.**

**Figure 8-153: Vegetation around Architectural Resource #046-5148, facing south.**

A total of 101 shovel tests were laid out at 15-meter (50-foot) intervals in fourteen transects labeled A through O, four of which could not be excavated due to proximity to structures (Figure 8-154). A total of eight shovel tests were positive for cultural material with fragments of mortar, unidentified nails, vessel glass, and iron bolts. These positive shovel tests were designated Site 44IW0423, which is described in greater detail, below.

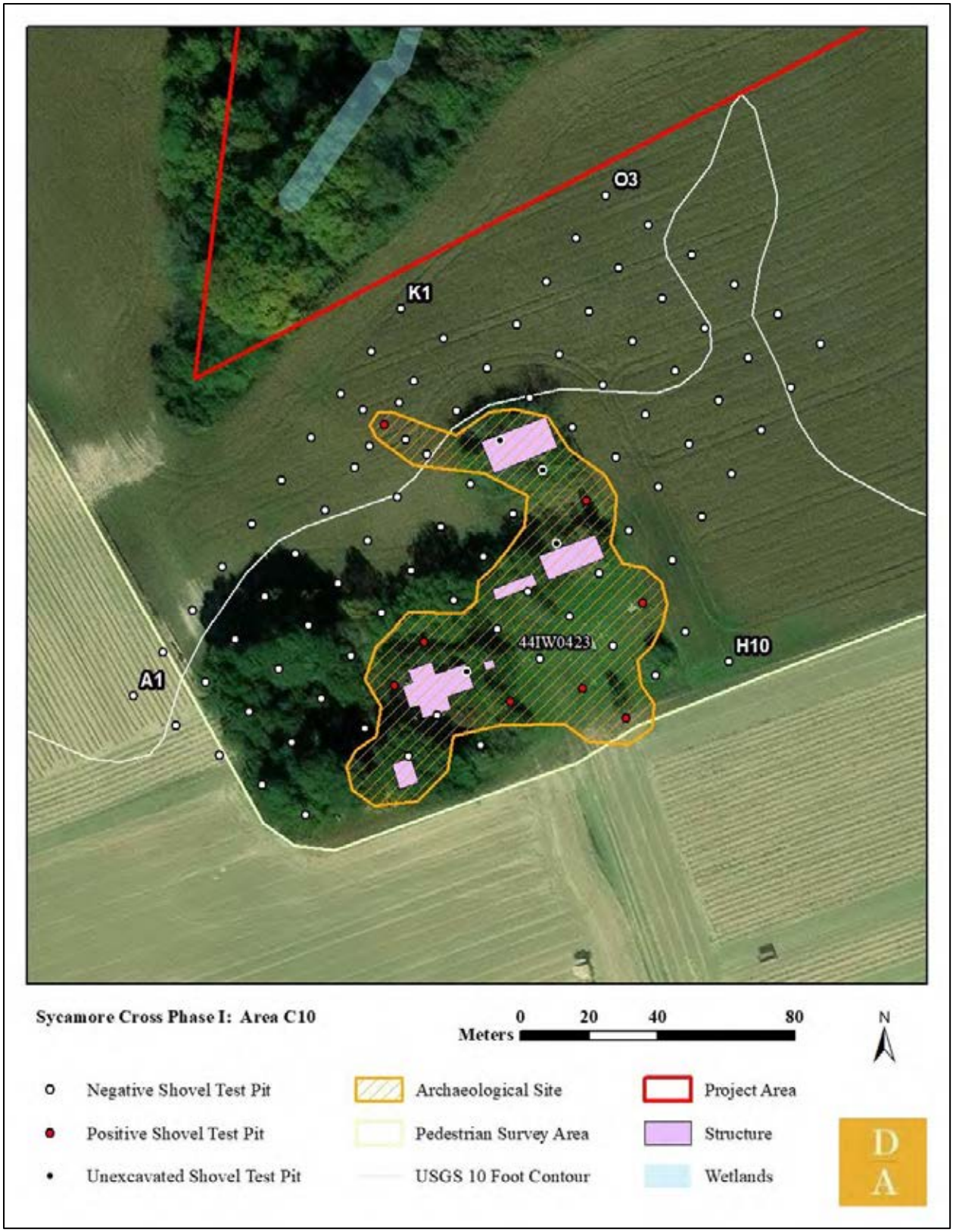



**Figure 8-154: Aerial view of Area C10 shovel test grid.**

Shovel tests in the agricultural field exhibited a three-stratum profile of plowzone which cuts an intact transition layer over subsoil. Stratigraphy consisted of 10YR 4/3 brown sandy loam plowzone (Ap horizon) over 2.5Y 7/4 pale brown sandy clay transition (AB horizon) over 10YR 7/6 yellow clay subsoil (B horizon) (Figure 8-155). Shovel tests in the thicker vegetation around the architectural resource exhibited a three-stratum profile of a disturbed layer over intact topsoil over subsoil. Stratigraphy here consisted of 10YR 6/6 brownish yellow clay disturbance over 10YR 3/3 dark brown sand topsoil (A horizon) over 2.5Y 6/4 light yellowish brown sandy clay subsoil (B horizon) (Figure 8-156).

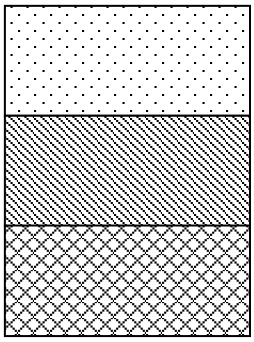



**Figure 8-155: Soil profile of Shovel Test J3 in the agricultural field in Area C10.**

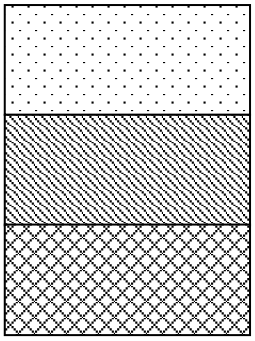



**Figure 8-156: Soil profile of Shovel Test E5 in the domestic part of Area C10.**

44IW0423

This site consists of an early-to-mid twentieth century artifact scatter in Area C10. Eighteen artifacts were recovered from eight shovel tests, including iron bolts, nuts, unidentified and wire nails, colorless and blue vessel glass, and terra cotta drain pipe (Figure 8-157).

**Figure 8-157: Artifact summary of Site 44IW0423.**

AREA D

Area D encompasses the parcel in the northwestern part of the Sycamore Cross project area and west of Area A4 (Figure 8-158). This area was timbered in 2017, which caused extensive disturbance. Field technicians visually inspected the area, but systematic shovel testing was not conducted.

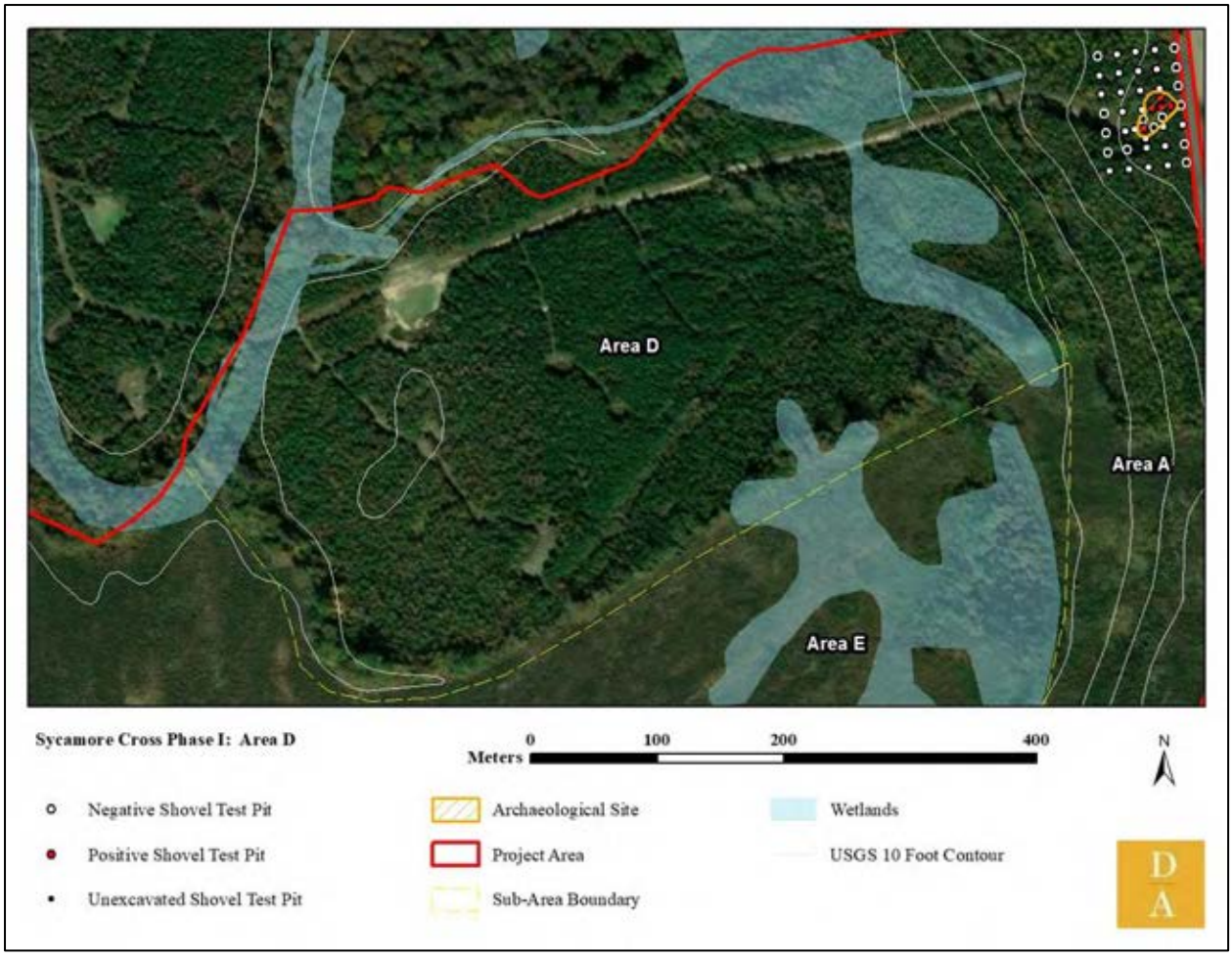



**Figure 8-158: Aerial view of Area D.**

Terrain in this area consists of a broad, low terrace, formed by two drainage cuts and overlooking the Blackwater River. Standing water was common, and the ground surface was disturbed by erosion and logging equipment (Figure 8-159). Vegetation is primarily densely growing young pine, with a thick undergrowth of tall grasses and briars (Figure 8-160).

**Figure 8-159: Standing water in Area D, facing east.**

**Figure 8-160: Vegetation in Area D, facing north.**

AREA E

Area E encompasses the parcel in the western part of the Sycamore Cross project area and northwest of Area A1 (Figure 8-161). This area was timbered in 2021, which caused extensive disturbance. Field technicians visually inspected the area, but systematic shovel testing was not conducted.

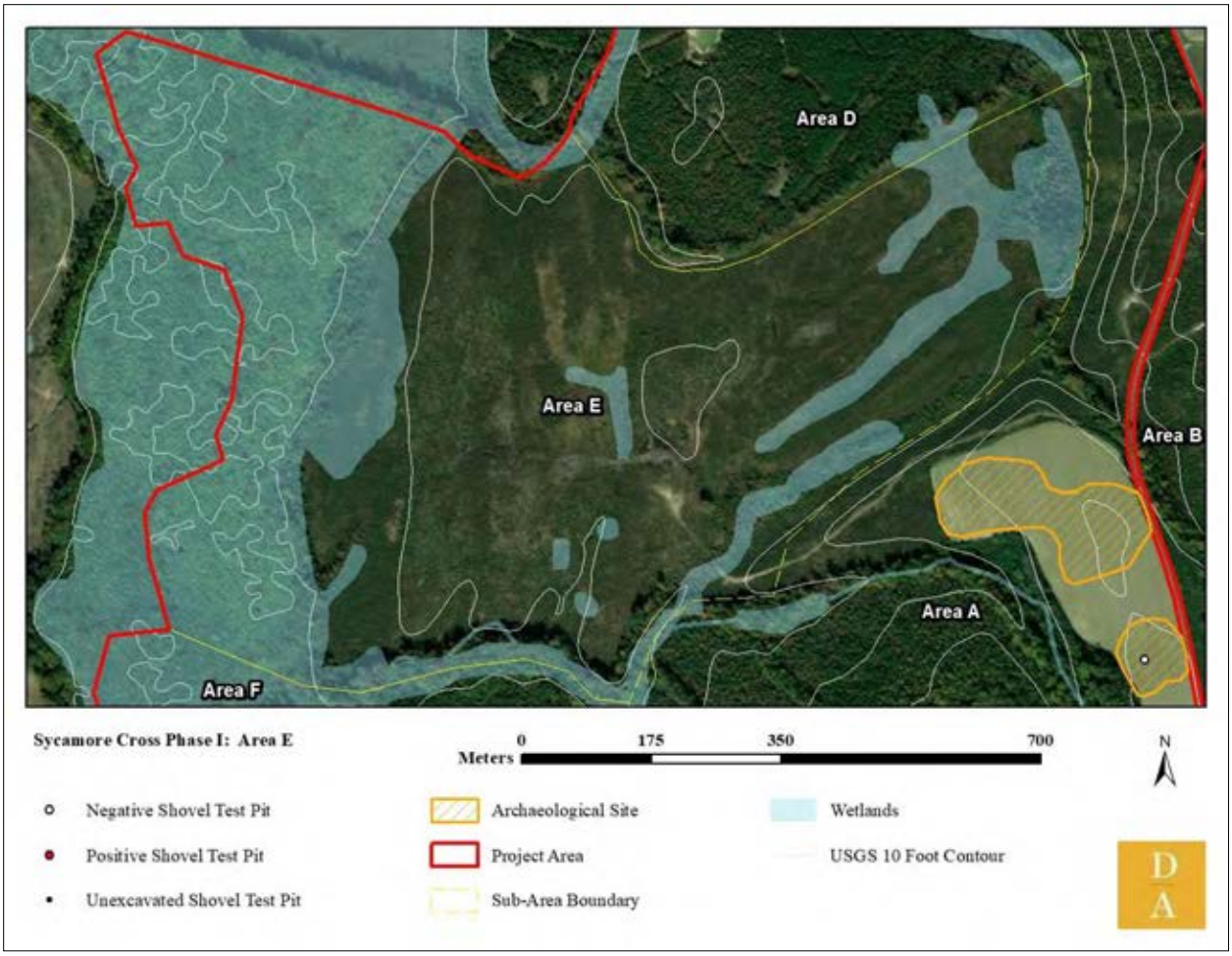



**Figure 8-161: Aerial view of Area E.**

Terrain in this area consists of a broad, low terrace and a series of knolls. Numerous drainages interrupt the landform, which drain west to the Blackwater River. Standing water was common, and the ground surface was disturbed by erosion and logging equipment (Figure 8-162). Vegetation is primarily sparse pine saplings, with briars and shrubs throughout (Figure 8-163). Thick layers of slash are common (Figure 8-164).

**Figure 8-162: Standing water in Area E, facing south.**

**Figure 8-163: Vegetation in Area E, facing east.**

**Figure 8-164: Slash in Area E, facing north.**

AREA F

Area F encompasses the low terrace west of Area A1 that overlooks Blackwater River (Figure 8-165). It is bounded on all sides by wetlands. Parts of this landform were visually inspected but not systematically shovel tested due to dense vegetation and wetlands.

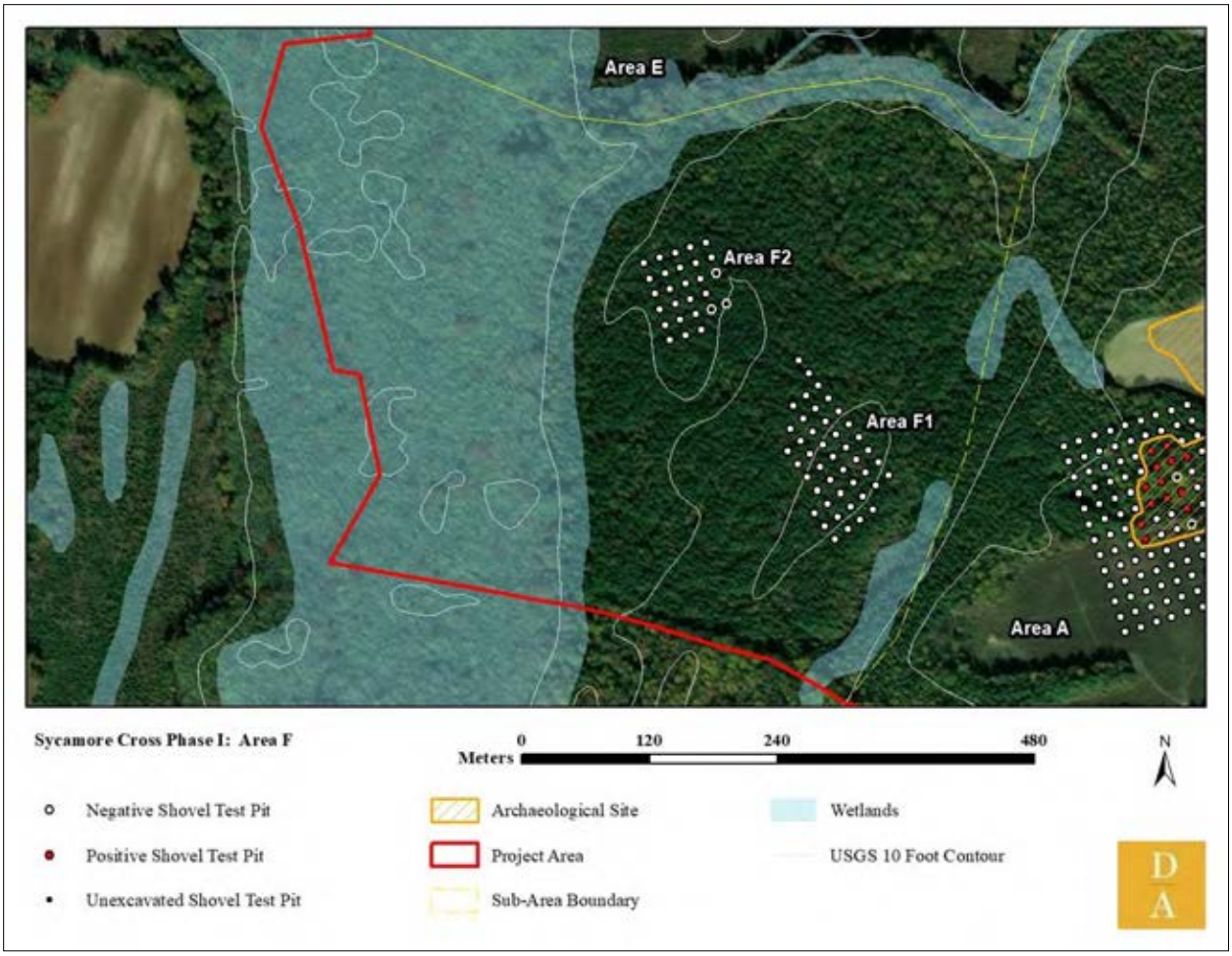



**Figure 8-165: Overall map of Area F.**

Vegetation in these areas ranged from mixed woodland with dense vines and briars, and pine saplings and holly with layers of slash (Figure 8-166, Figure 8-167). Access to shovel test grids was provided by a series of logging roads. Two shovel test grids were placed on the high ground of Area F, labeled F1 and F2.

**Figure 8-166: Thick vegetation preventing shovel test survey in Area F.**

**Figure 8-167: Thick briars in Area F preventing shovel test survey.**

*Area F1*

This area consists of the narrow ridge in the southeastern part of the overall Area F, across a narrow swamp from Area A5, and bounded to the west by wetlands associated with Blackwater River. Terrain ranged from flat to gently sloped and was minimally disturbed by timbering activity.

Vegetation in this area consisted of mature planted pine forest with an open understory of sparse holly shrubs and vines (Figure 8-168). Vegetation in the wetlands around the grid was primarily mature deciduous trees and holly (Figure 8-169).

**Figure 8-168: Vegetation in Area F1 facing north.**

**Figure 8-169: Wetlands south and east of Area F1, facing west.**

A total of 45 shovel tests were laid out at 15-meter (50-foot) intervals in six transects labeled A through F (Figure 8-170). No cultural material was recovered, and no historical features were observed.

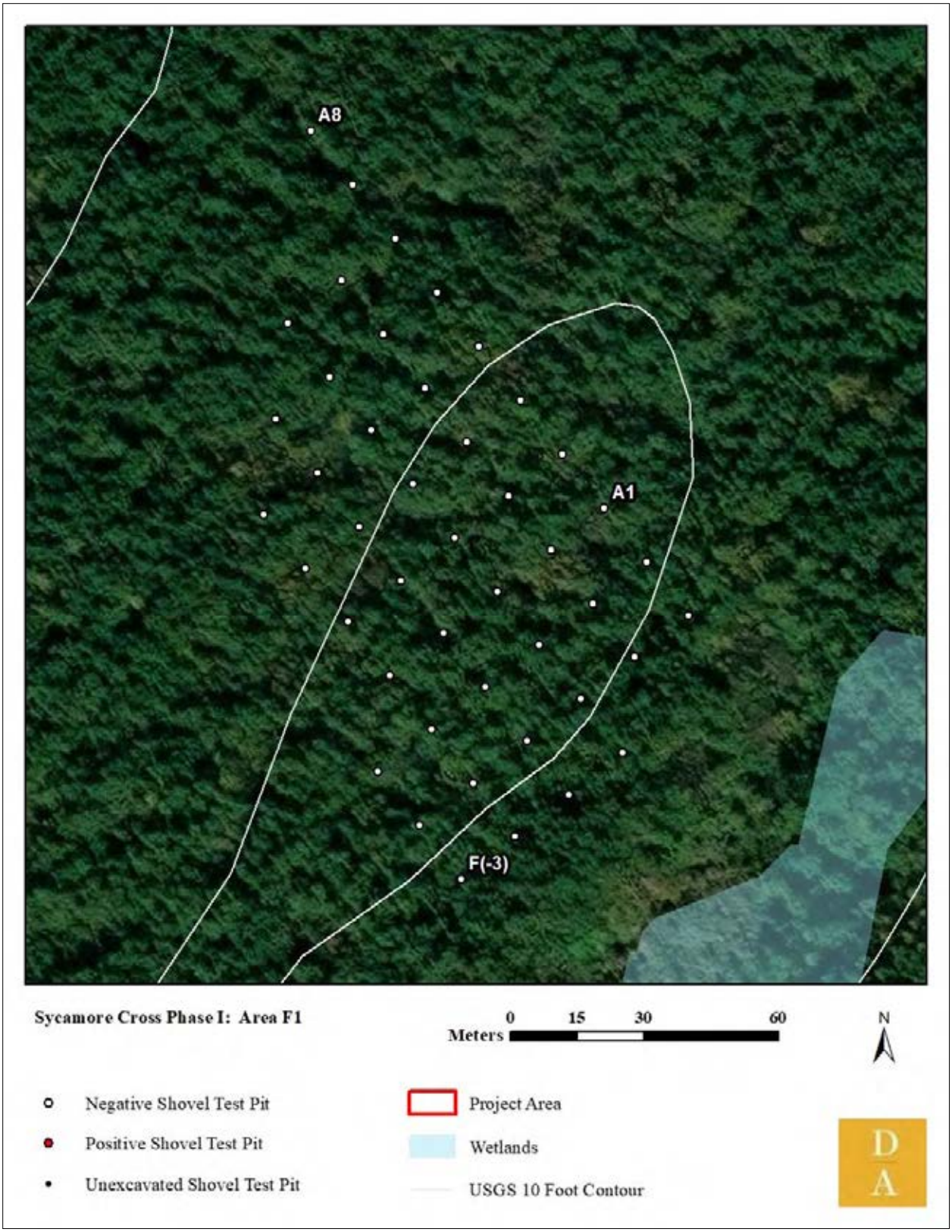



**Figure 8-170: Aerial view of Area F1 shovel test grid.**

Shovel tests in this area exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 10YR 4/3 brown sand topsoil (A horizon) over 10YR 6/6 brownish yellow clay subsoil (B horizon) (Figure 8-171).

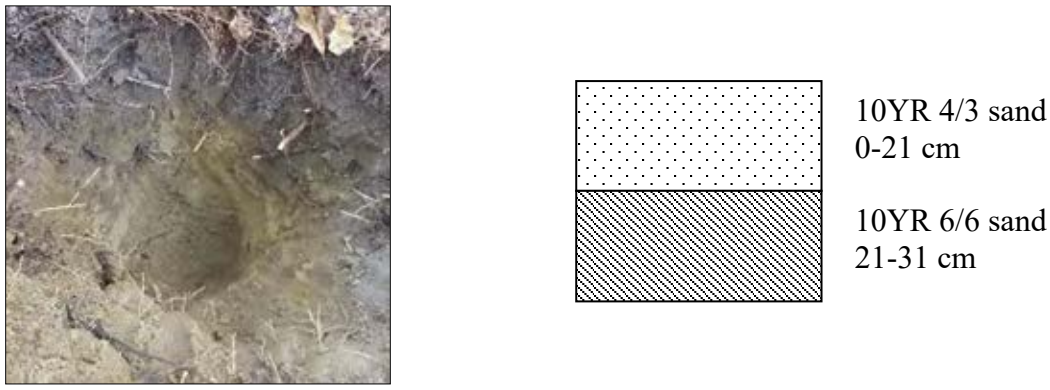



**Figure 8-171: Soil profile of Shovel Test C4 in Area F1.**

*Area F2*

This area consists of a low finger ridge in the northwestern part of the overall Area F, north of Area F1, and south of Area E. Wetlands bound the north and west of the area (Figure 8-172). Terrain was flat with steep slopes at the edge of the grid, and surface disturbance was minimal.

**Figure 8-172: Wetlands and mixed deciduous woodland north of Area F2, facing north.**

Vegetation in this area consisted of mature planted pine forest with an open understory of sparse holly shrubs, vines, and deciduous saplings (Figure 8-173). Vegetation in the wetlands around the grid was primarily mature deciduous trees and holly.

**Figure 8-173: Vegetation in Area F2 facing south.**

A total of 27 shovel tests were laid out at 15-meter (50-foot) intervals in six transects labeled A through F, three of which could not be excavated due to slope (Figure 8-174). No cultural material was recovered, and no historical features were observed.

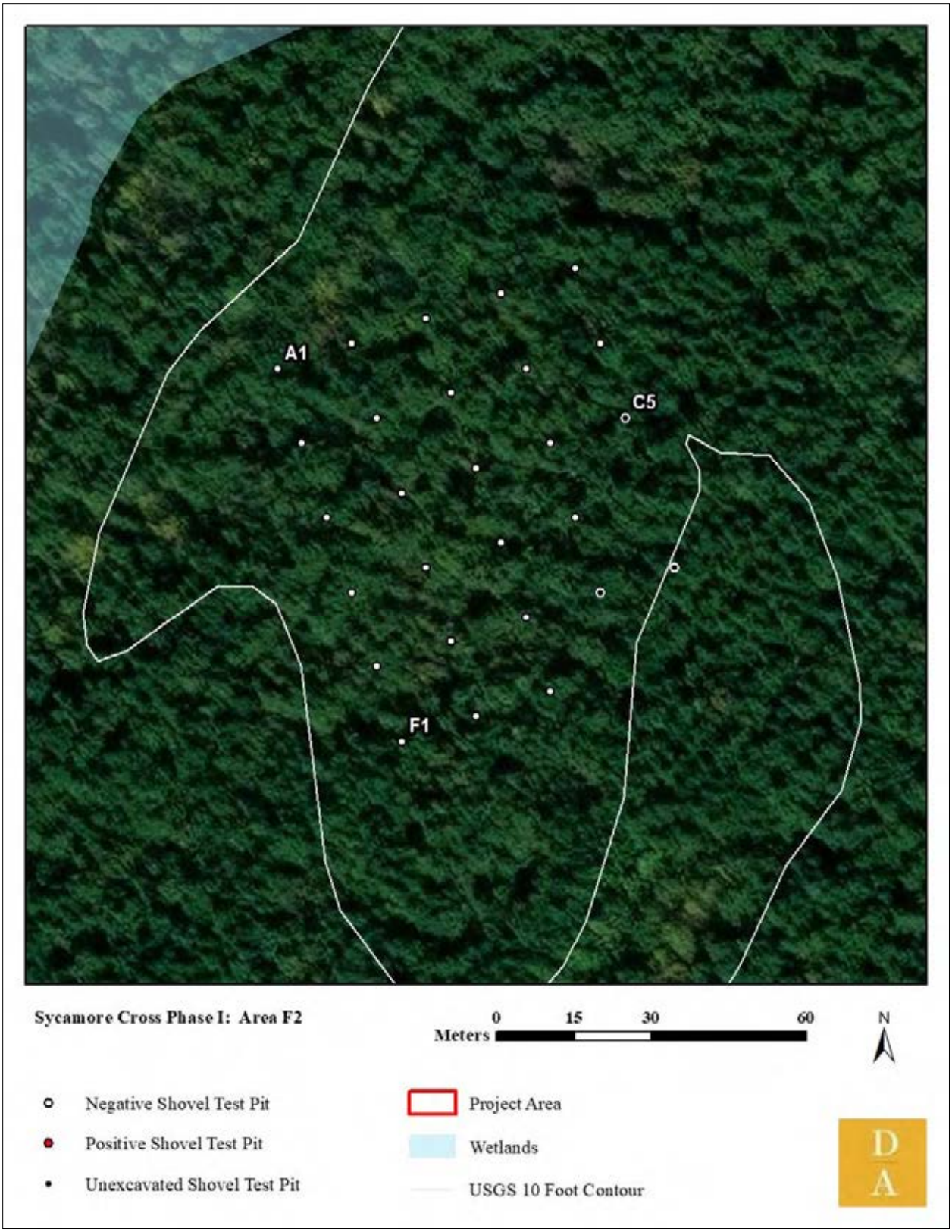



**Figure 8-174: Aerial view of Area F2 shovel test grid.**

Shovel tests in this area exhibited a two-stratum profile of plowzone over subsoil. Stratigraphy consisted of 2.5Y 5/4 light olive brown sandy clay loam (A horizon) over 2.5Y 6/8 olive yellow clay subsoil (B horizon) (Figure 8-175).

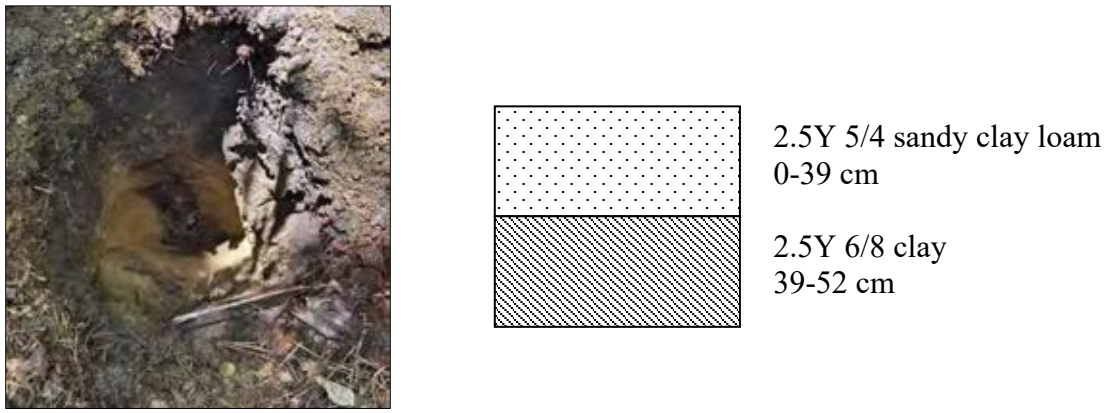



**Figure 8-175: Soil profile of Shovel Test B2 in Area F2.**

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# 9. CONCLUSIONS AND RECOMMENDATIONS

In April 2024, Dutton +Associates, LLC (D+A) completed a Phase I cultural resource survey (Phase I) of the ±817.46-Hectare (2,020-Acre) Sycamore Cross Solar project area in Isle of Wight and Surry counties, Virginia. Fieldwork for the study was conducted between December 2023 and March 2024. The effort was intended to provide documentation and assessment of cultural resources within the study area to make recommendations as to whether they may be potentially eligible for listing in the National Register of Historic Places (NRHP) and assess those that are considered NRHP-eligible for project impacts. The effort was conducted in support of an application for a Certificate of Public Convenience and Necessity (CPCN) from the Virginia State Corporation Commission (SCC) and serves as a follow-up to the previously coordinated *Phase IA Cultural Resource Assessment of the Sycamore Cross Study Area* (D+A July 2023).

The project involves the development of a solar energy production facility near the border of Isle of Wight and Surry counties generally along Sycamore Cross Road, Ramsey Road, Mill Swamp Road, Rattlesnake Trail, and White Hill Trail. As part of the project, a series of solar arrays will be built throughout the project area.

The architectural resources survey for the Sycamore Cross Solar Project resulted in the identification and recordation of forty-four (44) architectural resources greater than 50 years of age (constructed in 1974 or earlier) located within the one-half mile architectural survey area. Of the surveyed resources, twenty-five (25) were previously recorded (VDHR# VDHR# 046-0029, 046-0030, 046-0032, 046-0055, 046-0068, 046-5147/5152, 046-5260, 046-5550/5552, 087-5509, 090-5163/5168, and 090-5174) and nineteen (19) were newly recorded during this Phase I Survey (VDHR# 046-5804/5817 and 090-5208/5212). Ten (10) of the previously recorded sites were recently surveyed and determined not eligible for listing in the NRHP by the VDHR within the last five years, and therefore not subject to re-survey as part of this effort (VDHR# 046-5550/5552, 090-5163/5168, and 090-5174) and another previously recorded resource was relocated outside of the survey area and therefore also not subject to re-survey at this time (VDHR# 087-5509). Survey at this time also found that an additional five (5) previously recorded resources have been demolished since they were last updated (VDHR# 046-0029, 046-0030, 046-0032, 046-0055, and 046-5260). The surveyed resources consist primarily of domestic buildings and farmsteads from the early-nineteenth to mid-twentieth century. Also surveyed were several twentieth century commercial buildings, a former late-nineteenth century post office, a nineteenth century small family cemetery, and a mid-twentieth century church.

Of the surveyed resources, four (4) are considered potentially eligible for listing in the NRHP. This includes two Antebellum homes that represent the earliest extant development within the survey area and an important reflection of the architectural evolution of rural Isle of Wight County during that period. The other two resources are a late-nineteenth century post office and associated dwelling that remain as an example of a historically significant aspect of the crossroads community of Sycamore Cross at the turn-of-the-twentieth century. The rest of the surveyed properties generally do not appear to reflect any unique or significant design or historical associations, and as such, are recommended to be not eligible for listing in the NRHP individually or collectively.
Each of the four NRHP-eligible resources was subject to an assessment of impacts brought about by the project. Of the eligible resources, three are located directly within the study area, however,

will be excluded by the project development plan and therefore will not be directly impacted by the project. With regards to indirect, visual impacts, field inspection revealed that the generally open nature of the landscape within and bordering the NRHP-eligible properties permits views of the project area that range from partially screened to nearly unobstructed. To minimize the potential for visibility of the project, a variety of measures have been employed including setbacks from roadways and property lines, and supplemental landscape buffers. ***With these measures, it is D+A's recommendation that visibility of the project from one resource, the Wilson Hollemon House (VDHR# 046-0068) will be screened and therefore the Sycamore Cross Solar Project will have no more than a minimal impact to it. With regards to the remaining three resources, the setbacks and landscape screening will reduce visibility of the project but some portions will remain visible. As such, it is D+A's recommendation that the Sycamore Cross Solar Project will result in a moderate impact to the Sycamore Cross Post Office (VDHR# 046-5149), the house at 11356 Sycamore Cross Drive (VDHR# 046-5150), and the Betts Farm (VDHR# 046-5811)*** (Table 9-1).

**Table 9-1: Summary of NRHP-eligible architectural resources within the project survey area and recommendations of project impacts.**

| VDHR ID# | Resource Name/Address | NRHP Eligibility | Proximity to Project | Project Impact |
|---|---|---|---|---|
| 046-0068 | Wilson Hollemon House, 5499 Mill Swamp Road | D+A: Potentially Eligible | Adjacent to Project | Minimal Impact |
| 046-5149 | Sycamore Cross Post Office, Mill Swamp Road | D+A: Potentially Eligible | Within Project Area (in Exclusion Area) | Moderate Impact |
| 046-5150 | House, 11356 Sycamore Cross Drive | D+A: Potentially Eligible | Within Project Area (in Exclusion Area) | Moderate Impact |
| 046-5811 | Betts Farm, 5191 Mill Swamp Road | D+A: Potentially Eligible | Within Project Area (in Exclusion Area) | Moderate Impact |

One (1) cemetery was identified within testing area B5 of the project area, and is an independent resource, not associated with any standing architectural resource (Table 9-2). ***Although the cemetery represents a typical small family cemetery and is considered not eligible for listing in the NRHP, the visual limits of the cemetery should be avoided with a 100-foot avoidance zone, or be subject to further delineation, to ensure protection during and after project construction.***

**Table 9-2: Summary of Cemetery identified within the project area with proximity to project area and recommended avoidance measures.**

| Cemetery # | Name, Location | NRHP Status | Proximity to Project Area | Avoidance/Impacts |
|---|---|---|---|---|
| 046-5817 | Holleman Cemetery, White Hill Trail | D+A: Not Eligible | Within Project Area | 100-foot avoidance zone or further delineation |

Archaeological investigations followed an approved testing model that identified areas of high, moderate, and low archaeological potential. The testing strategy involved a combination of systematic pedestrian survey and shovel testing. A total of 1,175 shovel test pits were excavated throughout the project area. The archaeological survey resulted in the identification of 20 newly recorded sites (Table 9-3).

Of these sites, six are domestic sites associated with standing architectural resources, and fourteen are mid-nineteenth to early-twentieth century sites with no features and a light archaeological signature. Most of these sites offer little new or significant archaeological data and are site types

that are well represented in the region; ***D+A recommends these 18 sites not eligible for inclusion in the NRHP, and no additional work is required.*** However, two sites warrant further investigation: Site 44IW0424 consists of the ruin of a circa 1825 dwelling; and Site 44IW0407 contains surface features and artifacts and is also associated with an early-nineteenth-century house ruin. These two sites have the potential to provide new data about the early nineteenth century history of the area, and ***D+A recommends avoidance with a 50-foot buffer or further investigation of these sites.***

**Table 9-3: Table showing archaeological sites and eligibility recommendations.**

| VDHR ID# | Site Type | Tine Period | NRHP Eligibility | Treatment/ Project Impacts |
|---|---|---|---|---|
| 44IW0405 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0406 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| **44IW0407** | **Farmstead** | **Antebellum Period, Civil War, Reconstruction and Growth, World War I to World War II** | **Potentially Eligible** | **Avoidance with 50-foot buffer/ Phase II Evaluation** |
| 44IW0408 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0409 | Farmstead | Civil War, Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0410 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0411 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0412 | Artifact Scatter | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0413 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0414 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0415 | Artifact Scatter | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0416 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0417 | Artifact Scatter | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0418 | Farmstead | Reconstruction and Growth | Not Eligible | No Impact |
| 44IW0419 | Farmstead | Civil War, Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0420 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0421 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0422 | Farmstead | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| 44IW0423 | Artifact Scatter | Reconstruction and Growth, World War I to World War II, The New Dominion | Not Eligible | No Impact |
| **44IW0424** | **Single Dwelling** | **Antebellum Period, Civil War, Reconstruction and Growth, World War I to World War II** | **Further Study** | **Avoidance with 50-foot buffer/ Further Study** |

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# APPENDIX A: RESUMES

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ROBERT J. TAYLOR, JR
Principal Investigator
Senior Architectural Historian

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

## Education

Master of Arts, 2009
Historic Preservation
Savannah College of Art and Design
Savannah, Georgia

Bachelor of Arts, 2005
Historic Preservation
University of Mary Washington
Fredericksburg, Virginia

## Awards

Eagle Scout, 2001

Mr. Taylor holds a B.A. in Historic Preservation from University of Mary Washington and a M.A. in Historic Preservation from Savannah College of Art and Design. He has over 15 years of Cultural Resource Management Experience and has taken part in projects in Virginia and throughout the East Coast.

His experience in Cultural Resource Management includes working on both Architectural and Archaeological projects while participating in all phases of compliance from project initiation and development to completion. His work includes conducting field surveys, researching and documenting historic resources, writing survey reports, preparing *NRHP* evaluations and applications for individual resources and historic districts, compiling HABS/HAER documentation packages, and assisting with cultural resource consultation and compliance. He has a thorough understanding of the laws and regulations that govern cultural resources and has assisted with a number of Cultural Resource Management Plans, Programmatic Agreements, and Memorandum of Agreements.

As Principal Investigator and Senior Architectural Historian for Dutton + Associates, Mr. Taylor manages and conducts all aspects of historic and architectural resource projects and studies.

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Dutton + Associates

ROBERT J. TAYLOR, JR
Principal Investigator
Senior Architectural Historian

## Professional Experience

**Dutton + Associates, LLC,** Principal Investigator, Richmond, Virginia, March 2009- present.
Manages cultural resource projects, oversees architectural history team, conducts field survey and investigations, assembles architectural resource documentation, authors cultural resource survey reports, prepares NRHP nominations, prepares HABS/HAER documentation, provides regulatory and compliance consultation.

**Thomas Jefferson Monticello Foundation,** Field Archaeologist, Charlottesville, Virginia, Winter 2008- 2009. Conducted archaeological testing, assisted with site research, performed lab work

**Janus Research, Inc,** Architectural Historian, Tampa, Florida, August 2005- May 2008.
Conducted field surveys, Prepared NRHP and HABS/HAER documentation packages, authored Cultural Resource Assessment Survey Reports

## Example Projects and Publications

*Cultural Resource Management Plans*
Regional Integrated Cultural Resource Management Plan for Naval Installations in Hampton Roads, Virginia
Programmatic Agreement amongst NASA, the VASHPO, and ACHP for the Management of Facilities, Infrastructure, and Sites at the NASA Langley Research Center, Hampton, Virginia

*Cultural Resource Survey and Compliance Reports*
Phase I Cultural Resource Survey of the Southern Virginia Solar Center, Pittsylvania County, Virginia
Phase I Cultural Resource of the Gordonsville-Remington 500 kV Transmission Line Rebuild Project, Orange, Fauquier, and Culpeper County, Virginia
NRHP Evaluations of Two One Room School Houses and a Farmstead in Perrysburg Township, Ohio
Intensive-Level Architectural Survey of the Vice Admiral James H. Doyle Jr, Combat System Engineering Development Site (CSEDS), Moorestown, New Jersey
Review and Evaluation of the Adaptive Rehabilitation of Quarters D&E and G&H at the Norfolk Naval Shipyard, Portsmouth, Virginia
Cultural Resource Assessment Survey (CRAS) of the I-395 Advance Acquisition #2 in Miami-Dade County, Florida
CRAS of the I-4/Crosstown Connector Interchange Design in Hillsborough County, Florida

*NRHP Nominations*
Hermitage Road Historic District, Richmond, Virginia
Old Wythe Historic District, Hampton, Virginia
NASA LaRC Historic District, Hampton, Virginia
Sebrell Rural Historic District, Southampton County, Virginia
Palmetto Beach Historic District, Tampa, Florida
Rosemere Historic District, Orlando, Florida

*Historic American Buildings Survey (HABS) Packages*
NASA Low Turbulence Pressure Tunnel, LaRC, Hampton VA, HABS # VA-118-H
NASA Aircraft Landing Dynamics Facility, LaRC, Hampton, VA, HABS # unassigned
1st Street Bridge update package, Los Angeles, CA HAER # CA-175
Faith Temple Missionary Baptist Church, Tampa, FL, HABS # FL-542
Building 64, Melville Net and Fuel Depot, Naval Station Newport, RI, RIHRA # PORT-0004

*Technical and Research Papers*
"New Use for an Old Gas Station: Rehabilitation Plan and Feasibility Assessment for the Fry's Spring Service Station in Charlottesville, Virginia"
"Historic Structure Report for the Edward Valentine House (Redland Club Building) in Charlottesville, Virginia"
"Historic Linear Resources: Challenges and the Practical Applicability of NRHP Criteria"
"'A Country Doctor for Forty Years' A Historic Structure Report for the Dr. J.E. Wilson House in Haywood County, North Carolina"

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**J. HOPE SMITH**
**Principal Investigator**

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CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

## Education

PhD, 2017
Anthropology
University of Tennessee
Knoxville, Tennessee

Bachelor of Arts, 2005
Historic Preservation
University of Mary Washington
Fredericksburg, Virginia

## Memberships

Register of Professional Archaeologists

Society for Historical Archaeology

Dr. Smith holds a Ph.D. in Anthropology, concentrating in Historical Archaeology, from the University of Tennessee and a B.A. in Historic Preservation from the University of Mary Washington. Her dissertation research involved creating and interpreting data sets for the Digital Archaeological Archive of Comparative Slavery, and it was focused on the construction of race and identity through material culture on plantations in eighteenth-century Virginia. Her research interests include material culture studies, artifacts of personal adornment, and the intersection of race and gender.

Her experience in Cultural Resource Management includes managing a wide range of projects, including Phase I surveys, Phase II evaluations, and Phase III data recovery, for a variety of clients, including renewable energy, electric transmission, and transportation.

Dr. Smith has over 15 years of experience in archaeology. Prior to Dutton+Associates, she was employed as a Teaching Associate at the University of Tennessee, where she taught archaeology field schools and courses in archaeology, including a course on Cultural Resource Management law and practice. Before pursuing graduate studies, she worked as an archaeologist at James Madison's Montpelier, helping to identify sites associated with that enslaved community and interpret them to the public.

As a Principal Investigator for Dutton + Associates, Dr. Smith manages all aspects of archaeological research, supervising both lab and field work.

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Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

**J. HOPE SMITH**
**Principal Investigator**

## Professional Experience

**Dutton+Associates, LLC**, Project Archaeologist
Richmond, Virginia, 2017
Directs operation of archaeological field and lab work. Manages and conducts archaeological investigations. Prepares research designs and excavation reports.

**University of Tennessee, Knoxville,** Graduate Teaching Associate
Knoxville, Tennessee, 2011-2017
Supervised fieldwork during two archaeological field schools; taught undergraduate-level archaeology courses.

**James Madison's Montpelier** Crew Chief
Montpelier Station, Virginia 2008-2011
Performed fieldwork and supervised students and interns in excavation and survey projects; coauthored site reports and presented research to the public.

**The Louis Berger Group** Field Technician
Richmond, Virginia, 2005-2007.
Performed fieldwork at all levels of excavation on a wide variety of projects.

**The Ottery Group** Field Technician
Silver Springs, Maryland, 2005.
Performed fieldwork on a complex multi-component historic Phase III in Gloucester, Virginia.

## Example Projects and Publications

*Dissertation:*
Adorned Identities: an Archaeological Perspective on Race and Self-Presentation in 18th-Century Virginia

*Phase I Surveys*
Mecklenburg Timber and Prison sites, Mecklenburg Co
Remington to Gordonsville Transmission Line
Montebello Farm, Loudoun Co.
Arbordale, York Co.
Spotsylvania Town Center, City of Fredericksburg
Palmer's Creek, Spotsylvania Co.
Bristers to Chancellor 500kV Transmission Line
Skipjack Solar, Charles City Co

*Phase II Evaluations*
44LD1819, Loudoun Co
44GE0373, Greensville Co
44MC0970, Mecklenburg Co

*Phase III Data Recoveries*
44LD1244, Loudoun Co
44CC0448, Charles City Co
44LD1359, Loudoun Co

*Museum Technical Reports*
Object Report and Museum Purchasing Recommendations, The Montpelier Foundation,

Report of Archaeological Testing at Mount Pleasant, The Montpelier Foundation,

Archaeological Dataset and Context, Digital Archaeological Archive of Comparative Slavery (DAACS)

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**DARA FRIEDBERG**
Architectural Historian

D
A

# Dutton + Associates

CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

## Education

Master of Science, 2004
Historic Preservation
University of Pennsylvania
Philadelphia, Pennsylvania

Bachelor of Arts, 1999
Historic Preservation
Mary Washington College
Fredericksburg, Virginia

Ms. Friedberg holds a M.S. in Historic Preservation, concentrating in Architectural Conservation, from University of Pennsylvania and a B.A. in Historic Preservation from Mary Washington College. She has worked in historic preservation and conservation since 1999 and has taken part in projects in Virginia, Maryland, Pennsylvania, Washington, D.C., South Carolina, Georgia, Connecticut, New York, Illinois, Ohio, and Tennessee.

Her experience in Cultural Resource Management includes conducting field surveys, researching and documenting historic resources, preparing National Register of Historic Places nominations, performing archival research, assisting in Federal Tax Credit projects, and completing material analyses of historic mortar and paint.

Prior to working at Dutton + Associates, she was employed as a conservator. This allowed her to conduct multiple conditions assessments of architecture, monuments, and sculptures as well as provide treatment recommendations and project specifications. She has also physically worked on the conservation of stone, metal, and decorative painting. At the completion of each project she provided thorough documentation of each process undertaken.

As an Architectural Historian for Dutton + Associates, Ms. Friedberg collaborates on all aspects of historic and architectural projects including performing field work, conducting project research, and authoring project reports.

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Dutton + Associates

**DARA FRIEDBERG**
Architectural Historian

## Professional Experience

**Dutton + Associates, LLC,** Architectural Historian, Midlothian, Virginia, 2013-Present
Conducts historic resources surveys, performs background research, develops historic contexts, writes National Register nominations, and authors and formats project reports

**Kreilick Conservation, LLC,** Conservator, Oreland, Pennsylvania, 2006-2012
Completed conditions assessments and treatment recommendations for stone and metal projects, conserved stone and metal architectural elements, monuments, and sculptures, and authored conservation reports.

**Powers & Company, Inc.,** Preservation Associates, Philadelphia, Pennsylvania, 2002-2006
Conducted historic resources surveys, performed background research, assisted with Federal Historic Preservation Tax Credit projects, completed mortar and historic paint analyses, completed conditions assessments and recommendations for buildings, produced reports for large scale restoration projects, and created project specifications.

**Albert Michaels Conservation, Inc.,** Conservation Technician, Harrisburg, Pennsylvania, 2001-2002
Conserved decorative paintings and refinished ornate wood, and authored conservation reports.

**KCI Technologies, Inc.,** Cultural Resource Specialist, Hunt Valley, Maryland, 2000-2001
Conducted historic resources surveys, performed background research, and authored project reports.

**Restoration Concepts,** Restoration Intern, Burlington, Vermont, 1999
Assisted in the restoration of a building.

## Example Projects

*National Register of Historic Places Nominations*
- Tower Building, Richmond
- Lee Medical Building, Richmond
- Fuqua Farm, Chesterfield

*Preliminary Information Forms*
- North Thompson Street Historic District, Richmond
- Virginia Avenue Elementary School, Petersburg

*Interpretive Signs*
- Skiffes Creek Interpretive Signs, multiple counties
- Spring Hill Plantation Interpretive Signs, Chesterfield Co.

*Viewshed Analyses*
- Viewshed Assessment for Fort Evans, Loudoun Co.
- Viewshed Analysis for Ellerslie, Surry Co.

*Military Analyses and Landscape Studies*
- Phase IA Assessment and Military Terrain Analysis of the Plantation Woods Property, Spotsylvania Co.
- Phase I, Viewshed Assessment, and Military Terrain Analysis for the Potato Run Mitigation Bank, Culpeper Co.
- Assessment of Two Core Areas of the Battle of Buckland Mills, Prince William Co.

*Cultural Resource Survey and Compliance Reports*
- Cultural Context and Thematic Study for the Proposed Revitalize RVA Project, Richmond
- Assessment of Fulton Gas Works, Richmond
- Documentary Study of the Cromley Row Project Area, Alexandria
- Study of Washington Boundary Ditches, Fairfax Co.
- Intensive Level Survey for Warehouse No. 3 of the Richmond Intermediate Terminal, Richmond
- Economic Context of Middlesex County and the Palmer House, Middlesex Co.
- Phase I Survey for the Remington-Gordonsville Transmission Line Rebuild Project, multiple counties
- Phase II Archaeological Evaluation of Site 44LD1244, Loudoun Co.

1115 CROWDER DRIVE, MIDLOTHIAN, VIRGINIA 23113 TEL 804.897.1960

# APPENDIX B: ARTIFACT INVENTORY

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| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| **Area A1 Pedestrian Survey** | | | | | |
| Surface Collection 1 | Surface | Coarse earthenware, Drain tile | 4 | Body | three fragments glazed on interior and exterior, one only exterior |
| Surface Collection 2 | Surface | Refined earthenware, Dipped ware | 1 | Body | |
| Surface Collection 3 | Surface | Glass, Apothecary | 1 | Neck and finish | bubble inclusions |
| **Area A3 / 44IW0414** | | , | | | |
| B1 | I | Glass, Window, aqua | 4 | Pane | |
| B2 | I | Glass, Vessel, brown | 1 | Base | Embossed stippling |
| B2 | I | Glass, Vessel, colorless | 4 | Body | |
| B2 | I | Glass, Window, colorless | 2 | Pane | |
| B2 | I | Iron, Wire | 1 | Fragment | |
| B2 | I | Synthetic, Hardware, unidentified | 1 | Whole | Plastic cylander with two wires in one end |
| B3 | I | Glass, Vessel, colorless | 1 | Finish | Threaded finish |
| B3 | I | Glass, Vessel, colorless | 2 | Body | |
| B3 | I | Glass, Vessel, opaque | 1 | Body | |
| B3 | I | Glass, Lantern | 2 | Body | |
| B3 | I | Glass, Window, Aqua | 3 | Pane | |
| C1 | I | Glass, Vessel, colorless | 1 | Body | |
| C1 | I | Iron, Wire | 1 | Fragment | |
| C2 | I | Glass, Vessel, colorless | 1 | Base | Embossed, stippled |
| D2 | I | Glass, Vessel, colorless | 1 | Body | |
| D2 | I | Iron, Unidentified | 1 | Fragment | |
| D3 | I | Glass, Vessel, brown | 2 | Body | |
| D3 | I | Glass, Vessel, colorless | 9 | Body | |
| D3 | I | Iron, Bar, unidentified | 1 | Fragment | |
| D3 | I | Glass, Window, aqua | 1 | Pane | |
| D3 | I | Glass, Vessel, colorless | 1 | Body | Embossed, stippled |
| D3 | I | Glass, Vessel, colorless | 1 | Base | Embossed, stippled |
| D3 | I | Glass, Vessel, colorless | 1 | Base | Embossed star |
| **Area A4 / 44IW0415** | | , | | | |
| CD2 | I | Glass, Window, colorless | 5 | Pane | |
| D1.5 | I | Glass, Vessel, colorless | 1 | Body | Bubble inclusions |
| D1.5 | I | Glass, Window, aqua | 8 | Pane | |
| D1.5 | I | Glass, Window, colorless | 29 | Pane | |
| D1.5 | I | Glass, Vessel, aqua | 8 | Body | |
| D1.5 | I | Glass, Vessel, colorless | 1 | Body | plastic film, unidentifiable |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| D1.5 | I | Glass, Unidentified, heat altered | 63 | Fragment | Too melted to tell if vessel or window |
| D1.5 | I | Iron, Washer | 1 | Whole | |
| D1.5 | I | Iron, Screw | 2 | Whole | |
| D1.5 | I | Iron, Nail, wire | 1 | Whole | |
| D1.5 | I | Iron, Nail, unidentified | 2 | Head shank | |
| D1.5 | I | Iron, Hardware, unidentified | 1 | Fragment | Hinge, not for a door. Two bars with one pin |
| D1.5 | I | Iron, Plate and nail, wrought | 1 | Fragment | small rectangular sheet with a short nail |
| D1.5 | I | Iron, Screw, washer, and nut | 1 | Whole | Rusted together |
| D1.5 | I | Iron, Screw and washer | 1 | Fragment | Rusted together and to some unidentified alloy |
| D1.5 | I | Iron, Screw, nut, and hardware | 1 | Fragment | Unidentified hardware fragment |
| D1.5 | I | Lead alloy, Unidentified | 1 | Fragment | |
| D1.5 | I | Lead, Unidentified | 1 | Fragment | |
| D1.5 | I | Alloy, Grommet | 1 | Whole | "UNITED CARR" |
| D1.5 | I | Alloy, Hardware, unidentified | 1 | Fragment | unidentified bracket with two corroded bolts |
| D1.5 | I | Synthetic, Unidentified | 1 | Fragment | |
| D2 | I | Iron, Wire | 1 | Fragment | |
| D2 | I | Iron, Washer | 1 | Whole | |
| D2 | I | Lead alloy, Unidentified | 4 | Fragment | |
| D2 | I | Glass, Window, colorless | 5 | Pane | |
| D2 | I | Glass, Window, aqua | 2 | Pane | |
| D2.5 | I | Glass, Vessel, colorless | 2 | Base | Embossed stippling |
| D2.5 | I | Glass, Vessel, colorless | 13 | Body | Embossed stippling |
| D2.5 | I | Glass, Window, colorless | 16 | Pane | |
| D2.5 | I | Iron, Wire | 1 | Fragment | |
| D2.5 | I | Iron, Bolt | 1 | Whole | nut rusted on to bolt |
| E3 | I | Terra cotta, Drain pipe | 1 | Fragment | Not collected |
| **Area A5 / 44IW0407** | | , | | | |
| D7 | I | Refined earthenware, Undecorated | 1 | Body | |
| D7 | I | Iron, Sheet | 8 | Fragment | small fragments of very thin metal sheets |
| D8 | I | Glass, Vessel, green | 1 | Body | |
| E5 | I | Glass, Vessel, green | 1 | Body | |
| E5 | I | Glass, Window, colorless | 1 | Pane | |
| E6 | I | Refined earthenware, Undecorated | 1 | Body | |
| F3 | I | Shell, Oyster | 1 | Fragment | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| F3 | I | Iron, Nail, wire | 1 | Shank | |
| F3 | I | Iron, Nail, unidentified | 3 | Fragment | |
| F4 | I | Iron, Nail, unidentified | 1 | Shank | |
| F4 | I | Glass, Lid liner | 1 | Rim | |
| F4 | I | Refined earthenware, Undecorated | 2 | Body | |
| F4 | I | Glass, Vessel, solarized | 3 | Body | |
| F4 | I | Glass, Vessel, aqua | 2 | Body | |
| F4 | I | Glass, Window, aqua | 1 | Pane | |
| F5 | I | Refined earthenware, Transfer print | 1 | Body | Diaper pattern |
| F6 | I | Refined earthenware, Undecorated | 1 | Body | |
| F6 | I | Glass, Window, colorless | 1 | Pane | |
| G3 | I | Refined earthenware, Undecorated | 1 | Rim | |
| G3 | I | Glass, Vessel, colorless | 1 | Body | |
| G3 | I | Glass, Window, aqua | 1 | Pane | |
| G4 | I | Refined earthenware, Spall | 2 | Body | |
| G4 | I | Glass, Vessel, solarized | 1 | Body | |
| G4 | I | Glass, Window, aqua | 4 | Pane | |
| G4 | I | Iron, Unidentified | 1 | Fragment | |
| G6 | I | Refined earthenware, Undecorated | 1 | Body | |
| G6 | I | Glass, Vessel, colorless | 2 | Body | |
| G6 | I | Glass, Vessel, opaque | 1 | Body | |
| G7 | I | Stoneware, American, bristol, albany slip | 1 | Body | Bristol glaze exterior, albany slip interior |
| H4 | I | Refined earthenware, Spall | 1 | Body | |
| H4 | I | Refined earthenware, Undecorated | 1 | Body | Buff glaze |
| H4 | I | Glass, Vessel, colorless | 1 | Body | |
| H4 | I | Glass, Window, aqua | 2 | Pane | |
| J8 | I | Glass, Vessel, solarized | 1 | Body | Bubble inclusions |
| L8 | I | Brick, | 1 | Fragment | Not collected |
| **Area B1 Pedestrian Survey / 44IW0409** | | | | | |
| Surface Collection 1 | Surface | Clay, Pipe | 1 | Stem | molded hobnail pattern at edge of stem |
| **Area B1 Pedestrian Survey / 44IW0410** | | | | | |
| Surface Collection 2 | Surface | Glass, Window, aqua | 2 | Pane | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| Surface Collection 2 | Surface | Glass, Vessel, dark green | 1 | Base | |
| Surface Collection 2 | Surface | Refined earthenware, Spall | 1 | Body | |
| Surface Collection 2 | Surface | Stoneware, Bristol | 1 | Body | Bristol exterior, albany slip interior |
| Surface Collection 2 | Surface | Stoneware, Reed Pipe | 1 | Stem | ribbed pattern |
| **Area B1 Pedestrian Survey** | | | | | |
| Surface Collection 3 | Surface | Stoneware, Westerwald | 1 | Body | |
| **Area B3** | | , | | | |
| A11 | I | Brick, | 1 | Fragment | Not collected |
| **Area B4 / 44IW0416** | | , | | | |
| (-A)5 | I | Glass, Vessel, solarized | 1 | Body | |
| (-A)4.5 | I | Iron, Unidentified | 1 | Fragment | heavily corroded |
| (-A)A3 | I | Brick, | 1 | Fragment | Not collected |
| A3 | I | Glass, Vessel, colorless | 1 | Body | |
| B4 | I | Glass, Vessel, green | 1 | Body | |
| B5 | I | Brick, | 1 | Fragment | Not collected |
| C2.5 | I | Glass, Vessel, colorless | 1 | Body | |
| C2.5 | I | Glass, Vessel, opaque | 2 | Body | |
| C3 | I | Refined earthenware, Undecorated | 1 | Handle | |
| C3 | I | Refined earthenware, Spall | 1 | Body | |
| C3 | I | Glass, Window, colorless | 1 | Pane | |
| C3 | I | Iron, Nail, unidentified | 5 | Shank | |
| C4 | I | Brick, | 1 | Fragment | |
| C4 | I | Terra cotta, Drain pipe | 1 | Fragment | |
| C4 | I | Iron, Nail, unidentified | 1 | Shank | |
| C4 | I | Iron, Unidentified | 2 | Fragment | heavily corroded |
| CD3 | I | Brick, | 1 | Fragment | Not collected |
| CD4 | I | Iron, Hardware, unidentified | 1 | Fragment | |
| D5 | I | Glass, Vessel, colorless | 1 | Finish | Threaded finish |
| D5 | I | Glass, Vessel, colorless | 2 | Body | |
| D5 | I | Glass, Window, aqua | 1 | Pane | |
| D5 | I | Composite, Spark plug | 1 | Whole | "CHAMPION N-14Y" heavily corroded |
| D5.5 | I | Iron, Nail, unidentified | 1 | Fragment | |
| E3 | I | Terra cotta, Drain pipe | 6 | Body | DISCARDED |
| E3 | I | Iron, Buckle | 1 | Whole | An iron rectangle with a partial hook on one end, 6x4 cm |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| E4.5 | I | Refined earthenware, Spall | 2 | Body | |
| E4.5 | I | Glass, Window, colorless | 1 | Pane | |
| E4.5 | I | Brick, | 1 | Fragment | |
| E4.5 | I | Glass, Vessel, aqua | 2 | Body | |
| E4.5 | I | Glass, Vessel, colorless | 4 | Body | |
| E4.5 | I | Glass, Vessel, colorless | 1 | Body | Embossed, diamond pattern |
| E4.5 | I | Glass, Vessel, colorless | 1 | Fragment | Melted |
| E5 | I | Glass, Vessel, colorless | 3 | Body | |
| E5 | I | Glass, Vessel, brown | 1 | Body | |
| E5 | I | Brick, | 1 | Fragment | |
| EF5 | I | Glass, Vessel, aqua | 1 | Body | |
| EF5 | I | | | | |
| EF5 | I | Refined earthenware, Molded | 2 | Rim | Mend |
| EF5 | I | Refined earthenware, Molded, royal pattern | 2 | Rim | Mend |
| EF5 | I | Coal, Anthracite | 1 | Fragment | |
| EF5 | I | Brick, | 1 | Fragment | |
| EF5 | I | Iron, Nail, unidentified | 1 | Shank | |
| EF5 | I | Synthetic, Plastic, vessel | 1 | Rim | too small to tell what kind of vessel |
| F2 | I | Iron, Nail, unidentified | 1 | Shank | |
| F2.5 | I | Glass, Vessel, colorless | 1 | Finish | |
| F5 | I | Glass, Vessel, colorless | 1 | Body | |
| F5 | I | Iron, Nail, unidentified | 1 | Shank | |
| **Area B5** | | | | | |
| G9 | I | Glass, Vessel, colorless | 1 | Body | |
| **Area B5 / 44IW0417** | | , | | | |
| N11 | I | Glass, Vessel, aqua | 2 | Base | Mend. Embossed "WOODBU- - ASSWORK-" "2" and one illegible word embossed over the rest |
| NO11 | I | Terra cotta, Drain pipe | 83 | Fragment | DISCARDED |
| NO11 | I | Glass, Window, colorless | 2 | Pane | |
| **Area C4 / 44IW0418** | | , | | | |
| A4 | I | Brick, | 1 | Fragment | DISCARDED |
| A4 | I | Glass, Vessel, colorless | 1 | Base | |
| A4 | I | Glass, Vessel, aqua | 2 | Body | |
| A4 | I | Glass, Window, aqua | 2 | Fragment | |
| A5 | I | Refined earthenware, Undecorated | 2 | Rim | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| A5 | I | Refined earthenware, Undecorated | 2 | Body | |
| A5 | I | Glass, Vessel, green | 1 | Body | |
| A5 | I | Glass, Vessel, solarized | 1 | Body | |
| A5 | I | Glass, Vessel, brown | 3 | Body | |
| A5 | I | Glass, Vessel, colorless | 15 | Body | |
| A5 | I | Glass, Window, aqua | 1 | Pane | |
| A5 | I | Glass, Vessel, colorless | 1 | Finish | Threaded finish |
| A5 | I | Brick, | 6 | Fragment | |
| A5 | I | Shell, Oyster | 1 | Fragment | |
| A5 | I | Iron, Nail, unidentified | 2 | Shank | Heavily corroded |
| A5 | I | Iron, Unidentified | 3 | Fragment | Heavily corroded |
| A6 | I | Glass, Vessel, brown | 1 | Body | |
| A6 | I | Glass, Vessel, colorless | 3 | Body | |
| A6 | I | Refined earthenware, Undecorated | 1 | Rim | |
| A6 | I | Iron, Nail, unidentified | 1 | Shank | |
| A6 | I | Brick, | 4 | Fragment | |
| B1 | I | Glass, Vessel, opaque | 1 | Body | |
| B2 | I | Refined earthenware, Spall | 1 | Body | |
| B5 | I | Refined earthenware, Undecorated | 1 | Body | |
| B5 | I | Glass, Window, aqua | 1 | Pane | |
| C1 | I | Iron, Nail, unidentified | 1 | Shank | |
| C1 | I | Glass, Window, aqua | 1 | Pane | |
| C4 | I | Glass, Vessel, solarized | 1 | Base | |
| C4 | I | Refined earthenware, Molded, royal pattern | 1 | Rim | |
| C4 | I | Refined earthenware, Spall | 1 | Body | |
| C4 | I | Shell, Oyster | 3 | Fragment | |
| C5 | I | Brick, | 1 | Fragment | Not collected |
| C7 | I | Refined earthenware, Yellowware | 1 | Body | buff bodied, buff glazed |
| C7 | I | Glass, Vessel, blue | 1 | Body | Cobalt |
| C7 | I | Glass, Vessel, brown | 1 | Body | |
| C7 | I | Glass, Vessel, aqua | 1 | Body | |
| C7 | I | Glass, Vessel, colorless | 3 | Body | |
| D4 | I | Brick, | 2 | Fragment | |
| D4 | I | Iron, Nail, unidentified | 1 | Shank | |
| D5 | I | Brick, | 1 | Fragment | Not collected |
| D6 | I | Glass, Window, aqua | 1 | Pane | |
| E8 | I | Glass, Vessel, aqua | 1 | Body | |
| **Area C5 / 44IW0419** | | , | | | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| G(-3) | I | Brick, | 1 | Fragment | Not collected |
| H1 | I | Brick, | 1 | Fragment | Not collected |
| J(-1) | I | Brick, | 1 | Fragment | Not collected |
| J(-3) | I | Iron, Nail, unidentified | 1 | Shank | |
| J(-2) | I | Iron, Nail, machine cut | 1 | Shank | |
| J(-2) | I | Iron, Unidentified | 4 | Fragment | small iron fragments |
| K(-5) | I | Glass, Vessel, aqua | 2 | Body | |
| K(-5) | I | Glass, Vessel, colorless | 2 | Body | |
| K(-5) | I | Glass, Lantern | 1 | Body | |
| K(-4) | I | Refined earthenware, Undecorated | 1 | Base | |
| K(-4) | I | Refined earthenware, Undecorated | 1 | Body | |
| K(-4) | I | Glass, Vessel, solarized | 1 | Body | Molded, star and diamond pattern |
| K(-4) | I | Glass, Vessel, colorless | 1 | Base | |
| K(-3) | I | Refined earthenware, Undecorated | 1 | Body | |
| K(-3) | I | Glass, Vessel | 1 | Body | |
| K(-3) | I | Iron, Nail, machine cut | 1 | Whole | |
| L(-6) | I | Iron, Nail, unidentified | 1 | Head shank | |
| L(-5) | I | Glass, Vessel, aqua | 2 | Body | |
| L(-4) | I | Refined earthenware, Twentieth century, undecorated | 2 | Body | |
| L(-4) | I | Iron, Nail, unidentified | 2 | Shank | |
| L(-3) | I | Glass, Vessel, colorless | 2 | Body | |
| L(-3) | I | Refined earthenware, Edge ware, shell edged | 1 | Rim | Curved impressed lines |
| L(-3) | I | Iron, Nail, unidentified | 2 | Shank | |
| L(-3) | I | Brick, | 2 | Fragment | |
| L(-1) | I | Iron, Nail, wire | 1 | Whole | |
| L1 | I | Glass, Vessel, colorless | 1 | Body | |
| L1 | I | Brick, | 1 | Fragment | |
| M(-3) | I | Brick, | 1 | Fragment | |
| M(-3) | I | Iron, Nail, unidentified | 2 | Shank | |
| M(-1) | I | Glass, Vessel, opaque | 1 | Base | molded verticle ribbing |
| M(-1) | I | Glass, Vessel, brown | 1 | Body | |
| M(-1) | I | Brick, | 1 | Fragment | |
| N(-4) | I | Copper, Pipe | 1 | Fragment | |
| N(-3) | I | Glass, Vessel, colorless | 1 | Body | |
| N(-3) | I | Iron, Nail, machine cut | 1 | Shank | |
| N(-3) | I | Brick, | 1 | Fragment | |
| N(-3) | I | Mortar, | 1 | Fragment | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| N(-1) | I | Glass, Vessel, green | 1 | Finish | Dark olive green |
| **Area C5** | | | | | |
| L(-10) | I | Porcelain, Industrial | 1 | Rim | molded |
| **Area C6 / 44IW0420** | | , | | | |
| A3 | I | Iron, Farm equipment, unidentified | 1 | Fragment | Potentially a tooth from unidentified equipment |
| A3 | I | Iron, Farm equipment, unidentified | 1 | Fragment | Potentially mends with above |
| A4 | I | Glass, Vessel, brown | 1 | Base | Embossed stippling, "57" and A.R. Samuel/Mason Fruit Jar Co. makers mark |
| A6 | I | Iron, Nail, machine cut | 1 | Shank | |
| B2 | I | Glass, Vessel, colorless | 2 | Body | |
| B2 | I | Glass, Window, colorless | 1 | Pane | |
| B2 | I | Brick, | 1 | Fragment | |
| B3 | I | Glass, Vessel, colorless | 1 | Body | |
| B4 | I | Glass, Vessel, colorless | 1 | Body | Embossed "-T-" |
| B4 | I | Iron, Chain | 1 | Fragment | 5 links |
| B5 | I | Glass, Vessel, aqua | 2 | Body | |
| B5 | I | Glass, Window, colorless | 1 | Pane | |
| C3 | I | Glass, Vessel, colorless | 1 | Body | |
| C3 | I | Glass, Window, colorless | 1 | Pane | |
| D2 | I | Glass, Vessel, colorless | 1 | Body | Embossed, too small to identify |
| D2 | I | Glass, Vessel, brown | 1 | Body | |
| D3 | I | Refined earthenware, Unidentified | 1 | Body | |
| D3 | I | Refined earthenware, Undecorated | 1 | Body | |
| **Area C7 / 44IW0421** | | , | | | |
| B3 | I | Glass, Vessel, colorless | 1 | Body | |
| B4 | I | Glass, Vessel, aqua | 1 | Base | |
| B4 | I | Glass, Vessel, blue | 1 | Body | |
| B4 | I | Glass, Vessel, colorless | 1 | Body | |
| B4 | I | Iron, Nail, unidentified | 3 | Shank | |
| B4 | I | Brick, | 4 | Fragment | |
| B5 | I | Iron, Nail, unidentified | 1 | Shank | |
| B5 | I | Glass, Marble | 1 | Whole | |
| B12 | I | Glass, Vessel, brown | 2 | Body | Embossed, illegible |
| B12 | I | Glass, Vessel, aqua | 1 | Body | |
| B12 | I | Glass, Window, aqua | 1 | Pane | |
| B12 | I | Iron, Nail, unidentified | 2 | Shank | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| B12 | I | Brick, | 2 | Fragment | |
| B13 | I | Brick, | 1 | Fragment | Not collected |
| B14 | I | Glass, Vessel, colorless | 1 | Body | |
| B14 | I | Glass, Vessel, colorless | 1 | Body | Molded, ribbed |
| B14 | I | Glass, Window, colorless | 1 | Pane | |
| B14 | I | Brick, | 1 | Fragment | |
| B14 | I | Coal, Anthracite | 1 | Fragment | |
| C5 | I | Glass, Vessel, colorless | 9 | Body | |
| C5 | I | Glass, Vessel, colorless | 1 | Rim | |
| C5 | I | Glass, Vessel, aqua | 2 | Body | |
| C5 | I | Glass, Vessel, brown | 1 | Body | |
| C5 | I | Refined earthenware, Undecorated | 1 | Body | |
| C5 | I | Glass, Window, colorless | 1 | Pane | |
| C5 | I | Iron, Nail, unidentified | 3 | Shank | |
| C5 | I | Brick, | 1 | Fragment | |
| C6 | I | Glass, Vessel, aqua | 2 | Body | |
| C6 | I | Glass, Vessel, colorless | 1 | Body | |
| C6 | I | Iron, Nail, unidentified | 1 | Head shank | |
| **Area C9 / 44IW0422** | | , | | | |
| B3 | I | Iron, Unidentified | 1 | Fragment | nail or fragment of barbed wire |
| D1 | I | Glass, Vessel, blue | 2 | Body | Cobalt |
| D1 | I | Glass, Window, colorless | 1 | Pane | |
| F1 | I | Stoneware, Ironstone | 1 | Base | Fragment of makers mark, "-TONE CHIN-" |
| F4 | I | Glass, Vessel, aqua | 1 | Body | |
| F4 | I | Glass, Vessel, solarized | 1 | Body | |
| F4 | I | Glass, Vessel, colorless | 1 | Body | |
| G4 | I | Refined earthenware, Undecorated | 1 | Rim | |
| G4 | I | Refined earthenware, Spall | 1 | Body | |
| G4 | I | Glass, Vessel, colorless | 1 | Body | |
| G4 | I | Glass, Window, aqua | 1 | Pane | |
| H(-1) | I | Glass, Vessel, colorless | 1 | Body | |
| **Area C10 / 44IW0423** | | , | | | |
| D5 | I | Refined earthenware, Undecorated | 1 | Body | |
| E5 | I | Iron, Bolt | 1 | Fragment | nut rusted to it |
| E5 | I | Iron, Washer | 1 | Whole | was on the above bolt, not rusted to it |
| E5 | I | Iron, Nail, unidentified | 1 | Shank | |

| Provenience | Stratigraphy | Main Material, Subtype, Decoration and Color | Qty. | Part | Notes |
|---|---|---|---|---|---|
| E7 | I | Brick, | 1 | Fragment | Not collected |
| F8 | I | Glass, Vessel, colorless | 2 | Body | |
| F8 | I | Glass, Vessel, blue | 1 | Body | Cobalt |
| F8 | I | Iron, Bolt | 1 | Head shank | |
| F8 | I | Iron, Unidentified | 1 | Fragment | unclear if part of wire or nail |
| F9 | I | Iron, Nail, unidentified | 3 | Shank | |
| H2 | I | Glass, Vessel, colorless | 1 | Body | |
| H8 | I | Iron, Nail, unidentified | 1 | Shank | |
| H8 | I | Terra cotta, Drain pipe | 1 | Fragment | |
| J6 | I | Iron, Nail, wire | 1 | Whole | |
| J6 | I | Mortar, | 1 | Fragment | |

# APPENDIX C: V-CRIS FORMS

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## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 6.580
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter in the northernmost part of Area A1. No artifacts were collected during the pedestrian survey, but cobalt glass, blue transferware, yellowware, aqua vessel glass, a prosser button, ironstone, and Bristol stoneware were observed.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 12/27/2023 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** No

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

No Data

**Summary of Specimens Observed, Not Collected:**

No artifacts were collected during the pedestrian survey, but cobalt glass, blue transferware, yellowware, aqua vessel glass, a Prosser button, ironstone, and Bristol stoneware were observed.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 1.770
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter in Area A1, south of Field Site 1. An aqua bottle finish was the only artifact collected. A dwelling is indicated here by historic topographic maps, though no surface features were observed. Artifacts observed here included fragments of ironstone, and colorless and vessel glass.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 12/27/2023 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

An aqua apothecary bottle finish was the only artifact collected.

**Summary of Specimens Observed, Not Collected:**

Artifacts observed here included fragments of ironstone, and colorless and vessel glass.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** 046-0056
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 9.530
**Landform:** Ridge Toe
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site was first observed in the western half of Area A1, and later in Area A5 associated with Architectural Resource #046-0056. All artifacts collected are from Area A5 shovel tests; these are representative of those observed in the Area A1 portion of Field Site 3 as well. This site consists of a late-nineteenth to mid twentieth century domestic artifact scatter. A total of 54 artifacts were recovered from fifteen positive shovel tests, including a milk glass canning jar lid liner, one wire nail, colorless vessel glass, solarized vessel glass, aqua window and vessel glass, oyster shell, and Bristol stoneware.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 12/27/2023 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation, Subsurface Testing, Historic Map Projection

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

All artifacts collected are from Area A5 shovel tests; these are representative of those observed in the Area A1 portion of Field Site 3 as well. This site consists of a late-nineteenth to mid twentieth century domestic artifact scatter. A total of 54 artifacts were recovered from fifteen positive shovel tests, including a milk glass canning jar lid liner, one wire nail, colorless vessel glass, solarized vessel glass, aqua window and vessel glass, oyster shell, and Bristol stoneware.

**Summary of Specimens Observed, Not Collected:**

Artifacts observed in the agricultural field included brick fragments, vessel glass, refined earthenware, and American stoneware.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** Field Site 3 contains surface features and artifacts and is also associated with an early-nineteenth-century house ruin. These two sites have the potential to provide new data about the early nineteenth century history of the area, and, D+A recommends avoidance or further investigation of this site.

**Surveyor's Eligibility Recommendations:** Recommended Potentially Eligible

**Surveyor's NR Criteria Recommendations:** D

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** 046-5149, 046-5150
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 6.180
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This field site was first observed in the southeastern corner of Area A1 and was further delineated in the southwest corner of Area B1. This site surrounds Architectural Resources #046-5149 and 046-5150. It consists of a late nineteenth to early twentieth century domestic artifact scatter. Artifacts observed here included dipped ware, brick fragments, ironstone, colorless vessel glass, terra cotta drain pipe, solarized vessel glass, aqua vessel glass, and porcelain.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 1/3/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

The only diagnostic artifact collected was one sherd of blue, white, and brown dipped ware.

**Summary of Specimens Observed, Not Collected:**

Artifacts observed here included dipped ware, brick fragments, ironstone, colorless vessel glass, terra cotta drain pipe, solarized vessel glass, aqua vessel glass, and porcelain.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1830 - 1860, 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 7.270
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This field site was observed by pedestrian survey in the western part of Area B1. It consists of a mid-nineteenth to mid-twentieth domestic artifact scatter, including green shell edged earthenware; redware; ironstone; colorless window glass; aqua, colorless, and solarized vessel glass; porcelain; brick fragments; and one pipe stem that was the only artifact collected.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 1/3/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

The only diagnostic artifact collected was a white clay pipe stem with a single raised ring of hobnails around the very end.

**Summary of Specimens Observed, Not Collected:**

Observed artifacts consist of a mid-nineteenth to mid-twentieth domestic artifact scatter, including green shell edged earthenware; redware; ironstone; colorless window glass; aqua, colorless, and solarized vessel glass; porcelain; stoneware, brick fragments.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 1.040
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a small late-nineteenth to early-twentieth century domestic artifact scatter observed in the northern part of Area B1. A sample of artifacts were collected, and observed artifacts included solarized and colorless vessel glass, aqua window glass, ironstone, and refined earthenware, Bristol and Albany-slip stoneware, and a reed pipe.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 1/3/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

Collected artifacts include refined earthenware, Bristol glaze and Albany-slip stoneware, a stoneware reed pipe, aqua and colorless window glass, and dark green wine bottle glass.

**Summary of Specimens Observed, Not Collected:**

Artifacts observed but not collected are similar to those collected in the sample: refined earthenware, American stoneware, aqua and colorless window glass, and dark green wine bottle glass.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.250
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a domestic artifact sample observed in the southeast part of Area B1. Artifacts observed included ironstone, refined earthenware, and aqua and colorless vessel glass. Artifacts were densely clustered. No artifact samples were collected

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 1/3/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** No

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

No Data

**Summary of Specimens Observed, Not Collected:**

Artifacts observed included densely clustered ironstone, refined earthenware, and aqua and colorless vessel glass

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.670
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This field site was observed in the southern part of Area A2, in the same location as a dwelling indicated on historic topographic maps. No surface features were observed; only a domestic artifact scatter was observed. Surface artifacts included yellowware, milk glass, and brick fragments, indicating a date range of early-to-mid-twentieth century.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** No

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

No Data

**Summary of Specimens Observed, Not Collected:**

Surface artifacts included yellowware, milk glass, and brick fragments, indicating a date range of early-to-mid-twentieth century

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.210
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C2. No artifacts were collected, but artifacts observed included aqua and colorless vessel glass, brick fragments, and refined earthenware. No surface features were observed.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** No

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

No Data

**Summary of Specimens Observed, Not Collected:**

Artifacts observed included aqua and colorless vessel glass, brick fragments, and refined earthenware.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.500
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century domestic artifact scatter associated with a dwelling indicated here by historic topographic maps. 43 artifacts were collected from seven positive shovel tests, including aqua and colorless window glass, lantern glass, colorless and brown vessel glass, milk glass, and wire. Vessel glass makes up most of this assemblage, with 26 recovered fragments.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Forest | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

43 artifacts were collected from seven positive shovel tests, including aqua and colorless window glass, lantern glass, colorless and brown vessel glass, milk glass, and wire.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.170
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a dense early-to-mid twentieth century artifact scatter in Area A4. 178 artifacts were recovered from five positive shovel tests including aqua and colorless window glass, washers, screws, wire, terra cotta drain pipe, and colorless vessel glass. Window glass and unidentified melted glass make up the majority of this assemblage, with 128 fragments.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Forest | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Subsurface Testing

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

178 artifacts were recovered from five positive shovel tests including aqua and colorless window glass, washers, screws, wire, terra cotta drain pipe, and colorless vessel glass.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR, RUNNYMEDE
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.910
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century domestic artifact scatter in Area B4. It is located in the same place as a dwelling indicated on historic topographic maps. A total of 65 artifacts were recovered from 20 positive shovel tests, including brick fragments; colorless vessel glass, milk glass, colorless and aqua window glass, terra cotta drain pipe, royal-pattern molded refined earthenware, a spark plug, and heavily corroded nails.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Subsurface Testing, Historic Map Projection

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

A total of 65 artifacts were recovered from 20 positive shovel tests, including brick fragments; colorless vessel glass, milk glass, colorless and aqua window glass, terra cotta drain pipe, molded refined earthenware, a spark plug, and heavily corroded nails.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.040
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Indeterminate
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a small domestic artifact scatter in Area B5. Artifacts recovered include two fragments of aqua vessel glass, two fragments of colorless window glass, and 83 fragments of terra cotta drain pipe.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation, Subsurface Testing

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

Artifacts recovered include two fragments of aqua vessel glass, two fragments of colorless window glass, and 83 fragments of terra cotta drain pipe.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

| | |
|---|---|
| **Site Name:** | No Data |
| **Site Classification:** | Terrestrial, open air |
| **Year(s):** | 1830 - 1860, 1861 - 1865, 1866 - 1916, 1917 - 1945 |
| **Site Type(s):** | Artifact scatter |
| **Other DHR ID:** | 046-0030 |
| **Temporary Designation:** | No Data |

**Site Evaluation Status**

## Locational Information

| | |
|---|---|
| **USGS Quad:** | RAYNOR |
| **County/Independent City:** | Isle Of Wight (County) |
| **Physiographic Province:** | Coastal Plain |
| **Elevation:** | No Data |
| **Aspect:** | No Data |
| **Drainage:** | Albemarle-Chowan |
| **Slope:** | No Data |
| **Acreage:** | 1.380 |
| **Landform:** | Ridge Finger |
| **Ownership Status:** | Private |
| **Government Entity Name:** | No Data |

## Site Components

### Component 1

| | |
|---|---|
| **Category:** | Domestic |
| **Site Type:** | Artifact scatter |
| **Cultural Affiliation:** | Indeterminate |
| **Cultural Affiliation Detail:** | No Data |
| **DHR Time Period:** | Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945) |
| **Start Year:** | No Data |
| **End Year:** | No Data |
| **Comments:** | This site consists of a late-nineteenth to early-twentieth century domestic artifact scatter associated with Architectural Resource #046-0030. This resource is no longer standing. A total of 89 artifacts were recovered from fourteen positive shovel tests, including refined earthenware, oyster shell, solarized vessel glass, milk glass, green vessel glass, cobalt vessel glass, brick fragments, corroded nails, yellowware, and aqua window glass. |

## Bibliographic Information

**Bibliography:**

No Data

**Informant Data:**

No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

A total of 89 artifacts were recovered from fourteen positive shovel tests, including refined earthenware, oyster shell, solarized vessel glass, milk glass, green vessel glass, cobalt vessel glass, brick fragments, corroded nails, yellowware, and aqua window glass

**Summary of Specimens Observed, Not Collected:**

Some artifacts were observed on the surface but not collected, including vessel glass, yellowware, brick, refined earthenware, and brick.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1830 - 1860, 1861 - 1865, 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 1.700
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of a mid-nineteenth to early-twentieth century domestic artifact scatter in Area C5. A total of 51 artifacts were recovered from 20 positive shovel tests, including brick fragments, machine-cut and wire nails, aqua vessel glass, solarized vessel glass, colorless vessel glass, dark green vessel glass, blue shell edged ceramic, industrial porcelain, lantern glass, and a fragment of copper pipe.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation, Subsurface Testing

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

A total of 51 artifacts were recovered from 20 positive shovel tests, including brick fragments, machine-cut and wire nails, aqua vessel glass, solarized vessel glass, colorless vessel glass, dark green vessel glass, blue shell edged ceramic, industrial porcelain, lantern glass, and a fragment of copper pipe.

**Summary of Specimens Observed, Not Collected:**

Artifacts observed but not collected on the surface include primarily brick fragments, but include the same types as those collected in shovel tests.

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** 046-0029
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.770
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C6. This grid also overlaps slightly with the Area C1 pedestrian survey. This site is also associated with Architectural Resource #046-0029. A total of 20 artifacts were recovered from ten positive shovel tests, including a length of chain, two fragments of unidentified farm equipment, brown vessel glass, colorless vessel and window glass, aqua vessel glass, brick fragments, and one machine cut nail. Colorless vessel glass was most common in this area, with five fragments recovered.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

A total of 20 artifacts were recovered from ten positive shovel tests, including a length of chain, two fragments of unidentified farm equipment, brown vessel glass, colorless vessel and window glass, aqua vessel glass, brick fragments, and one machine cut nail.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.990
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C7. 50 artifacts were recovered from eight positive shovel tests, including corroded nails, aqua vessel glass, colorless vessel and window glass, brown vessel glass, refined earthenware, brick fragments, and a glass marble.

## Bibliographic Information

**Bibliography:**
No Data

**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Subsurface Testing

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

50 artifacts were recovered from eight positive shovel tests, including corroded nails, aqua vessel glass, colorless vessel and window glass, brown vessel glass, refined earthenware, brick fragments, and a glass marble.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** No Data
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.930
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century domestic artifact scatter in Area C9. 13 artifacts were recovered from six shovel tests, including colorless, aqua, cobalt, and solarized vessel glass; ironstone; refined earthenware; and unidentified iron. The most common artifact was colorless vessel glass, with four fragments.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

13 artifacts were recovered from six shovel tests, including colorless, aqua, cobalt, and solarized vessel glass; ironstone; refined earthenware; and unidentified iron.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1866 - 1916, 1917 - 1945
**Site Type(s):** Artifact scatter
**Other DHR ID:** 046-5148
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 1.370
**Landform:** Ridge Finger
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Artifact scatter
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
**Start Year:** No Data
**End Year:** No Data
**Comments:** This site consists of an early-to-mid twentieth century artifact scatter in Area C10. Eighteen artifacts were recovered from eight artifacts, including iron bolts, nuts, unidentified and wire nails, colorless and blue vessel glass, and terra cotta drain pipe.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

Archaeological site data is protected under the Archaeological Resource Protection Act (ARPA 1979).

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 2/6/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation, Subsurface Testing

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

**Artifacts Summary and Diagnostics:**

Eighteen artifacts were recovered from eight artifacts, including iron bolts, nuts, unidentified and wire nails, colorless and blue vessel glass, and terra cotta drain pipe.

**Summary of Specimens Observed, Not Collected:**

No Data

**Current Curation Repository:** D+A

**Permanent Curation Repository:** To be determined by client

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site offers little new or significant archaeological data and is a type that is well represented in the region. D+A recommends this site not eligible for inclusion in the NRHP, and no additional work is required.

**Surveyor's Eligibility Recommendations:** Recommended Not Eligible

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

## Snapshot

Date Generated: June 18, 2024

**Site Name:** No Data
**Site Classification:** Terrestrial, open air
**Year(s):** 1790 - 1829, 1830 - 1860
**Site Type(s):** Dwelling, single
**Other DHR ID:** 046-0057
**Temporary Designation:** No Data

**Site Evaluation Status**

## Locational Information

**USGS Quad:** RAYNOR
**County/Independent City:** Isle Of Wight (County)
**Physiographic Province:** Coastal Plain
**Elevation:** No Data
**Aspect:** No Data
**Drainage:** Albemarle-Chowan
**Slope:** No Data
**Acreage:** 0.310
**Landform:** Ridge Top
**Ownership Status:** Private
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic
**Site Type:** Dwelling, single
**Cultural Affiliation:** Indeterminate
**Cultural Affiliation Detail:** No Data
**DHR Time Period:** Early National Period (1790 - 1829), Antebellum Period (1830 - 1860)
**Start Year:** 1825
**End Year:** No Data
**Comments:** This site consists of a single brick structure recorded as Architectural Resource 046-0057. No artifacts or surface features were observed in association with it.

## Bibliographic Information

**Bibliography:**
No Data
**Informant Data:**
No Data

## CRM Events

### Event Type: Survey:Phase I

**Project Staff/Notes:**

No Data

**Project Review File Number:** 2023-4691

**Sponsoring Organization:** No Data

**Organization/Company:** Dutton + Associates, LLC

**Investigator:** Delaney Hunter

**Survey Date:** 4/1/2024

**Survey Description:**

This survey was conducted in anticipation of development. Following a pedestrian reconnaissance of the project area, systematic pedestrian survey and shovel testing was conducted in accordance with an approved testing plan based on a probability model. High potential areas were systematically shovel tested or pedestrian surveyed, with shovel test placement avoided in areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water-saturated soils at the time of the survey. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

| Current Land Use | Date of Use | Comments |
|---|---|---|
| Agricultural field | 1/9/2024 | *No Data* |

**Threats to Resource:** Public Utility Expansion, Structural Failure

**Site Conditions:** Unknown Portion of Site Destroyed

**Survey Strategies:** Observation

**Specimens Collected:** No

**Specimens Observed, Not Collected:** Yes

**Artifacts Summary and Diagnostics:**

No Data

**Summary of Specimens Observed, Not Collected:**

Some brick fragments were observed scattered around the structure, but not collected.

**Current Curation Repository:** No Data

**Permanent Curation Repository:** No Data

**Field Notes:** Yes

**Field Notes Repository:** D+A

**Photographic Media:** Digital

**Survey Reports:** Yes

**Survey Report Information:**

Phase I Cultural Resource Survey of the ±817.46 Hectare (2,020 Acre) Sycamore Cross Solar Project Area

**Survey Report Repository:** D+A

**DHR Library Reference Number:** No Data

**Significance Statement:** This site has the potential for associated artifacts and subsurface features, and is recommended for further survey.

**Surveyor's Eligibility Recommendations:** Recommended for Further Survey

**Surveyor's NR Criteria Recommendations:** No Data

**Surveyor's NR Criteria Considerations:** No Data

**Sycamore Cross Solar A and B**
**Recommended Conditions as amended September 11, 2024**

1. Topsoil shall be stockpiled on the site and shall be stored out of view from adjacent properties and public roads.
2. The Applicant shall submit an invasive species management plan as recommended by DCR with the submission of the final site plan.
3. No impacts shall be permitted to the Pouches Swamp stream conservation unit area. The Applicant shall comply with Virginia Department of Conservation and Recreation ("DCR") recommendations regarding the C1-C3 ecological core areas and shall coordinate with Virginia Department of Forestry on efforts to mitigate impact to the priority forestland areas.
4. The Applicant shall submit a seed mix for site groundcover that includes native pollinators blooming in spring/summer as recommended by DCR.
5. The Applicant will work directly with the Isle of Wight County Chamber of Commerce, Paul D. Camp Community College, and the Economic Development Department to ensure inclusion of local contractors in the bidding process.
6. A laminated Emergency Response Poster will be mounted near the front gate. The poster will include a general site plan, evacuation routes and muster points, emergency response chain of command, directions to the closest hospital, coordinates to the closest life flight landing area, and other pertinent information associated with the facility during an emergency response.
7. The facility perimeter fencing will be equipped with gates to permit emergency exits from the facility subject to compliance with applicable requirements, including those of the National Electric Code and the North American Electric Reliability Corporation.
8. Adherence to the approved transportation plan shall be required for all facility traffic during construction of the facility. Oversized vehicle traffic shall be limited only to the approved route as described in in the transportation plan. The Applicant shall coordinate with the Isle of Wight County school administration on school bus pickup and drop-off times and locations for incorporation into the transportation plan.
9. Excluding the bufferyards, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing.
10. Hours of operation for construction (including construction associated with repairs during operation of the facility) shall be limited to Monday through Friday, 7:00 a.m. to 6:00 p.m. and Saturdays from 7:00 a.m. to 5:00 p.m., except in cases of emergency. Except in cases of emergency, no construction is to occur on Sundays by any party involved with the Project. In the event of any emergency event

necessitating divergence from the foregoing hours and days of operation, the Applicant shall notify the zoning administrator as soon as reasonably possible.

11. As part of the site plan review, the Applicant shall provide documentation that the selected panels on-site are “Tier 1” modules, as established by the most recent “PV Module Tier 1 List” issued by Bloomberg NEF or a similar third-party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power-generating equipment initially installed and replaced on the site must qualify, for disposal purposes only, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP).
12. The Applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the Project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil conditions, including depth, density, and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/ Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to substantially similar or better condition as in the baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results.
13. Any recommendations provided by VDHR during site plan review will be adhered to, in addition to requirements in the zoning ordinance.
14. The Property shall be developed in general conformance with the submitted conceptual plan prepared by AES and dated December 12, 2023.
15. During the Project life, the Applicant shall preserve and maintain existing and newly installed buffer landscaping and shall not clear cut live trees within required setbacks or buffer zones except as necessary for access roads, utility crossings, and to avoid shading of solar panels per the approval of the Zoning Administrator.
16. The Applicant shall submit a combined Stormwater Management Plan and a combined Erosion and Sediment Control Plan for Sycamore Cross A and Sycamore Cross B with the submission of the site plan for review by the Virginia Stormwater Management Program authority having jurisdiction at the time of submission.
17. The Applicant shall submit a combined Unanticipated Discovery Plan for Sycamore Cross A and Sycamore Cross B prior to final site plan approval. The

plan shall include emergency protection protocols, curation processing of cultural materials, disposition of cultural materials, and a contact list including an on-call archaeologist, Project contacts, and state/regional contacts.

18. Applicant will coordinate with landowners and the Zoning Administrator to install enhanced landscape buffers in proximity to occupied residential properties as needed to mitigate potential viewshed impacts.
19. The Applicant shall submit an initial combined Transportation Plan, as referenced in Condition 8 of Staff Recommended Conditions, for Sycamore Cross A and Sycamore Cross B with the first submission of the site plan. The final Transportation Plan shall address traffic control measures, an evaluation of the condition of the public roads along delivery routes prior to construction, and a plan to address repairs to public roads that may be needed due to damages attributable to Project construction. The Applicant shall obtain Isle of Wight County approval of the final Transportation Plan prior to approval of the site plan. Additionally, the Transportation Plan shall include each of the following:
    i. Third party enforcement of the approved transportation plan.
    ii. Prior to the start of construction, reinforcement of shoulders, clearing of roadside drainage ways, and road improvement where permissible through coordination with the applicable Virgina Department of Transportation (VDOT) office.
    iii. Limit construction traffic on White Hill Trail (State Route 623).
    iv. Upon commencement of construction, Applicant will engage a Project Liaison to facilitate communication between citizens, construction crews, maintenance teams, and the Applicant. The contact information for the Project Liaison will be posted at each permanent site gate, published on the Project's website, and provided to Isle of Wight County Staff. A Project Liaison will remain in place until completion of construction.
    v. A detailed description of what types of vehicles and activities are subject to the Transportation Plan and a definition of "material non-compliance" with the Transportation Plan.
    vi. Penalties for material non-compliance with the Transportation Plan in accordance with the following:
        a) First Violation: A written warning may be issued to the Applicant.
        b) Second Violation: A monetary penalty of $10,000 may be imposed.
        c) Third Violation: A monetary penalty of $20,000 may be imposed.
        d) Subsequent Violations: For each subsequent violation, a monetary penalty of $50,000 may be imposed.
        e) In no event shall monetary penalties assessed under the Transportation Plan exceed a total of $500,000, however, nothing contained herein shall preclude the Zoning Administrator from

enforcement of the conditions of the permit in accordance with the Zoning Ordinance.

20. The Applicant will commit to agricultural uses on site, including, but not limited to, sheep grazing and forage crops. The Applicant will develop and submit as part of the site plan review process a Farming Plan for such agricultural uses on site, which will require a performance bond to secure Applicant's obligations under the Farming Plan.
21. The Applicant will commit at least eight (8) acres of land to agricultural community support. The Applicant will develop a program to manage the land identified for agricultural community support.
22. Pursuant to Va. Code 15.2-2209.1:2, the Applicant must commence construction of the Project within three years from the date of approval of this Conditional Use Permit, unless otherwise extended by the Board of Supervisors or applicable law.
23. This Conditional Use Permit, including these conditions, shall run with the land and shall not be affected by a change in ownership of the Applicant or the Project.

**Sycamore Cross Solar A and B**
**Recommended Conditions as amended September 11, 2024**

1. Topsoil shall be stockpiled on the site and shall be stored out of view from adjacent properties and public roads.
2. The Applicant shall submit an invasive species management plan as recommended by DCR with the submission of the final site plan.
3. No impacts shall be permitted to the Pouches Swamp stream conservation unit area. The Applicant shall comply with Virginia Department of Conservation and Recreation ("DCR") recommendations regarding the C1-C3 ecological core areas and shall coordinate with Virginia Department of Forestry on efforts to mitigate impact to the priority forestland areas.
4. The Applicant shall submit a seed mix for site groundcover that includes native pollinators blooming in spring/summer as recommended by DCR.
5. The Applicant will work directly with the Isle of Wight County Chamber of Commerce, Paul D. Camp Community College, and the Economic Development Department to ensure inclusion of local contractors in the bidding process.
6. A laminated Emergency Response Poster will be mounted near the front gate. The poster will include a general site plan, evacuation routes and muster points, emergency response chain of command, directions to the closest hospital, coordinates to the closest life flight landing area, and other pertinent information associated with the facility during an emergency response.
7. The facility perimeter fencing will be equipped with gates to permit emergency exits from the facility subject to compliance with applicable requirements, including those of the National Electric Code and the North American Electric Reliability Corporation.
8. Adherence to the approved transportation plan shall be required for all facility traffic during construction of the facility. Oversized vehicle traffic shall be limited only to the approved route as described in in the transportation plan. The Applicant shall coordinate with the Isle of Wight County school administration on school bus pickup and drop-off times and locations for incorporation into the transportation plan.
9. Excluding the bufferyards, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing.
10. Hours of operation for construction (including construction associated with repairs during operation of the facility) shall be limited to Monday through Friday, 7:00 a.m. to 6:00 p.m. and Saturdays from 7:00 a.m. to 5:00 p.m., except in cases of emergency. Except in cases of emergency, no construction is to occur on Sundays by any party involved with the Project. In the event of any emergency event

necessitating divergence from the foregoing hours and days of operation, the Applicant shall notify the zoning administrator as soon as reasonably possible.

11. As part of the site plan review, the Applicant shall provide documentation that the selected panels on-site are “Tier 1” modules, as established by the most recent “PV Module Tier 1 List” issued by Bloomberg NEF or a similar third-party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power-generating equipment initially installed and replaced on the site must qualify, for disposal purposes only, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP).
12. The Applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the Project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil conditions, including depth, density, and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/ Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to substantially similar or better condition as in the baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results.
13. Any recommendations provided by VDHR during site plan review will be adhered to, in addition to requirements in the zoning ordinance.
14. The Property shall be developed in general conformance with the submitted conceptual plan prepared by AES and dated December 12, 2023.
15. During the Project life, the Applicant shall preserve and maintain existing and newly installed buffer landscaping and shall not clear cut live trees within required setbacks or buffer zones except as necessary for access roads, utility crossings, and to avoid shading of solar panels per the approval of the Zoning Administrator.
16. The Applicant shall submit a combined Stormwater Management Plan and a combined Erosion and Sediment Control Plan for Sycamore Cross A and Sycamore Cross B with the submission of the site plan for review by the Virginia Stormwater Management Program authority having jurisdiction at the time of submission.
17. The Applicant shall submit a combined Unanticipated Discovery Plan for Sycamore Cross A and Sycamore Cross B prior to final site plan approval. The

plan shall include emergency protection protocols, curation processing of cultural materials, disposition of cultural materials, and a contact list including an on-call archaeologist, Project contacts, and state/regional contacts.

18. Applicant will coordinate with landowners and the Zoning Administrator to install enhanced landscape buffers in proximity to occupied residential properties as needed to mitigate potential viewshed impacts.
19. The Applicant shall submit an initial combined Transportation Plan, as referenced in Condition 8 of Staff Recommended Conditions, for Sycamore Cross A and Sycamore Cross B with the first submission of the site plan. The final Transportation Plan shall address traffic control measures, an evaluation of the condition of the public roads along delivery routes prior to construction, and a plan to address repairs to public roads that may be needed due to damages attributable to Project construction. The Applicant shall obtain Isle of Wight County approval of the final Transportation Plan prior to approval of the site plan. Additionally, the Transportation Plan shall include each of the following:
    i. Third party enforcement of the approved transportation plan.
    ii. Prior to the start of construction, reinforcement of shoulders, clearing of roadside drainage ways, and road improvement where permissible through coordination with the applicable Virgina Department of Transportation (VDOT) office.
    iii. Limit construction traffic on White Hill Trail (State Route 623).
    iv. Upon commencement of construction, Applicant will engage a Project Liaison to facilitate communication between citizens, construction crews, maintenance teams, and the Applicant. The contact information for the Project Liaison will be posted at each permanent site gate, published on the Project's website, and provided to Isle of Wight County Staff. A Project Liaison will remain in place until completion of construction.
    v. A detailed description of what types of vehicles and activities are subject to the Transportation Plan and a definition of "material non-compliance" with the Transportation Plan.
    vi. Penalties for material non-compliance with the Transportation Plan in accordance with the following:
        a) First Violation: A written warning may be issued to the Applicant.
        b) Second Violation: A monetary penalty of $10,000 may be imposed.
        c) Third Violation: A monetary penalty of $20,000 may be imposed.
        d) Subsequent Violations: For each subsequent violation, a monetary penalty of $50,000 may be imposed.
        e) In no event shall monetary penalties assessed under the Transportation Plan exceed a total of $500,000, however, nothing contained herein shall preclude the Zoning Administrator from

enforcement of the conditions of the permit in accordance with the Zoning Ordinance.

20. The Applicant will commit to agricultural uses on site, including, but not limited to, sheep grazing and forage crops. The Applicant will develop and submit as part of the site plan review process a Farming Plan for such agricultural uses on site, which will require a performance bond to secure Applicant's obligations under the Farming Plan.
21. The Applicant will commit at least eight (8) acres of land to agricultural community support. The Applicant will develop a program to manage the land identified for agricultural community support.
22. Pursuant to Va. Code 15.2-2209.1:2, the Applicant must commence construction of the Project within three years from the date of approval of this Conditional Use Permit, unless otherwise extended by the Board of Supervisors or applicable law.
23. This Conditional Use Permit, including these conditions, shall run with the land and shall not be affected by a change in ownership of the Applicant or the Project.

**ISSUE:**

Consideration of a Siting Agreement for the Sycamore Cross Solar, LLC Project

**BACKGROUND:**

Sycamore Cross Solar, LLC desires to construct and operate a solar facility in the County. In this regard, the Code of Virginia allows the County and Sycamore Cross Solar, LLC to enter into a siting agreement relative to solar facilities.

The Board may wish to discuss/consider a Siting Agreement for the project.

**BUDGETARY IMPACT:**

This amendment will potentially increase anticipated revenues over the course of 40 years.

**RECOMMENDATION:**

Per the Board's discussion and direction.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Siting Agreement | Backup Material | 9/11/2024 |
| Siting Agreement (Redline Version) | Backup Material | 9/19/2024 |

# SOLAR FACILITY SITING AGREEMENT

This Solar Facility Siting Agreement (the "**Agreement**"), dated as of _____ (the "**Effective Date**"), is by and between Isle of Wight County, Virginia, a political subdivision of the Commonwealth of Virginia (the "**County**") and Sycamore Cross Solar, LLC, a Delaware limited liability company (the "**Applicant**"). The County and Applicant are herein each a "**Party**" and collectively, the "**Parties**".

## RECITALS

WHEREAS, Applicant intends to develop, install, build, and operate an up to 240 megawatt solar project to be located in the Counties of Surry and Isle of Wight (the **"Project"**);

WHEREAS, the County Board of Supervisors (the "**Board**") pursuant to Conditional Use Permit # 8-23 and Conditional Use Permit # 5-24 approved the portion of the Project located in Isle of Wight County (on certain parcels of land identified as the County Tax Map Parcels listed on Exhibit A-1 attached hereto (collectively, the **"Property");**

WHEREAS, pursuant to Chapter 22, Title 15.2, Article 7.3 of the Code of Virginia ("**Code**") titled "Siting of Solar Projects and Energy Storage Projects," Applicant and the County may enter into a siting agreement for such facilities;

WHEREAS, pursuant to Code § 15.2-2316.7(B), said siting agreement may contain terms and conditions, including (i) mitigation of any impacts of such solar project or energy storage project; (ii) financial compensation to the host locality to address capital needs set out in the (a) capital improvement plan adopted by the host locality, (b) current fiscal budget of the host locality, or (c) fiscal fund balance policy adopted by the host locality; or (iii) assistance by the Applicant in the deployment of broadband, as defined in § 56-585.1:9, in such locality;

WHEREAS, after negotiation between the County and the Applicant, the Parties desire to enter into this Agreement to provide said financial compensation to the County and to address impacts of the Project;

WHEREAS, pursuant to Code § 58.1-2636, the County may adopt an ordinance assessing a revenue share of (i) up to $1,400.00 per megawatt, as measured in alternating current (AC) generation capacity of the nameplate capacity of a solar facility ("**Revenue Share Ordinance**").

WHEREAS, the County has not adopted a Revenue Share Ordinance, but may choose to do so at a later date;

WHEREAS, pursuant to Code § 58.1-3660, "certified pollution control equipment" is exempt from state and local taxation pursuant to Article X, Section 6(d) of the Constitution of Virginia;

WHEREAS, solar photovoltaic (electric energy) systems and energy storage systems are certified pollution control equipment, and therefore, subject to certain qualified tax exemptions as provided in Code § 58.1-3660;

WHEREAS, if the County adopts a Revenue Share Ordinance, such certified pollution control equipment exemption is 100% of the assessed value, pursuant to Code § 58.1-3660(D) (for solar photovoltaic (electric energy) projects);

WHEREAS, if the County does not adopt a Revenue Share Ordinance, such certified pollution control equipment exemption would be 80% of the assessed value as provided by state law and local ordinances, including Code § 58.1-3660(C)(iii)(a) because the Project's initial interconnection request was filed between January 1, 2015 and June 30, 2018, with the Project being larger than 20 megawatts ("M&T Taxes");

WHEREAS, Applicant has agreed to the payments and financial terms contained herein, including payment of the M&T Taxes together with the payments as provided in Exhibit B; and

WHEREAS, pursuant to the requirement of Code § 15.2-2316.8(B), the County held a public hearing in accordance with subdivision A of Code § 15.2-2204 for the purpose of considering this Agreement, after which a majority of a quorum of the members of the Board approved this Agreement.

NOW, THEREFORE, intending to be legally bound hereby and in consideration of the mutual covenants contained herein, the receipt and sufficiency of which are hereby acknowledged, the County and Applicant do hereby agree as follows:

## Article I

## Project Features, Conditions and Mitigation

**1. Conditional Use Permit Conditions**. Applicant acknowledges and agrees that it is subject to all the terms and conditions contained in the Conditional Use Permits (collectively, the "**CUP**") approved by the Board for the Project. The CUP approved by the Board on _____ is attached as **Exhibit A** and is hereby incorporated herein.

**2. Violations/Enforcement**. Violation by the Applicant or by any of Applicant's agents, assigns, or successors in interest of any terms and conditions of the CUP shall constitute a violation of this Agreement. An uncured violation of this Agreement enables the County to suspend or revoke the CUP in accordance with Section __ of the CUP.

**3. Decommissioning Financial Assurance**. Notwithstanding any provision of the County Zoning Ordinance now existing or hereafter adopted, for as long as the Project has an offtake contract for the sale of power, the financial assurance provided by the Applicant for decommissioning of the Project may include and be net of the salvage value of the portion of the Project's equipment, facilities, and devices located in the County.

**4. Exemption**. By virtue of the Project's use permit application date before revisions to the County Zoning Ordinance adopted by the Board on May 8, 2023, the Project is grandfathered as to and exempt from Section 5-5003(M)(4)(j) and Section 5-5003(M)(4)(k) of the County Zoning Ordinance.

## Article II

## Payments

**1. Payment Structure.** The Applicant shall make payments to the County, in the amounts and at such times as set forth in **Exhibit B** (each a "**Payment**" and collectively, the "**Payments**"). Except as specifically provided in Exhibit B, Applicant's obligation to make the Payments shall be conditioned upon the Project commencing Commercial Operation, except that the Additional Payments (as defined in Exhibit B) shall be due in advance of Commercial Operation as set forth in Exhibit B. As used herein, "**Commercial Operation**" or "**Commercial Operation Date**" means the date on which the Project becomes fully operational and begins selling power under the terms of a power purchase or offtake agreement. Generation of test energy shall not be deemed Commercial Operation.

**2. Statutory Structure of Payments**; **Statement of Benefit**. Applicant agrees that, by entering into this Agreement, pursuant to Chapter 22, Title 15.2, Article 7.3 of the Code, the Payments are authorized by statute, and Applicant acknowledges that it is bound by law to make the Payments in accordance with this Agreement. The Parties acknowledge that this Agreement is fair and mutually beneficial to both Parties. Applicant acknowledges that this Agreement provides for a reasonably predictable stream of future payments to the County in amounts fair to both Parties.

**3. Use of Payments by the County**. The Payments may be used for any lawful purpose, and as allocated in Exhibit B.

## Article III

## Miscellaneous Terms

**1. Term; Termination**. This Agreement shall commence on the Effective Date and shall continue until completion of decommissioning of the Project in accordance with the decommissioning plan (the "**Termination Date**"). **Applicant shall have no obligation to make Payments after the Termination Date.** The Payment due for the year in which the Project or material part thereof is decommissioned shall be prorated as of the Termination Date.

**2. Mutual Covenants**. The Applicant covenants to the County that it will pay the County the amounts due hereunder when due in accordance with the terms of this Agreement, and will not seek to invalidate this Agreement, or otherwise take a position adverse to the purpose or validity of this Agreement. The County covenants to the Applicant that it will not seek to invalidate this Agreement or otherwise take a position adverse to the purpose or validity of this

Agreement.

**3. No Obligation to Develop**. Applicant has no obligation to develop or construct the Project. It is understood that development of the Project by Applicant is contingent upon a number of factors including regulatory approvals, availability and cost of equipment and financing, and market demand for the Project's energy. No election by Applicant to terminate, defer, suspend, or modify plans to develop the Project shall be deemed a default of Applicant under this Agreement.

**4. Successors and Assigns**. This Agreement shall be binding upon the successors or assigns of Applicant, and the obligations created hereunder shall be covenants running with the Property. If Applicant sells, transfers, leases, or assigns all or substantially all of its interests in the Project or the ownership of the Applicant (a "**Transfer**"), the Transfer agreement shall require this Agreement to be assumed by and be binding on the purchaser, transferee or assignee. Such Transfer, upon full execution of the Transfer agreement, shall relieve Applicant of all obligations and liabilities under this Agreement accruing from and after the date of such Transfer, and the purchaser or transferee shall become responsible under this Agreement. Applicant shall execute such documentation as reasonably requested by the County to memorialize the assignment and assumption by the purchaser or transferee.

**5. Execution of Agreement Deems Project "Substantially In Accord" with County's Comprehensive Plan**. Pursuant to Code § 15.2- 2316.9(C), execution of this Agreement deems the Project to be substantially in accord with the County's Comprehensive Plan in satisfaction of the requirements of Code § 15.2-2232.

**6. Memorandum of Agreement**. A memorandum of this Agreement, in a form substantially similar to that attached as **Exhibit C** hereto, shall be recorded in the land records of the Clerk's Office of the Circuit Court of Isle of Wight County, Virginia. Such recordation shall be at Applicant's sole cost and expense and shall occur as soon as reasonably practicable after the Effective Date. If in Applicant's sole discretion, it chooses to not develop the Project, the County shall execute a release of the memorandum filed in the aforementioned Clerk's Office.

**7. Notices**. Except as otherwise provided herein, all notices required to be given or authorized to be given pursuant to this Agreement shall be in writing and shall be delivered or sent by registered or certified mail, postage prepaid, by recognized overnight courier, or by commercial messenger to:

**If to the County:**

Post Office Box 80
17090 Monument Circle
Isle of Wight, Virginia 23397
Attn: Randy R. Keaton, County Administrator

With a copy to:

Robert W. Jones, Jr., County Attorney
Post Office Box 80
Isle of Wight, Virginia 23397

**If to the Applicant:**

Sycamore Cross Solar, LLC
c/o AES Clean Energy Development, LLC
2180 South 1300 East, Suite 500
Salt Lake City, Utah 84106
Attn: Greg Creswell

With a copy to:

Sycamore Cross Solar, LLC
c/o AES Clean Energy Development, LLC
2180 South 1300 East, Suite 500
Salt Lake City, Utah 84106
Attn: General Counsel

With a copy to:

Gentry Locke
Post Office Box 780
Richmond, Virginia 23218
Attn: D. Scott Foster, Jr. Esq.

The County and Applicant, by notice given hereunder, may designate any further or different persons or addresses to which subsequent notices shall be sent.

**8**. **Governing Law; Jurisdiction; Venue**. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE COMMONWEALTH OF VIRGINIA, WITHOUT REGARD TO ANY OF ITS PRINCIPLES OF CONFLICTS OF LAWS OR OTHER LAWS WHICH WOULD RESULT IN THE APPLICATION OF THE LAWS OF ANOTHER JURISDICTION. THE PARTIES HERETO (A) AGREE THAT ANY SUIT, ACTION OR OTHER LEGAL PROCEEDING, AS BETWEEN THE PARTIES HERETO, ARISING OUT OF OR RELATING TO THIS AGREEMENT SHALL BE BROUGHT AND TRIED ONLY IN THE CIRCUIT COURT OF ISLE OF WIGHT COUNTY, VIRGINIA, (B) CONSENT TO THE JURISDICTION OF SUCH COURT IN ANY SUCH SUIT, ACTION OR PROCEEDING, AND (C) WAIVE ANY OBJECTION WHICH ANY OF THEM MAY HAVE TO THE LAYING OF VENUE FOR ANY SUCH SUIT, ACTION, OR PROCEEDING IN SUCH COURT AND ANY CLAIM THAT ANY SUCH SUIT, ACTION, OR PROCEEDING HAS BEEN BROUGHT IN AN INCONVENIENT FORUM. THE PARTIES HERETO AGREE THAT A FINAL JUDGMENT IN ANY SUCH SUIT, ACTION, OR

PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW.

**9. Confidentiality**. This Agreement, once placed on the docket for consideration by the County Board of Supervisors, is a public document, subject to production under the Virginia Freedom of Information Act ("**FOIA**"). The County understands and acknowledges the Applicant, and as applicable, its associates, contractors, partners and affiliates, utilize confidential and proprietary "state-of-the-art" information and data in their operations ("**Confidential Information**"), and that disclosure of any such information, including, but not limited to, disclosures of technical, financial or other information concerning the Applicant or any affiliated entity could result in substantial harm to them and could thereby have a significant detrimental impact on their employees and also upon the County. The County acknowledges that during the development and negotiation of this Agreement, certain Confidential Information may be, or may have been, shared with the County by the Applicant. Applicant agrees to clearly identify any information it deems to be Confidential Information and not subject to mandatory disclosure under FOIA or other applicable law as Confidential Information at the time it provides such information to the County. The County agrees that, except as required by law and pursuant to the County's police powers, neither the County nor any employee, agent, or contractor of the County will knowingly or intentionally disclose or otherwise divulge any such Confidential Information to any person, firm, governmental body or agency, or any other entity unless a request for such Confidential Information is made and granted under an applicable provision of local, state or federal law. Upon receipt of such a request but before transmitting any documents or information which may contain Confidential Information to the requestor, the County shall contact Applicant to review the request for information and associated documents to determine if any Confidential Information is at risk of disclosure. If Confidential Information exists, Applicant may intervene on behalf of the County and defend against disclosure of the Confidential Information. The County agrees to cooperate in this defense and to the extent allowed by law, work to protect the Confidential Information of the Applicant.

**10**. **Severability; Invalidity Clause**. Any provision of this Agreement that conflicts with applicable law or is held to be void or unenforceable shall be ineffective to the extent of such conflict, voidness, or unenforceability without invalidating the remaining provisions hereof, which remaining provisions shall be enforceable to the fullest extent permitted under applicable law. If, for any reason, including a change in applicable law, it is ever determined by any court or governmental authority of competent jurisdiction that this Agreement is invalid, then the Parties shall, subject to any necessary County meeting vote or procedures, undertake reasonable efforts to amend and or reauthorize this Agreement so as to render the invalid provisions herein lawful, valid, and enforceable. If the Parties are unable to do so, this Agreement shall terminate as of the date of such determination of invalidity, and the Property and Project will thereafter be assessed and taxed as though this Agreement did not exist. The Parties will cooperate with each other and use reasonable efforts to defend against and contest any challenge to this Agreement by a third party.

**11**. **Entire Agreement**. This Agreement and any exhibits or other attachments constitute the entire agreement and supersedes all other prior agreements and understandings, both

written and oral, between the Parties hereto with respect to the subject matter hereof. No provision of this Agreement can be modified, altered or amended except in a writing executed by all Parties hereto.

**12**. **Construction**. This Agreement was drafted with input by the County and the Applicant, and no presumption shall exist against any Party. The headings contained in this Agreement are for the convenience of the Parties and for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

**13**. **Force Majeure**. Neither Party will be liable for any failure or delay in performing an obligation under this Agreement that is due to any of the following causes, to the extent beyond its reasonable control: acts of God, accident, riots, war, terrorist act, epidemic, pandemic, quarantine, civil commotion, breakdown of communication facilities, breakdown of web host, breakdown of internet service provider, natural catastrophes, governmental acts or omissions, changes in laws or regulations, national strikes, fire, explosion, generalized lack of availability of raw materials or energy. For the avoidance of doubt, Force Majeure shall not include (a) financial distress nor the inability of either party to make a profit or avoid a financial loss, (b) changes in market prices or conditions, or (c) a party's financial inability to perform its obligations hereunder.

**14**. **No Third Party Beneficiaries**. This Agreement is solely for the benefit of the Parties hereto and their respective successors and permitted assigns, and no other person shall have any right, benefit, priority, or interest in, under, or because of the existence of, this Agreement.

**15**. **Counterparts; Electronic Signatures**. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of which shall constitute one and the same instrument. A signed copy of this Agreement delivered by e-mail/PDF or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

*[signature page follows]*

**IN WITNESS WHEREOF**, the Parties hereto have caused this Agreement to be executed as of the Effective Date by the authorized representatives whose names and titles appear below.

**SYCAMORE CROSS SOLAR, LLC**

By: _____
Name: _____
Title: _____

**ISLE OF WIGHT COUNTY, VIRGINIA**

By: _____
Name: Joel C. Acree
Title: Chairman, Board of Supervisors

By: _____
Name: Randy R. Keaton
Title: County Administrator

Approved as to form:

By: _____
County Attorney

# EXHIBIT A

# CONDITIONAL USE PERMITS

## EXHIBIT A-1

## TAX PARCELS

CUP-8-23: Isle of Wight County Tax Parcels 09-01-001, 16-01-002, 16-01-002A, 16-01-003, 16-01-005. 16-01-008, 16-01-009, 17-01-003, 17-01-003C, 17-01-001, 17-01-002, 17-01-011, 27-01-003, and 27-01-004

CUP-5-24: Isle of Wight County Tax Parcels 10-01-017, 11-01-015, 10-01-023, 10-01-025, 10-01-027, 10-01-028A, 10-01-030, and 11-01-005

## EXHIBIT B

## SCHEDULE OF PAYMENTS

**(A) Annual Payments:** Within sixty (60) days after the Commercial Operation Date of the Project, Applicant shall make annual payments to the County equal to the sum of the M&T Taxes and the Supplemental Voluntary Payments (the "**Annual Payments**"). Both the M&T Tax and Supplemental Voluntary Payments shall be made irrespective of the County's election to adopt a Revenue Share Ordinance, which would otherwise exempt the Project from M&T Taxes. The Annual Payments shall continue annually and successive payments shall be made on the anniversary of the first such Annual Payment for each year thereafter until the Termination Date. The Annual Payments shall consist of the following:

1. **M&T Taxes.** The annual M&T Taxes (which will fluctuate in any given year, depending on the Project's machinery and tools).
2. **Supplemental Voluntary Payments**. For the first ten (10) Annual Payments, the Supplemental Voluntary Payment shall be an amount equal to One Million Dollars ($1,000,000.00) less the actual amount of the M&T Taxes. For clarity and avoidance of doubt, in the event M&T Taxes equal or exceed One Million Dollars (1,000,000.00) within the first ten (10) years, no Supplemental Voluntary Payment will be made. After the tenth ($10^{th}$) Annual Payment and for the remainder of the Annual Payments, the Supplemental Voluntary Payment shall be Zero Dollars ($0.00).

**(B) Additional Payments:** Subject to the terms as provided below, Applicant shall make the following additional payments (the "**Additional Payments**"):

(1) **Initial Payment:** Subject to the County approving the CUP and this Agreement by September 24, 2024, Applicant shall make a one-time payment of One Million Five Hundred Thousand Dollars ($1,500,000.00), to be made within sixty (60) days after approval of the CUP for the Project (which for the avoidance of doubt, shall include both Conditional Use Permit # 8-23 and Conditional Use Permit # 5-24) if no appeal of the approval is filed, and if such an appeal is filed, then within sixty (60) days after the resolution of any such appeal, provided that the result of such appeal is to allow the Project to proceed.

(2) **Community Impact Payment:** A one-time payment of Five Hundred Thousand Dollars ($500,000.00), to be made within sixty (60) days after approval of the CUP for the Project (which for the avoidance of doubt, shall include both Conditional Use Permit # 8-23 and Conditional Use Permit # 5-24) if no appeal of the approval is filed, and if such an appeal is filed, then within sixty (60) days after the resolution of any such appeal, provided that the result of such appeal allows the Project to proceed. The Community Impact Payment shall be used by the County for the general benefit of County residents.

(3) **Emergency Services Support Payment:** A one-time payment of Fifty Thousand Dollars ($50,000.00) to be made within sixty (60) days after approval of

the CUP for the Project (which for the avoidance of doubt, shall include both Conditional Use Permit # 8-23 and Conditional Use Permit # 5-24) if no appeal of the approval is filed, and if such an appeal is filed, then within sixty (60) days after the resolution of any such appeal, provided that the result of such appeal allows the Project to proceed. The Emergency Services Support Payment shall be used by the County to support the capital needs of the County's volunteer emergency services organizations.

(4) **Final Site Plan Payment:** A one-time payment of One Million Five Hundred Thousand Dollars ($1,500,000.00), to be made within sixty (60) days after the County approves a final site plan for the Project.

(5) **Commercial Operation Date Payment:** A one-time payment of Two Hundred Fifty Thousand Dollars ($250,000.00), to be made within sixty (60) days after the Commercial Operation Date.

The following illustrative schedule of payments assumes an estimated 187 MWac generation capacity for the portion of the Project located in Isle of Wight County; provided, however, the following illustrative schedule is for example only and all payments shall be adjusted proportionally if the nameplate capacity and/or capital investment of the constructed Project within Isle of Wight County increases or decreases from such estimate.

(*Exhibit B continues on following page(s)*)

**EXHIBIT B (CONTINUED)**

| Project Year | Estimated M&T @187MWac* | Estimated Supplemental Voluntary Payments | Estimated Annual Payments |
|---|---|---|---|
| 1 | $410,653.77 | $589,346.23 | $1,000,000.00 |
| 2 | $410,653.77 | $589,346.23 | $1,000,000.00 |
| 3 | $410,653.77 | $589,346.23 | $1,000,000.00 |
| 4 | $410,653.77 | $589,346.23 | $1,000,000.00 |
| 5 | $409,421.81 | $590,578.19 | $1,000,000.00 |
| 6 | $398,288.53 | $601,711.47 | $1,000,000.00 |
| 7 | $386,470.82 | $613,529.18 | $1,000,000.00 |
| 8 | $373,968.70 | $626,031.30 | $1,000,000.00 |
| 9 | $360,736.52 | $639,263.48 | $1,000,000.00 |
| 10 | $346,683.04 | $653,316.96 | $1,000,000.00 |
| 11 | $331,762.62 | | $331,762.62 |
| 12 | $315,975.26 | | $315,975.26 |
| 13 | $299,229.71 | | $299,229.71 |
| 14 | $281,525.97 | | $281,525.97 |
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| 17 | $221,661.78 | | $221,661.78 |
| 18 | $199,258.33 | | $199,258.33 |
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| 20 | $150,344.91 | | $150,344.91 |
| 21 | $123,698.04 | | $123,698.04 |
| 22 | $95,408.56 | | $95,408.56 |
| 23 | $65,430.83 | | $65,430.83 |
| 24 | $45,628.20 | | $45,628.20 |
| 25 | $45,628.20 | | $45,628.20 |

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| 26 | $45,628.20 | | $45,628.20 |
| 27 | $45,628.20 | | $45,628.20 |
| 28 | $45,628.20 | | $45,628.20 |
| 29 | $45,628.20 | | $45,628.20 |
| 30 | $45,628.20 | | $45,628.20 |
| 31 | $45,628.20 | | $45,628.20 |
| 32 | $45,628.20 | | $45,628.20 |
| 33 | $45,628.20 | | $45,628.20 |
| 34 | $45,628.20 | | $45,628.20 |
| 35 | $45,628.20 | | $45,628.20 |
| *Assumes $328,970,412 Capital investment in Isle of Wight County, 80% exemption, and a tax rate of $0.7300/$100 | | | |

## EXHIBIT C

## FORM OF MEMORANDUM

*Full exhibit follows*

**PREPARED BY AND RETURN TO:**
Sycamore Cross Solar, LLC
c/o AES Clean Energy Development, LLC
2180 South 1300 East, Suite 500
Salt Lake City, Utah 84106

**County Tax Map ID Nos.** 09-01-001, 16-01-002, 16-01-002A, 16-01-003, 16-01-005. 16-01-008, 16-01-009, 17-01-003, 17-01-003C, 17-01-001, 17-01-002, 17-01-011, 27-01-003, 27-01-004, 10-01-017, 11-01-015, 10-01-023, 10-01-025, 10-01-027, 10-01-028A, 10-01-030, and 11-01-005

**[NOTE TO CLERK: ISLE OF WIGHT COUNTY, VIRGINIA, A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA, IS A PARTY TO THIS INSTRUMENT WHICH, ACCORDINGLY, IS EXEMPT FROM RECORDATION TAX PURSUANT TO VA. CODE SEC. 58.1-811.A.3.]**

# MEMORANDUM OF SOLAR FACILITY SITING AGREEMENT

This Memorandum of Solar Facility Siting Agreement (this "Memorandum"), dated and effective as of _____, is made by and between **Isle of Wight County, Virginia**, a political subdivision of the Commonwealth of Virginia (the "County") and **Sycamore Cross Solar, LLC,** a State limited liability company ("Company"), with regard to the following:

1. Siting Agreement. The County and Company are parties to that Solar Facility Siting Agreement, dated _____ (the "Siting Agreement"), which describes the intent of Company to develop, install, build, and operate a solar facility ("Project") on that certain parcel of land identified as County Tax Map Parcels 09-01-001, 16-01-002, 16-01-002A, 16-01-003, 16-01-005. 16-01-008, 16-01-009, 17-01-003, 17-01-003C, 17-01-001, 17-01-002, 17-01-011, 27-01-003, 27-01-004, 10-01-017, 11-01-015, 10-01-023, 10-01-025, 10-01-027, 10-01-028A, 10-01-030, and 11-01-005 (the "Property").

2. Authorization. The County's execution of the Siting Agreement was authorized during that certain regular meeting of the Board of Supervisors of the County on _____.

3. Substantially in Accord. The Siting Agreement states, *inter alia*, that, pursuant to Virginia Code § 15.2-2316.9(C), by entering into the Siting Agreement, the County acknowledged that the Project is deemed to be substantially in accord with the County Comprehensive Plan under Virginia Code § 15.2-2232.

4. Obligations. The Siting Agreement sets forth, *inter alia,* certain obligations of Company to comply with the Conditional Use Permit approved by the County for the Project, and to make certain payments to the County.

5. Siting Agreement Controls. This Memorandum does not supersede, modify, amend or otherwise change the terms, conditions or covenants of the Siting Agreement, and the County and Company executed and are recording this Memorandum solely for the purpose of providing constructive notice of the Siting Agreement and the County's and Company's rights thereunder. The terms, conditions and covenants of the Siting Agreement are incorporated in this

Memorandum by reference as though fully set forth herein.

6. Counterparts. This Memorandum may be executed in counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same document.

WITNESS the following signature and seal:

**ISLE OF WIGHT COUNTY, VIRGINIA:**

_____
Name: Randy R. Keaton
Title: County Administrator

COMMONWEALTH OF VIRGINIA,
COUNTY OF ISLE OF WIGHT to-wit:

The foregoing Memorandum was acknowledged before me this ___ day of _____, 2024, by Randy R. Keaton, County Administrator of Isle of Wight County, Virginia.

_____
Notary Public

My Commission expires:

WITNESS the following signature and seal:

**ISLE OF WIGHT COUNTY, VIRGINIA:**

_____
Name: Joel C. Acree
Title: Chairman, Board of Supervisors

COMMONWEALTH OF VIRGINIA,
COUNTY OF ISLE OF WIGHT to-wit:

The foregoing Memorandum was acknowledged before me this ___ day of _____, 2024, by Joel C. Acree, Chairman of the Board of Supervisors of Isle of Wight County, Virginia.

_____
Notary Public

My Commission expires:

WITNESS the following signature and seal:

**Sycamore Cross Solar, LLC**,
a Delaware limited liability company

By: _____
Name: _____
Title: _____

STATE OF _____ }
}
COUNTY OF _____ }

The foregoing Memorandum was acknowledged before me this ___ day of _____, 2024, by _____, who acknowledged that they executed the foregoing instrument in their capacity as _____ of Sycamore Cross Solar, LLC, a Delaware limited liability company, on behalf of said limited liability company.

_____
Notary Public

My Commission expires:

# SOLAR FACILITY SITING AGREEMENT

This Solar Facility Siting Agreement (the "**Agreement**"), dated as of _____ (the "**Effective Date**"), is by and between Isle of Wight County, Virginia, a political subdivision of the Commonwealth of Virginia (the "**County**") and Sycamore Cross Solar, LLC, a Delaware limited liability company (the "**Applicant**"). The County and Applicant are herein each a "**Party**" and collectively, the "**Parties**".

## RECITALS

WHEREAS, Applicant intends to develop, install, build, and operate an up to 240 megawatt solar project to be located in the Counties of Surry and Isle of Wight (the **"Project"**);

WHEREAS, the County Board of Supervisors (the "**Board**") pursuant to Conditional Use Permit # 8-23 and Conditional Use Permit # 5-24 approved the portion of the Project located in Isle of Wight County (on certain parcels of land identified as the County Tax Map Parcels listed on Exhibit A-1 attached hereto (collectively, the **"Property");**

WHEREAS, pursuant to Chapter 22, Title 15.2, Article 7.3 of the Code of Virginia ("**Code**") titled "Siting of Solar Projects and Energy Storage Projects," Applicant and the County may enter into a siting agreement for such facilities;

WHEREAS, pursuant to Code § 15.2-2316.7(B), said siting agreement may contain terms and conditions, including (i) mitigation of any impacts of such solar project or energy storage project; (ii) financial compensation to the host locality to address capital needs set out in the (a) capital improvement plan adopted by the host locality, (b) current fiscal budget of the host locality, or (c) fiscal fund balance policy adopted by the host locality; or (iii) assistance by the Applicant in the deployment of broadband, as defined in § 56-585.1:9, in such locality;

WHEREAS, after negotiation between the County and the Applicant, the Parties desire to enter into this Agreement to provide said financial compensation to the County and to address impacts of the Project;

WHEREAS, pursuant to Code § 58.1-2636, the County may adopt an ordinance assessing a revenue share of (i) up to $1,400.00 per megawatt, as measured in alternating current (AC) generation capacity of the nameplate capacity of a solar facility ("**Revenue Share Ordinance**").

WHEREAS, the County has not adopted a Revenue Share Ordinance, but may choose to do so at a later date;

WHEREAS, pursuant to Code § 58.1-3660, "certified pollution control equipment" is exempt from state and local taxation pursuant to Article X, Section 6(d) of the Constitution of Virginia;

WHEREAS, solar photovoltaic (electric energy) systems and energy storage systems are certified pollution control equipment, and therefore, subject to certain qualified tax exemptions as provided in Code § 58.1-3660;

WHEREAS, if the County adopts a Revenue Share Ordinance, such certified pollution control equipment exemption is 100% of the assessed value, pursuant to Code § 58.1-3660(D) (for solar photovoltaic (electric energy) projects);

WHEREAS, if the County does not adopt a Revenue Share Ordinance, such certified pollution control equipment exemption would be 80% of the assessed value as provided by state law and local ordinances, including Code § 58.1-3660(C)(iii)(a) because the Project's initial interconnection request was filed between January 1, 2015 and June 30, 2018, with the Project being larger than 20 megawatts ("M&T Taxes");

WHEREAS, Applicant has agreed to the payments and financial terms contained herein, including payment of the M&T Taxes together with the payments as provided in Exhibit B; and

WHEREAS, pursuant to the requirement of Code § 15.2-2316.8(B), the County held a public hearing in accordance with subdivision A of Code § 15.2-2204 for the purpose of considering this Agreement, after which a majority of a quorum of the members of the Board approved this Agreement.

NOW, THEREFORE, intending to be legally bound hereby and in consideration of the mutual covenants contained herein, the receipt and sufficiency of which are hereby acknowledged, the County and Applicant do hereby agree as follows:

## Article I

## Project Features, Conditions and Mitigation

**1. Conditional Use Permit Conditions**. Applicant acknowledges and agrees that it is subject to all the terms and conditions contained in the Conditional Use Permits (collectively, the "**CUP**") approved by the Board for the Project. The CUP approved by the Board on _____ is attached as **Exhibit A** and is hereby incorporated herein.

**2. Violations/Enforcement**. Violation by the Applicant or by any of Applicant's agents, assigns, or successors in interest of any terms and conditions of the CUP shall constitute a violation of this Agreement. An uncured violation of this Agreement enables the County to suspend or revoke the CUP in accordance with Section __ of the CUP.

**3. Decommissioning Financial Assurance**. Notwithstanding any provision of the County Zoning Ordinance now existing or hereafter adopted, for as long as the Project has an offtake contract for the sale of power, the financial assurance provided by the Applicant for decommissioning of the Project may include and be net of the salvage value of the portion of the Project's equipment, facilities, and devices located in the County.

**4. Exemption**. By virtue of the Project's use permit application date before revisions to the County Zoning Ordinance adopted by the Board on May 8, 2023, the Project is grandfathered as to and exempt from Section 5-5003(M)(4)(~~k~~j) and Section 5-5003(M)(4)(~~l~~k) of the County Zoning Ordinance.

## Article II

## Payments

**1. Payment Structure.** The Applicant shall make payments to the County, in the amounts and at such times as set forth in **Exhibit B** (each a "**Payment**" and collectively, the "**Payments**"). Except as specifically provided in Exhibit B, Applicant's obligation to make the Payments shall be conditioned upon the Project commencing Commercial Operation, except that the Additional Payments (as defined in Exhibit B) shall be due in advance of Commercial Operation as set forth in Exhibit B. As used herein, "**Commercial Operation**" or "**Commercial Operation Date**" means the date on which the Project becomes fully operational and begins selling power under the terms of a power purchase or offtake agreement. Generation of test energy shall not be deemed Commercial Operation.

**2. Statutory Structure of Payments**; **Statement of Benefit**. Applicant agrees that, by entering into this Agreement, pursuant to Chapter 22, Title 15.2, Article 7.3 of the Code, the Payments are authorized by statute, and Applicant acknowledges that it is bound by law to make the Payments in accordance with this Agreement. The Parties acknowledge that this Agreement is fair and mutually beneficial to both Parties. Applicant acknowledges that this Agreement provides for a reasonably predictable stream of future payments to the County in amounts fair to both Parties.

**3. Use of Payments by the County**. The Payments may be used for any lawful purpose, and as allocated in Exhibit B.

## Article III

## Miscellaneous Terms

**1. Term; Termination**. This Agreement shall commence on the Effective Date and shall continue until completion of decommissioning of the Project in accordance with the decommissioning plan (the "**Termination Date**"). **Applicant shall have no obligation to make Payments after the Termination Date.** The Payment due for the year in which the Project or material part thereof is decommissioned shall be prorated as of the Termination Date.

**2. Mutual Covenants**. The Applicant covenants to the County that it will pay the County the amounts due hereunder when due in accordance with the terms of this Agreement, and will not seek to invalidate this Agreement, or otherwise take a position adverse to the purpose or validity of this Agreement. The County covenants to the Applicant that it will not seek to invalidate this Agreement or otherwise take a position adverse to the purpose or validity of this

Agreement.

**3. No Obligation to Develop**. Applicant has no obligation to develop or construct the Project. It is understood that development of the Project by Applicant is contingent upon a number of factors including regulatory approvals, availability and cost of equipment and financing, and market demand for the Project's energy. No election by Applicant to terminate, defer, suspend, or modify plans to develop the Project shall be deemed a default of Applicant under this Agreement.

**4. Successors and Assigns**. This Agreement shall be binding upon the successors or assigns of Applicant, and the obligations created hereunder shall be covenants running with the Property. If Applicant sells, transfers, leases, or assigns all or substantially all of its interests in the Project or the ownership of the Applicant (a "**Transfer**"), the Transfer agreement shall require this Agreement to be assumed by and be binding on the purchaser, transferee or assignee. Such Transfer, upon full execution of the Transfer agreement, shall relieve Applicant of all obligations and liabilities under this Agreement accruing from and after the date of such Transfer, and the purchaser or transferee shall become responsible under this Agreement. Applicant shall execute such documentation as reasonably requested by the County to memorialize the assignment and assumption by the purchaser or transferee.

**5. Execution of Agreement Deems Project "Substantially In Accord" with County's Comprehensive Plan**. Pursuant to Code § 15.2- 2316.9(C), execution of this Agreement deems the Project to be substantially in accord with the County's Comprehensive Plan in satisfaction of the requirements of Code § 15.2-2232.

**6. Memorandum of Agreement**. A memorandum of this Agreement, in a form substantially similar to that attached as **Exhibit C** hereto, shall be recorded in the land records of the Clerk's Office of the Circuit Court of Isle of Wight County, Virginia. Such recordation shall be at Applicant's sole cost and expense and shall occur as soon as reasonably practicable after the Effective Date. If in Applicant's sole discretion, it chooses to not develop the Project, the County shall execute a release of the memorandum filed in the aforementioned Clerk's Office.

**7. Notices**. Except as otherwise provided herein, all notices required to be given or authorized to be given pursuant to this Agreement shall be in writing and shall be delivered or sent by registered or certified mail, postage prepaid, by recognized overnight courier, or by commercial messenger to:

**If to the County:**

Post Office Box 80
17090 Monument Circle
Isle of Wight, Virginia 23397
Attn: Randy R. Keaton, County Administrator

With a copy to:

Robert W. Jones, Jr., County Attorney
Post Office Box 80
Isle of Wight, Virginia 23397

**If to the Applicant:**

Sycamore Cross Solar, LLC
c/o AES Clean Energy Development, LLC
2180 South 1300 East, Suite 500
Salt Lake City, Utah 84106
Attn: Greg Creswell

With a copy to:

Sycamore Cross Solar, LLC
c/o AES Clean Energy Development, LLC
2180 South 1300 East, Suite 500
Salt Lake City, Utah 84106
Attn: General Counsel

With a copy to:

Gentry Locke
Post Office Box 780
Richmond, Virginia 23218
Attn: D. Scott Foster, Jr. Esq.

The County and Applicant, by notice given hereunder, may designate any further or different persons or addresses to which subsequent notices shall be sent.

**8**. **Governing Law; Jurisdiction; Venue**. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE COMMONWEALTH OF VIRGINIA, WITHOUT REGARD TO ANY OF ITS PRINCIPLES OF CONFLICTS OF LAWS OR OTHER LAWS WHICH WOULD RESULT IN THE APPLICATION OF THE LAWS OF ANOTHER JURISDICTION. THE PARTIES HERETO (A) AGREE THAT ANY SUIT, ACTION OR OTHER LEGAL PROCEEDING, AS BETWEEN THE PARTIES HERETO, ARISING OUT OF OR RELATING TO THIS AGREEMENT SHALL BE BROUGHT AND TRIED ONLY IN THE CIRCUIT COURT OF ISLE OF WIGHT COUNTY, VIRGINIA, (B) CONSENT TO THE JURISDICTION OF SUCH COURT IN ANY SUCH SUIT, ACTION OR PROCEEDING, AND (C) WAIVE ANY OBJECTION WHICH ANY OF THEM MAY HAVE TO THE LAYING OF VENUE FOR ANY SUCH SUIT, ACTION, OR PROCEEDING IN SUCH COURT AND ANY CLAIM THAT ANY SUCH SUIT, ACTION, OR PROCEEDING HAS BEEN BROUGHT IN AN INCONVENIENT FORUM. THE PARTIES HERETO AGREE THAT A FINAL JUDGMENT IN ANY SUCH SUIT, ACTION, OR

PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW.

**9. Confidentiality**. This Agreement, once placed on the docket for consideration by the County Board of Supervisors, is a public document, subject to production under the Virginia Freedom of Information Act ("**FOIA**"). The County understands and acknowledges the Applicant, and as applicable, its associates, contractors, partners and affiliates, utilize confidential and proprietary "state-of-the-art" information and data in their operations ("**Confidential Information**"), and that disclosure of any such information, including, but not limited to, disclosures of technical, financial or other information concerning the Applicant or any affiliated entity could result in substantial harm to them and could thereby have a significant detrimental impact on their employees and also upon the County. The County acknowledges that during the development and negotiation of this Agreement, certain Confidential Information may be, or may have been, shared with the County by the Applicant. Applicant agrees to clearly identify any information it deems to be Confidential Information and not subject to mandatory disclosure under FOIA or other applicable law as Confidential Information at the time it provides such information to the County. The County agrees that, except as required by law and pursuant to the County's police powers, neither the County nor any employee, agent, or contractor of the County will knowingly or intentionally disclose or otherwise divulge any such Confidential Information to any person, firm, governmental body or agency, or any other entity unless a request for such Confidential Information is made and granted under an applicable provision of local, state or federal law. Upon receipt of such a request but before transmitting any documents or information which may contain Confidential Information to the requestor, the County shall contact Applicant to review the request for information and associated documents to determine if any Confidential Information is at risk of disclosure. If Confidential Information exists, Applicant may intervene on behalf of the County and defend against disclosure of the Confidential Information. The County agrees to cooperate in this defense and to the extent allowed by law, work to protect the Confidential Information of the Applicant.

**10**. **Severability; Invalidity Clause**. Any provision of this Agreement that conflicts with applicable law or is held to be void or unenforceable shall be ineffective to the extent of such conflict, voidness, or unenforceability without invalidating the remaining provisions hereof, which remaining provisions shall be enforceable to the fullest extent permitted under applicable law. If, for any reason, including a change in applicable law, it is ever determined by any court or governmental authority of competent jurisdiction that this Agreement is invalid, then the Parties shall, subject to any necessary County meeting vote or procedures, undertake reasonable efforts to amend and or reauthorize this Agreement so as to render the invalid provisions herein lawful, valid, and enforceable. If the Parties are unable to do so, this Agreement shall terminate as of the date of such determination of invalidity, and the Property and Project will thereafter be assessed and taxed as though this Agreement did not exist. The Parties will cooperate with each other and use reasonable efforts to defend against and contest any challenge to this Agreement by a third party.

**11**. **Entire Agreement**. This Agreement and any exhibits or other attachments constitute the entire agreement and supersedes all other prior agreements and understandings, both

written and oral, between the Parties hereto with respect to the subject matter hereof. No provision of this Agreement can be modified, altered or amended except in a writing executed by all Parties hereto.

**12**. **Construction**. This Agreement was drafted with input by the County and the Applicant, and no presumption shall exist against any Party. The headings contained in this Agreement are for the convenience of the Parties and for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

**13**. **Force Majeure**. Neither Party will be liable for any failure or delay in performing an obligation under this Agreement that is due to any of the following causes, to the extent beyond its reasonable control: acts of God, accident, riots, war, terrorist act, epidemic, pandemic, quarantine, civil commotion, breakdown of communication facilities, breakdown of web host, breakdown of internet service provider, natural catastrophes, governmental acts or omissions, changes in laws or regulations, national strikes, fire, explosion, generalized lack of availability of raw materials or energy. For the avoidance of doubt, Force Majeure shall not include (a) financial distress nor the inability of either party to make a profit or avoid a financial loss, (b) changes in market prices or conditions, or (c) a party's financial inability to perform its obligations hereunder.

**14**. **No Third Party Beneficiaries**. This Agreement is solely for the benefit of the Parties hereto and their respective successors and permitted assigns, and no other person shall have any right, benefit, priority, or interest in, under, or because of the existence of, this Agreement.

**15**. **Counterparts; Electronic Signatures**. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of which shall constitute one and the same instrument. A signed copy of this Agreement delivered by e-mail/PDF or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

*[signature page follows]*

**IN WITNESS WHEREOF**, the Parties hereto have caused this Agreement to be executed as of the Effective Date by the authorized representatives whose names and titles appear below.

**SYCAMORE CROSS SOLAR, LLC**

By: _____
Name: _____
Title: _____

**ISLE OF WIGHT COUNTY, VIRGINIA**

By: _____
Name: Joel C. Acree
Title: Chairman, Board of Supervisors

By: _____
Name: Randy R. Keaton
Title: County Administrator

Approved as to form:

By: _____
County Attorney

# EXHIBIT A

# CONDITIONAL USE PERMITS

## EXHIBIT A-1

## TAX PARCELS

CUP-8-23: Isle of Wight County Tax Parcels 09-01-001, 16-01-002, 16-01-002A, 16-01-003, 16-01-005. 16-01-008, 16-01-009, 17-01-003, 17-01-003C, 17-01-001, 17-01-002, 17-01-011, 27-01-003, and 27-01-004

CUP-5-24: Isle of Wight County Tax Parcels 10-01-017, 11-01-015, 10-01-023, 10-01-025, 10-01-027, 10-01-028A, 10-01-030, and 11-01-005

## EXHIBIT B

## SCHEDULE OF PAYMENTS

**(A) Annual Payments:** Within sixty (60) days after the Commercial Operation Date of the Project, Applicant shall make annual payments to the County equal to the sum of the M&T Taxes and the Supplemental Voluntary Payments (the "**Annual Payments**"). Both the M&T Tax and Supplemental Voluntary Payments shall be made irrespective of the County's election to adopt a Revenue Share Ordinance, which would otherwise exempt the Project from M&T Taxes. The Annual Payments shall continue annually and successive payments shall be made on the anniversary of the first such Annual Payment for each year thereafter until the Termination Date. The Annual Payments shall consist of the following:

1. **M&T Taxes.** The annual M&T Taxes (which will fluctuate in any given year, depending on the Project's machinery and tools).
2. **Supplemental Voluntary Payments**. For the first ten (10) Annual Payments, the Supplemental Voluntary Payment shall be an amount equal to One Million Dollars ($1,000,000.00) less the actual amount of the M&T Taxes. For clarity and avoidance of doubt, in the event M&T Taxes equal or exceed One Million Dollars (1,000,000.00) within the first ten (10) years, no Supplemental Voluntary Payment will be made. After the tenth ($10^{th}$) Annual Payment and for the remainder of the Annual Payments, the Supplemental Voluntary Payment shall be Zero Dollars ($0.00).

**(B) Additional Payments:** Subject to the terms as provided below, Applicant shall make the following additional payments (the "**Additional Payments**"):

(1) **Initial Payment:** Subject to the County approving the CUP and this Agreement by ~~August 19~~September 24, 2024, Applicant shall make a one-time payment of One Million Five Hundred Thousand Dollars ($1,500,000.00), to be made within sixty (60) days after approval of ~~a~~the CUP for the Project ~~by~~(which for the ~~later to approve~~avoidance of ~~Isle of Wight County~~doubt, shall include both Conditional Use Permit # 8-23 and ~~Surry County~~Conditional Use Permit # 5-24) if no appeal ~~is filed to either such~~of the approval ~~or~~is filed, and if such an appeal is filed, then within sixty (60) days after the resolution of any such appeal, provided that the result of such appeal is to allow the Project to proceed.

(2) **Community Impact Payment:** A one-time payment of Five Hundred Thousand Dollars ($500,000.00), to be made within sixty (60) days after approval of ~~a~~the CUP for the Project ~~by~~(which for the ~~later to approve~~avoidance of ~~Isle of Wight County~~doubt, shall include both Conditional Use Permit # 8-23 and ~~Surry County~~Conditional Use Permit # 5-24) if no appeal ~~is filed to either such~~of the approval ~~or~~is filed, and if such an appeal is filed, then within sixty (60) days after the resolution of any such appeal, provided that the result of such appeal allows the Project to proceed. The Community Impact Payment shall be used by the County for the general benefit of County residents.

(~~3~~3) **Emergency Services Support Payment:** A one-time payment of Fifty Thousand Dollars ($50,000.00) to be made within sixty (60) days after approval of the CUP for the Project (which for the avoidance of doubt, shall include both Conditional Use Permit # 8-23 and Conditional Use Permit # 5-24) if no appeal of the approval is filed, and if such an appeal is filed, then within sixty (60) days after the resolution of any such appeal, provided that the result of such appeal allows the Project to proceed. The Emergency Services Support Payment shall be used by the County to support the capital needs of the County's volunteer emergency services organizations.

(4) **Final Site Plan Payment:** A one-time payment of One Million Five Hundred Thousand Dollars ($1,500,000.00), to be made within sixty (60) days after the County approves a final site plan for the Project.

(45) **Commercial Operation Date Payment:** A one-time payment of Two Hundred Fifty Thousand Dollars ($250,000.00), to be made within sixty (60) days after the Commercial Operation Date.

The following illustrative schedule of payments assumes an estimated 187 MWac generation capacity for the portion of the Project located in Isle of Wight County; provided, however, the following illustrative schedule is for example only and all payments shall be adjusted proportionally if the nameplate capacity and/or capital investment of the constructed Project within Isle of Wight County increases or decreases from such estimate.

(*Exhibit B continues on following page(s)*)

**EXHIBIT B (CONTINUED)**

| Project Year | Estimated M&T @187MWac* | Estimated Supplemental Voluntary Payments | Estimated Annual Payments |
|---|---|---|---|
| 1 | $410,653.77 | $589,346.23 | $1,000,000.00 |
| 2 | $410,653.77 | $589,346.23 | $1,000,000.00 |
| 3 | $410,653.77 | $589,346.23 | $1,000,000.00 |
| 4 | $410,653.77 | $589,346.23 | $1,000,000.00 |
| 5 | $409,421.81 | $590,578.19 | $1,000,000.00 |
| 6 | $398,288.53 | $601,711.47 | $1,000,000.00 |
| 7 | $386,470.82 | $613,529.18 | $1,000,000.00 |
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| 26 | $45,628.20 | | $45,628.20 |
| 27 | $45,628.20 | | $45,628.20 |
| 28 | $45,628.20 | | $45,628.20 |
| 29 | $45,628.20 | | $45,628.20 |
| 30 | $45,628.20 | | $45,628.20 |
| 31 | $45,628.20 | | $45,628.20 |
| 32 | $45,628.20 | | $45,628.20 |
| 33 | $45,628.20 | | $45,628.20 |
| 34 | $45,628.20 | | $45,628.20 |
| 35 | $45,628.20 | | $45,628.20 |
| *Assumes $328,970,412 Capital investment in Isle of Wight County, 80% exemption, and a tax rate of $0.7300/$100 | | | |

**EXHIBIT C**

**FORM OF MEMORANDUM**

*Full exhibit follows*

**PREPARED BY AND RETURN TO:**
Sycamore Cross Solar, LLC
c/o AES Clean Energy Development, LLC
2180 South 1300 East, Suite 500
Salt Lake City, Utah 84106

**County Tax Map ID Nos.** 09-01-001, 16-01-002, 16-01-002A, 16-01-003, 16-01-005. 16-01-008, 16-01-009, 17-01-003, 17-01-003C, 17-01-001, 17-01-002, 17-01-011, 27-01-003, 27-01-004, 10-01-017, 11-01-015, 10-01-023, 10-01-025, 10-01-027, 10-01-028A, 10-01-030, and 11-01-005

**[NOTE TO CLERK: ISLE OF WIGHT COUNTY, VIRGINIA, A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA, IS A PARTY TO THIS INSTRUMENT WHICH, ACCORDINGLY, IS EXEMPT FROM RECORDATION TAX PURSUANT TO VA. CODE SEC. 58.1-811.A.3.]**

# MEMORANDUM OF SOLAR FACILITY SITING AGREEMENT

This Memorandum of Solar Facility Siting Agreement (this "Memorandum"), dated and effective as of _____, is made by and between **Isle of Wight County, Virginia**, a political subdivision of the Commonwealth of Virginia (the "County") and **Sycamore Cross Solar, LLC,** a State limited liability company ("Company"), with regard to the following:

1. Siting Agreement. The County and Company are parties to that Solar Facility Siting Agreement, dated _____ (the "Siting Agreement"), which describes the intent of Company to develop, install, build, and operate a solar facility ("Project") on that certain parcel of land identified as County Tax Map Parcels 09-01-001, 16-01-002, 16-01-002A, 16-01-003, 16-01-005. 16-01-008, 16-01-009, 17-01-003, 17-01-003C, 17-01-001, 17-01-002, 17-01-011, 27-01-003, 27-01-004, 10-01-017, 11-01-015, 10-01-023, 10-01-025, 10-01-027, 10-01-028A, 10-01-030, and 11-01-005 (the "Property").

2. Authorization. The County's execution of the Siting Agreement was authorized during that certain regular meeting of the Board of Supervisors of the County on _____.

3. Substantially in Accord. The Siting Agreement states, *inter alia*, that, pursuant to Virginia Code § 15.2-2316.9(C), by entering into the Siting Agreement, the County acknowledged that the Project is deemed to be substantially in accord with the County Comprehensive Plan under Virginia Code § 15.2-2232.

4. Obligations. The Siting Agreement sets forth, *inter alia,* certain obligations of Company to comply with the Conditional Use Permit approved by the County for the Project, and to make certain payments to the County.

5. Siting Agreement Controls. This Memorandum does not supersede, modify, amend or otherwise change the terms, conditions or covenants of the Siting Agreement, and the County and Company executed and are recording this Memorandum solely for the purpose of providing constructive notice of the Siting Agreement and the County's and Company's rights thereunder. The terms, conditions and covenants of the Siting Agreement are incorporated in this

Memorandum by reference as though fully set forth herein.

6. Counterparts. This Memorandum may be executed in counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same document.

WITNESS the following signature and seal:

**ISLE OF WIGHT COUNTY, VIRGINIA:**

_____
Name: Randy R. Keaton
Title: County Administrator

COMMONWEALTH OF VIRGINIA,
COUNTY OF ISLE OF WIGHT to-wit:

The foregoing Memorandum was acknowledged before me this ___ day of _____, 2024, by Randy R. Keaton, County Administrator of Isle of Wight County, Virginia.

_____
Notary Public

My Commission expires:

WITNESS the following signature and seal:

**ISLE OF WIGHT COUNTY, VIRGINIA:**

_____
Name: Joel C. Acree
Title: Chairman, Board of Supervisors

COMMONWEALTH OF VIRGINIA,
COUNTY OF ISLE OF WIGHT to-wit:

The foregoing Memorandum was acknowledged before me this ___ day of _____, 2024, by Joel C. Acree, Chairman of the Board of Supervisors of Isle of Wight County, Virginia.

_____
Notary Public

My Commission expires:

WITNESS the following signature and seal:

**Sycamore Cross Solar, LLC**,
a Delaware limited liability company

By: _____
Name: _____
Title: _____

STATE OF _____ }
}
COUNTY OF _____ }

The foregoing Memorandum was acknowledged before me this ___ day of _____, 2024, by _____, who acknowledged that they executed the foregoing instrument in their capacity as _____ of Sycamore Cross Solar, LLC, a Delaware limited liability company, on behalf of said limited liability company.

_____
Notary Public

My Commission expires:

**ISSUE:**

Discussion of Items for 2025 Legislative Priorities

**BACKGROUND:**

Staff will briefly review and discuss the County's proposed legislative strategy and requests the Board provide any suggested items for inclusion in the 2025 Legislative Agenda.

Items previously included in the list of legislative priorities are:

- Additional Sales Tax for Educational Purposes
- Education Funding Support from the Commonwealth
- Limited Residential Lodging Act
- Unfunded Mandates
- Transportation Funding
- Proffer/Impact Fee Legislation
- Public Notice Advertisement
- HB2175 – Fire Services Funding

**BUDGETARY IMPACT:**

None

**RECOMMENDATION:**

Per the Board's discussion and direction.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Resolution | Resolution | 9/4/2024 |
| Draft 2025 Legislative Priority List | Backup Material | 9/19/2024 |

**RESOLUTION ESTABLISHING ISLE OF WIGHT COUNTY'S LEGISLATIVE PRIORITIES FOR THE 2025 SESSION OF THE GENERAL ASSEMBLY**

**WHEREAS**, the General Assembly considers numerous issues that affect local governments both directly and indirectly; and,

**WHEREAS**, the County of Isle of Wight, Virginia has specific interest in matters dealing generally with local governments, as well as matters directly impacting the County of Isle of Wight; and,

**WHEREAS**, such interest should be shared with Isle of Wight County's General Assembly Delegation so that it may know of the County's position on these important issues.

**NOW, THEREFORE, BE IT AND IT IS HEREBY RESOLVED** that the Board of Supervisors of the County of Isle of Wight, Virginia endorses the attached legislative proposals for the 2025 General Assembly Session and directs that both this resolution and the legislative priorities be forwarded to Isle of Wight County's General Assembly Delegation and that staff work with and assist the Delegation as appropriate.

Adopted this 19th day of September 19, 2024.

_____
Joel C. Acree, Chairman

_____
Carey Mills Storm, Clerk

Approved as to form:

_____
Robert W. Jones, Jr., County Attorney

# 2025

## Isle of Wight County
## Legislative Priorities

# ISLE OF WIGHT COUNTY
# 2025 LEGISLATIVE PRIORITY LIST

## LOCAL ISSUES

- Additional Sales Tax for Educational Purposes
- Education Funding Support from the Commonwealth
- Unfunded Mandates
- Transportation Funding
- Proffer/Impact Fee Legislation
- Public Notice Advertisement
- *Clerk's Fee Revenue*
- *Septic Pump-Out Oversight*
- *Consistency in Implementation of Federal Drug Supply Chain Security Act Regulations*

# ADDITIONAL SALES TAX FOR EDUCATION PURPOSES

## ISSUE:

The Code of Virginia authorizes "the qualifying locality" to, if initiated by a resolution of the local governing body and **approved by the voters at a referendum**, impose an additional local sales and use tax at a rate not to exceed one percent, as determined by the governing body. The bill requires the governing body to specify in the enacting ordinance the time period, not to exceed 20 years, for which the tax would be imposed. Revenue from the tax shall be used solely for capital projects for new construction or major renovation of schools in the locality enacting the tax.

The bill removes the limit on the amount that "the qualifying locality" may appropriate to an incorporated town that has not complied with the provisions of its charter relating to the elections of local officials. Under current law, such amount is limited to the amount the town would have received from local sales and use tax for educational purposes if such election had been held.

In the Code of Virginia, § 58.1-602, "qualifying locality" currently means Charlotte County, Gloucester County, Halifax County, Henry County, Mecklenburg County, Northampton County, Patrick County, Pittsylvania County, or the City of Danville.

## COUNTY POSITION:

Isle of Wight County urges the General Assembly to adopt legislation to amend the Code of Virginia (§ 58.1-602) to add "Isle of Wight County" as a qualifying locality for the purpose of imposing an additional local sales and use tax at a rate not to exceed one percent, as determined by the governing body to be used solely for capital projects for new construction or major renovation of schools.

# EDUCATION FUNDING SUPPORT FROM THE COMMONWEALTH

## ISSUE:

The Joint Legislative Audit and Review Commission (JLARC) has previously produced reports relative to state and local funding of the Standard of Quality (SOQ) for primary and secondary education in Virginia. In this regard, the Isle of Wight County remains concerned about the following issues:

- Localities pay 100 percent of the cost of teachers and other instructional expenses beyond the minimum requirements of the state Standards of Quality, which represents significant costs to localities.
- School divisions spend significantly less to operate and maintain facilities than in the past due to unfunded mandates from the State.

It is essential for the state to fully fund its constitutional responsibilities and all mandates associated with K-12 public education. Full state funding should be achieved without reduction to other parts of state public education budgets or to the other core services. Should state general funding diminish, local autonomy should be increased and state education mandates reduced.

## COUNTY POSITION:

Isle of Wight County supports full State funding for public education, including the Standards of Quality (SOQ) as previously recommended by the Board of Education, where these recommendations coincide with prevailing local practice; targeted incentive programs; capital and maintenance support; and teacher salaries. Full State funding should be achieved without reduction to other parts of State public education budgets or to other core services. The State must recognize that local school divisions continue to spend billions of dollars above the required local effort.

The County opposes proposals to divert State or local education funds from local school divisions.

# UNFUNDED MANDATES

## ISSUE:

Unfunded mandates placed on localities by the State have detrimentally affected local tax rates and the ability of local governments to address local needs and priorities.

There are many programs required by the State to be implemented at the local level. Several of these programs are inadequately funded or not funded at all by the State. Unfunded mandates place a financial burden on localities to implement those programs. The problem is further exacerbated when existing funding from the State to provide programs is unexpectedly reduced or eliminated, but the requirement to provide the program still exists.

When funding for a mandated program is altered, the mandate should be suspended until full funding is restored. When legislation with a cost to localities is passed by the General Assembly, the cost should be borne by the Commonwealth, and the legislation should contain a sunset clause providing that the mandate is not binding on localities until funding by the Commonwealth is provided.

The Commonwealth provides operational funding for certain Constitutional required governmental functions via the State Compensation Board. In this regard, the Compensation Board establishes minimum salaries for certain positions funded by the State. As competition for qualified employees has intensified at the State and local levels, so has the need to adjust salaries and the funding for those Compensation Board-funded positions.

The funding provided to localities by the Compensation Board for many positions at the local level is woefully inadequate, particularly those positions assigned to law enforcement functions within the local Sheriff's offices.

It should be noted and emphasized that providing insufficient funding for State responsibilities and services, such that State agencies require local funding supplements to provide those services is also an unfunded mandate.

**COUNTY POSITION:**

The County requests that the General Assembly adequately fund the State's share for required programs that must be implemented at the local level.

The County requests that the General Assembly adequately fund the State's share for required programs that must be implemented at the local level and/or eliminate the service requirement of the mandate.

The County requests that the General Assembly review and appropriate increased funding for Compensation Board funded positions, particularly those positions assigned to law enforcement functions within the local Sheriff's offices.

# TRANSPORTATION FUNDING

## ISSUE:

Isle of Wight County appreciates the funding provided by the State to address the transportation needs of the Commonwealth; however, funding falls woefully short of fully addressing the construction, repair, and maintenance needs of Virginia's highway system, particularly as it relates to secondary roads.

## COUNTY POSITION:

The General Assembly should take the appropriate actions necessary to increase funding for the Six-Year Secondary Road Plan.

The General Assembly should closely monitor and evaluate the implementation of "Smart Scale" and all other processes employed in recent years for distributing transportation funds.

Isle of Wight County supports innovative regional funding solutions to address transportation construction, repair, and maintenance needs throughout the Commonwealth.

# PROFFER/IMPACT FEES

## ISSUE:

Many localities in the Commonwealth have used voluntary proffers as a means of ensuring that the impacts of new residential developments on public infrastructure and public services are not borne solely by existing residents of the impacted community.

In 2016, the General Assembly adopted legislation that provides that *no locality shall (i) request or accept any unreasonable proffer in connection with a rezoning or a proffer condition amendment as a condition of approval of a new residential development or new residential use or (ii) deny any rezoning application or proffer condition amendment for a new residential development or new residential use where such denial is based in whole or in part on an applicant's failure or refusal to submit an unreasonable proffer or proffer condition amendment.*

During the 2019 General Assembly Session, language was added to clarify that nothing should be interpreted to prohibit communications between an applicant or owner and the locality or to prohibit presentation, analysis, or discussion of the potential impacts of new residential development or other new residential use on the locality's public facilities.

## COUNTY POSITION:

Isle of Wight County supports changes to the conditional zoning law to allow greater flexibility in the process for determining impacts (operational and capital) to be addressed when considering an application for development. Isle of Wight County also supports legislation that grants localities additional tools to adequately meet increasing needs for public services driven by new development without burdening current residents with the cost of new growth through increased real estate taxes. Such additional tools may include broad impact fee authority for all counties, and adequate public facilities provisions.

# PUBLIC NOTICE ADVERTISEMENT

## ISSUE:

The Code of Virginia requires localities to utilize a "newspaper of general circulation" in that locality as the primary source for public notification. Many public notices are "wordy" and relatively lengthy because of statutorily required language and the annual costs associated with public notifications are significant.

As subscriptions to hard-copy newspapers continue to decline and the use of electronic media (websites, social media, etc.) increases, electronic means of communication offer more options and a greater reach for public notification.

## COUNTY POSITION:

The County requests the General Assembly to adopt legislation to authorize the use of electronic media as the primary source for public notification or amend the statutory requirements for the language used in newspaper ads such that a brief description could be provided in newspapers with a more complete description/notification provided on the locality's website.

# CLERK OF CIRCUIT COURT FEE REVENUE

## ISSUE:

The 2023 General Assembly directed the Secretary of Public Safety and Homeland Security (the Secretary) to establish a work group to study existing fire service needs, analyze sustainability of current funding, and review alternative funding models from other states. The work group was charged with creating a needs assessment survey that analyzes existing fire service needs, the sustainability of current funding, any gaps in current funding, how other states fund fire and EMS services, and best practices from other states.

The Secretary was further directed to report the work group's findings and any recommendations to the Chairmen of the House Committee on General Laws and the Senate Committee on General Laws and Technology.

## COUNTY POSITION:

The County requests the General Assembly to adopt legislation in alignment with the findings of the work group.

# SEPTIC PUMP-OUT OVERSIGHT

## ISSUE:

The Chesapeake Bay Preservation Act (CBPA) regulations require local governments to administer the on-site septic system (OSS) program for all properties located within locally designated Chesapeake Bay Preservation Area (CBPA). The locality must notify and require that all such systems be either pumped out or inspected at least once every five years. The County has approximately 5,267 septic systems which fall under this requirement. There is only one staff person dedicated to the implementation of this program among other assigned duties. Due to the continued growth of the County and limited resources, the County requests the transition of oversight for the OSS pump out program to VDH for the following reasons:

- The County does adequate staff resources to reach the goal of 100 percent septic compliance within the CBPA. There is not enough time for one staff member to fulfill regular job responsibilities in addition to coordinating the growing septic compliance program. During peak season, septic mailings could equate to 70% of the Environmental Planners' workload interfering with other responsibilities.
- This task is placed on to the Environmental Planner who sends notifications, responds to phone calls, and tracks pump-outs. Typically there is a high volume of phone calls associated with the notification process in regard to the five-year pump-out and inspection requirements.
- Cost of implementing the program is another main concern. The cost of mailings varies year to year, depending on the postage and compliance obtained. Each system receives up to three notices a year until they come into compliance. As of today's date, there are 2,686 properties which are not in compliance. The cost of postage alone could equate to $1,773 per mailing. This cost does not include ink, paper, envelopes, or staffs time. The total cost alone per year could range from $6,000-10,000 in a small rural community. This cost could increase if the staff members did not print and stuff the envelopes themselves. And again, staff time is not included in that estimate.
- VDH is the ideal agency to administer and enforce the OSS program. VDH is responsible for the review and permitting of all on-site

wastewater systems. VDH already has a system to keep track of the yearly inspections of alternative OSS systems so including five-year pump-outs or inspections should be an achievable task. VDH also has the ability to require sewage haulers to submit quarterly reports of properties that have been pumped out and inspected, thereby eliminating the need of the property owner to submit receipts to the County.

Within the past three years, the County has reached a 51 percent compliance rate with known septic systems. Almost half of the required septic systems in the County are either not being pumped-out or inspected every five years or the pump-outs or inspection are not being reported.

Two critical aspects to any transition plan are ensuring that VDH is provided sufficient resources to create a complete inventory of septic systems within the CBPA. To assist with the transition the County is willing to provide all parcels with known septic systems in the CBPA, the dates of last pump-out or inspection, and all septic receipts received within the past five years.

**COUNTY POSITION:**

The County requests the General Assembly to adopt legislation to transition oversight of the septic pump-out program to the Virginia Department of Health (VDH). The County requests to be added to the list of localities subject to the provisions of Chapter 429 of the Acts of the Assembly (2019 HB 2322), directing the Virginia Department of Health (VDH) to develop a plan for the oversight and enforcement by VDH of the Chesapeake Bay Preservation Act regulations septic pump-out program.

# CONSISTENCY IN IMPLEMENTATION OF FEDERAL DRUG SUPPLY CHAIN SECURITY ACT REGULATIONS

## ISSUE:

The Drug Quality and Security Act (DQSA) was enacted by the U.S. Congress in 2013. Title II of the DQSA has a provision titled the Drug Supply Chain Security Act (DSCSA) which prevents hospital pharmacies from taking medications from EMS agencies. DSCSA has an enforcement date of November 27, 2024.

Compliance with these regulations places an unfunded mandate on localities; however, the greater concern is the lack of clear guidance from federal and state oversite agencies relative to the implementation of the regulations across the Commonwealth.

The Virginia Board of Pharmacy (VBOP) adopted Emergency Regulatory Amendments regarding EMS agencies' access to controlled substances. The VBOP Amendments were based on anticipated regulations that were slated to be adopted by the U.S. Drug Enforcement Agency (DEA) in April 2024 that would have been helpful but were not adopted. This has resulted in a great deal of inconsistency with compliance and an overall decrease in available Advanced Life Support services provided by EMS agencies across the Commonwealth.

## COUNTY POSITION:

The County requests the General Assembly to provide funding support to assist EMS agencies in storing, utilizing, and exchanging pharmaceuticals in compliance with the Drug Supply Chain Security Act.

**ISSUE:**

Resolution to Execute a Master Lease Purchase Agreement for the Purchase of New Vehicles ($973,000)

**BACKGROUND:**

The adopted FY2024-25 Operating Budget included new vehicles to be purchased via a Master Lease Purchase Program. VML/VACo Finance solicited proposals related to the County's Vehicles Financing.

The amount financed shall not exceed $973,000, the annual interest rate (in the absence of default or change in tax status) shall not exceed 4.06%, and the financing term shall not exceed five years from closing.

**BUDGETARY IMPACT:**

The FY2024-25 Budget already includes the necessary budget and appropriation to purchase the vehicles upon securing the necessary financing.

**RECOMMENDATION:**

Adopt a resolution to execute the Lease Purchasing Agreement.

**ATTACHMENTS:**

| Description | Type | Upload Date |
|---|---|---|
| Resolution | Resolution | 9/12/2024 |

**CERTIFICATE OF THE CLERK**
**OF THE BOARD OF SUPERVISORS**
**COUNTY OF ISLE OF WIGHT, VIRGINIA**

The undersigned Clerk to the Board of Supervisors of the County of Isle of Wight, Virginia (the "Board"), hereby certifies that:

1. A meeting of the Board was duly called and held on September 19, 2024 (the "Meeting").

2 Attached hereto is a true, correct and complete copy of a resolution (the "Resolution") of the Board entitled "Resolution of the Board of Supervisors of the County of Isle of Wight, Virginia, Approving the Financing of Equipment and the Execution and Delivery of Certain Documents Prepared in Connection Therewith," as recorded in full in the minutes of the Meeting and duly adopted by a majority of the members of the Board present and voting during the Meeting.

3. A summary of the members of the Board present or absent at the Meeting, and the recorded vote with respect to the Resolution, is set forth below:

| | | | Voting | | |
|---|---|---|---|---|---|
| Member Name | Present | Absent | Yes | No | Abstaining |
| Joel C. Acree, Chairman | _____ | _____ | _____ | _____ | _____ |
| Don G. Rosie, II, Vice-Chairman | _____ | _____ | _____ | _____ | _____ |
| William M. McCarty, Sr. | _____ | _____ | _____ | _____ | _____ |
| Renee K. Rountree | _____ | _____ | _____ | _____ | _____ |
| Rudolph Jefferson | _____ | _____ | _____ | _____ | _____ |

4. The Resolution has not been repealed, revoked, rescinded or amended, and is in full force and effect on the date hereof.

WITNESS my signature and the seal of the County of Isle of Wight, Virginia, dated _____ ___, 2024.

_____
Clerk to the Board of Supervisors
County of Isle of Wight, Virginia

**(SEAL)**

**RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF ISLE OF WIGHT, VIRGINIA, APPROVING THE FINANCING OF EQUIPMENT AND THE EXECUTION AND DELIVERY OF CERTAIN DOCUMENTS PREPARED IN CONNECTION THEREWITH**

The Board of Supervisors of the County of Isle of Wight, Virginia (the "Board") has determined it is in the best interest of the County of Isle of Wight, a body politic of the Commonwealth of Virginia (the "County") to undertake the financing of various vehicles (the "Project"), and the Finance Director has now presented a proposal for the financing of such Project.

First Citizens Bank has indicated its willingness to provide financing for the Project in accordance with its proposal dated August 22, 2024. The amount financed shall not exceed $973,000.00, the annual interest rate (in the absence of default or change in tax status) shall not exceed 4.06%, and the financing term shall not exceed five years from closing.

THEREFORE, BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF THE COUNTY OF ISLE OF WIGHT, VIRGINIA:

1. The recitals above are found and determined to be a part of this resolution.

2. All financing contracts and all related documents for the closing of the financing (the "Financing Documents") shall be consistent with the foregoing terms. The County Administrator and/or Finance Director of the County are hereby authorized and directed to execute and deliver any Financing Documents, and to take all such further action as they may consider necessary or desirable, to carry out the financing of the Project as contemplated by the proposal and this resolution.

3. The County Administrator is hereby authorized and directed to hold executed copies of the Financing Documents until the conditions for the delivery of the Financing Documents have been completed to such officer's satisfaction. The County Administrator is authorized to approve changes to any Financing Documents previously signed by County officers or employees, provided that such changes shall not substantially alter the intent of such documents or certificates from the intent expressed in the forms executed by such officers. The Financing Documents shall be in such final forms as the County Administrator shall approve, with the County Administrator's release of any Financing Document for delivery constituting conclusive evidence of such officer's final approval of the Document's final form.

4. The County shall not take or omit to take any action the taking or omission of which shall cause its interest payments on this financing to be includable in the gross income for federal income tax purposes of the registered owners of the interest payment obligations.

5. To the extent necessary, the County intends that the adoption of this resolution will be a declaration of the County's official intent under Treas. Reg. §1.150-2 (the "Reimbursement Regulations") promulgated under the Internal Revenue Code of 1986, as amended, to reimburse

expenditures for the Project. The County intends that funds that have been advanced, or that may be advanced, from the County's general fund, or any other County fund related to the Project, for Project costs may be reimbursed from the financing proceeds.

6. All prior actions of County officers in furtherance of the purposes of this resolution are hereby ratified, approved and confirmed. All other resolutions (or parts thereof) in conflict with this resolution are hereby repealed, to the extent of the conflict.

7. This resolution shall take effect immediately.

Adopted: _____, 2024

_____
Chairman
County of Isle of Wight, Virginia

**ATTEST:**

_____
Clerk to the Board of Supervisors
County of Isle of Wight, Virginia

Approved as to Form:

_____
Robert W. Jones, Jr., County Attorney

**ISSUE:**

Consideration of Dates for a Joint Meeting with the School Board

**BACKGROUND:**

The Board may wish to discuss and consider potential dates for a joint meeting with the School Board to receive updates and discuss future capital needs.

**BUDGETARY IMPACT:**

None.

**RECOMMENDATION:**

Per the Board's discussion.