Agenda
Board of Supervisors
Isle of Wight County
July 11, 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 - Supervisor Renee Rountree
6. Citizens' Comments
7. Consent Agenda
   A. Budget Amendment - Marketing Reimbursement Grant

      Resolution to Amend the Budget and Appropriate Marketing Reimbursement Grant Funding ($11,700)
   B. Budget Amendment - Recovery Court

      Resolution to Amend the Budget and Appropriate Funding in the Opioid Settlement Fund ($40,000)
   C. Facility Use Agreement with County Schools

      Facility Use Agreement Between Isle of Wight County School Board and the Isle of Wight County Board of Supervisors
   D. Fragile X Syndrome Awareness Month

      Resolution to Designate the Month of July as Fragile X Syndrome Awareness Month
   E. Minutes

      - May 16, 2024 Regular Meeting Minutes
      - May 29, 2024 Special Called Meeting Minutes

- June 6, 2024 Work Session Minutes

8. Regional and Inter-Governmental Reports
    A. Regional Reports
9. Appointments
    A. Appointments List
10. Special Presentations / Appearances
    A. New Pharmacy Regulations

       Staff Presentations - New Pharmacy Regulations
11. County Attorney's Report
12. Public Hearings
    A. 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
    B. 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

C. Sycamore Cross Solar Energy Generation Facility Siting Agreement

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

13. County Administrator's Report

A. 2025 Legislative Priorities

Discussion of Items for 2025 Legislative Priorities

B. Board of Supervisors' Retreat

Discussion of Holding a Strategic Planning Retreat

C. Congressionally-Directed Funding - Broadband

Staff Update re: Congressionally Directed Funding for Broadband Expansion

D. Matters for the Board's Information

14. Unfinished / Old Business

15. New Business

A. Western Tidewater Regional Jail Agreement

Amendment to the Agreement for the Creation of the Western Tidewater Regional Jail Authority to Allow the City of Hampton to Join

B. Sheriff's Office Vehicles

Sheriff's Office Request for Vehicles

16. Adjournment

ISSUE:

Resolution to Amend the Budget and Appropriate Marketing Reimbursement Grant Funding ($11,700)

BACKGROUND:

The Virginia DMO Marketing grant's purpose is to assist Virginia DMOs with marketing their destinations by providing funding to supplement the DMO's existing marketing budget. Programs that promote overnight visitation and have high economic impact receive funding in this highly competitive system.

The Department of Tourism has received a $11,700 VTC MLP Grant from the Virginia Tourism Corporation. This grant will be utilized for the "If You Love Our Downtown, Keep Driving Around" Project to help counteract the effects of the Cypress Creek bridge work on downtown and entrance corridor merchants.

BUDGETARY IMPACT:

This is a reimbursement grant from the Virginia Tourism Corporation, thus the budgetary impact to the County will be an increase in revenue of $11,700 (toward budgeted expenses).

RECOMMENDATION:

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

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	5/21/2024

RESOLUTION TO AMEND THE FY2024-2025 OPERATING BUDGET AND APPROPRIATE FUNDING FROM VIRGINIA TOURISM CORPORATION

WHEREAS, the Board of Supervisors has received a grant award in the amount of $11,700 from the Virginia Tourism Corporation (VTC); and,

WHEREAS, the Board of Supervisors desires to amend the FY 2024-2025 Grant Fund Budget in the amount of $11,700 from the Virginia Tourism Corporation; and,

WHEREAS, the Board of Supervisors needs to appropriate $11,700 of state revenue to the marketing line for the VTC MLP Grant.

NOW, THEREFORE, BE IT AND IT IS HEREBY RESOLVED by the Board of Supervisors of Isle of Wight County, Virginia that the FY 2024-2025 Grant Fund Budget is hereby amended, and funds appropriated in the amount of $11,700.

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 11th day of July, 2024.

_____
Joel C. Acree, Chairman

_____
Carey Mills Storm, Clerk

Approved as to form:

_____
Robert W. Jones, Jr., County Attorney

ISSUE:

Resolution to Amend the Budget and Appropriate Funding in the Opioid Settlement Fund ($40,000)

BACKGROUND:

The Opioid Settlement Funds are provided to treat, prevent, or reduce opioid use or the misuse of opioids through evidence-based or evidence-informed methods, programs or strategies.

The Community Services Board has requested $40,000 to continue to support the 5th District Recovery Court Program (formerly Drug Court) with drug offender remediation. Recovery court programs offer judicial monitoring of intensive treatment and strict supervision of addicts in drug and drug-related cases. The goal being to reduce drug addiction and drug dependency among offenders.

BUDGETARY IMPACT:

Increase the Opioid Settlement Fund Budget by $40,000.

RECOMMENDATION:

Adopt a resolution to amend the budget and appropriate funds for Recovery Court programs.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	7/10/2024

RESOLUTION
TO AMEND THE FY 2024-2025 OPERATING BUDGET
AND APPROPRIATE OPIOID SETTLEMENT FUNDS

WHEREAS, the Board of Supervisors desires to amend the FY 2024-2025 Budget for the Opioid Settlement Fund to treat, prevent or reduce the use or misuse of opioids; and,

WHEREAS, the Board of Supervisors needs to appropriate $40,000 to the Opioid Settlement Fund from the Opioid Fund Restricted Fund Balance.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of Isle of Wight County, Virginia, that the FY 2024-2025 budget is hereby amended and funds appropriated in the amount of $40,000 to the Opioid Settlement Fund from Restricted Fund Balance.

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 11th of July 2024.

_____
Joel C. Acree, Chairman

_____
Carey Mills Storm, Clerk

Approved as to Form:

_____
Robert W. Jones Jr., County Attorney

ISSUE:

Facility Use Agreement Between Isle of Wight County School Board and the Isle of Wight County Board of Supervisors

BACKGROUND:

The County and Schools currently have a facility use agreement; however, the agreement is outdated. Staff from the County and Schools have collaborated in the revision of the agreement to address the current use of facilities.

The proposed agreement has been amended based on staff feedback, but will be further amended to reflect comments by the Board to add "Hardy Elementary" and replace the Farmer's Market with "Tourism".

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Authorize execution of a Facility Use Agreement with the Isle of Wight County School Board with requested amendments.

ATTACHMENTS:

Description	Type	Upload Date
Facility Use Agreement	Agreement	7/2/2024

FACILITY USE AGREEMENT BETWEEN THE SCHOOL BOARD OF ISLE OF WIGHT COUNTY AND THE BOARD OF SUPERVISORS OF ISLE OF WIGHT COUNTY

This Agreement is made this _____ day of _____, 2024 between the School Board of Isle of Wight County and the Board of Supervisors of Isle of Wight County for the joint use of public facilities to the extent allowed by law.

RECITALS:

The Board of Supervisors of Isle of Wight County ("County") and the School Board of Isle of Wight County ("School Board") recognize the benefit to the County of Isle of Wight which will result from a working relationship in the development of a joint plan for the use of school and park facilities for recreation and educational purposes. The intent of both Boards is to provide maximum educational and recreational opportunities of the facilities while ensuring that wholesome recreational opportunities, which complement and support the educational needs of the County are met. Recent and projected growth in the County has increased the demand for new and expanded recreational and educational facilities. Joint use of the facilities provides citizens with better access and utilization of public buildings, school buildings, athletic facilities, park and recreation areas, and avoids duplication of these facilities as well as utilizing the facilities to the maximum extent possible.

The County and School Board understand and agree that this agreement is intended solely for the purpose of advancing public education and recreational services within the County of Isle of Wight.

1. TERM

The County and School Board agree that this agreement shall continue until terminated by either party upon written notice of no less than sixty (60) days to the other party.

2. FEES AND CHARGES

All fees and charges for the use of the facilities are waived between the parties hereto.

3. FACILITIES AND EQUIPMENT USE

The School Board and the County agree to share the use of facilities and equipment whenever possible. Any damage created by improper use will be the responsibility of the party that is using the facility or equipment at that time. The School Board and County agree that each reserves a right of entry and inspection of facilities being used by the other at any reasonable time.

The following schools and their facilities may be made available during non-school hours and after school programs have ended. Facilities shall include designated classrooms, gymnasiums, restrooms, cafeterias, multi-purpose rooms, outdoor fields, custodial closets and other areas as mutually agreed.

Smithfield High School	Westside Elementary School
Smithfield Middle School	Windsor High School
Carrollton Elementary School	Windsor Elementary School
Georgie Tyler Middle School	Carrsville Elementary School

The using party will be responsible for cleaning facilities after each use to include during recreational programming.

4. FACILITIES SCHEDULING

Facilities use will require the making and use of appropriate reservation forms. Applications for use should be made a minimum of thirty days in advance to ensure proper scheduling. Application for use from community groups or the general public will not be approved until after this time has expired. It is the intent of this agreement that the School Board and County shall have preferred use of said facilities over other parties. This means; Parks and Recreation Department will be granted priority status, allowing them to displace other non-school-related organizations from their scheduled time slots in order to accommodate Parks and Recreation programs.

The following IOW Departments are eligible for the use of the facilities at no cost based on providing their own cleaning of facilities after each use. Any IWCS staff member, that is needed for the prescribed time period will be paid overtime at the employees' rate of pay.

Emergency Management
Isle of Wight County Sheriff's Office
Farmers Market (Parking Lots)
Parks and Recreation
Board of Supervisors

The School Board and the County agree to notify each other immediately of any conflict in scheduling that arises so that alternative space for use when these situations occur may be provided.

5. FACILITIES SUPERVISION

The user of the facilities shall be responsible for providing adequate supervision during the periods of use. The using party will be responsible for the behavior and conduct of all program participants including spectators. A responsible person will be designated by each party using the facility.

6. COOPERATIVE DEVELOPMENT OF RECREATIONAL FACILITIES

The parties recognize the mutual benefit for the citizens of the County and agree to jointly undertake development of recreational facilities whenever possible. When such joint or cooperative development is proposed, the parties may enter into separate written agreements to provide details as to rights and obligations of the parties with respect to the development of said joint facilities. This cooperative development shall include consideration of possible recreation facilities in the design of future schools.

7. MAINTENANCE OF FACILITIES

Maintaining school property shall be the responsibility of the School Board. Maintaining county park and recreational facilities shall be the responsibility of the County. The incidental and ordinary costs of making schools available for park use (such as heat and light) or making parks available for school use are deemed to be offsetting. The County shall be responsible for providing custodial services when using school facilities if such services are necessary before or after an event.

Reimbursable costs shall include, but are not limited to, repair of facility damage due to vandalism occurring during times a facility is in the control of the other party; direct costs or extensive janitorial services required as result of the activity of the party; special modifications of a facility which are required to be made to accommodate use by the other party. The parties each hereby agree to maintain the premises of the other in good repair while they are under the control of the other and to bear the cost for required repairs, which are attributable to a breach of this duty.

8. LIABILITY/ENFORCEMENT OF RULES AND REGULATIONS

Each party will be responsible to the other party for any and all damages to property or facility while using the other party's property or facility.

Each party may promulgate or enforce its own rules and regulations concerning the use of the facility while being used by said party.

Nothing herein, however, shall be deemed to waive any limitations upon liability through sovereign immunity which exist for both parties as to third parties.

9. AMENDMENTS AND MODIFICATIONS OF THE AGREEMENT

The parties may amend this contract by agreement. Such amendments shall be effective upon the approval of the School Board and the Board of Supervisors and upon the signature of the chairman of the School Board and chairman of the Board of Supervisors.

10. ASSIGNMENT

Neither party shall assign its use of the other facilities as herein above provided; however, either party may enter into agreements with other parties or agencies to permit the use of these facilities under the said party's supervision and control.

11. NON-DISCRIMINATION
The parties each agree that while in or upon the facilities of the other, that at no time shall it discriminate against any person on the grounds of race, religious affiliation, color, national origin, disability or age.

12. RESOLUTION (to be adopted by each party)
WHEREAS, there is increased demand on recreational facilities; and

WHEREAS, schools and parks are a major focal point of this community; and

WHEREAS, the citizens will benefit by the additional access to publicly owned facilities; and

WHEREAS, cooperative use of facilities is a more efficient away of spending public funds; and

WHEREAS, there is a legislative mechanism allowing schools to open their doors to public recreation programs during those times when schools are not being used for school sponsored activities.

NOW THEREFORE, BE IT RESOLVED by the Board of Supervisors and School Board, that the County and School Board support the establishment of a cooperative use agreement between the County and School Board to encourage maximum use of school facilities and public parks on the part of the citizens of Isle of Wight County.

13. EXECUTION
The foregoing agreement was duly adopted, accepted and approved by the Board of Supervisors and School Board at regular meeting held on the _____ day of _____, 2024 by the Board of Supervisors of Isle of Wight County and on the 13th day of June 2024 by the School Board of Isle of Wight County and their respective chairman authorized to execute this agreement.

SCHOOL BOARD OF ISLE OF WIGHT COUNTY

by: Jason P. Maresh
Jason P. Maresh, Chairman

13 JUN 2024
Date

Attest:

Clerk

Approved as to form:

Pakapon Phinyowattanachip
Counsel to School Board

BOARD OF SUPERVISORS OF ISLE OF WIGHT COUNTY

by: _____
Joel C. Acree, Chairman

_____
Date

Attest:

_____
Clerk

Approved as to form:

_____
Robert W. Jones, Jr., County Attorney

ISSUE:

Resolution to Designate the Month of July as Fragile X Syndrome Awareness Month

BACKGROUND:

In July 2000, the 106th Congress designated July 22nd as National Fragile X Awareness Day; however, the month of July is considered by many as Fragile X Awareness Month.

Fragile X Syndrome (FXS) is a genetic condition that causes intellectual disability, behavioral and learning challenges, and various physical characteristics. FXS occurs in males more frequently than in females and generally with greater severity, but FXS does not appear to impact life expectancy.

The Board may wish to designate July as Fragile X Syndrome Awareness Month.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Adopt a resolution to designate the month of July as Fragile X Syndrome Awareness Month.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	6/17/2024

RESOLUTION TO DESIGNATE
THE MONTH OF JULY AS
FRAGILE X SYNDROME AWARENESS MONTH

WHEREAS, Fragile X Syndrome (FXS) is a genetic condition that causes intellectual disability, behavioral and learning challenges, and various physical characteristics; and,

WHEREAS, FXS occurs in males (1 in 7,000) more frequently than in females (1 in 11,000)and generally with greater severity, but FXS does not appear to impact life expectancy; and,

WHEREAS, the signs of FXS includes developmental delays, learning disabilities, and social and behavioral problems; and,

WHEREAS, there is no cure for FXS; however, treatment services and therapy can control and/or improve some of the issues.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of the County of Isle of Wight, Virginia recognize and designate the month of July as Fragile X Syndrome Awareness Month.

Adopted this 11th of July 2024.

_____
Joel C. Acree, Chairman

_____
Carey Mills Storm, Clerk

Approved as to Form:

_____
Robert W. Jones Jr., County Attorney

ISSUE:

- May 16, 2024 Regular Meeting Minutes
- May 29, 2024 Special Called Meeting Minutes
- June 6, 2024 Work Session Minutes

BACKGROUND:

The above-noted minutes are offered for review and adoption by the Board.

BUDGETARY IMPACT:

None

RECOMMENDATION:

- May 16, 2024 Regular Meeting Minutes
- May 29, 2024 Special Called Meeting Minutes
- June 6, 2024 Work Session Minutes

ATTACHMENTS:

Description	Type	Upload Date
May 29, 2024 Special Called Meeting	Cover Memo	7/3/2024
May 16, 2024 Regular Meeting Minutes	Cover Memo	7/2/2024
June 6, 2024 Work Session Minutes	Cover Memo	7/5/2024

SPECIAL CALLED MEETING OF THE ISLE OF WIGHT COUNTY BOARD OF SUPERVISORS HELD IN THE ROBERT C. CLAUD, SR. BOARD ROOM OF THE ISLE OF WIGHT COUNTY COURTHOUSE LOCATED AT 17090 MONUMENT CIRCLE, ISLE OF WIGHT, VIRGINIA ON WEDNESDAY, THE TWENTY-NINTH DAY OF MAY IN THE YEAR TWO THOUSAND AND TWENTY-FOUR AT 4:30 P.M.

BOARD MEMBERS PRESENT:
Joel C. Acree, District 4, Chairman
Don G. Rosie, II, District 5, Vice-Chairman
Rudolph Jefferson, District 3
William M. McCarty, Sr., District 2
Renee Rountree, District 1

STAFF MEMBERS PRESENT:
Randy R. Keaton, County Administrator
Donald T. Robertson, Assistant County Administrator
Robert W. Jones, Jr., County Attorney
Carey Mills Storm, Clerk

CALL TO ORDER

Chairman Acree called the special called meeting to order at 4:30 p.m.

County Attorney Jones recalled that the Board had discussed at a previous meeting about changing the June 20, 2024 meeting to June 13, 2024.

Pursuant to the Board's bylaws and §15.2-1416 of the *Code of Virginia*, the following Resolution, on motion of Supervisor McCarty, was adopted changing the meeting date of the Board's regular meeting scheduled to begin at 5:00 p.m. on Thursday, June 20, 2024, to 5:00 p.m. on Thursday, June 13, 2024, to be held in the Isle of Wight County General District Court located at 1700 Josiah Parker Circle, Isle of Wight, Virginia:

RESOLUTION OF THE BOARD OF SUPERVISORS OF ISLE OF WIGHT COUNTY, VIRGINIA TO CHANGE ITS MEETING SCHEDULE ADOPTED BY THE BOARD AT ITS ORGANIZATIONAL MEETING OF JANUARY 4, 2024

WHEREAS, the Board of Supervisors of Isle of Wight County, Virginia, held its organizational meeting on January 4, 2024, in the Robert C. Claud, Sr. Board Room located at 17130 Monument Circle, Isle of Wight, Virginia and adopted its 2024 meeting schedule; and,

WHEREAS, the Board of Supervisors, at its meeting held on May 29, 2024, made it known that they desired to move their June 20, 2024, meeting to June 13, 2024.

NOW, THEREFORE, BE IT RESOLVED that the meeting date of its regular meeting scheduled to begin at 5:00 p.m. on June 20, 2024, be moved to Thursday, June 13, 2024, at 5:00 p.m. to be held in the Isle of Wight County General District Court, located at 17000 Josiah Parker Circle, Isle of Wight, Virginia and, as is required by the Board's By-laws and §15.2-1416 of the *Code of Virginia*, that this resolution moving the meeting date be posted on the door of the public meeting place and inserted in a newspaper having general circulation in the County at least seven days prior to the first such meeting.

ADJOURNMENT

At 4:50 p.m., the special called meeting was declared adjourned.

_____
Joel C. Acree, Chairman

_____
Carey Mills Storm, Clerk

REGULAR MEETING OF THE ISLE OF WIGHT COUNTY BOARD OF SUPERVISORS HELD IN THE ISLE OF WIGHT COUNTY GENERAL DISTRICT COURT LOCATED AT 17000 JOSIAH PARKER CIRCLE, ISLE OF WIGHT, VIRGINIA ON THURSDAY, THE SIXTEENTH DAY OF MAY IN THE YEAR TWO THOUSAND AND TWENTY-FOUR

BOARD MEMBERS PRESENT:
Joel C. Acree, District 4, Chairman
Don G. Rosie, II, District 5, Vice-Chairman
Rudolph Jefferson, District 3
William M. McCarty, Sr., District 2
Renee Rountree, District 1

STAFF MEMBERS PRESENT:
Randy R. Keaton, County Administrator
Donald T. Robertson, Assistant County Administrator
Robert W. Jones, Jr., County Attorney
Carey Mills Storm, Clerk

CALL TO ORDER

Chairman Acree called the regular meeting to order at 5:00 p.m.

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Recognizing the absence of Vice-Chairman Rosie, County Attorney Jones advised that in accordance with State Code and the Board's by-laws, a Board member can participate remotely in a meeting if a physical quorum is assembled and if the member has requested and notified the Board that he wishes to appear remotely/electronically. He advised that Vice-Chairman Rosie will be participating remotely due to a personal matter which will require him to state the nature of his absence and the remote location from which he is participating. He further advised that under the Board's by-laws, Vice-Chairman Rosie is eligible to participate remotely as he has not participated remotely up to six (6) meetings this year.

Vice-Chairman Rosie advised that due to a personal matter he will be participating remotely from Pennsylvania.

Supervisor McCarty moved that Vice-Chairman Rosie be authorized to participate remotely in the meeting. The motion was adopted (4-0) with Supervisors Acree, Jefferson, McCarty, and Rountree voting in favor of the motion; no Supervisor voting against the motion; and, Vice-Chairman Rosie abstaining from voting on the motion.

Vice-Chairman Rosie thereafter joined the meeting.

APPROVAL OF AGENDA

On motion of Supervisor McCarty, the agenda was adopted unanimously (5-0) as amended to add a discussion regarding an Isle of Wight County Audit Committee under New Business. The motion was adopted unanimously (5-0).

CLOSED MEETING

Pursuant to Section 2.2-3711(A) of the *Code of Virginia*, Supervisor McCarty moved to enter a closed meeting for the limited purpose of: A discussion regarding the appointment of specific appointees to County boards, committees, or authorities as set forth in the agenda, pursuant to subsection 1; consultation with legal counsel regarding actual or probable litigation regarding zoning violations and condemnation and eminent domain issues, where such consultation would adversely affect the negotiating or litigation posture of this public body pursuant to subsection 7; a discussion regarding the acquisition of real property in the Windsor area, where discussion in an open meeting would adversely affect the bargaining position or negotiating strategy of the Board, pursuant to subsection 3.

The motion passed unanimously with Supervisors Acree, Jefferson, Rosie, McCarty and Rountree voting in favor of the motion and no Supervisors voting against the motion.

Upon motion of Supervisor McCarty and all voting in favor (5-0), the Board reconvened into an open meeting.

County Attorney Jones reminded the Board that in accordance with Section 2-10(G) of the Board's Rules & Procedure, all those who participated in the closed meeting are reminded that all matters discussed in closed meeting are to remain confidential,

as provided under the Virginia Freedom of Information Act, and that such matters as were discussed in closed meeting should not be acted upon or discussed in public by any participant unless and until a public, formal action of the Board of Supervisors is taken on that particular subject matter.

Upon motion of Supervisor McCarty and all voting in favor (5-0), the following Resolution was adopted:

CERTIFICATION OF CLOSED MEETING

WHEREAS, the Board of Supervisors has convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of the Virginia Freedom of Information Act; and,

WHEREAS, Section 2.2-3712(D) of the Code of Virginia requires a certification by this Board of Supervisors that such closed meeting was conducted in conformity with Virginia law.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors hereby certifies that, to the best of each member's knowledge, (i) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered by the Board of Supervisors.

VOTE

AYES: Acree, Rosie, Jefferson, McCarty, Rountree

NAYS: 0

ABSENT DURING VOTE: 0

ABSENT DURING MEETING: 0

INVOCATION

Pastor James Jones delivered the invocation and led the Pledge of Allegiance.

CITIZENS' COMMENTS

In recognition of the numerous names signed up on the registration sheet regarding the FY2024-25 Operating and Capital Budget, Chairman Acree advised that the Board's bylaws state there shall be no comment during Citizens' Comments on a matter which has already been the subject of a previous public hearing where no final vote has been taken by the Board. He advised that a public hearing has already been held on the proposed budget which is under New Business of this agenda and there can be no more comments.

Jill Vargus of Smith's Neck Road spoke on the importance of good communication between the Board and County residents. She encouraged the individual Board members to volunteer as a substitute teacher one day a month so they can get a feel for the care and dedication given to this County by educators.

Herb DeGroft of Mill Swamp Road informed the Board that today is National Police Officers' Day. He referred citizens who came tonight to speak on the budget to the County's website for information on County matters. He spoke about the importance of citizens being involved in local government and concluded his comments with notification that Monday, May 27th is Memorial Day with a ceremony held at the Veterans Memorial on North Church Street in Smithfield.

Carol Frost of Smithfield requested additional funding for deputies be put in the Sheriff's budget dedicated to patrolling the school zone on Route 10.

Michael Jennings of District 5 spoke about the need to support first responders, schools and the police. He noted that Route 10 at the Kroger around 5:00 p.m. is a traffic nightmare.

Chairman Acree requested County Administrator Keaton to pass along Mr. Jenning's concern with traffic on Route 10 to the Smithfield Town Manager.

CONSENT AGENDA

Following an overview by County Administrator Keaton, the following Consent Agenda was adopted unanimously (5-0) as presented on motion of Supervisor McCarty:

A. Resolution to Amend the FY2023-2024 Operating Budget and Appropriate Funding from the Virginia Tourism Corporation ($13,870) for Tourism Marketing

B. Resolution to Adopt the Revised Isle of Wight County Emergency Operations Plan

C. Minutes

- March 21, 2024 Regular Meeting Minutes
- April 4, 2024 Budget Work Session Minutes
- April 11, 2024 Budget Work Session Minutes
- April 18, 2024 Regular Meeting Minutes

REGIONAL AND INTER-GOVERNMENTAL REPORTS

Supervisor McCarty remarked that transportation plans for the region, to include the Hampton Roads Bridge tunnel project, were discussed at the most recent meeting of the Hampton Roads Transportation Planning Organization.

Vice-Chairman Rosie advised that discussion regarding assistance to military personnel in the area with regard to childcare assistance and mental health services was discussed at the most recent meeting of the Hampton Roads Military Federal Facility Alliance.

Chairman Acree relayed that unfunded mandates and associated impacts at the local level were discussed at the most recent Hampton Roads Planning District Commission meeting.

APPOINTMENTS

Supervisor Jefferson moved to reappoint Barbara Davis to represent District 3 on the Social Services Board. The motion was adopted unanimously (5-0).

Supervisor Jefferson moved to appoint Carey Storm to represent District 2 on the Commission on Adults with Disabilities. The motion was adopted unanimously (5-0).

Supervisor Rountree moved that William M. McCarty, Sr. be appointed to replace Toni Brown on the Western Tidewater Community Services Board. The motion was adopted unanimously (5-0).

SPECIAL PRESENTATIONS

Supervisor McCarty introduced the following Resolution for the Board's consideration which was adopted unanimously (5-0) on motion of Supervisor McCarty:

RESOLUTION TO DESIGNATE
THE WEEK OF MAY 19 - 25, 2024 AS
EMERGENCY MEDICAL SERVICES WEEK

WHEREAS, Emergency medical services (EMS) Week was originally authorized by President Gerald Ford on November 4, 1974; and,

WHEREAS, emergency medical services (EMS) is a vital public service; and,

WHEREAS, the members of EMS teams are ready to provide lifesaving care to those in need 24 hours a day, seven days a week; and,

WHEREAS, access to quality emergency care dramatically improves the survival and recovery rate of those who experience sudden illness or injury; and,

WHEREAS, EMS has grown to fill a gap by providing important, out of hospital care, including preventative medicine, follow-up care, and access to telemedicine; and,

WHEREAS, the EMS system consists of first responders, emergency medical technicians, paramedics, emergency medical dispatchers, firefighters, police officers, educators, administrators, pre-hospital nurses, emergency nurses, emergency physicians, trained members of the public, and other out of hospital medical care providers; and,

WHEREAS, the members of EMS teams, whether career or volunteer, engage in thousands of hours of specialized training and continuing education to enhance their lifesaving skills.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of the County of Isle of Wight, Virginia recognize the value and the accomplishments of EMS providers and hereby designate the week of May 19-25, 2024 as Emergency Medical Services Week.

COUNTY ATTORNEY'S REPORT

County Attorney Jones informed Supervisor McCarty, who had previously requested a review of the County's sign ordinance, that the Planning Commission has now reviewed it and recommends no change at this time.

PUBLIC HEARINGS

A. Application (ZA-4-23) of the Industrial Development Authority of Isle of Wight and Hollowell Holdings, LLC, Property Owners, and Meridian Property Purchaser, LLC, Applicant, for a Change in the Zoning District from Rural Agricultural Conservation to Conditional Limited Industrial for Approximately 154.3 Acres to allow Custom Manufacturing, Industry Type 1, Warehousing and Distribution, Industry Type II with a Conditional Use Permit, and Reconstructed Wetland.

County Attorney Jones advised the Board that it could consider application (A) and (B) simultaneously; however, two separate votes are required.

It was the consensus of the Board to consider application (A) and (B) simultaneously.

Trenton Blowe, Planner II, provided an overview of the application which included a site description, project description, location map, conceptual plan and Department, Agency Review comments, Department and agency review and staff recommendations.

Chairman Acree opened the public hearing.

Tom Boylan, applicant, remarked that this project represents significant economic progress for the County and citizens will benefit from a multitude of jobs associated with the project. Further, the County will increase and diversify its tax base, all without impacting the school system and strain on educators that a mixed-use project on the site with residential would. Representatives of the Port of Virginia are in attendance in support of the project and the County will be supporting and benefiting from the growth.

Doug Smith, President & CEO, Hampton Roads Alliance, noted that the cost to provide services to County residents increases each year and if the County is not growing, the level of services cannot be maintained without raising taxes to offset those costs. Billions of dollars have been invested by the Commonwealth of Virginia into the Port of Virginia and in order for the economy to grow, private investments outside of the Port of Virginia are needed to build upon public investments. An economic impact analysis has been developed by the Alliance which estimates the project would generate approximately $8,000,000 for the County between now and 2025.

Steve Cook of the Hampton Roads Workforce Council commented that this project would generate a proposed 1,200 jobs and this additional workforce will support the local economy.

Volpe Boykin of District 5 remarked that the County solicited Tidewater Logistics to build on property not zoned for and not in the Comprehensive Plan. He stated that while the proposed project is not located in the Windsor town limits, it does reach out to the Town's limits and the Windsor Town Council should have been involved in it from the beginning to the end. He continued that the Board should follow what is recommended by the Planning Commission. He referred to a booklet published by the County entitled "Local Roots for Global Reach" regarding projects in the County which already lists Tidewater Logistics in that booklet under

development and which was published prior to the Tidewater Logistics application going before the Planning Commission. He said reading that makes it appear that the decision was already made before citizens were able to make comments on it.

Chris Gullickson of the Port of Virginia appeared in support of the proposed application. New business is being attracted daily to the Port of Virginia and the Port is undertaking a $1.4 billion capital improvement program to support new businesses. Historically low vacancy rates have been experienced over the last several years in the Hampton Roads region and the County sits in the heart of the Hampton Roads region along one of the most crucial corridors, Route 460. He concluded that Tidewater Logistics will enhance the continuity and movement of international freight into the domestic supply chain.

Mike Abbott of Carrollton spoke to the projected population growth in the Comprehensive Plan of .8% and remarked that the County has been growing at 2% annually. He cautioned that relying on one major employer in the County is a recipe for disaster.

Thomas McKea, Director of Client Support Services, Primero Staffing, remarked the County has great potential for economic growth and initiatives such as this project play a crucial role in expanding the economic base. He stated a project such as this can be a catalyst for other investment initiatives both in the supply chain and resulting from it.

Glyn Willis of Windsor appeared and spoke in opposition to the proposed application stating this is the wrong project in the wrong place. He spoke about the importance of transparency.

Dick Holland of Windsor spoke in opposition to the proposed project asking the Board to not attempt to correct another mistake and getting the County's money back from another bought property. He reminded the Board that the Town of Windsor does not pay a lot of taxes to the County; however, he would remind the Board that the Town of Windsor does not receive its fair share of the money either.

Will Fedih, Senior Vice-President of the Virginia Maritime Association, remarked that several member companies are located in the County. He cited a study of William and Mary which states that one out of five jobs came from the maritime

sector in FY2022. As construction of the Route 460 commerce center is currently underway, major national brands have chosen the County to establish their operations. He concluded that a billion dollars has been invested into Virginia's supply chain and increased warehousing is necessary in close proximity to existing terminals.

Geoff Poston of Zuni, a commercial real estate broker, remarked that growth of the Port will result in economic benefits that will be enjoyed by the County, jobs and tax revenue.

Jennifer Boykin of District 5 and the Southern and Central Isle of Wight County Citizens group expressed opposition and asked that the application be denied due to anticipated traffic congestion in the Town of Windsor.

Carita Richardson of Windsor remarked that who will be going into the warehouses is not known at this point and that many of the warehouses in the City of Suffolk remain empty. She noted that warehouses are good, but only in the right locations. She expressed concern that the applicant may have a connection to China.

John Hollowell of Lancaster and property owner of Henry Saunder's home spoke in favor. He remarked that the long-term benefits to the County outweigh the opposition. He commented that this project will generate jobs and tax dollars for the County and the Town of Windsor.

Following a ten-minute break, Chairman Acree called for the continuation of persons to speak in favor or in opposition to the proposed application.

Walter Freeman of Windsor acknowledged those Board members who met with him recently to see for themselves how close this project is to the surrounding homes and how it will impact the lives of the surrounding property owners. He advised that if approved, he will be subjected to the noise generated by tractor trailers and equipment and lighting 24 hours a day. He stated it does not make sense that the County requires a 100-foot buffer from the road and even more for a solar facility and only a 20-foot buffer from an industrial complex next to a residential neighborhood. He asked the Board to follow the recommendation of the Planning Commission and the Town of Windsor and deny the application.

James Willis of Windsor spoke in opposition to the proposed application pointing out that a dog kennel requires a 50-foot setback while industrial requires only 20 feet. He remarked that if the developer was truly willing to move the project away from the residential neighborhood, the additional setback would be proffered or he would specify the dimensions of the base of the berm in the proffers. He remarked if the Board was planning to vote in favor of the application because the developer is willing to compromise, it should reconsider its vote and deny the application.

Martin Sharp of Courthouse Highway expressed opposition stating that as a member of the Windsor Town Council he is representing the residents of the Town of Windsor who oppose this project. He pointed out that those in favor of this project do not live here. He advised that the closed session of the Windsor Town Council in 2022 consisted of only three of the current Town Council members. Two days ago, the Windsor Town Council vote of (5-0) with one abstention acknowledged that changes have been made to the project, but that the Council remains opposed to the project as it is being presented. Changes made do not adequately address the concerns of the surrounding neighborhood.

Wade Bill of Windsor advised that the purchase of his home in 2022 was based on knowledge provided by County staff that the land behind his home was under contract with a farmer and that future use is mixed use. He stated that he has not heard a single County resident express their favor of the project unless they have a financial interest and gain from this project being approved. He asked that the Board follow the vote of the Planning Commission and deny the application.

Bill Jenkins of Windsor expressed concern with the impact of traffic in the Town of Windsor. He emphasized the importance of trust between the citizens and the Board.

Dick Grice of Smithfield remarked that 46% of the County's revenue comes from real estate and of that 80% of $37.1 million comes from residential real estate. 5.8% comes from commercial real estate, 5% from agricultural and 2% from apartments. This Board has pushed for years to get a better balance and now there is the chance to create the largest commercial tax revenue from this project in this County and a small number of homeowners are in opposition. For comparison's sake, if you use $350,000 as an average residential property value, the proposed

site will produce the equivalent tax revenue of 228 residential homes. On another note, is it equitable for Smithfield and Carrollton to provide 66.7% of the residential real estate dividends and aren't they subsidize everyone else's lifestyle in the County? Shortly tonight, this Board will be deliberating increasing the County's real estate tax by two cents to generate the $1.63 million needed to fund the County's tight budget. He concluded that over ten years ago the County purchased this property from the County's Industrial Development Authority which is located in the Windsor Development Service District and is intended to generate future tax revenue which will benefit everyone countywide. If the project is approved tonight, the sale money will be forthcoming to the County immediately and will generate over $2 million in profits.

Mike Peterson of Windsor stated a six-foot berm and sound buffer will not address noise issues for him. He will personally be impacted by back-up noises and other noises 24 hours a day. He stated there are two historic cemeteries and a home listed on the National Historical Register. Approval of this application will open up Pandora's Box as there are no large industrial complexes on the north side of Route 460. He suggested waiting to see what happens with the warehouses the City of Suffolk is building on Route 58 before committing the County to something it cannot back out of. He stated this is about the people and he pointed out that this piece of land is the last green corridor coming off Lake Prince heading south through the County. He concluded expressing concern for wildlife and where they will go.

Dawn Best of Chesapeake remarked that industrial development can have a powerful, positive and social impact on local economies. These projects create employment opportunities, stimulate economic growth and contribute to the overall growth and welfare of the communities. There will be additional revenue from taxes and Windsor will have a corporate partner and positive civic citizen. The proffers offered show that the applicant is willing to go above and beyond to work alongside this community and its residents. This project will create jobs, increase household medium incomes and foster innovation. It will contribute to the overall disparity of this community by providing goods and services that will meet the needs of many consumers. She concluded by stating that progress is impossible without change and those who cannot change their minds cannot change anything.

Max Vance of Smithfield remarked that industry is coming and he would rather work with the Meridian Group who has a reputation for working with communities than those companies who only wish to take from us.

Alexandria Tkrosockis of Windsor remarked that she did not retire to look at a warehouse or to have her family decide that they do not want to live in Windsor. She stated something beautiful could be done with the land and the people who reside in the County do not want the proposed warehouses. She stated this project is wrong on so many different counts. She stated that residents of Windsor live in Windsor because they don't want to live in a place such as Virginia Beach.

Tom Boylan, applicant, respectfully acknowledged the opinions voiced on the project and stated that Meridian will be a good community member and neighbor.

Chairman Acree closed the public hearing.

Kristi Sutphin, Director of Economic Development, responded to questions from the Board regarding incentives and setback requirements.

Regarding a wetland issue, Mr. Boylan confirmed that the current parking area would be removed from the RPA and the building size reduced if the wetlands permit was not approved and the RPA exception request was not approved. Regarding the proposed berm, Mr. Boylan confirmed that the berm is proposed to be six feet with an enhanced landscaping plan on top of the berm. At full maturity, the trees would be at 25-30 feet and potentially higher. Regarding other items proffered, the applicant has proffered no more than 50 decimals at the property line, prohibited specific uses, maintained a Conditional Use Permit required for Industry Type II, and the sanitary commitment on Lovers Lane to install a sewer main and connect to the pump station that will be designed. It is subject to further design and input from the County and the Town of Windsor. Regarding recent or ongoing projects, Mr. Boylan advised that currently there is a warehouse under construction in Frederick County, a project ongoing in Charleston, South Carolina, a project in Henderson, North Carolina and mixed-use development in the Washington, DC area. Regarding his confidence if this proposed warehouse will be fully rented when eleven new warehouses in the City of Suffolk will be coming online next year, Mr. Boylan replied this is a major investment and he is confident that the location of this site will be fully rented.

Supervisor McCarty remarked that he could not support a project that the Board later is going to have to deal with RPA delineations after the fact.

Mr. Boylan stated that the plans currently show that the RPA impact is conceptual in nature, however, if there is a need to remove the conceptual impact, that can be done. He offered to revise the building plan which now reflects encroachment into the RPA and the plan notes that the RPA impacts are shown as conceptual in nature and not approved and the applicable governing body would approve those in order for them to build in the RPA. He stated that there is an existing plan to remove the building from the RPA and he could commit tonight not to impact the RPA area and/or revise the proffers to ensure that they are not conceptually shown.

County Attorney Jones opined that once proffers are accepted, the only way to amend them is through a public hearing unless the amendment does not change the use or density of the project.

County Administrator Keaton and Director of Economic Development, Kristi Sutphin, provided background information on the publicly owned parcel.

Supervisor Jefferson moved to table action on the following Tidewater Logistics applications to the Board's June meeting to allow time for further input from the developer and to allow for concerns to be addressed:

A. Application (ZA-4-23) of the Industrial Development Authority of Isle of Wight and Hollowell Holdings, LLC, Property Owners, and Meridian Property Purchaser, LLC, Applicant, for a Change in the Zoning District from Rural Agricultural Conservation to Conditional Limited Industrial for Approximately 154.3 Acres to allow Custom Manufacturing, Industry Type 1, Warehousing and Distribution, Industry Type II with a Conditional Use Permit, and Reconstructed Wetland.

B. Application (LUP-1-23) of the Industrial Development Authority of Isle of Wight and Hollowell Holdings, LLC, Property Owners, and Meridian Property Purchaser, LLC, Applicant, for a Comprehensive Plan Amendment for 154.3 acres of Property to Amend the Comprehensive Plan Future Recommended Land Use Map Designation from Mixed Use to Planned Industrial.

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The Board took a break and upon returning, Chairman Acree called for consideration of the following:

C. Application of NVR, Inc., Applicant, and Henry Layden, Special Trustee for the William Grover Yeoman, III Trust, Property Owner, for a Conditional Rezoning (ZA-06-19) Approximately 250 Acres of Property Located on Benns Grant Boulevard (Route 10) from the Rural agricultural Conservation (RAC) Zoning District to the Conditional – Planned Development – Mixed Use (C-PD-MX) Zoning District.

Amy Ring, Director of Community Development, provided background information on the above application, including strengths and weaknesses of the application and the Planning Commission's and staff's recommendations.

Chairman Acree opened the public hearing.

Adam Edbauer, NVR, formally introduced Attorney Tim Trant, Kaufman & Canoles, who reviewed the design objectives of the project, its Master Plan, transportation improvements, changes since the Planning Commission, and benefits to the community.

Cheryl Johnson of Carrollton expressed concern with the density of the project and traffic impacts to Brewer's Neck, Nike Park, Smith's Neck and Highway 10.

Sara Robinson of Carrollton spoke about Ryan Homes' consumer rating of 1.4, concern with the 2,000 trips a day, the number of homes being built.

Diana Beale of Carrsville remarked that she has seen the County struggle with growth in the past, however, she would rather see planned growth. She asked, on behalf of the trust, that the Board approve this project.

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Noting the time to be nearing 11:00 p.m., Supervisor McCarty moved that the meeting time be extended past 11:00 p.m. The motion was unanimously adopted.

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David Berrien of Smithfield expressed concern with failing infrastructure. He stated he is not against growth, just in favor of taking care of what the County already has.

Robert Thornton of Virginia Beach, a professional real estate broker who marketed this property, thanked staff for their outstanding work on this project and requested its approval.

Henry Layden of Smithfield requested the Board to approve the application.

Carol Frost of Benns Grant highly recommended Ryan Homes noting that more people deserve to have an affordable home.

Chairman Acree closed the public hearing.

Attorney Trant clarified that the traffic study done did include growth factors for background traffic and the school capacity analysis had accounted for additional projects under construction.

The applicant was requested to address the customer rating of 4.1 who responded that Ryan Homes now has a 9.7 customer rating. No home is perfect, but his experience is that every homeowners' concern is addressed. Further questions were posed regarding the proffers for schools, the applicant advised that there are seven students proposed at the middle school level would be excess of the current capacity taking into consideration all the projects that are under construction.

Supervisor Rosie remarked that he is leaning on the recommendations of the Planning Commission as he is unsure at this point in time.

Supervisor Jefferson recalled that he has never seen more than three cars exiting from Benns Grant and he wonders if there is really will be any impact

Supervisor Rountree posed questions regarding the timeline for the formation of an HOA and when will the amenities be built.

Chairman Acree expressed concern with traffic and the widths on the roads in Benns Grant

Supervisor Rountree moved that the application be approved as presented. The motion was adopted (3-2) with Supervisors Rountree, Jefferson and McCarty voting in favor of the motion and Chairman Acree and Vice-Chairman Rosie voting against the motion.

D. Sale of County Property Located at 107 Obrey Drive, Carrollton

County Attorney Jones provided background information on the property acquired by the County in 1995 and located at 107 Obrey Drive in Carrollton. The lot owner of 105 Obrey would like to purchase the lot at its assessed value of $2,500.

Chairman Acree opened the public hearing.

Ms. Alex Collins of 105 Obrey Drive requested approval to acquire the property owned by the County at an assessed value of $2,500 for the purpose of possibly locating a shed in that area and cleaning the lot up.

Chairman Acree closed the public hearing.

Chairman Acree moved to authorize the execution of all appropriate documents necessary to transfer said property. The motion was adopted unanimously (5-0).

E. Resolution of the Board of Supervisors of Isle of Wight County to Approve Priorities for the Virginia Department of Transportation's Secondary Six-Year Improvement Program for FY2025 Through FY2030.

Chairman Acree remarked that he would like to speak to Ms. Oliver, Transportation Administrator, following the public hearing on an earlier request to trim back the bushes and trees at the intersection of Benns Grant and Route 32. Ms. Oliver offered to relay the Chairman's concern to the VDOT Resident Engineer.

Following an overview by Ms. Oliver of the Secondary Six-Year Improvement Program, Chairman Acree opened the public hearing and called for persons to speak in favor of or in opposition to the proposed Program.

Charles Bryan of Smithfield disclosed that he serves on the Town of Smithfield Planning Commission. He expressed his concern with an article printed in *The Smithfield Times* which stated that Carrollton Boulevard is quickly being turned into a Mercury Boulevard at Benns Church Boulevard. He stated that VDOT's earliest priority is to provide innovative technology and cameras to advise motorists of the status of traffic along Route 17 during rush hours. He remarked that the article advises that VDOT's last priority is a third southbound lane from the James River Bridge to Smiths Neck Road and proposed for the year 2033 which should be VDOT's first priority now and should be extended to Brewers Neck intersection. He asked the Board to press VDOT to provide the County with a better traffic solution.

Chairman Acree closed the public hearing.

Ms. Oliver confirmed that what the Board is voting on tonight does not impact Route 17; however, the VDOT plan that does contain those Route 17 priorities, comments regarding the State Six-Year Plan can be made to VDOT up through May 20th on the State's website. Placement of this information on the County's website was recommended.

On motion of Supervisor McCarty, the following Resolution was unanimously (5-0) adopted:

RESOLUTION OF THE BOARD OF SUPERVISORS OF ISLE OF WIGHT COUNTY TO APPROVE PRIORITIES FOR THE VIRGINIA DEPARTMENT OF TRANSPORTATION'S ECONDARY SIX-YEAR IMPROVEMENT PROGRAM FOR FY 2025 THROUGH FY 2030

WHEREAS**,** Sections 33.2-331 of the Code of Virginia (1950, as amended) provide the opportunity for each county to work with the Virginia Department of Transportation (VDOT) in developing a Secondary Six-Year Improvement Program (SSYIP); and,

WHEREAS, this Board has held a public hearing on the proposed Plan (FY 2025-FY 2030), in accordance with VDOT policies and procedures, on May 16, 2024 and all

citizens of the County had the opportunity to make comments and recommendations concerning the proposed Program; and,

WHEREAS, VDOT Local Program and Residency staff have reviewed and concurred with the proposed SSYIP (FY 2025-FY 2030).

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of the County of Isle of Wight Virginia that the Secondary Six-Year Improvement Program for FY 2025-2030 is hereby approved, as presented at the public hearing.

BE IT FURTHER RESOLVED that the County Administrator of Isle of Wight County, Virginia is authorized to execute all Program documents and make such accounting adjustments and execute such agreements and contracts for projects as necessary to proceed with the Program as approved.

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Responsive to Chairman Acree, Paul Matticks, VDOT Resident Engineer, advised that following the conclusion of work being done on a drainage project in Courtland and finishing of some concrete work, VDOT will be moving to Benns Church in probably June.

Chairman Acree referred to the well-maintained curb and gutter in Williamsburg and asked that the same attention be given to curb and gutter in the County.

Supervisor McCarty asked that markers be installed where Channel Way turns into Whippingham Parkway to warn motorists of the upcoming curb. He further recommended a speed limit lower than 55 mph. Finally, he expressed concern with pass-through traffic in the Carisbrooke neighborhood and asked if action can be taken by VDOT to monitor this pass-through traffic?

Supervisor Rountree requested the status of the limited access road at Fairway Drive going into Cypress Creek. She was advised that VDOT has installed stronger fencing, but the area remains hard for police to supervise.

Supervisor Jefferson informed the Resident Engineer that Fort Huger Road and drainage along Route 10 needs attention. He advised that State signs on Route 10 between Gravel Hill Baptist Church and Burwells Bay Road need replacement.

COUNTY ADMINISTRATOR'S REPORT

The Board was apprised of the recent submittal of the VACo Achievement Award Application for the Isle of Wight RISE Program which is a therapeutic recreation day program under the Department of Parks & Recreation and intended to promote socialization and independent living skills and provide opportunities for participating in recreation activities for people with disabilities.

Matters for the Board's information was highlighted by County Administrator Keaton, as follows: Cash Position – March 2024; Statement of Treasurer's Activity – March 2024; Incidents by Zone Map – April 2024; Incidents by Zone Data – April 2024; Station Activity Report – April 2024; and, Museum Report – April 2024.

NEW BUSINESS

County Administrator Keaton went over a revised Operating and Capital Budget for Fiscal Year 2024-25 distributed to the Board for its consideration by the Director of Budget & Finance prior to the meeting.

Following questions regarding if the County charges a no-transport fee for false EMS calls; if a life-time pet fee is now available; if the fee for a concealed weapon permit was reduced; and, if the unfunded mandate for the three court deputies as requested by the Judge and the hiring of one additional full-time position for the Treasurer's office by January 1, 2025 had taken place.

Supervisor McCarty moved to adopt the following Ordinance Approving the County Operating and Capital Budget and Appropriating Funds for Expenditures Contemplated During the Fiscal Year Beginning July 1, 2024 and Ending June 30, 2025, and Regulating the Payment of Money Out of the County Treasury with an amendment that the schools will be changed from categorical funding to a lump sum appropriation:

AN ORDINANCE APPROVING THE COUNTY OPERATING AND CAPITAL BUDGET AND APPROPRIATING FUNDS FOR EXPENDITURES CONTEMPLATED DURING THE FISCAL YEAR BEGINNING JULY 1, 2024 AND ENDING JUNE 30, 2025, AND REGULATING THE PAYMENT OF MONEY OUT OF THE COUNTY TREASURY

BE IT AND IT IS HEREBY ORDAINED by the Board of Supervisors of Isle of Wight County, Virginia, to-wit:

Section 1: Except as provided in Section 2 of this Ordinance, the County of Isle of Wight, Virginia, Proposed Annual Operating and Capital Budget, Fiscal Year 2024-2025 dated April 1, 2024, along with the associated Uniform Fee Schedule attached hereto as Exhibit A (hereinafter referred to as the "County Budget"), and submitted by the County Administrator, as amended by the Isle of Wight County Board of Supervisors, is approved as the County Budget for the fiscal year beginning July 1, 2024, and ending June 30, 2025.

Section 2: The County Budget shall be subject to transfers authorized by law and to such further amendments by ordinance, pursuant to Section 15.2-2507 of the Code of Virginia (1950, as amended), as the Board of Supervisors may deem appropriate.

Section 3: The amount named in the County Budget, as amended, for County operations for the fiscal year beginning July 1, 2024, and ending June 30, 2025, in the following fund amounts are hereby appropriated from the revenues of the County for use by the various funds of the County Government referenced in said budget for the said fiscal year. Any appropriation to a specific fund but identified as a revenue source in another fund is specifically designated and restricted for accounting and transfer purposes only and not for any other expenditure from the source fund.

Fund	**2024-2025**
General Fund	$ 107,621,893
Debt Service Fund	945,608
Governmental Capital Projects Fund	10,303,100
Grants Fund	574,522

E911 Fund	3,102,360
County Fair Fund	517,950
Social Services Fund	5,341,330
Children's Services Act Fund	577,440
Technology Services Fund	1,811,759
Risk Management Fund	958,498
Public Utility Fund	12,510,702
Public Utility Capital Fund	3,250,000
Stormwater Fund	1,492,367
Stormwater Capital Fund	500,000

Section 4: Except as it may be amended from time to time in accordance with applicable law by the Isle of Wight County Board of Supervisors, at the request of the Isle of Wight County School Board, the Isle of Wight County School Operating and Capital Budget, Fiscal Year 2024-2025, dated March 22, 2024, and submitted to the Isle of Wight County Administrator by the School Superintendent for consideration by the Isle of Wight County Board of Supervisors, is approved, as amended, as the annual budget for educational purposes for the Fiscal Year beginning July 1, 2024 and ending June 30, 2025.

Section 5: Pursuant to Section 22.1-94 of the Code of Virginia, the following appropriation is hereby made for Isle of Wight County Public Schools ("Public Schools") for the fiscal year beginning July 1, 2024, and ending June 30, 2025:

Total Funds Budgeted $95,980,636

Section 6: All payments from funds shall be made in accordance with general law and applicable ordinances and resolutions of the County, except as otherwise specifically provided herein; *provided, however,* that payments from the funds appropriated for the support, maintenance and operation of the Public Schools of the County shall be made by the County Treasurer upon warrants drawn by the proper officer or officers of the School Board of the County; *and provided further* that payments from the funds appropriated for expenditures of the Department of Social Services shall be made by the County Treasurer upon presentation of warrants drawn by the Social Services Director and approved by the Isle of Wight County Board of Social Services.

Section 7: The Board of Supervisors hereby authorizes the issuance and sale of the County's revenue anticipation note or notes (the "Note" or "Notes"), pursuant to Section 15.2-2629 of the Code of Virginia (1950, as amended) (the "Virginia Code"), in the aggregate principal amount of up to $25,000,000 in anticipation of the collection of the taxes and revenues of the County for the fiscal year ending June 30, 2025. If either the County Administrator or County Treasurer deems that the cash flow needs and the financial condition of the County warrant the issuance of a Note or Notes, the County Administrator or the County Treasurer (each hereinafter referred to as the "County Representative") is authorized and directed to accept a proposal or proposals for the purchase of the Note or Notes and to approve the terms of the Note or Notes, provided that the aggregate principal amount of the Notes shall not exceed $25,000,000, none of the Notes shall mature later than June 30, 2025, and no interest rate on any of the Notes shall exceed 7%. The County Representative and the Clerk of the Board of Supervisors (the "Clerk") are hereby authorized and directed to execute an appropriate negotiable Note or Notes and to affix the seal of the County thereto and such County Representative is authorized and directed to deliver the Note or Notes to the purchaser thereof. The County Representative, and such officers and agents of the County as the County Representative may designate, are hereby authorized and directed to take such further action as they deem necessary regarding the issuance and sale of the Note or Notes and all actions taken by such officers and agents in connection with the issuance and sale of the Note or Notes are ratified and confirmed.

Section 8: The Board of Supervisors hereby authorizes the lease financing of various County vehicles and equipment essential to the performance of governmental functions as provided for in the adopted Fiscal Year 2024-2025 County Budget. The funds made available under the lease will be deposited with a banking institution pursuant to an Escrow Agreement following procurement of a financial institution in accordance with the Virginia Public Procurement Act. The County Administrator is authorized to execute the lease agreement and financing documents on behalf of the County and the County Clerk shall affix the official seal of the County to the Financing Documents and attest the same.

Section 9: The amounts appropriated by this Ordinance shall be expended for the purpose of operating the County government during the 2024-2025 Fiscal Year; and, with the exception of the items the payment of which is fixed by law, shall be expended in such proportions as may be authorized by the County Administrator from time to time.

Section 10: All outstanding encumbrances, by contract or fully executed purchase order, as of June 30, 2024, shall be offset by an equal amount of assigned Fund Balance for expenditure in the subsequent fiscal year; *provided, however,* that if performance of a contract or purchase order has been substantially completed, an expenditure and estimated liability shall be recorded in lieu of an encumbrance. All restricted or assigned fund balance project or program balances standing on the books of the County at the close of business for the fiscal year ending June 30, 2024 in the amount of $50,000,000 or less that have not been expended or lawfully obligated or encumbered are hereby reappropriated to be used to fund the purposes, programs, or projects for which the funds were appropriated.

Section 11: Notwithstanding the provisions of Section 10, all funds appropriated for Public Schools which are unexpended at year-end shall revert back to the County's General Fund pursuant to Section 22.1-100 of the Code of Virginia.

Section 12: The payment and settlement, made during the 2024-2025 Fiscal Year, of any claim of any kind against the County; and final judgments, with interest and costs, obtained against the County during the 2023-2024 Fiscal Year, shall be paid upon the certification of the County Attorney and the order of the County Administrator from funds appropriated to the Risk Management Fund; or from the funds appropriated for the expenditures of the Fund involved in the subject matter of the claim or judgment; or from the General Fund; as the County Administrator shall find necessary.

Section 13: Except as otherwise specifically required by law or approved by the Board of Supervisors by resolution, any salary or wage expenditure, and any expenditure of any kind or description having the effect of a salary or wage payment, shall be made only for a position, the description of which is identified in the County Pay and Compensation Plan or which has received prior approval of the Board of Supervisors. Any other expenditure shall be calculated to result in total expenditures within the plan stated in a specific County Budget account, except that transfers of unexpended and unencumbered balances or portions thereof, initiated by a department director and approved by the County Administrator, are permitted between accounts.

Section 14: The County Administrator is authorized and directed to do all lawful things necessary to implement and administer the County Budget for Fiscal Year 2024-2025.

Section 15: All ordinances and resolutions, or parts thereof, in conflict with the provisions of this Ordinance, to the extent of such conflict, are repealed.

Section 16: This Ordinance shall be in effect on and after July 1, 2024, and it shall not be published.

The motion was adopted unanimously (5-0).

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Supervisor McCarty moved that the following Resolution to Adopt the FY2024-2034 Capital Improvements Program be adopted:

RESOLUTION TO ADOPT THE FY 2025-2034 CAPITAL IMPROVEMENTS PROGRAM

WHEREAS, for planning purposes, capital improvement projects have been identified and listed for consideration along with their respective costs in the FY2025-2034 Capital Improvements Program; and,

WHEREAS, the Board of Supervisors deems it appropriate to adopt a capital improvements program in accordance with the Code of Virginia.

NOW THEREFORE BE IT RESOLVED that the Board of Supervisors of the County of Isle of Wight, Virginia adopts the FY2025-2034 Capital Improvements Program.

The motion was adopted unanimously (5-0).

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Supervisor McCarty moved that the following Resolution to Approve the Position Classification and Compensation Plan for Fiscal Year 2024-2025 be adopted as presented:

RESOLUTION TO APPROVE THE POSITION CLASSIFICATION AND COMPENSATION PLAN FOR FISCAL YEAR 2024-2025

WHEREAS, the Board of Supervisors has approved the FY 2024-2025 Annual Operating Budget; and,

WHEREAS, in accordance with County Policy (Chapter 1: Personnel, Article II, Position Classification Plan and Article III, Compensation Plan), the Position Classification and Compensation Plan containing the Salary Schedule and Schematic List of Classes assigned to Salary Grades has been prepared as referenced in the attached exhibit in accordance with the Approved FY 2024-2025 Annual Operating Budget.

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 Position Classification and Compensation Plan is adopted and shall remain in effect until amended by the Board.

The motion was adopted unanimously (5-0).

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Tax Rate Ordinance for FY2024-25

Supervisor Rountree moved that the following Ordinance to Impose Tax Rates for Isle of Wight County, Virginia for Fiscal Year July 1, 2024 through June 30, 2025 be adopted with an increase in the real estate tax to $.73 per $100:

AN ORDINANCE TO IMPOSE TAX RATES FOR
ISLE OF WIGHT COUNTY, VIRGINIA FOR
FISCAL YEAR JULY 1, 2024 THROUGH JUNE 30, 2025

BE IT AND IT IS HEREBY ORDAINED by the Board of Supervisors of the County of Isle of Wight, Virginia, to-wit:

Section 1: That there is hereby levied for the fiscal year beginning July 1, 2024, a tax of $0.73 per one hundred dollars of assessed valuation on all taxable real estate,

and all real and personal property of public service corporations in accordance with Section 58.1-2606 of the Code of Virginia (1950, as amended).

Section 2: That there is hereby levied for the fiscal year beginning July 1, 2024, a tax of $1.95 per one hundred dollars of assessed valuation on machinery and tools used in businesses as defined in Section 58.1-3507 of the Code of Virginia (1950, as amended).

Section 3: That there is hereby levied for the fiscal year beginning July 1, 2024, a tax of $1.00 per one hundred dollars of assessed valuation of boats, watercraft and aircraft as defined in Section 58.1-3606 of the Code of Virginia (1950, as amended).

Section 4: That there is hereby levied for the fiscal year beginning July 1, 2024, a tax of $0.32 per one hundred dollars of assessed valuation on watercraft, including vessels and ships, weighing five tons or more, excluding privately owned pleasure boats and watercraft used for recreational purposes only.

Section 5: That there is hereby levied for the fiscal year beginning July 1, 2024, a tax of one-half (1/2) of one percent (1%) of the gross receipts on telephone and telegraph companies, water companies, heat, light and power companies, except electric suppliers, gas utilities and gas suppliers as defined in Section 58.1-400.2 of the Code of Virginia (1950, as amended) and pipeline distribution companies as defined in Section 58.1-2600 of said Code, accruing from sales to the ultimate consumer in the County of Isle of Wight, Virginia, pursuant to Section 58.1-3731 of the Code of Virginia (1950, as amended), however, in the case of telephone companies, charges for long distance telephone calls shall not be included in gross receipts for purposes of license taxation.

BE IT FURTHER ORDAINED that this Ordinance be entered in the Minutes of this Board of Supervisors and that a copy thereof by the Clerk of this Board be furnished to the Treasurer of this County.

The motion was unanimously (5-0) adopted.

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Supervisor Rountree moved that the following Ordinance to Amend Chapter 15.-Taxation of the Isle of Wight County Code be adopted:

ORDINANCE TO AMEND AND REENACT
THE ISLE OF WIGHT COUNTY CODE
BY AMENDING AND REENACTING
CHAPTER 15, ARTICLE XI
TAX ON PREPARED FOOD AND BEVERAGES

WHEREAS, the Board of Supervisors of Isle of Wight County, Virginia, has deemed it necessary and appropriate to update its current ordinances in order to more clearly set forth local ordinances for the benefit of the public, in order to accurately reflect current practices, to correct inaccuracies, and to conform to those provisions set forth in the Code of Virginia (1950, as amended).

NOW, THEREFORE, BE IT ORDAINED by the Isle of Wight County Board of Supervisors that Chapter 15.-Taxation of the Isle of Wight County Code be amended and reenacted as follows:

Sec. 15-101. Levy of tax; amount.
In addition to all other taxes and fees of any kind now or hereafter imposed by law, a tax is hereby levied and imposed on the purchaser of all food served, sold or delivered for human consumption in the county in or from a restaurant, whether prepared in such restaurant or not, or prepared by a caterer. The rate of this tax shall be six percent of the amount paid for such food. In the computation of this tax, any fraction of $0.005 or more shall be treated as one cent. (5-17-18; 5-9-24.)
This Ordinance shall be effective July 1, 2024.

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Supervisor McCarty notified the Board that he would be introducing discussion on the creation of an Isle of Wight Audit Committee at the Board's June 6, 2024 meeting. He continued that this Audit Committee established by the Board to carry out its oversight responsibilities by reviewing financial information provided in the County's Comprehensive Annual Financial Report, by reviewing any material weaknesses in the County's system of internal accounting controls, as reported by the external auditor, by reviewing the annual audit process and its results, and by

providing advice to the Board regarding the exposure of this County government to risk, such as financial, operational, and reputational risks.

ADJOURNMENT

At 12:45 p.m., the meeting was declared adjourned.

_____
Joel C. Acree, Chairman

_____
Carey Mills Storm, Clerk

WORK SESSION OF THE ISLE OF WIGHT COUNTY BOARD OF SUPERVISORS HELD IN THE ISLE OF WIGHT COUNTY GENERAL DISTRICT COURT LOCATED AT 17000 JOSIAH PARKER CIRCLE, ISLE OF WIGHT, VIRGINIA ON THURSDAY, THE SIXTH DAY OF JUNE IN THE YEAR TWO THOUSAND AND TWENTY-FOUR

BOARD MEMBERS PRESENT

Joel C. Acree, District 4, Chairman
Don G. Rosie, II, District 5, Vice-Chairman
Rudolph Jefferson, District 3
William M. McCarty, Sr., District 2
Renee Rountree, District 1

STAFF MEMBERS PRESENT

Randy R. Keaton, County Administrator
Robert W. Jones, Jr., County Attorney
Carey Mills Storm, Clerk

CALL TO ORDER

Chairman Acree called the work session to order at 6:00 p.m.

APPROVAL OF AGENDA

Supervisor McCarty moved that the agenda be adopted with the inclusion of discussion under New Business regarding school funding levels. The motion passed unanimously (5-0) with Supervisors Acree, Rosie, McCarty, Jefferson and Rountree voting in favor of the motion and no Supervisor voting against the motion.

INVOCATION

Vice-Chairman Rosie delivered the invocation and led the Pledge of Allegiance to the American flag.

COUNTY ADMINISTRATOR'S REPORT

Uwe Weindel, Director of Public Utilities, provided an update on needed repairs to the County's sewer pump stations. The Board was reminded that two million dollars was transferred from the Fund Balance to address certain needed repairs.

//

Supervisor McCarty remarked that transparency between the Board and County citizens in all regards is of the utmost importance. Copies of information related to the formation of an Audit Committee as authorized by the *Code of Virginia* were distributed by County Administrator Keaton.

Following discussion by the Board in terms of who should serve on the Audit Committee, it was the consensus of the Board that County Administrator Keaton be directed to contact the School Superintendent to determine how he feels about serving on the Audit Committee. He added that, in the meantime, the Director of Budget & Finance has reviewed the document and offered to obtain feedback from other localities.

//

Supervisor McCarty moved that the Board adopt the following resolution recognizing the month of June as Dravet Syndrome Awareness month:

RESOLUTION TO DESIGNATE
THE MONTH OF JUNE AS
DRAVET SYNDROME AWARENESS MONTH

WHEREAS, Dravet syndrome, previously known as Severe Myoclonic Epilepsy of Infancy (SMEI), is a rare disease, with seizures usually beginning during the first 2-15 months of life; and,

WHEREAS, Dravet syndrome is classified as a developmental and epileptic encephalopathy (also known as a DEE), which is part of a group of severe epilepsies with frequent and difficult to treat seizures and significant developmental delays; and,

WHEREAS, the characteristics of Dravet syndrome often change in adulthood often requiring a different therapeutic approach; and,

WHEREAS, current treatment options are limited, and the constant care required for someone suffering from Dravet syndrome can severely impact the patient's and the family's quality of life.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of the County of Isle of Wight, Virginia recognize and designate the month of June as Dravet Syndrome Awareness Month.

The motion was unanimously adopted (5-0).

NEW BUSINESS

Responsive to recent questions posed to Board members inquiring why the Board has not fully funded the School Division, Supervisor McCarty opened the floor for discussion. He advised that this year, the Board has funded the School Division on a lump sum basis and, in doing so, has removed certain restrictions and thus will allow the School Board to prioritize the School Division's spending. He advised that since 2018, this Board has increased funding for the School Division by approximately $7,000,000.

County Administrator Keaton commented that during Covid, the School Division had actually requested a decrease and, that also during that time period, had returned a substantial amount of funding. He advised that since 2018, the School Division has reverted approximately $6.5 million of the $7 million received in additional funding back to the County.

Supervisor Rountree remarked that she values the County's teachers and educational system and she is in favor of the creation of an Audit Committee. She asked the citizens to have patience and not make accusations.

Chairman Acree noted the importance of keeping in mind that senior citizens live on fixed incomes.

Supervisor Rosie remarked that accountability, responsibility and management are key words and our children, citizens, and staff are impacted. He does feel good about the decisions made by the Board and it is up to the School Division to decide how they are going to spend the money funded to them by the County.

Supervisor Jefferson remarked that children remain a priority of the Board of Supervisors and the School Board. He spoke in favor of the boards meeting jointly early so that they can prepare for the upcoming budget.

CLOSED MEETING

Pursuant to Section 2.2-3711(A) of the Code of Virginia, Supervisor McCarty moved that the Board enter a closed meeting for the limited purpose of a discussion regarding the compensation of the County Administrator, County Attorney, and Clerk, as well as the County's Constitutional officers, and appointees to County boards pursuant to subsection 1. The motion was adopted unanimously (5-0).

Supervisor McCarty moved that the Board return to open session. The motion was adopted unanimously (5-0).

County Attorney Jones reminded the Board that in accordance with Section 2-10(G) of the Board's Rules & Procedure, all those who participated in the closed meeting are reminded that all matters discussed in closed meeting are to remain confidential, as provided under the Virginia Freedom of Information Act, and that such matters as were discussed in closed meeting should not be acted upon or discussed in public by any participant unless and until a public, formal action of the Board of Supervisors is taken on that particular subject matter.

Upon motion of Supervisor McCarty, the following Resolution was adopted:

CERTIFICATION OF CLOSED MEETING

WHEREAS, the Board of Supervisors has convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of the Virginia Freedom of Information Act; and,

WHEREAS, Section 2.2-3712(D) of the Code of Virginia requires a certification by this Board of Supervisors that such closed meeting was conducted in conformity with Virginia law;

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors hereby certifies that, to the best of each member's knowledge, (i) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered by the Board of Supervisors.

VOTE

AYES: Acree, Rountree, Jefferson, McCarty, Rosie

NAYS: 0

ABSENT DURING VOTE:

ABSENT DURING MEETING: 0

ADJOURNMENT

At 9:00 p.m., the work session was declared adjourned by Chairman Acree.

_____
Joel C. Acree, Chairman

_____
Carey Mills Storm, Clerk

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* *Keaton*
Hampton Roads Transportation Accountability Committee:	*McCarty*
Hampton Roads Transportation Planning Organization:	*McCarty* *Keaton*
Hampton Roads Workforce Council	*Rountree*
Southeastern Public Service Authority	*Keaton* *Etheridge - (Alternate)*
Western Tidewater Community Transportation Collaborative	*Acree*
Western Tidewater Regional Jail:	*Jefferson* *McCarty* *Keaton*
Western Tidewater Water Authority:	*Rountree* *Acree* *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	7/1/2024
Blackwater Library Board	Cover Memo	7/1/2024
Commission on Adults with Disabilities	Cover Memo	7/1/2024
Energy Task Force	Cover Memo	7/1/2024

BOARDS/COMMISSIONS/COMMITTEES

Board/Commission/Committee	Appointee	Contact	District	Expiration	
AUTHORITY - Economic Development	Sharon Cory Stallings	(757) 242-6486	District 4	April	2024
BOARD - Blackwater Regional Library	Replacement for Michelle Manfred (See Attached)		District 2	June	2024
BOARD - Blackwater Regional Library	Replacement for Rita Gibson/Resigned (See Attached)		At-Large	June	2027
BOARD - Blackwater Regional Library	Replacement for Conway Henderson/Resigned (See Attached)		District 4	June	2025
BOARD - Camp Community College	Roderick Hallum	(757) 328-6354		June	2024
BOARD - Fire Rescue Advisory	Appoint Chuck Mullins to replace Scott Brower			January	2025
BOARD - Social Services	Reginia Joyner	(757) 478-6381	District 4	June	2023
BOARD - Social Services	Linda Boone Randolph	(757) 390-6066	District 5	June	2024
COMMISSION - Adults with Disabilities	Appointments for Districts 2 & 5 (See Attached)				
COMMITTEE - Historical Architectural Review	W. Lee Duncan	(757) 356-1112	District 3	January	2023
COUNCIL - Agricultural/Forestal District Advisory	Replacement for Emory Auston		District 5		
COUNCIL - Hampton Roads Workforce	Replacement for L'Tanya Johnson - County Business Leader			June	2024
PROGRAM - Virginia Alcohol Safety	Replacement for Kimberly Davenport			August	2024
TASK FORCE - Energy	Appointment for District 5 (See Attached)		District 5		
TEAM - Children's Services Act-Policy & Mgmt.	Replacement for Nancy Mayo - Resigned		District 5		

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 potential 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

COMMISSION ON ADULTS WITH DISABILITIES

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

COMMISSION ON ADULTS WITH DISABILITIES

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

ENERGY TASK FORCE

Created: February 23, 2023

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

ISSUE:

Staff Presentations - New Pharmacy Regulations

BACKGROUND:

In 2017, the U.S. Congress enacted FDA and DEA regulations relative to controlled substances used by EMS agencies.

Staff will provide a timeline of events and the impact the final rules will have on the County.

BUDGETARY IMPACT:

TBD

RECOMMENDATION:

For the Board's information.

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.

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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.

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.

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

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

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,

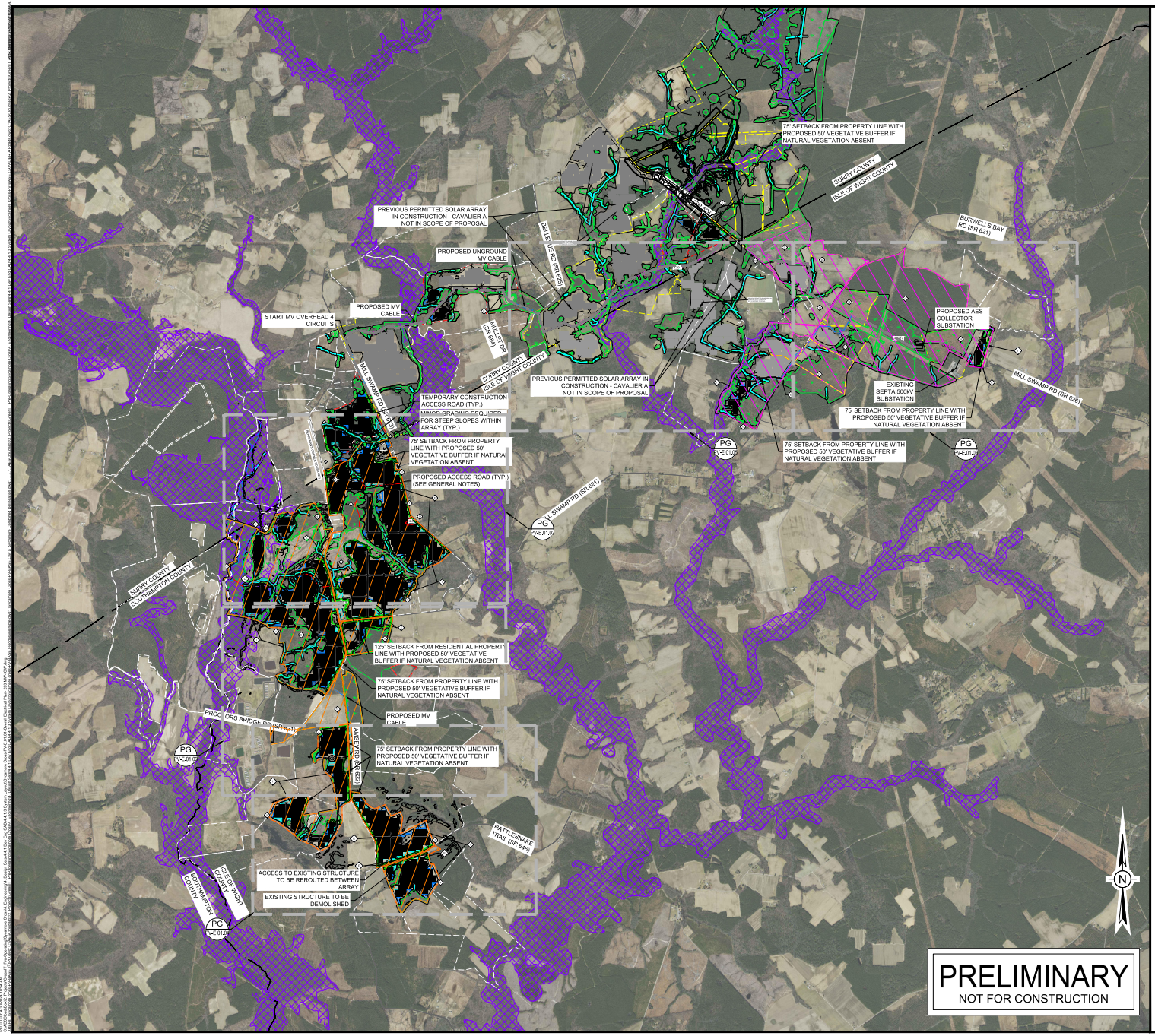
and a contact list including an on-call archaeologist, project contacts, and state/regional contacts.

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

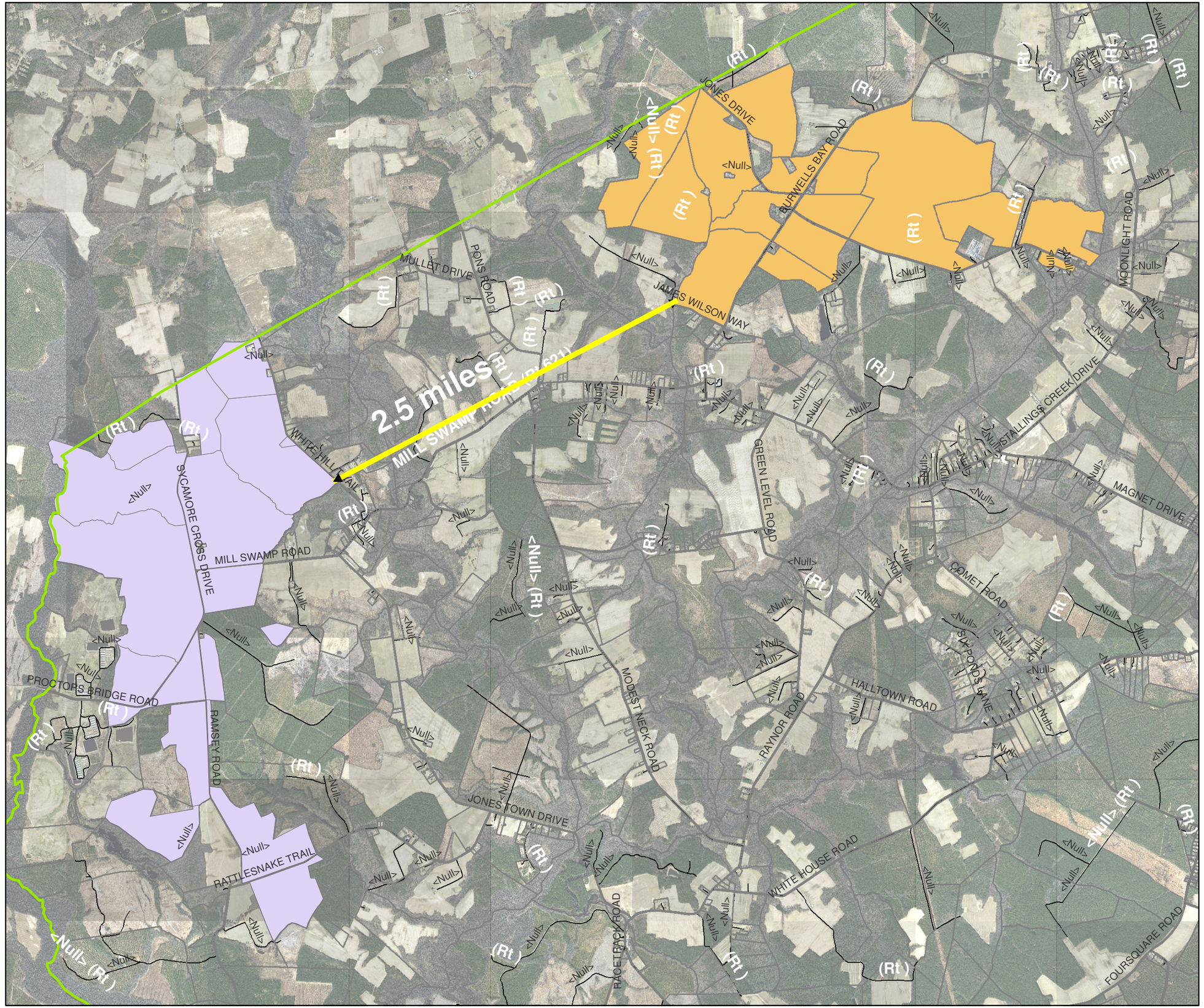
PROJ NUM:	
DES:	A. PEÑAS
DWN:	F. MIRANDA
CHK:	C. SANCHEZ
APV:	
DATE:	12/28/2022

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

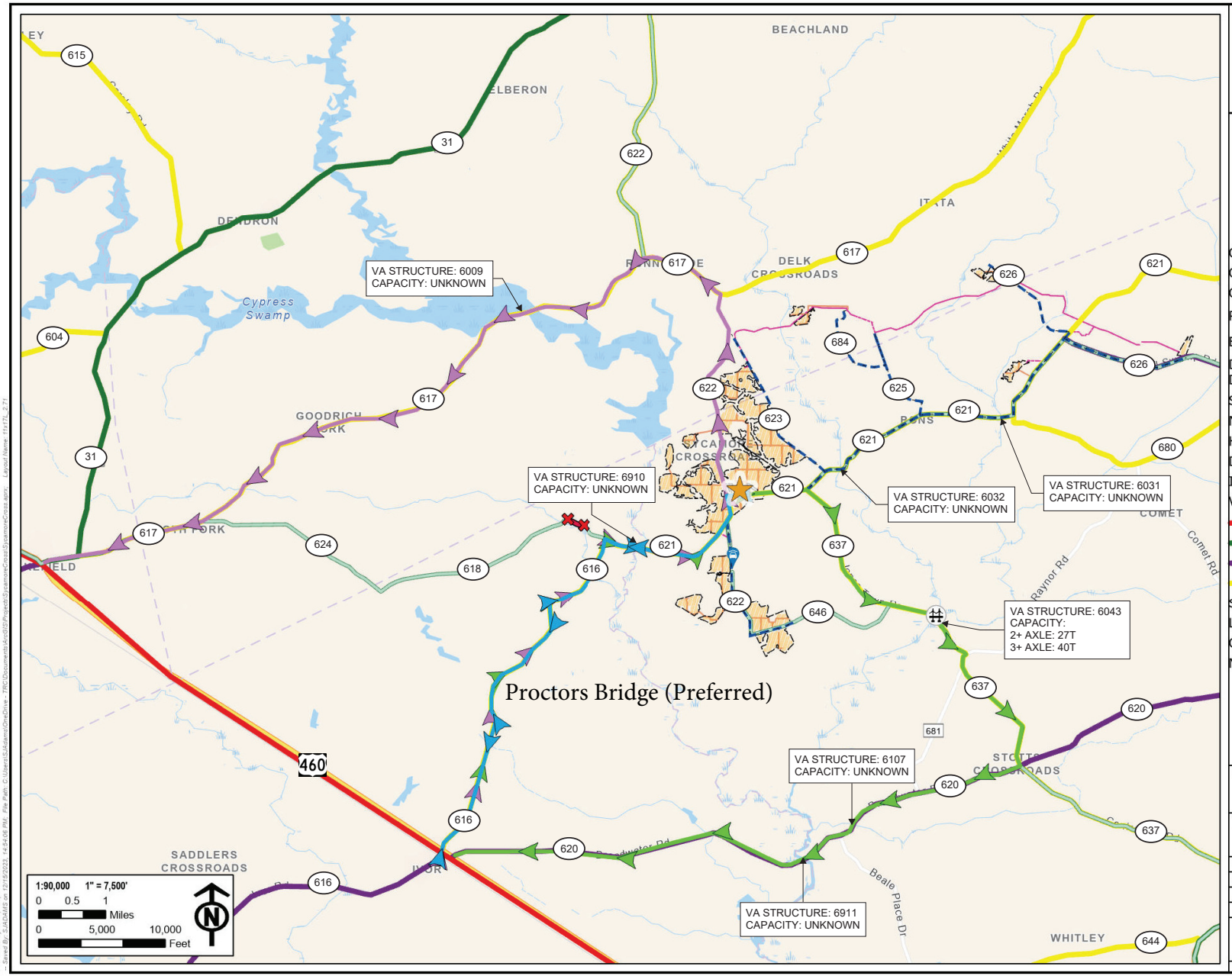
plus $0 Option to Build Security for Transmission Owner Attachment Facilities and Direct Connection Network Upgrades (including Cancellation Costs)

$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 (6th 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
4200 Innslake Drive, Suite 302
Glen Allen, Virginia 23060

Prepared by

TETRA TECH
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.

4.0 REFERENCES

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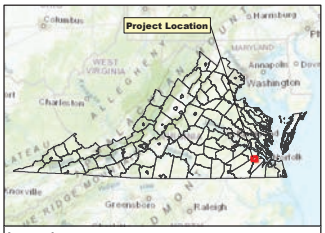
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FIGURES





Legend

- Project Study Area
- Outside Project Study Area
- County Boundary

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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

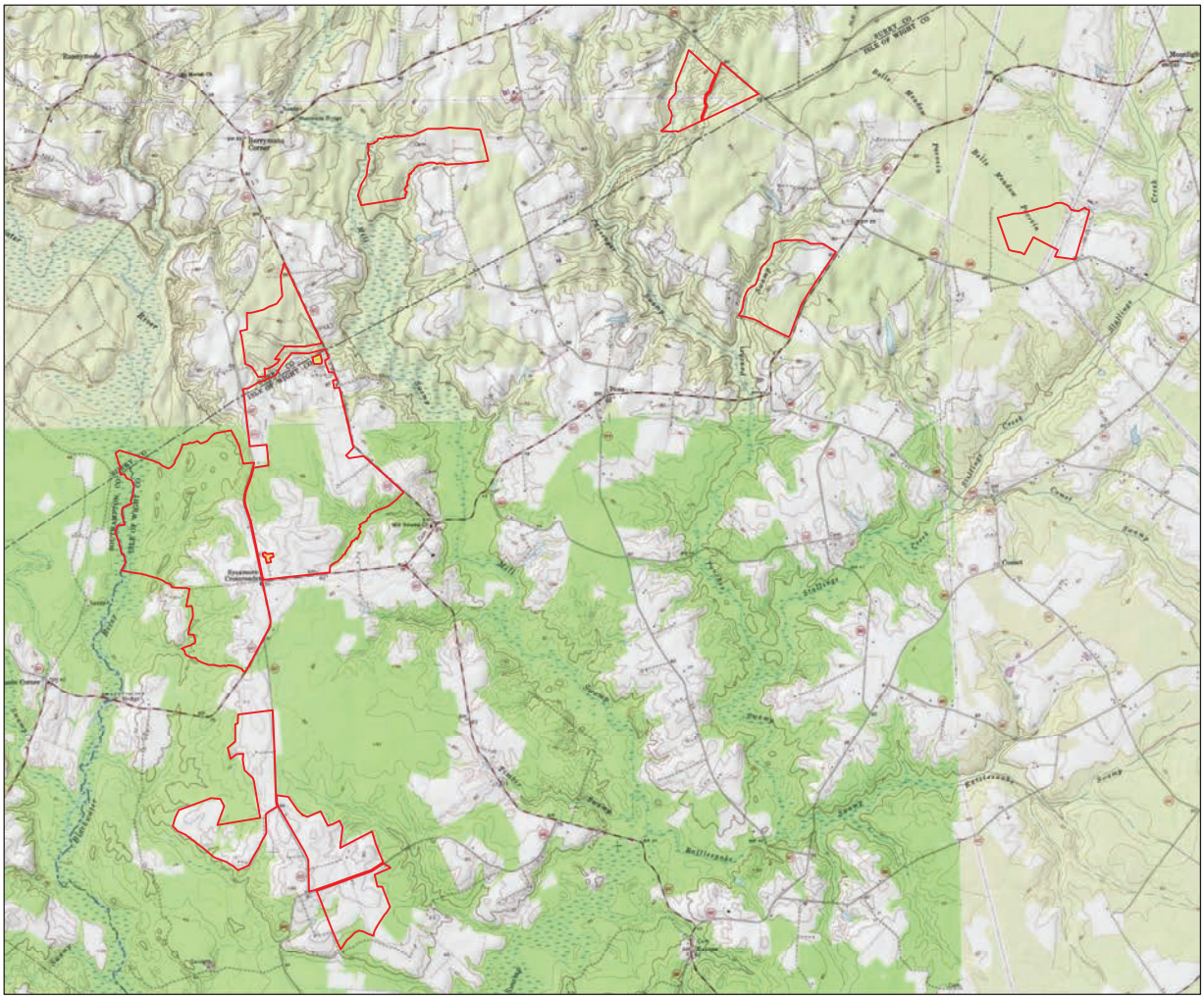
Date: 4/12/2023

Source: Esri, et. al., 2022; AES, 2022; Virginia Open Data Portal, 2022.

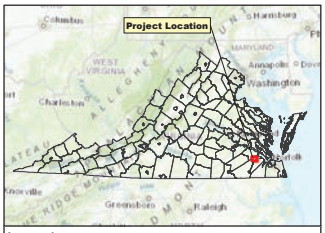
Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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AES Sycamore_Cross_Solar\GIS\Spatial\MXD\20230412_Envir_Resource_Invest_Report\Figure_1_Sycamore_Cross_Solar_Orthoimagery_Project_Location_Map.mxd



NOT FOR CONSTRUCTION



Legend

- Project Study Area
- Outside Project Study Area

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Figure 2
Topographic Project Location Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

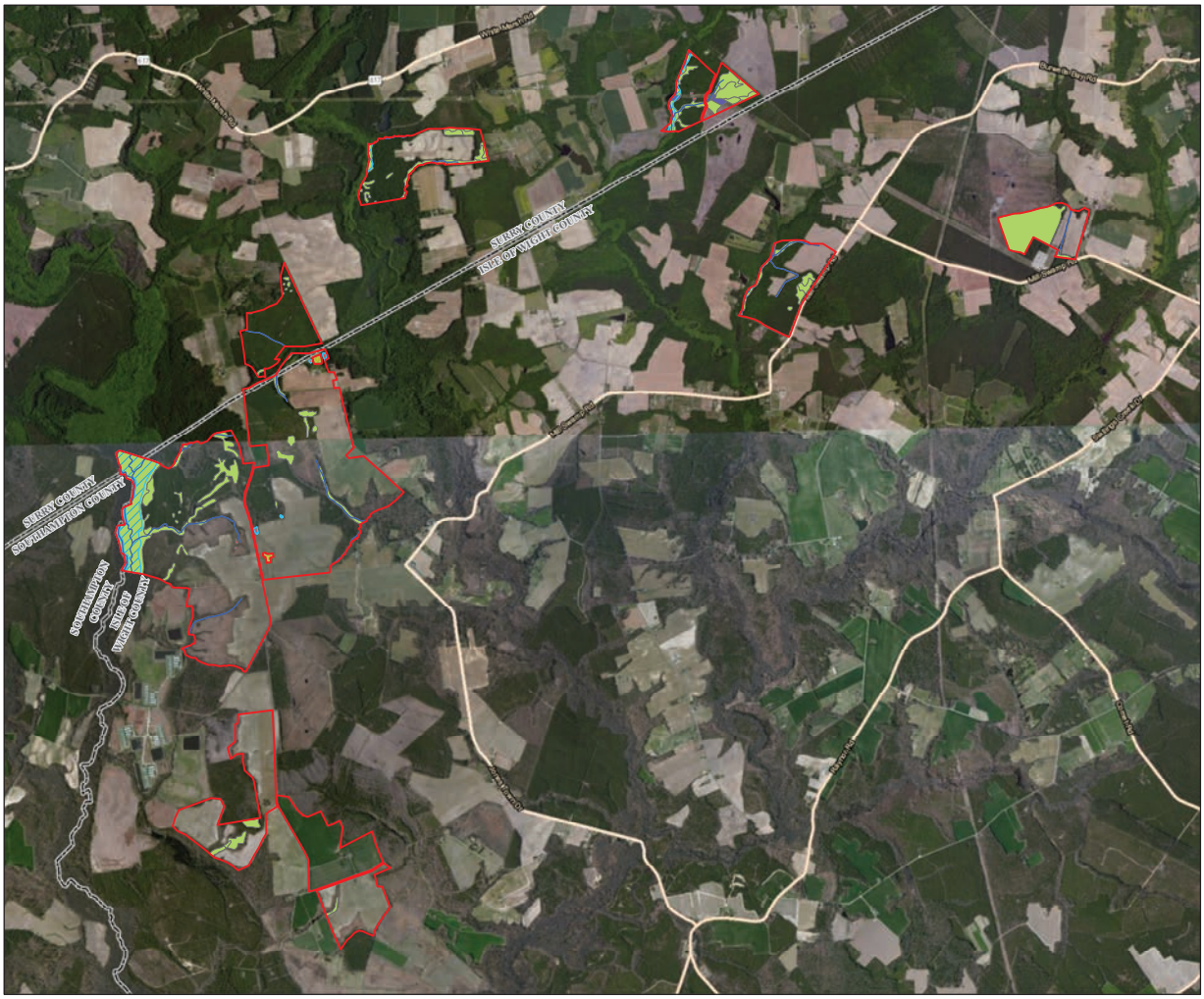
Prepared By: TETRA TECH

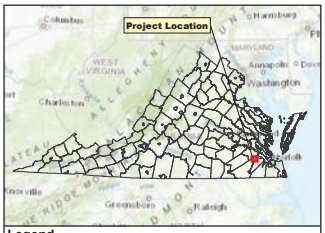
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Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

AES Sycamore_Cross_Solar\GIS\Spatial\MXD\2023\04\2_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

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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

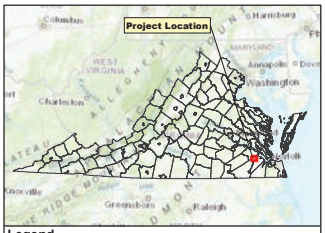
Source: Esri, et. al., 2022; AES, 2022; NHD, 2022; NWI; 2022; Virginia Open Data Portal, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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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

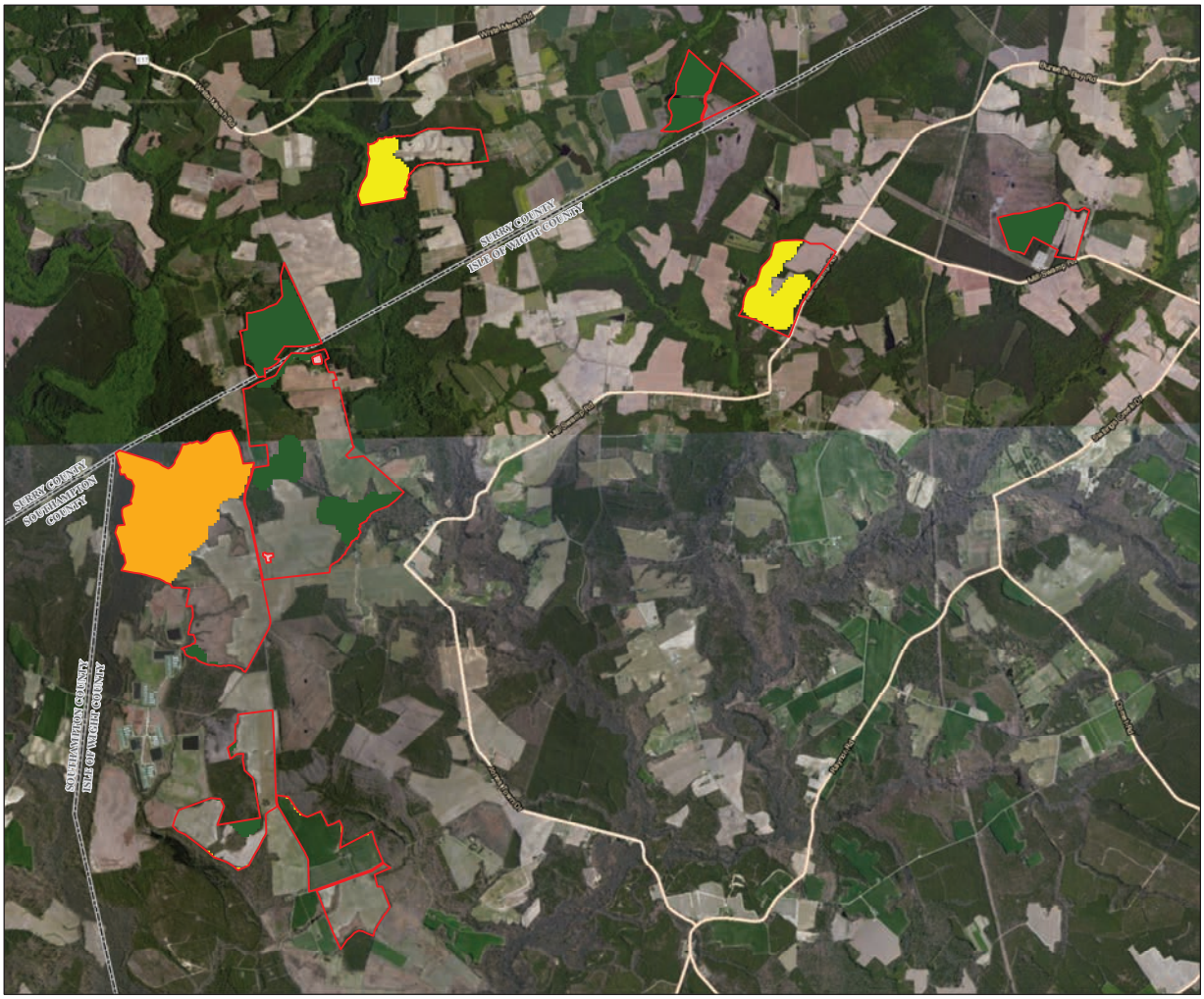
Prepared By: TETRA TECH | Date: 4/13/2023

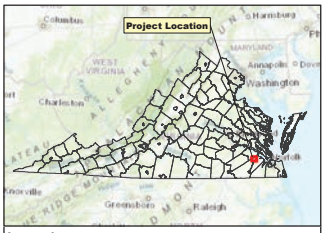
Source: Esri, et. al., 2022; AES, 2022; VDCR, 2020.

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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Figure 5
VDCR Ecological Cores Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

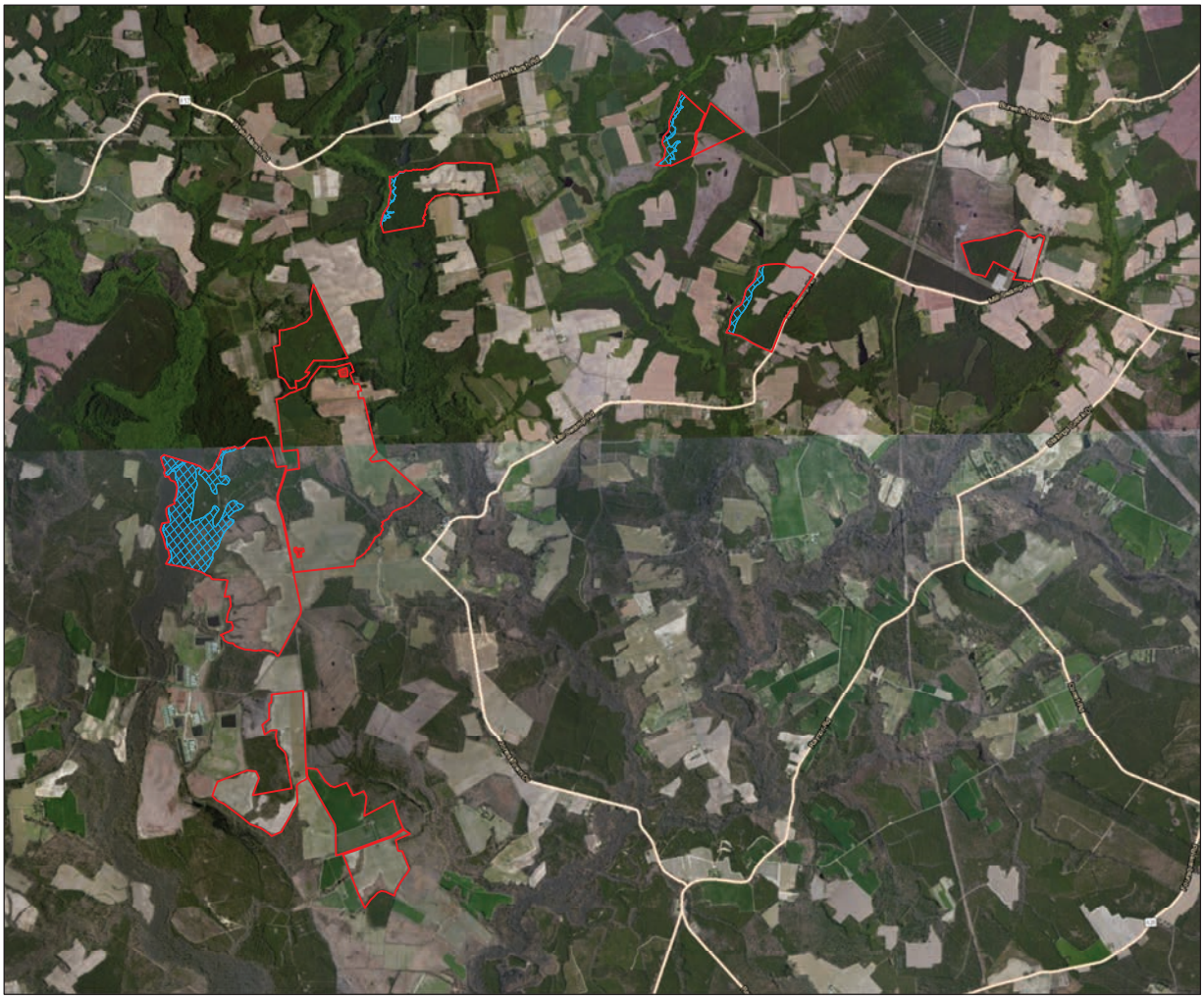
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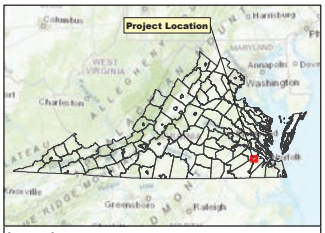
Source: Esri, et. al., 2022; AES, 2022; VDCR, 2017.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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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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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

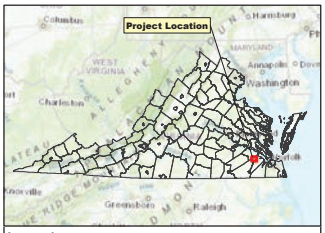
Source: Esri, et. al., 2022; AES, 2022; FEMA, 2022; FEMA FIRM number (FEMA FIRM Number 51093C0125E, effective December 2, 2015; 51093C0050E, effective December 1, 2015; and 51181C0225E, effective April 5, 2022); Virginia Open Data Portal, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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i:\ES\Sycamore_Cross_Solar\GIS\Solar\MXD\20230412_Envir_Resource_Impact_Report\Figure_6_Sycamore_Cross_Solar_FEMA_Flood_Hazard_Map.mxd





Legend

- Project Study Area
- Outside Project Study Area
- County Boundary
- Steep Slope (>25%)

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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.

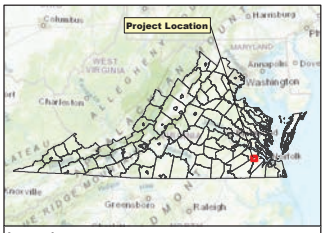
Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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Legend

- Project Study Area
- Outside Project Study Area
- County Boundary
- Detail Map Page

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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

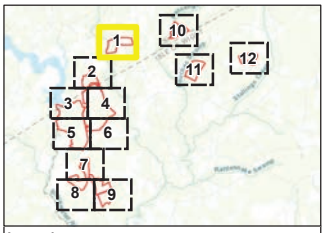
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Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

AES\Sycamore_Cross_Solar\GIS\Scalable\MXD\2023\04\2_Envir_Resources_Impact_Report\Figure_8_Sycamore_Cross_Solar_Delineated_Aquatic_Resources_Features_Overviewmxd



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.

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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

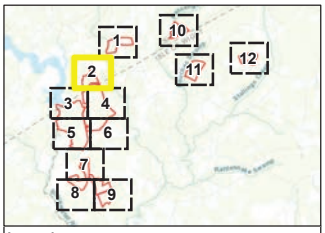
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Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

\GIS\VA\Sycamore_Cross_Solar\GIS\Spatial\MXD\20241204\12_Env_Resource_Impact_Report\Figure_8_Sycamore_Cross_Solar_Delineated_Aquatic_Resources_Features_Detail.mxd





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

Page 2 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

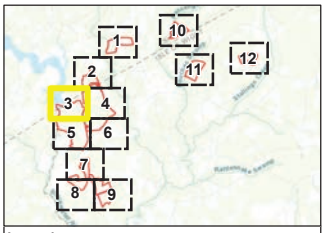
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Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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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

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;

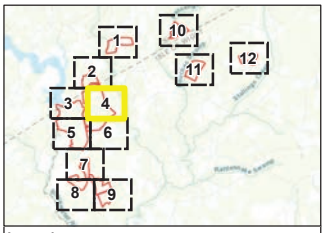
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\GIS\VA\Sycamore_Cross_Solar\GIS\Spatial\MXD\20412_Env_Resource_Impact_Report\Figure_8_Sycamore_Cross_Solar_Delineated_Aquatic_Resources_Features_Detail.mxd



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.

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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

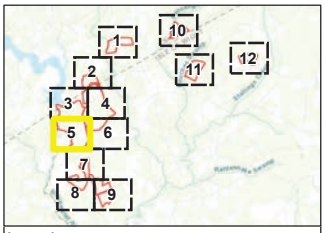
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Legend

- 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

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

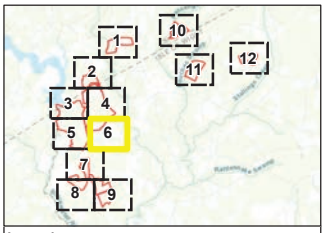
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Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

NOT FOR CONSTRUCTION

\GIS\VA\SSS\sycamore_Cross_Solar\GIS\Projects\MXD\20230412_Env_Resource_Impact_Report\Figure_8_Sycamore_Cross_Solar_Delineated_Aquatic_Resources_Features_Detail.mxd





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

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;

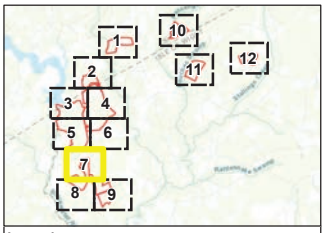
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NOT FOR CONSTRUCTION



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.

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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

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

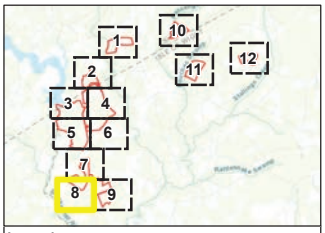
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NOT FOR CONSTRUCTION



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.

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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

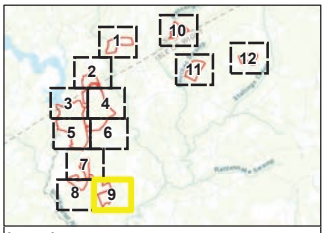
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NOT FOR CONSTRUCTION



Legend

- Project Study Area
- Outside Project Study Area
- County Boundary
- Field Delineated Stream
- Field Delineated Wetland
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Figure 8

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

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Date: 4/13/2023

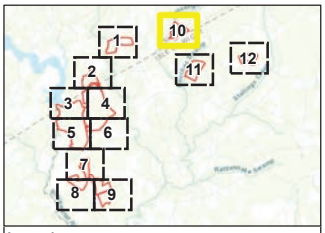
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Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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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.

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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

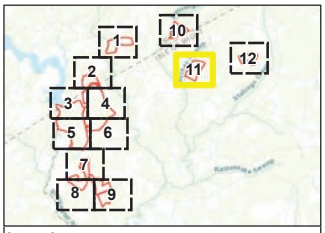
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Legend

- 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

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

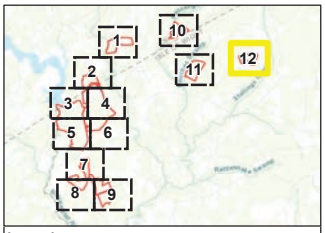
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Legend

- 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

Page 12 of 12

Prepared For: aes

Prepared By: TETRA TECH

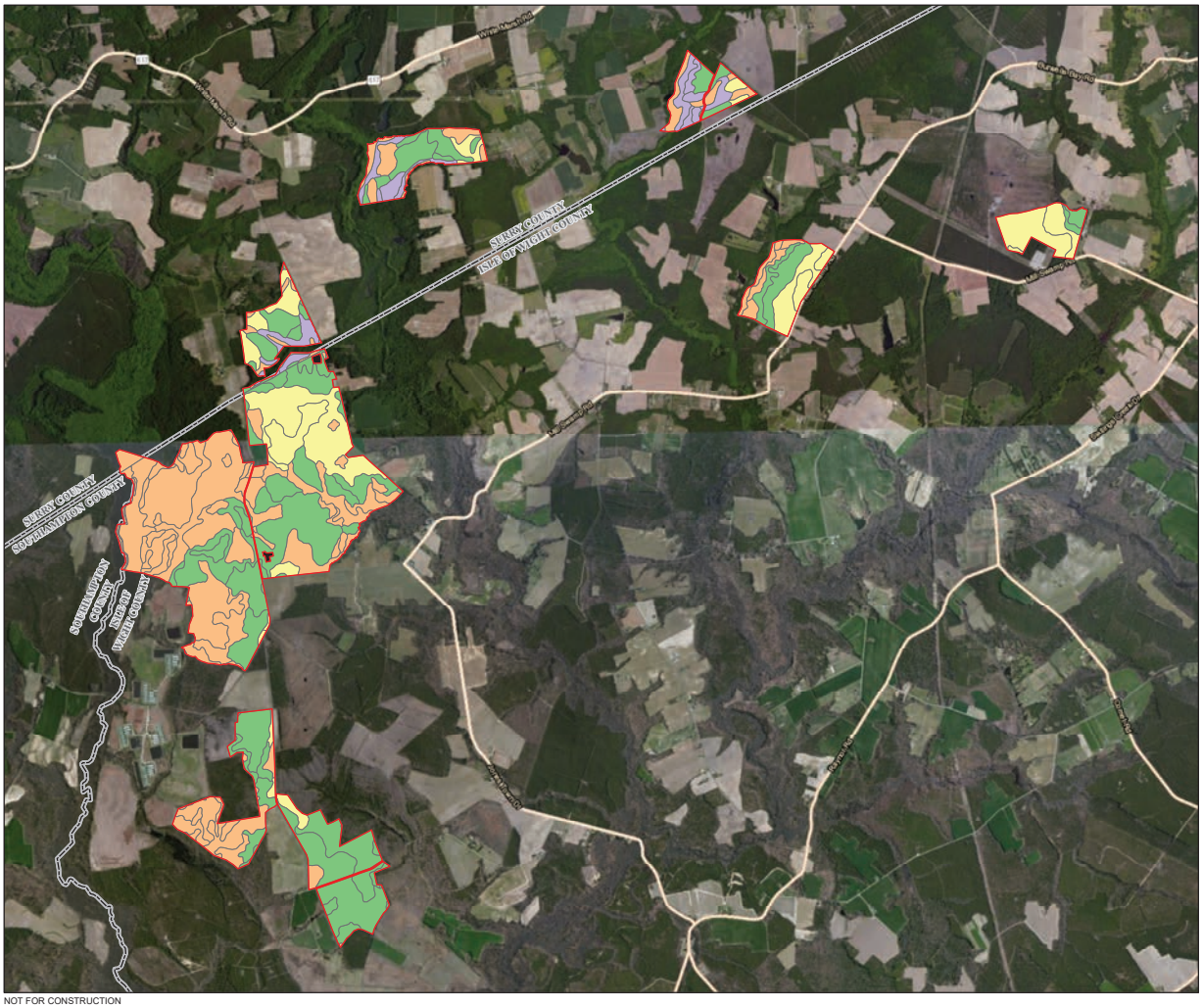
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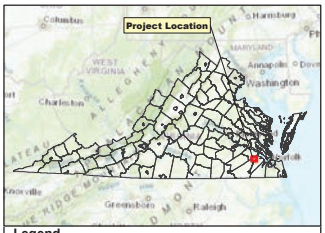
Source: Esri, et. al., 2022; AES, 2022; Tetra Tech, 2023; Virginia GIS Clearinghouse, 2022; Virginia Open Data Portal, 2022;

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

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Figure 9
Prime Farmland Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

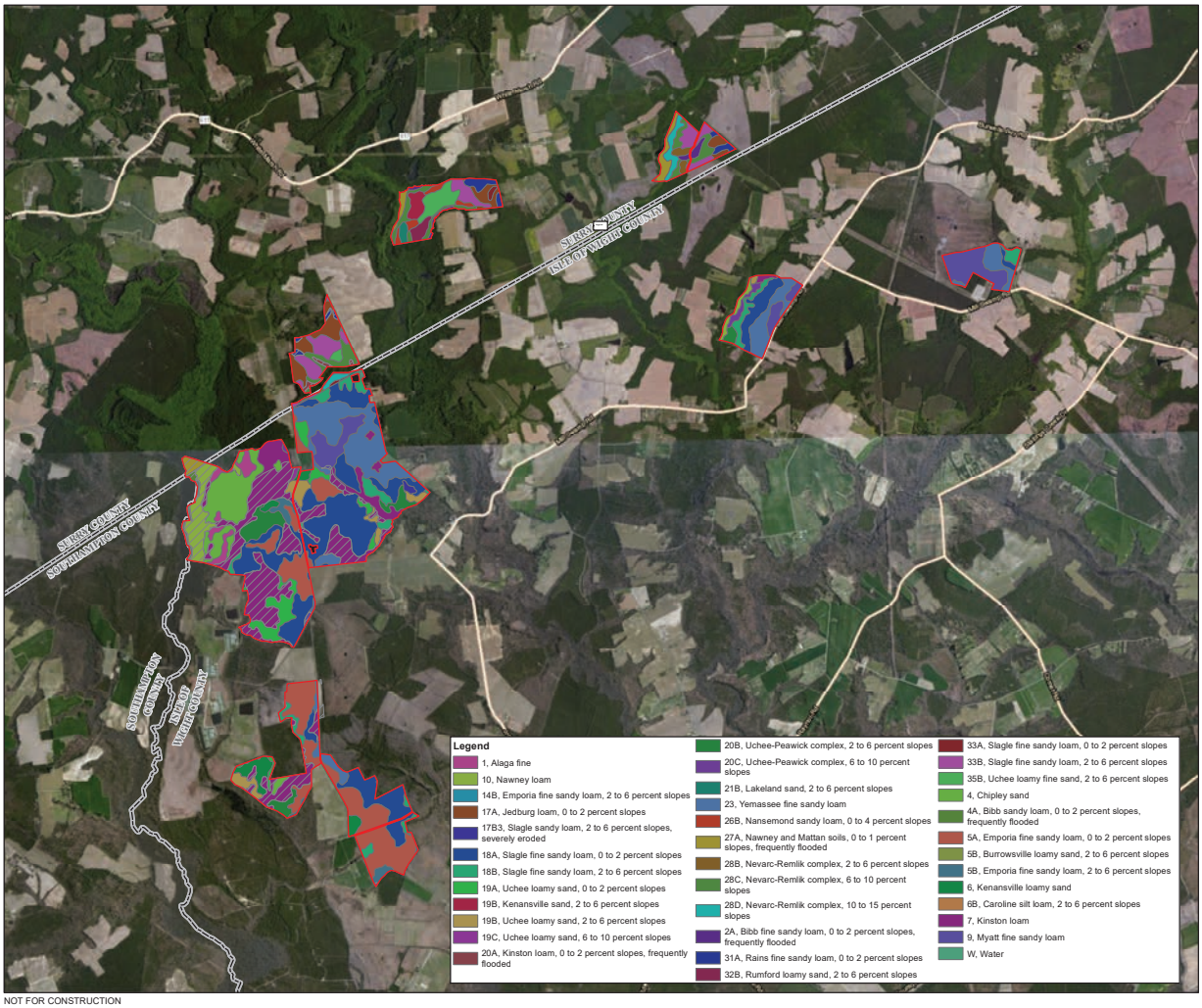
Date: 4/13/2023

Source: Esri, et. al., 2022; AES, 2022; NHD, 2022; NWI; 2022; USDA, 2022; NRCS, 2022; SSURGO, 2022; Virginia Open Data Portal, 2022.

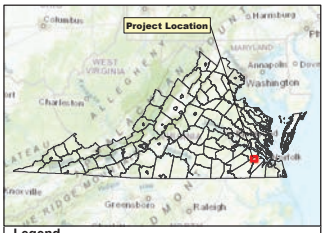
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NOT FOR CONSTRUCTION



Legend

- Project Study Area
- Outside Project Study Area
- County Boundary
- Hydric Soil

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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

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APPENDIX A: USDA-NRCS SOIL REPORT

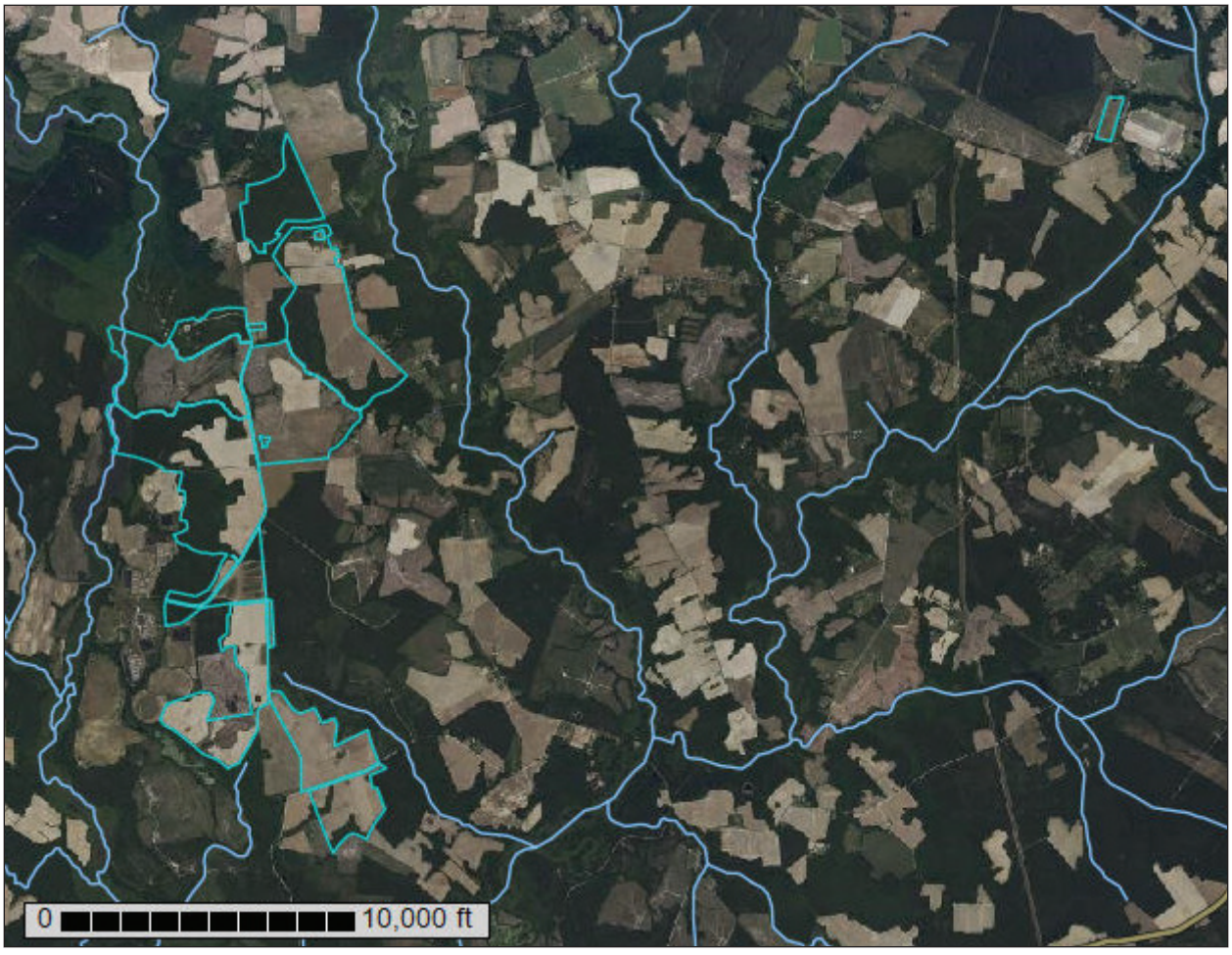
United States Department of Agriculture

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.

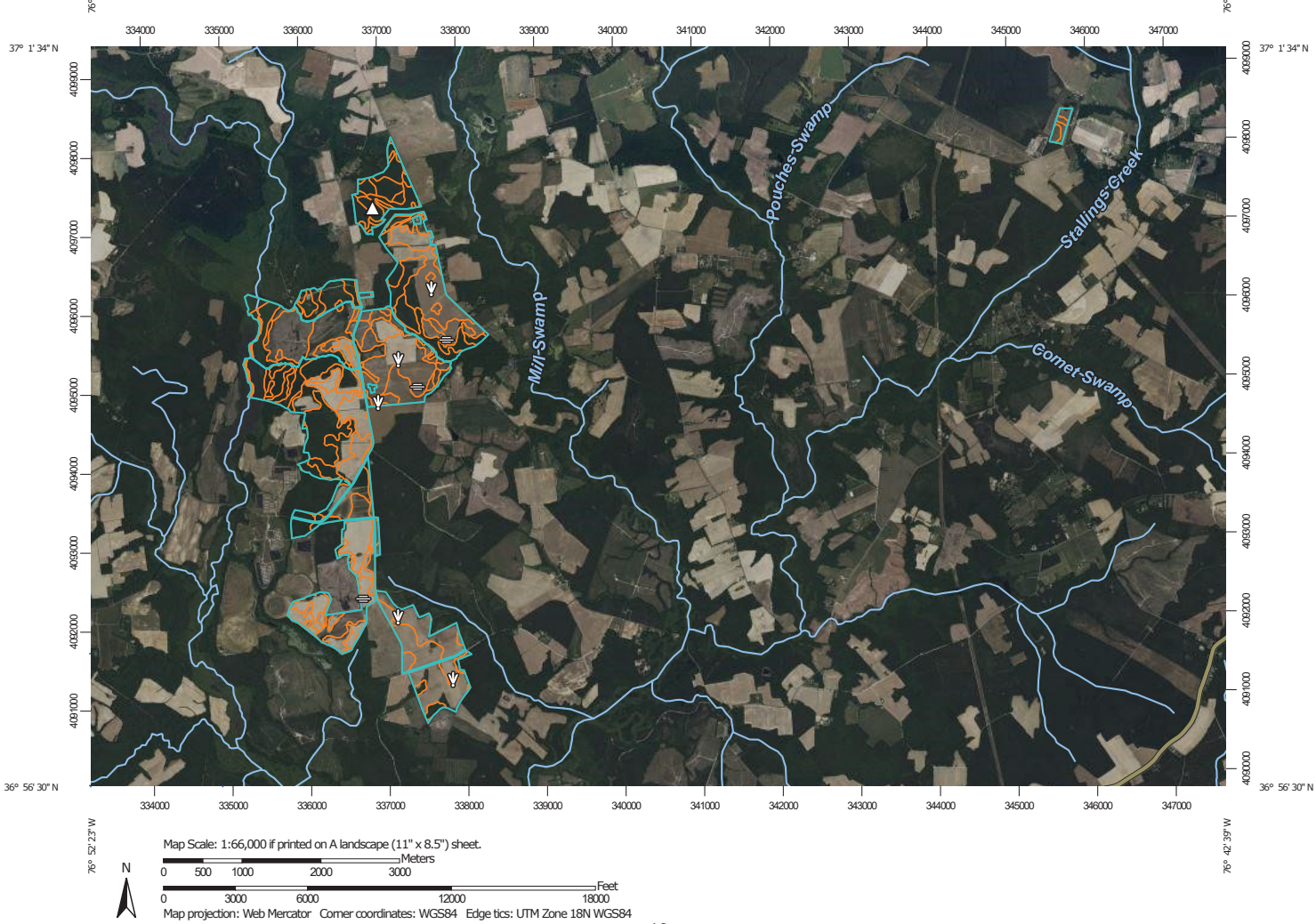
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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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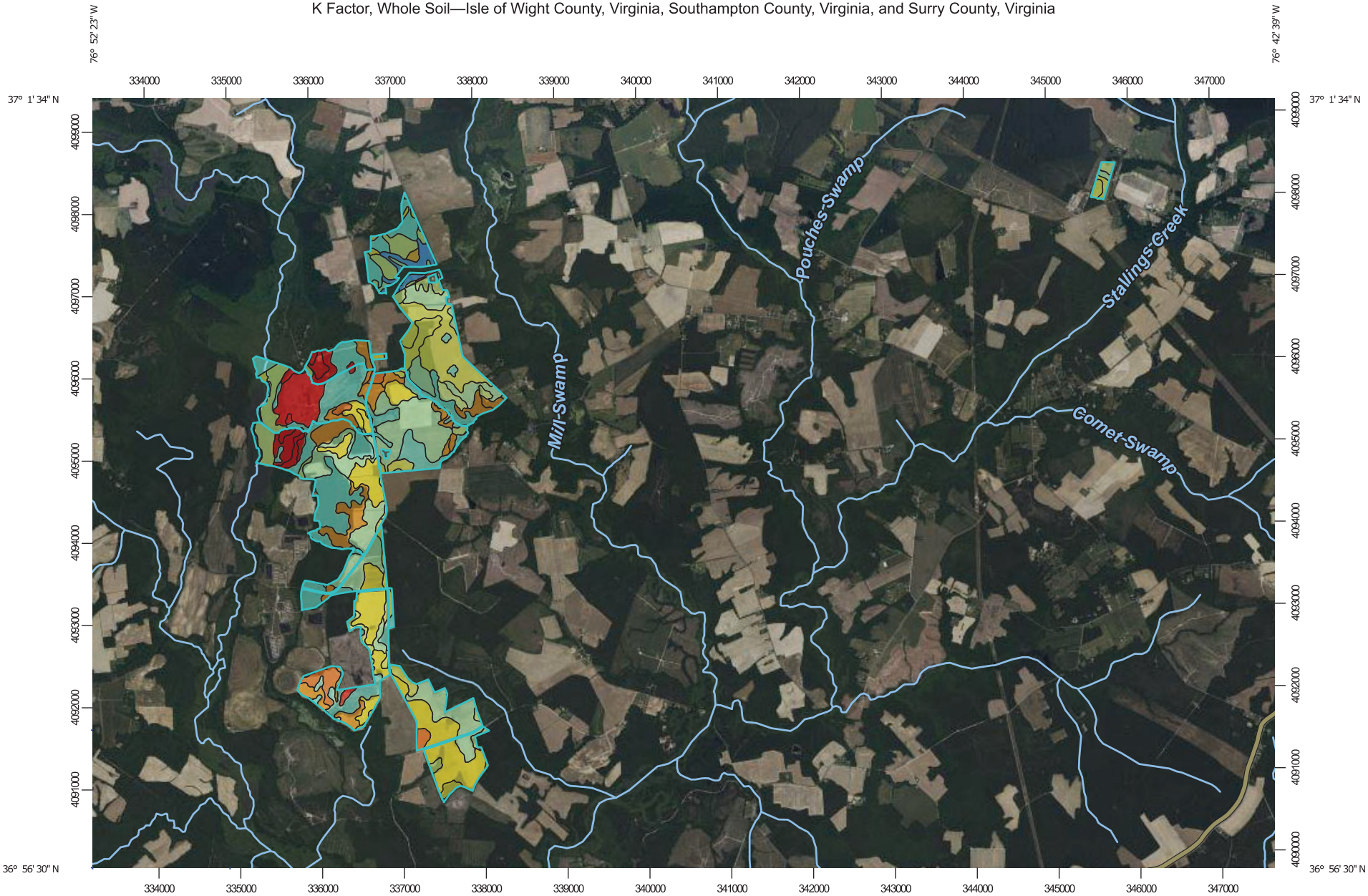
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Map Scale: 1:66,000 if printed on A landscape (11" x 8.5") sheet.

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".

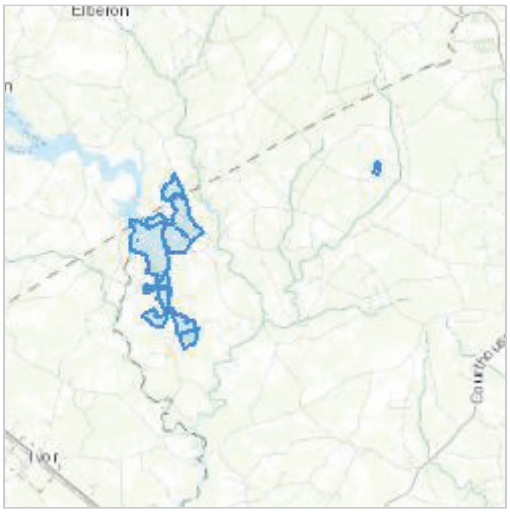
This species list is provided by:

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* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

BIRDS

NAME	STATUS
Red-cockaded Woodpecker *Picoides borealis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. 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* 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* 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* 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* 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* 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* 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* 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* 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.

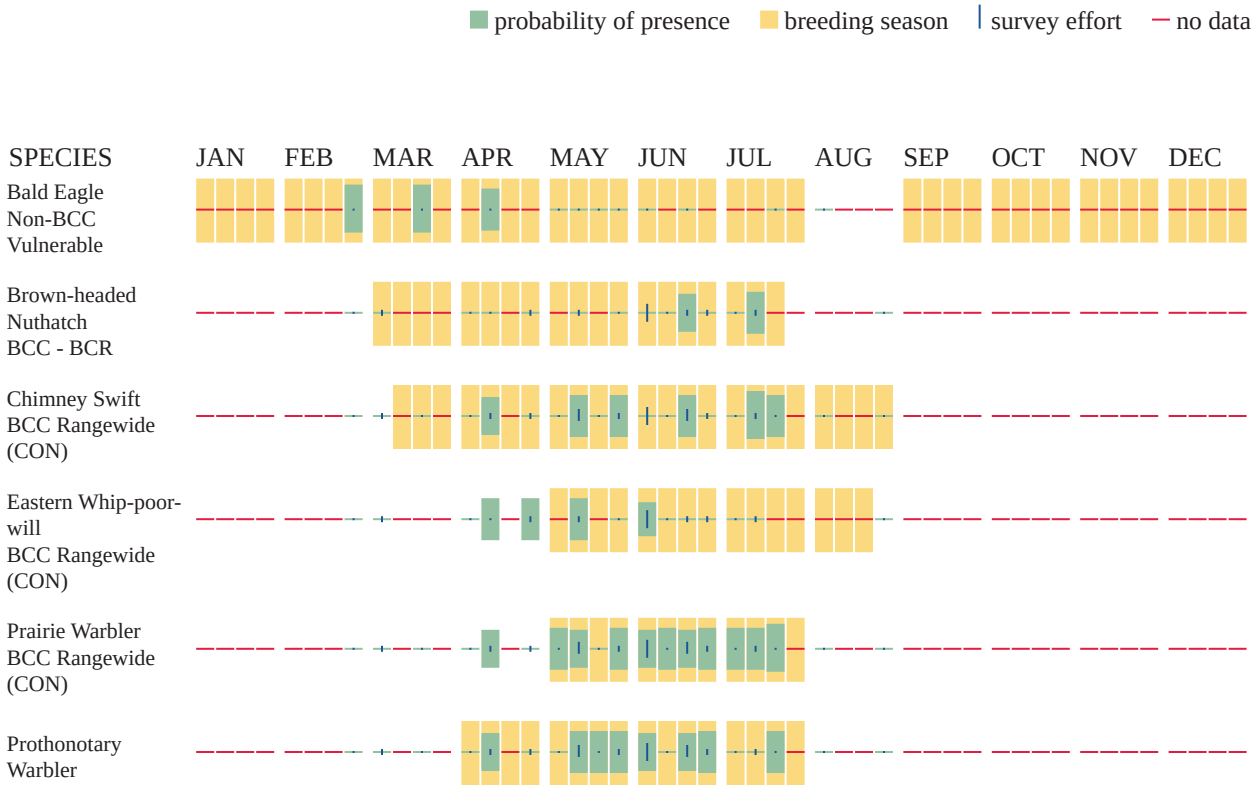
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

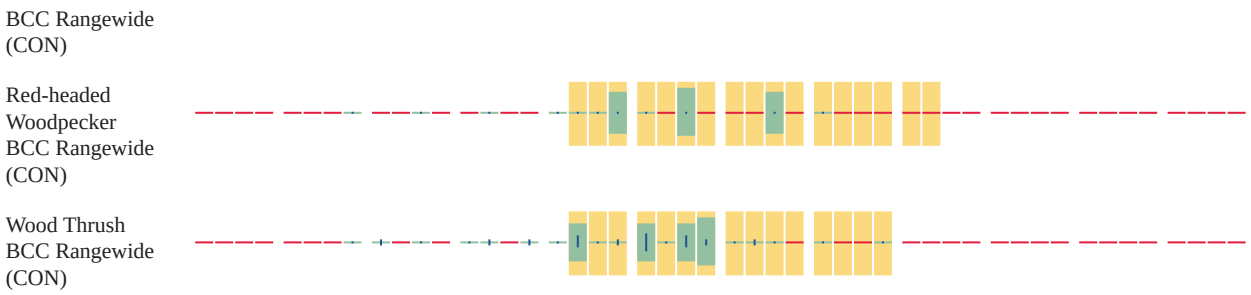
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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

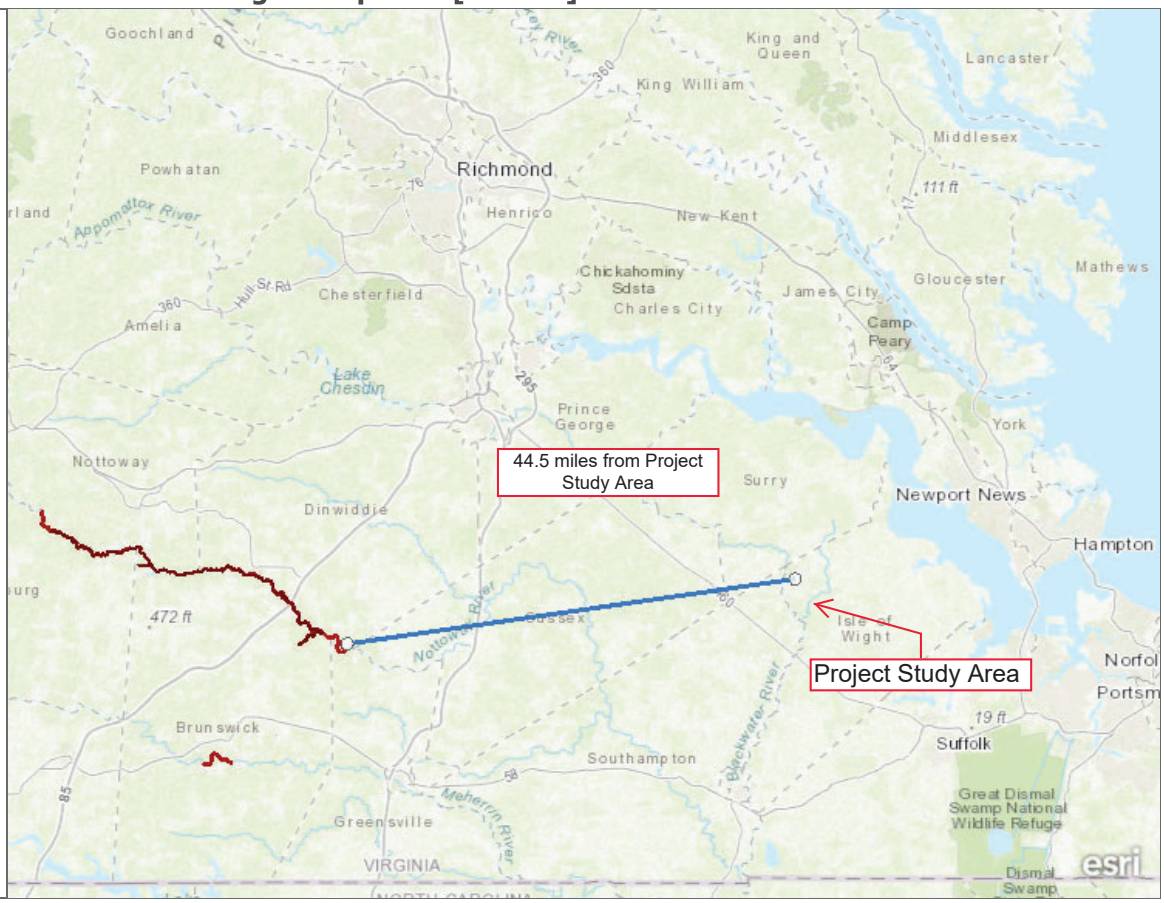
Critical Habitat for Threatened & Endangered Species [USFWS]

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]

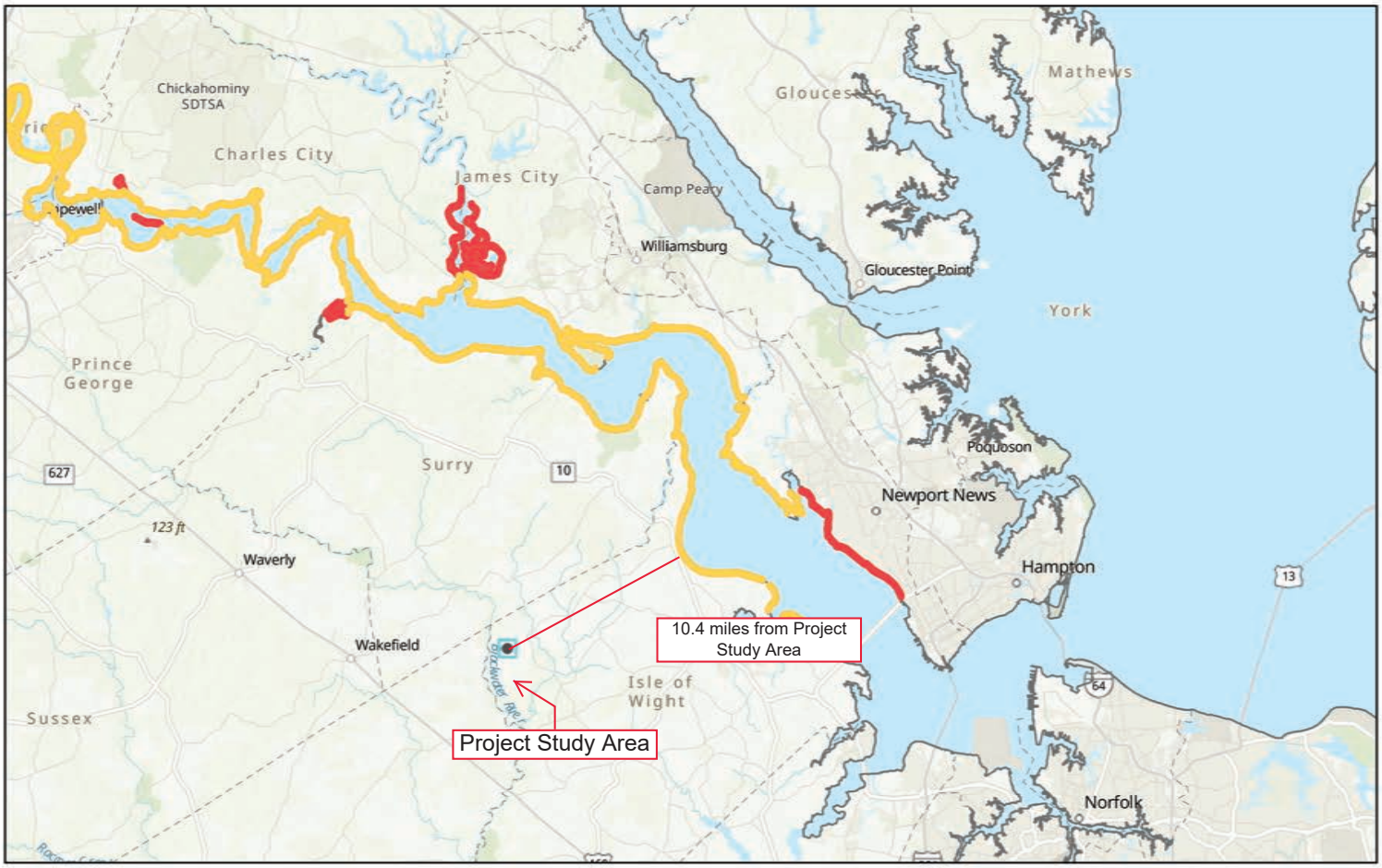
Map Link:
https://www.ccbbirds.org/maps/#layer=VA+Eagle+Nest+Buffers&layer=VA+Eagle+Nest+Locator&zoom=11&lat=36.933702217046296&lng=-76.83631896972655&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=Street+Map+%28OSM%2FCarto%29

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

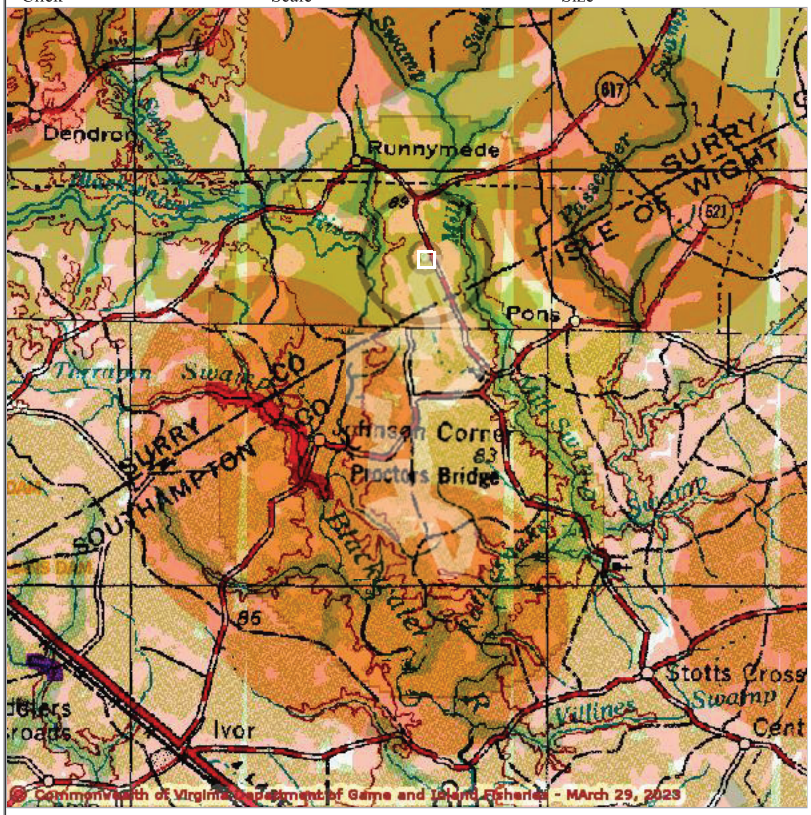
Position Rings 1 mile and 1/4 mile at the Search Point

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 |
© 1998-2023 Commonwealth of Virginia Department of Game and Inland Fisheries

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

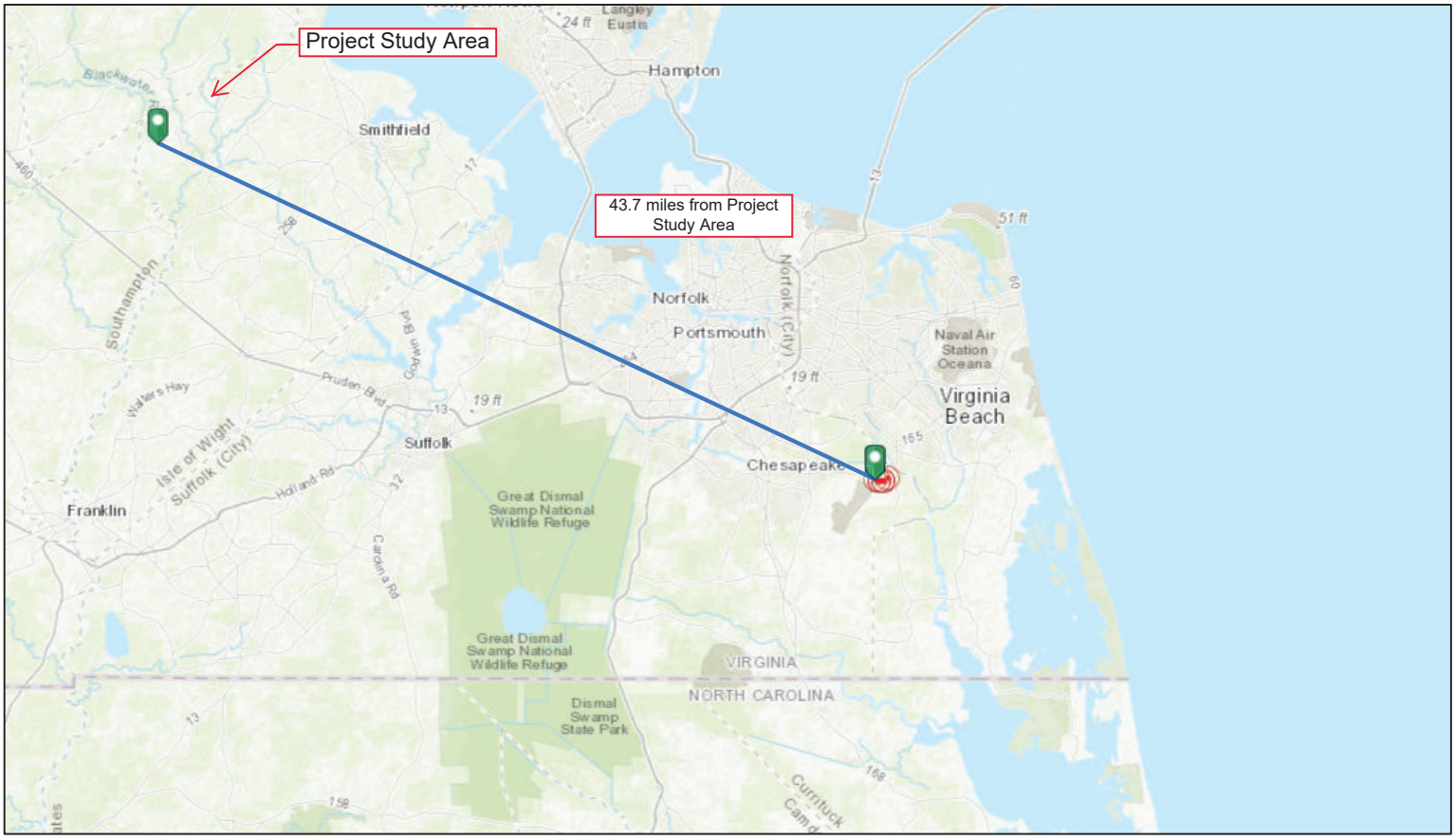
Southern Coastal Plain								
Blackwater								
Rattlesnake Swamp								
Crater								
MAMMALS								
Eastern Big-eared Bat	Corynorhinus rafinesquii macrotis	Corynorhinus rafinesquii macrotis	G3G4T3	S2	None	LE	44	Y

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

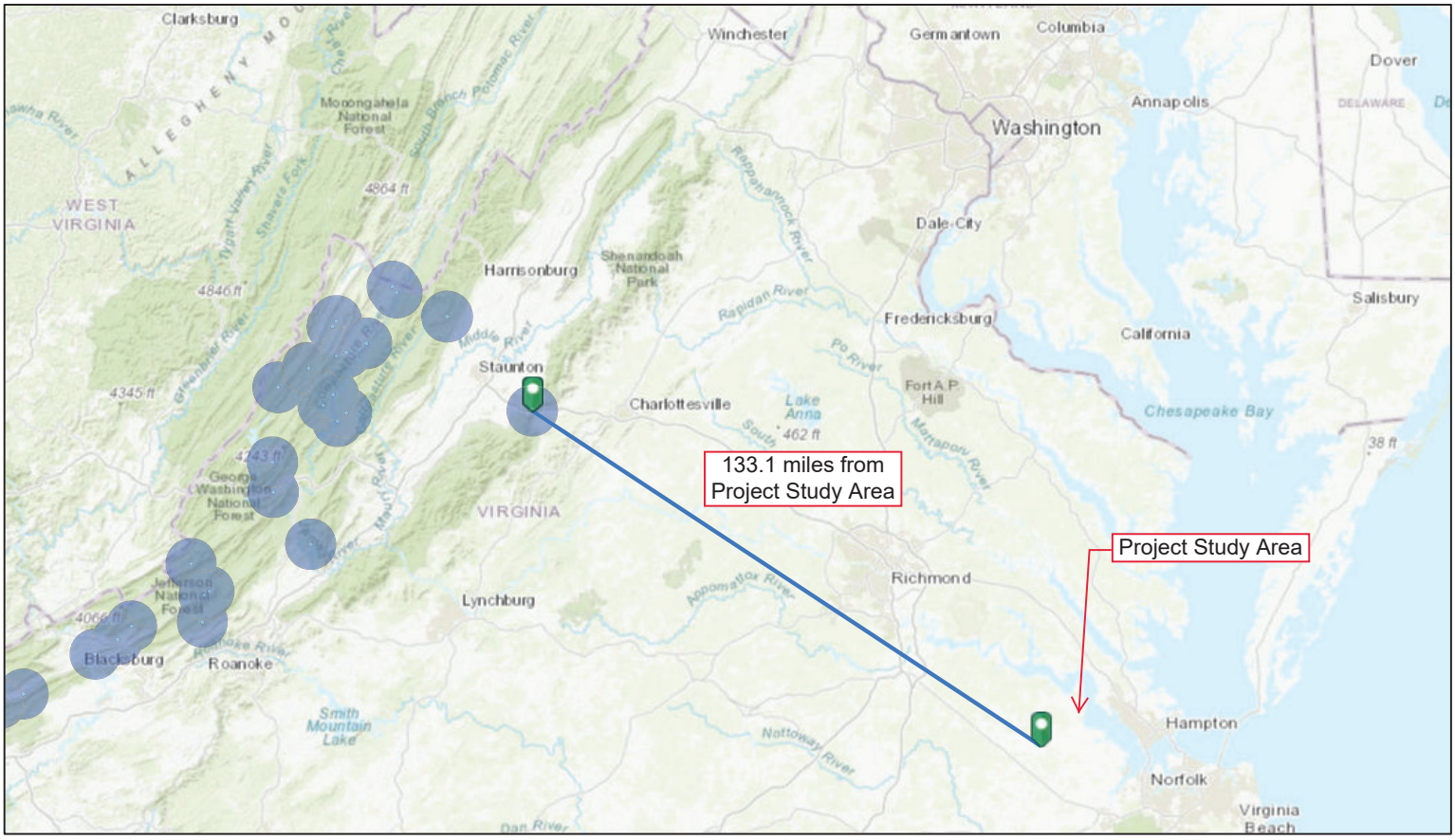
0 5 10 20 km

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

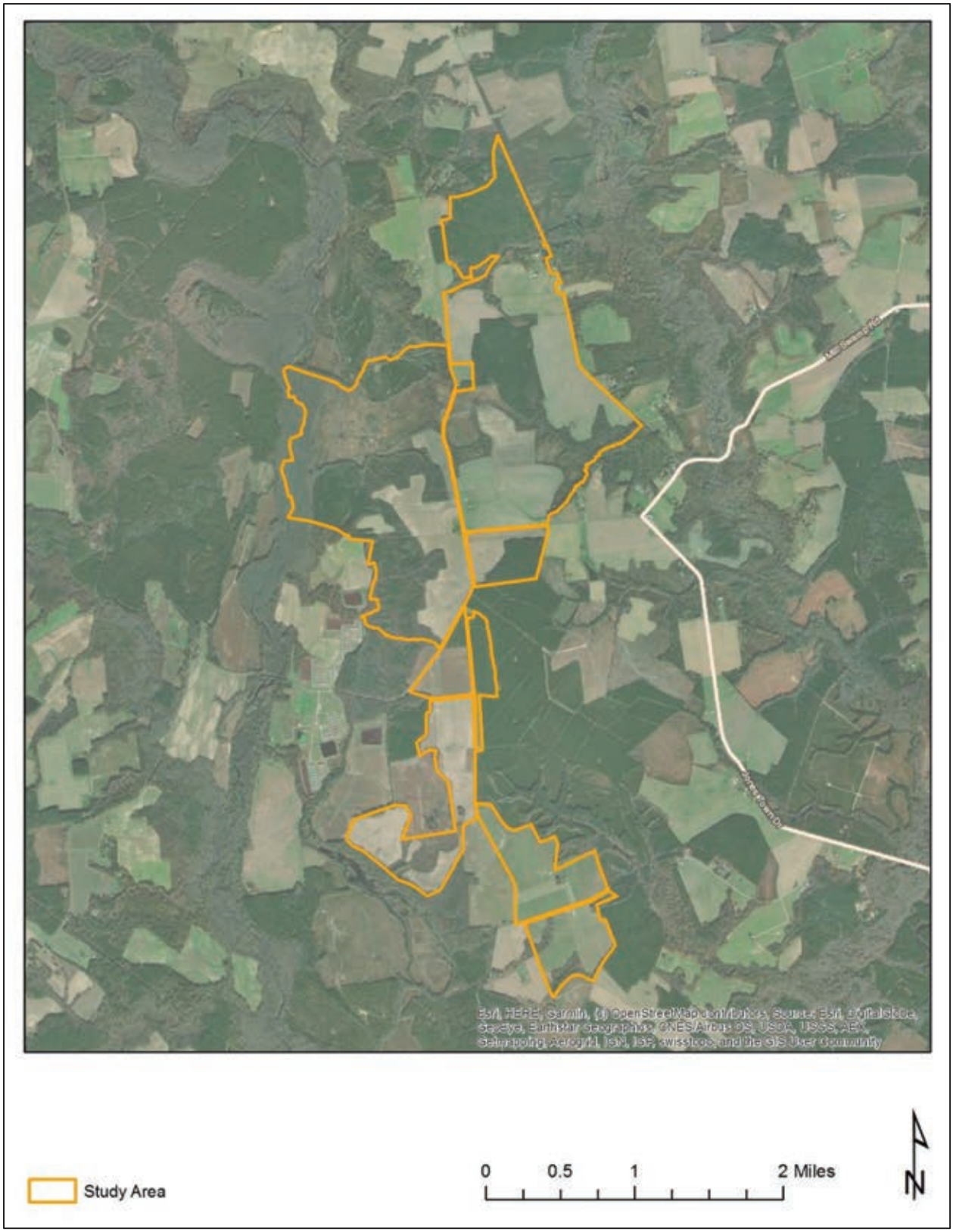


Figure 1-2: Aerial view of study area depicting parcels subject to full assessment as well as desktop-only.

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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).

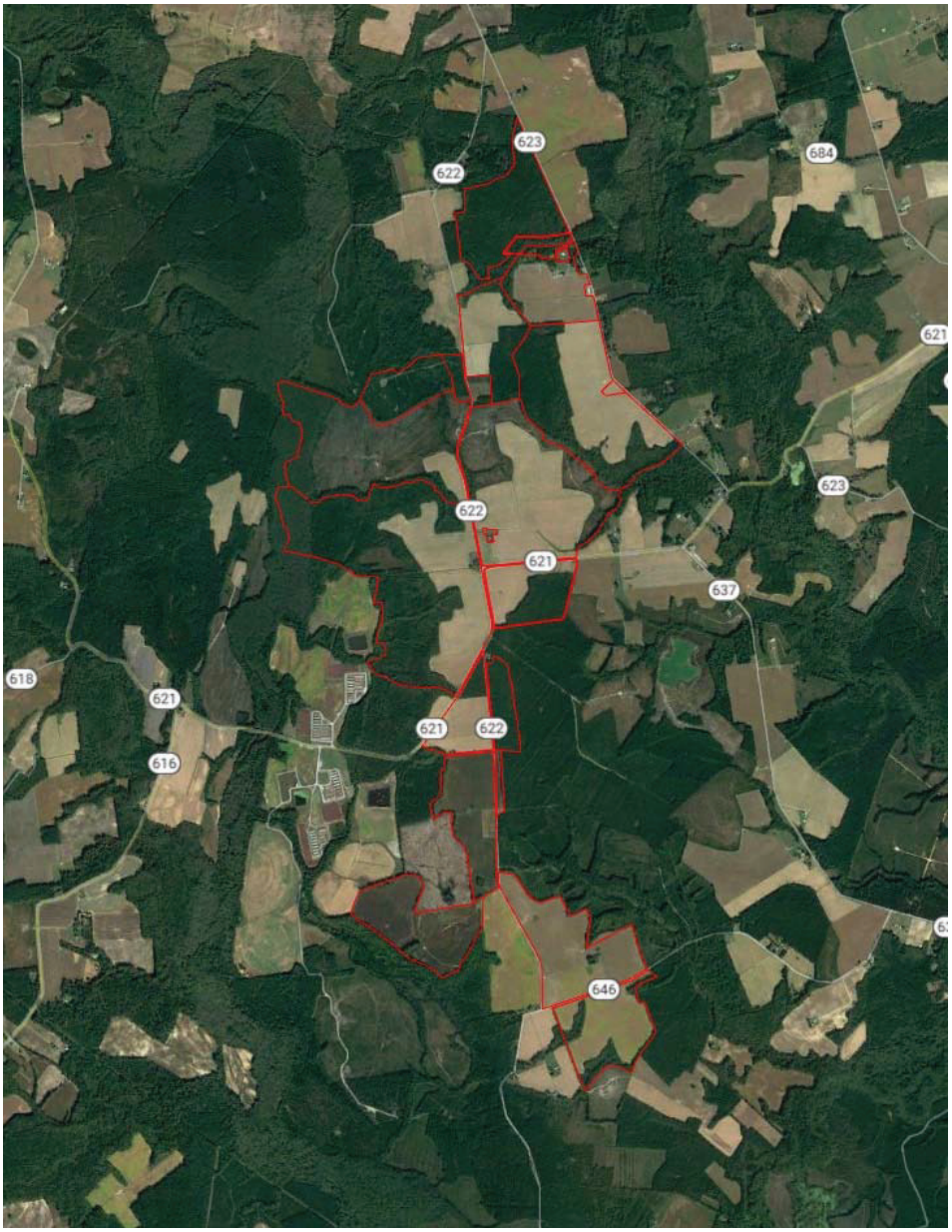


Figure 3-1. Aerial view of study area illustrating existing conditions.

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).

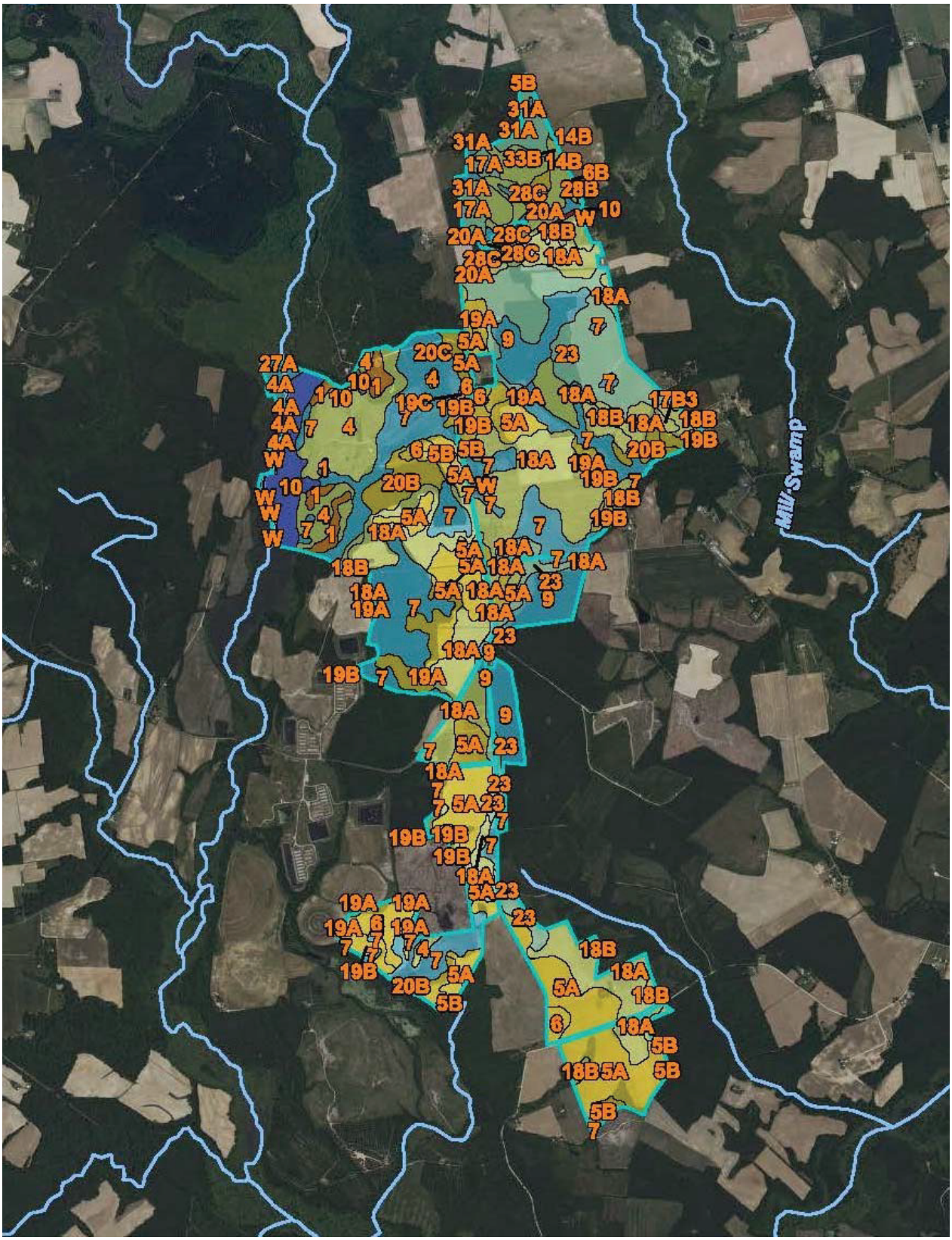


Figure 3-2: Soil survey of the Sycamore Cross study area showing drainage class (USDA 2023).

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

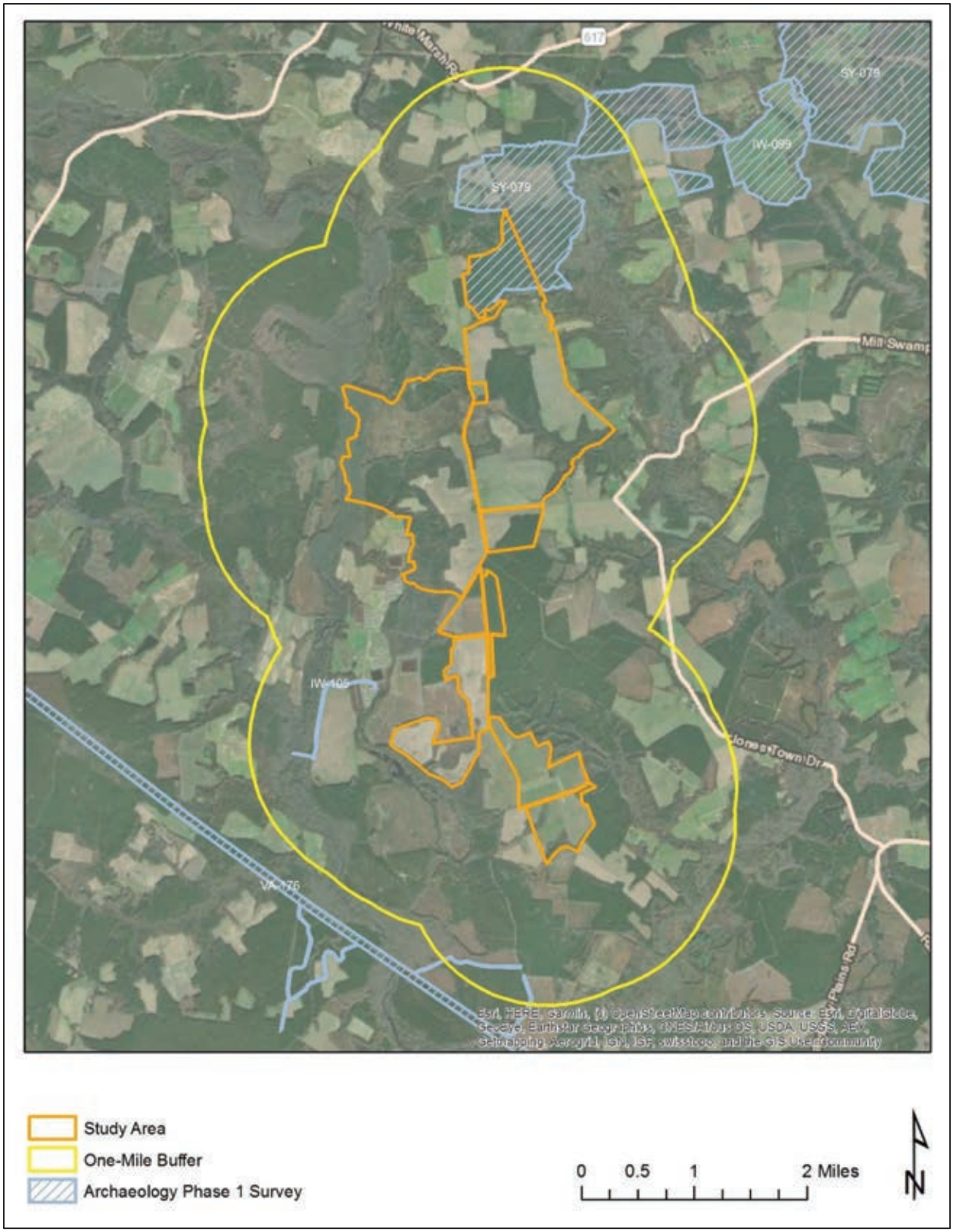


Figure 4-1: Previous Phase I surveys conducted within one mile of the study area Source: V-CRIS

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

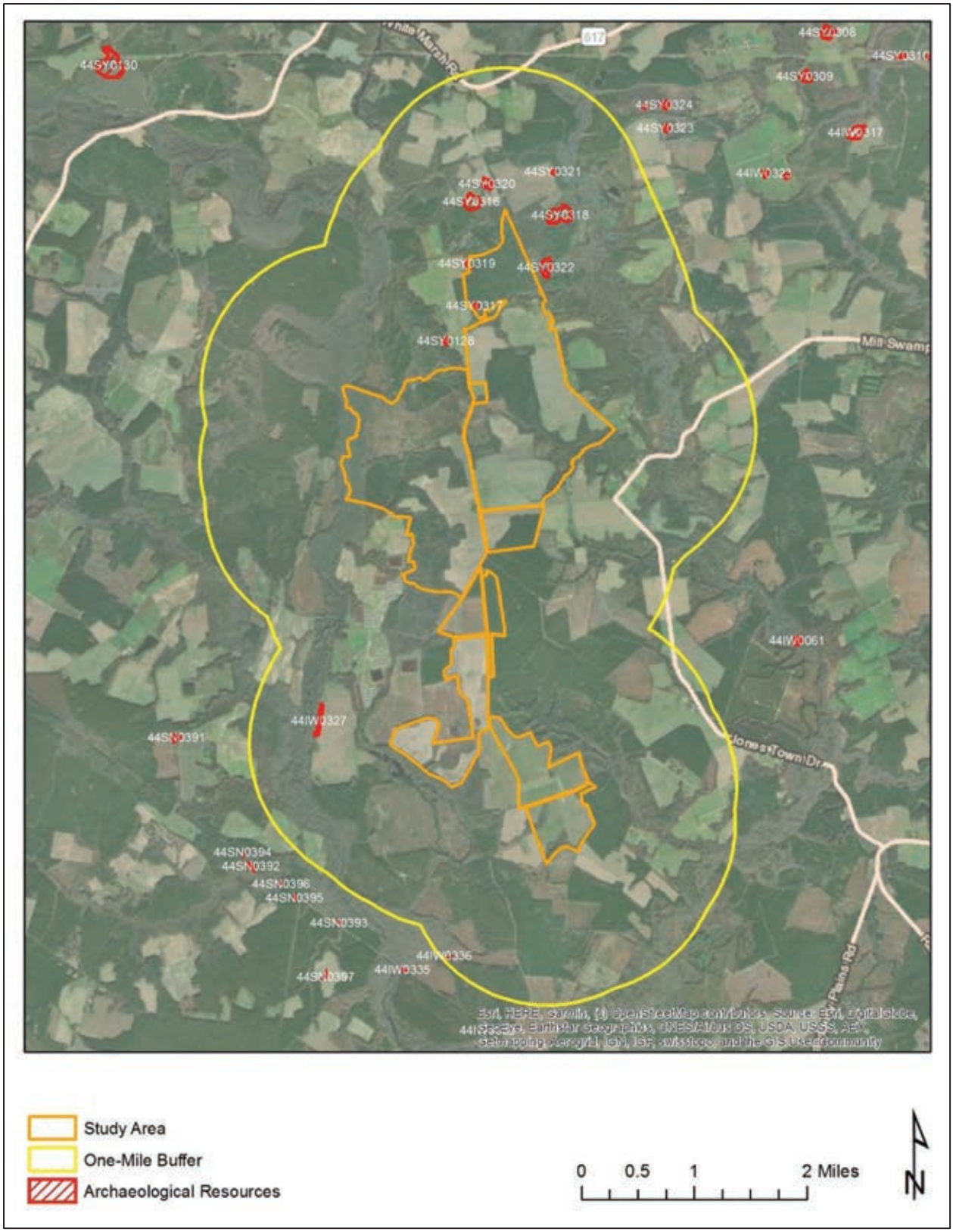


Figure 4-2: Previously recorded archaeological sites located within one mile of the study area. Source: V-CRIS

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

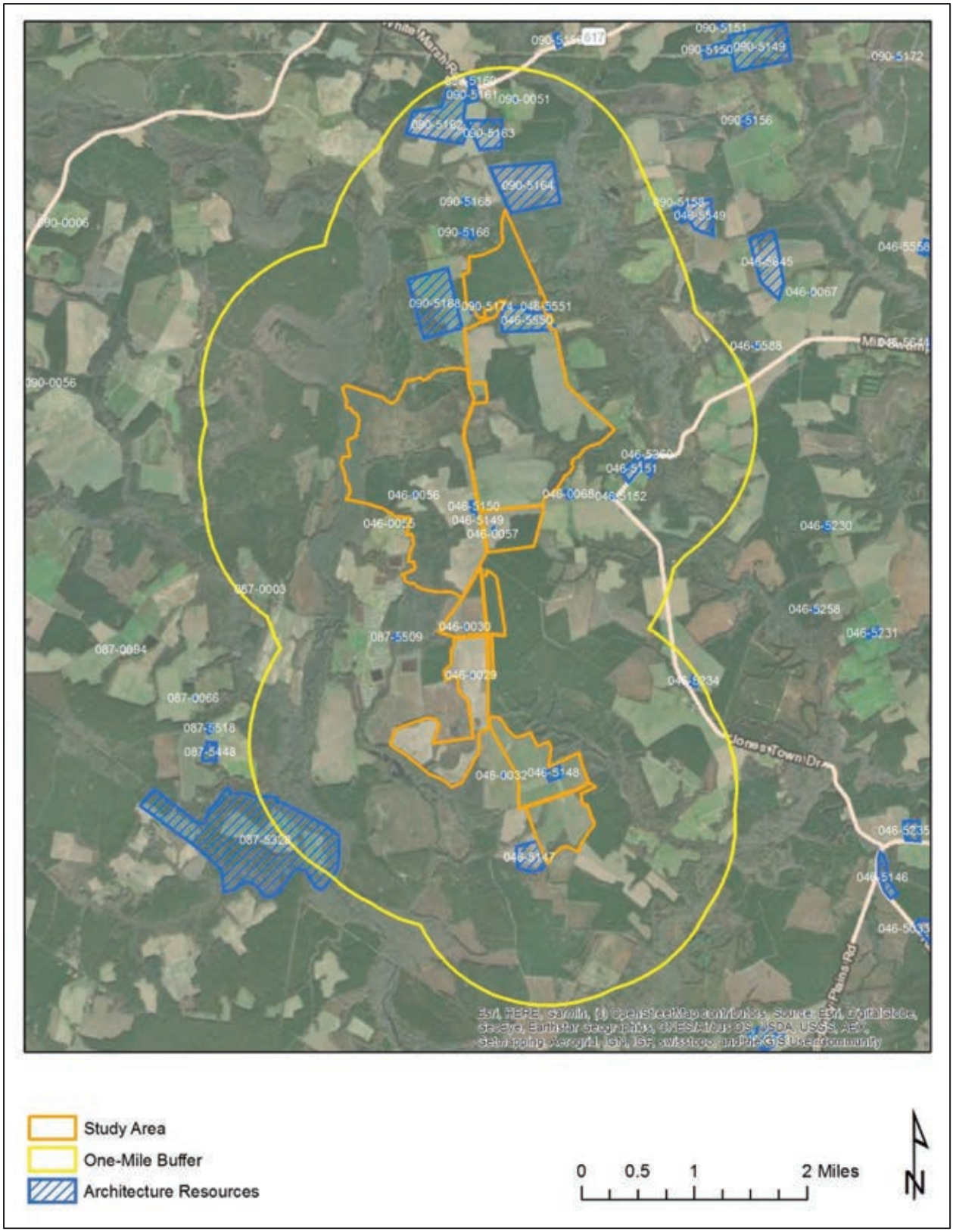


Figure 4-3: Previously recorded architectural resources within one mile of the study area. Source: V-CRIS

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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).

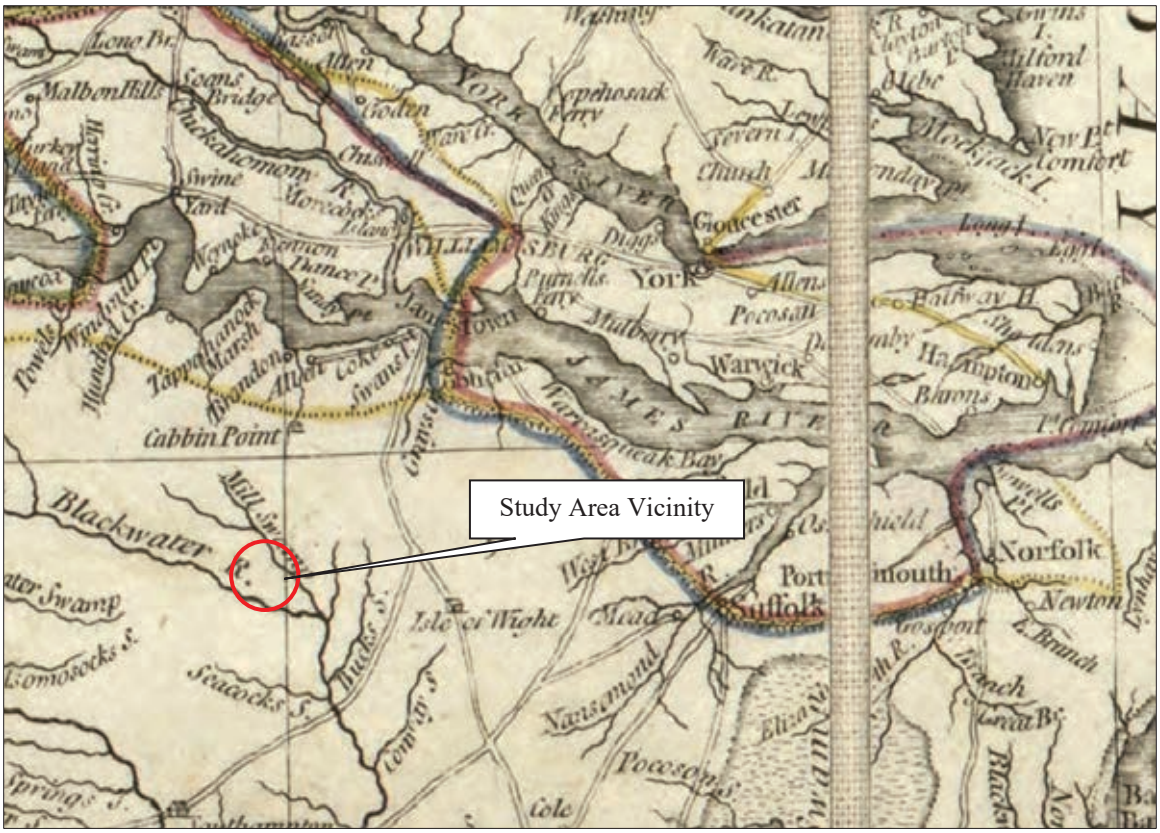


Figure 5-1: Detail of *The marches of Lord Cornwallis in the Southern Provinces*, 1787, depicting general vicinity of the study area. Source: Library of Congress

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).

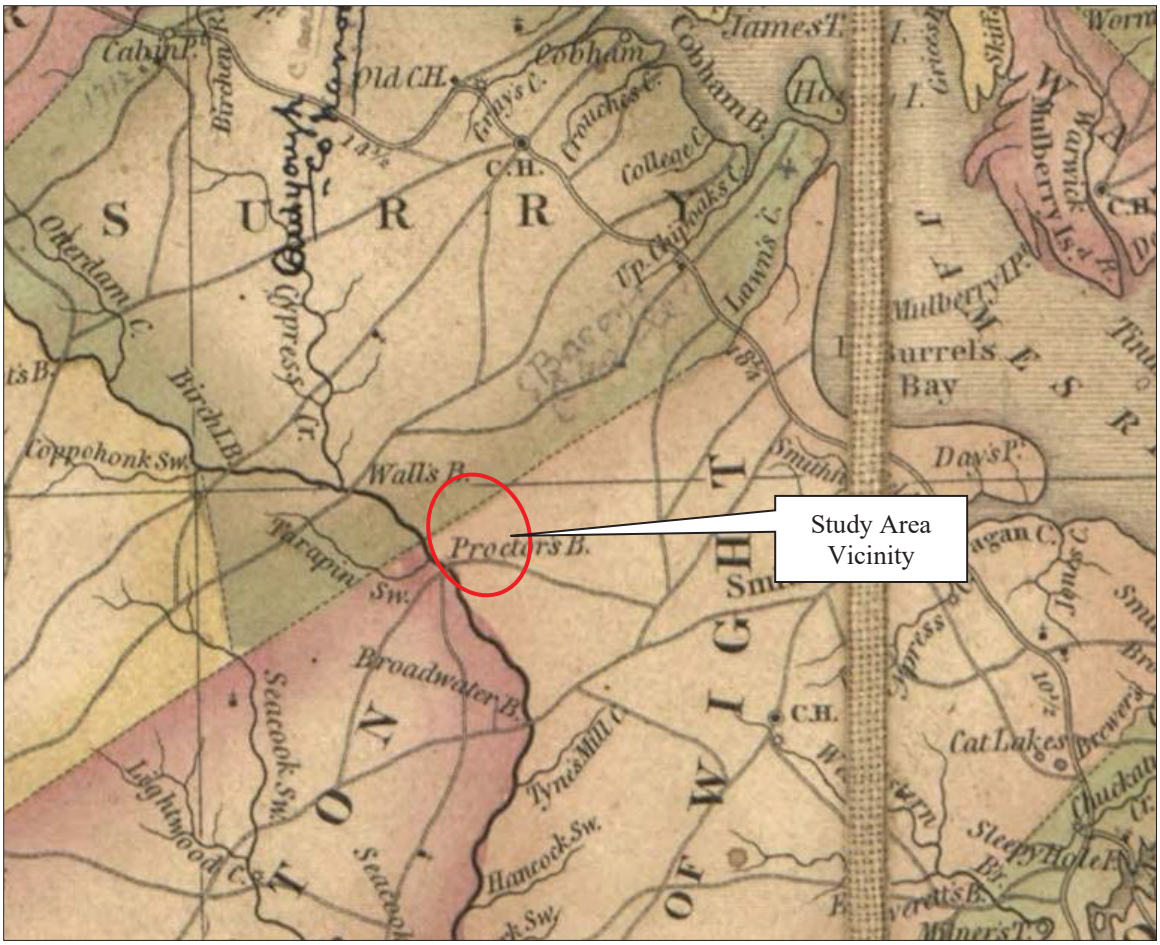


Figure 5-2: Detail of *A map of the state of Virginia*, 1827, depicting the vicinity of the study area. Source: Library of Congress

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.

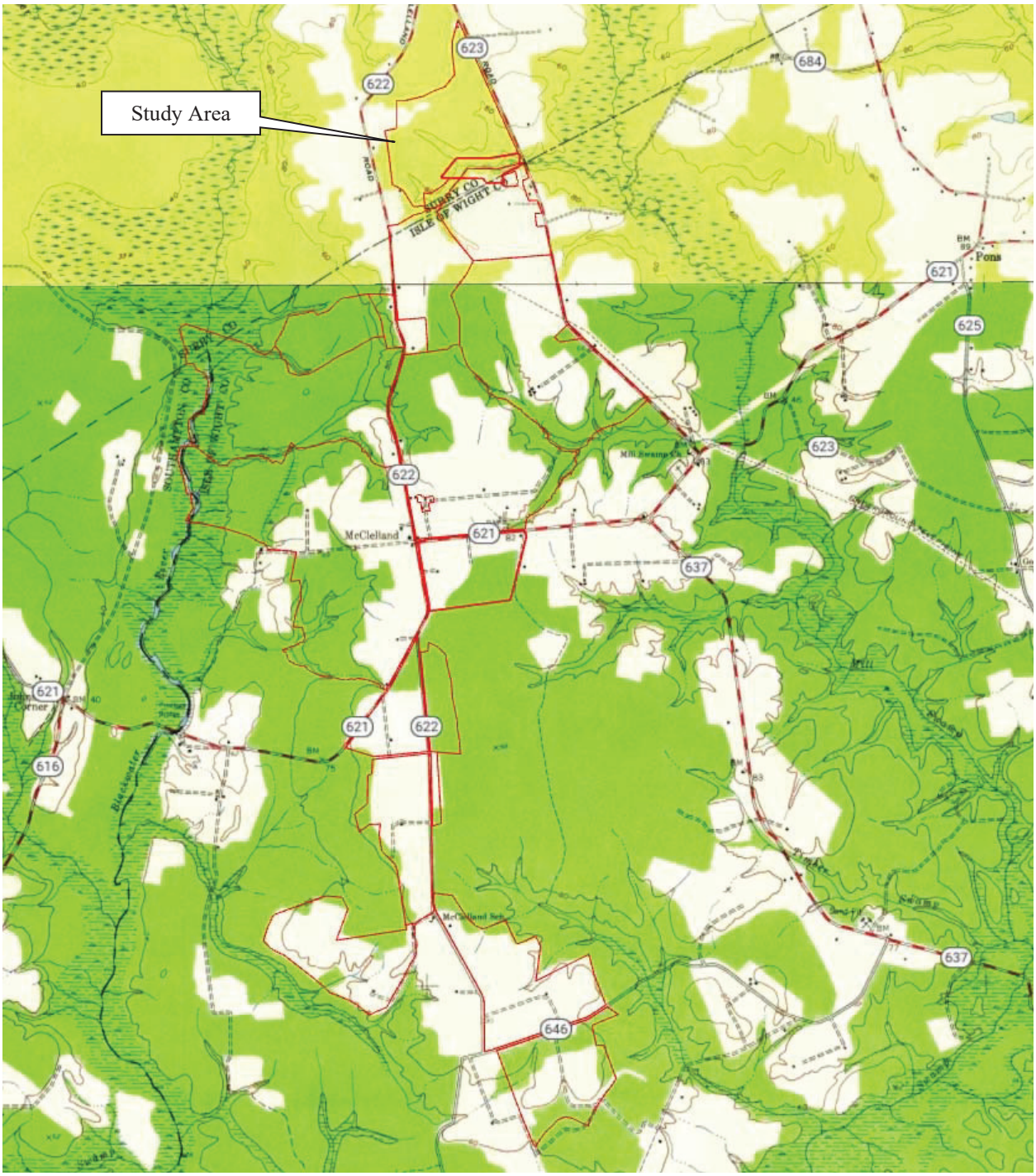


Figure 5-6: Detail of the 1944 and 1954 topographic maps, *Raynor* and *Runnymeade*, depicting the primary study area parcel cluster. Source: USGS

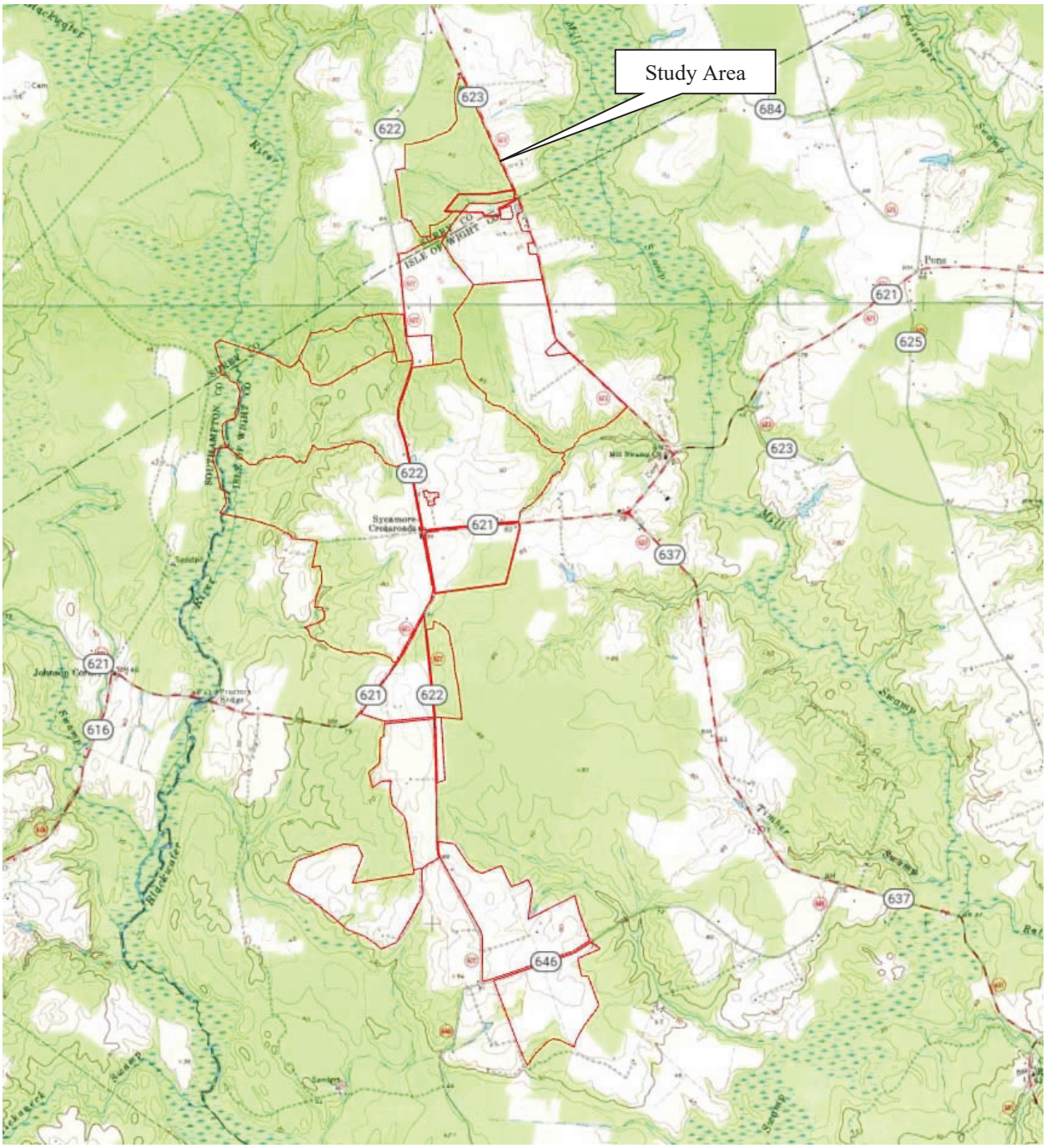


Figure 5-7: Detail of the 1968 and 1971 topographic maps, *Raynor* and *Runnymeade*, depicting the primary study area parcel cluster. Source: USGS

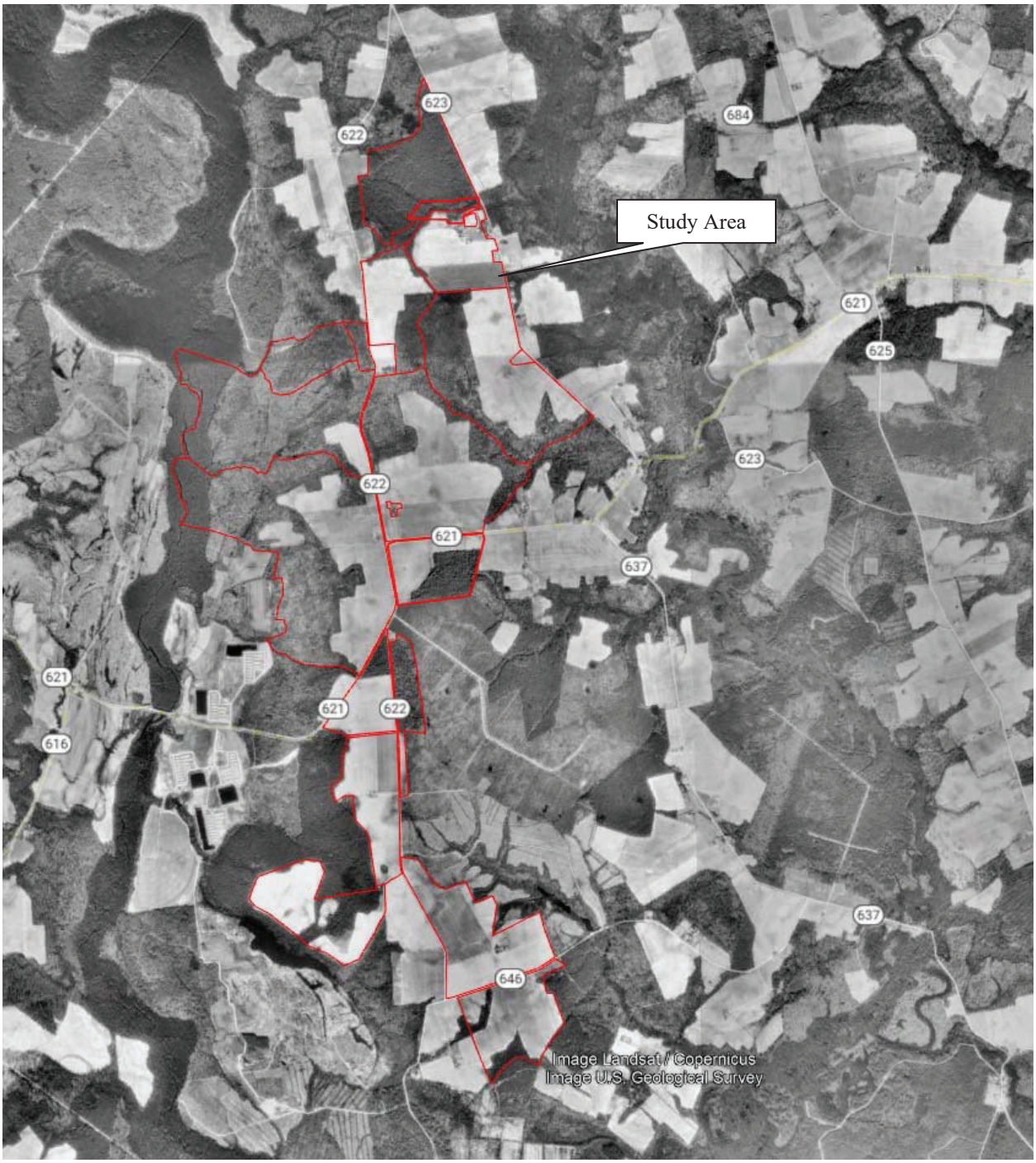


Figure 5-8: Detail of a 1990 aerial depicting the primary study area parcel cluster. Source: Google Earth

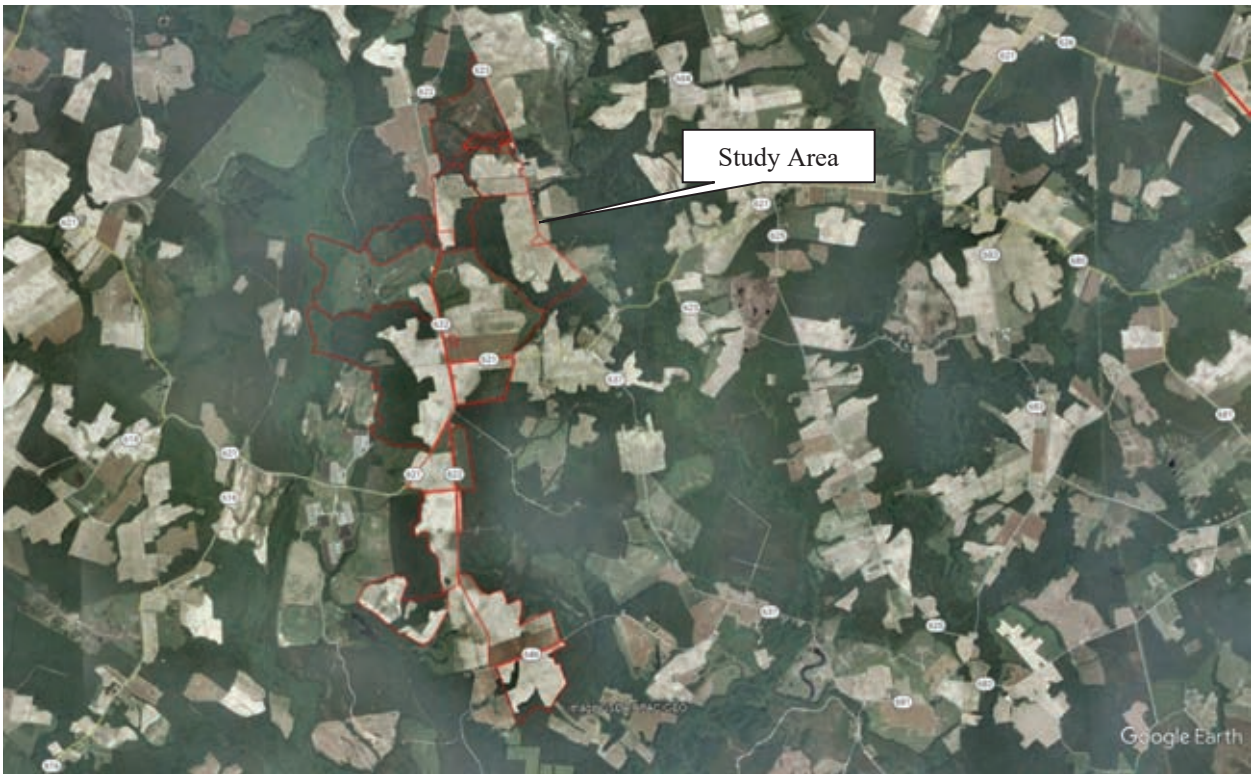


Figure 5-9: Detail of a 2003 aerial depicting the study area. Source: Google Earth

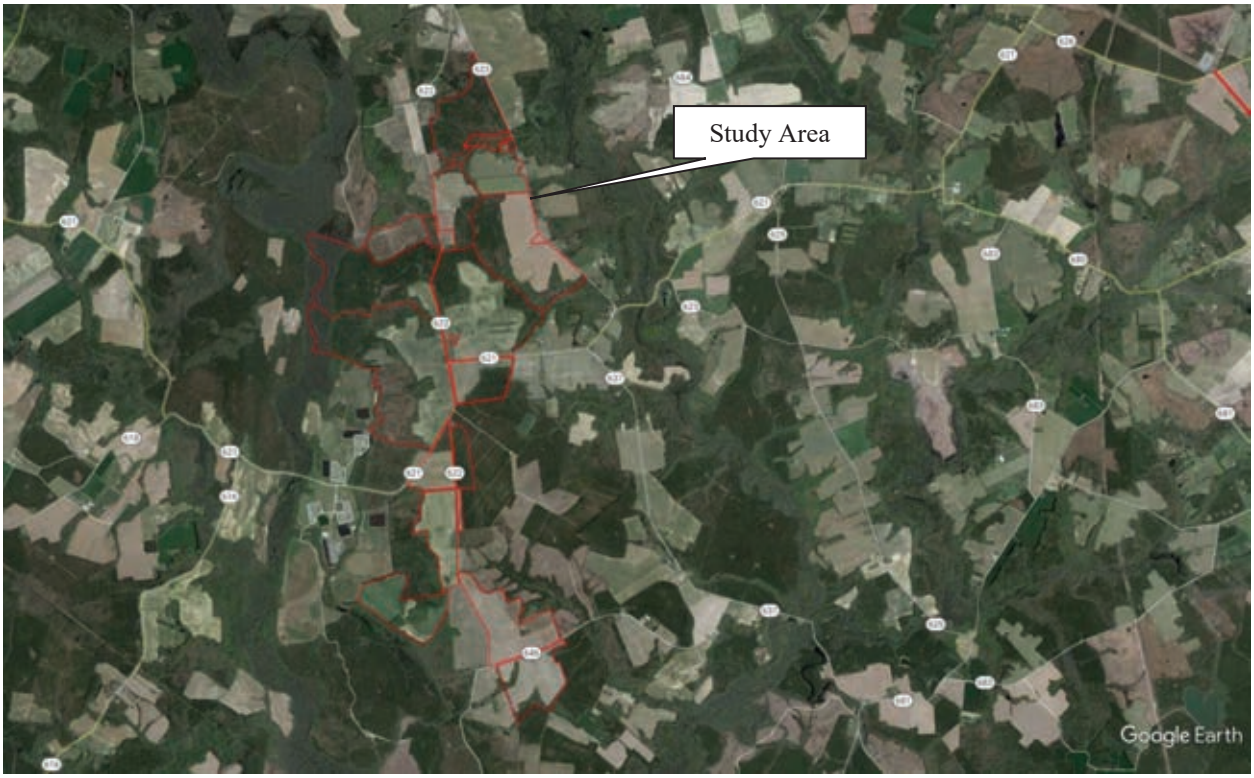


Figure 5-10: Detail of a 2017 aerial depicting the study area. Source: Google Earth

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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).

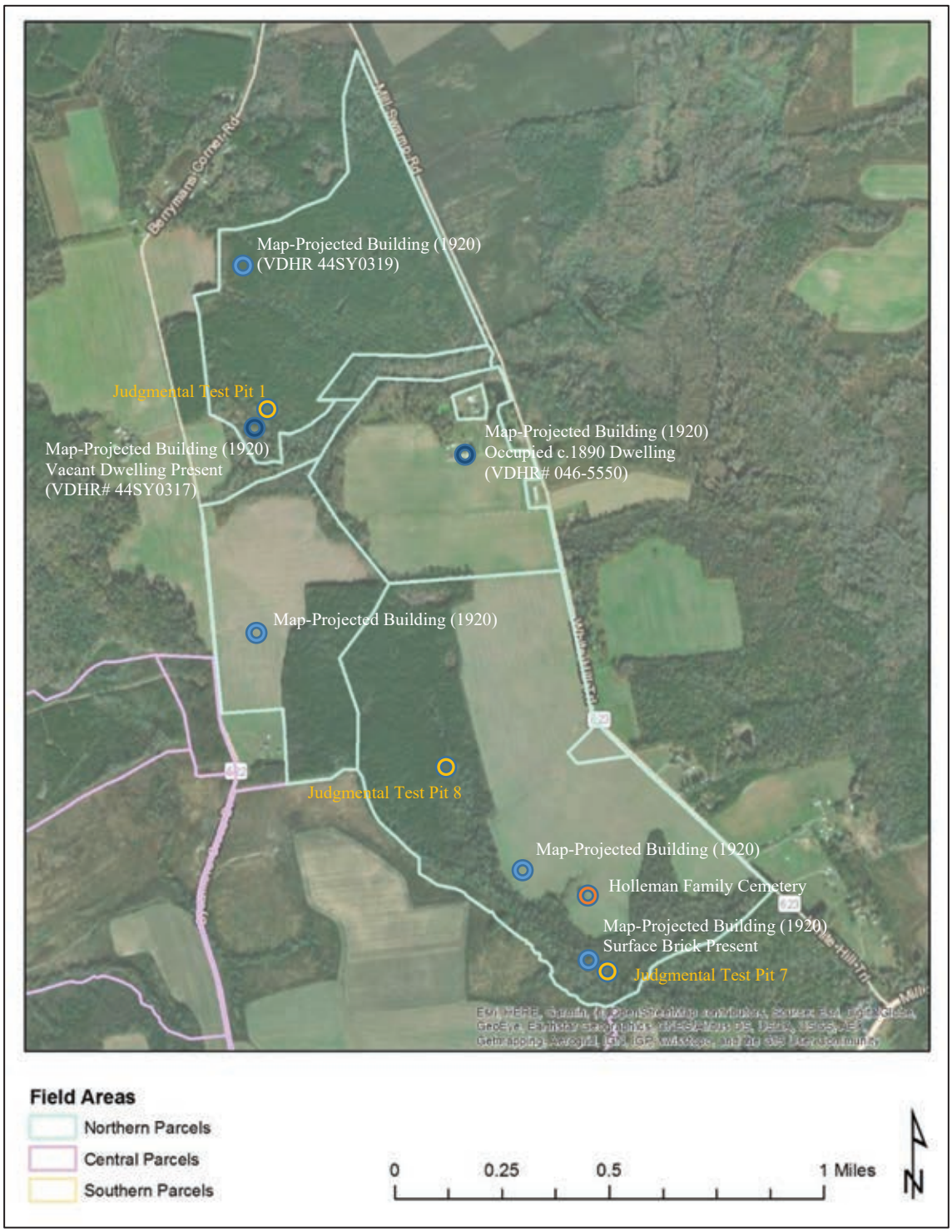


Figure 6-2: Northern parcels map.

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.



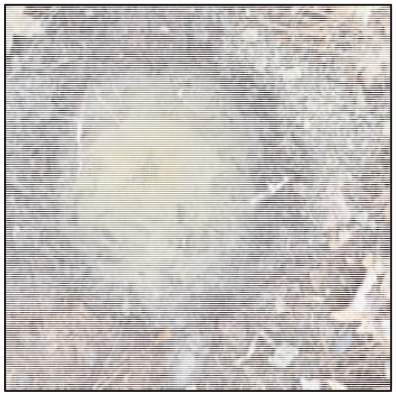
Figure 6-9: Brick on surface in the vicinity of a 1920 map projected building

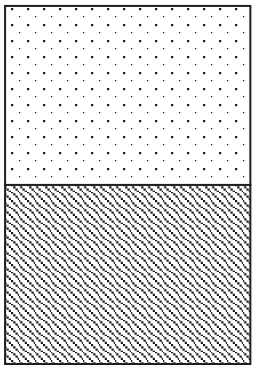


Figure 6-10: Headstone within family cemetery, looking east.

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.





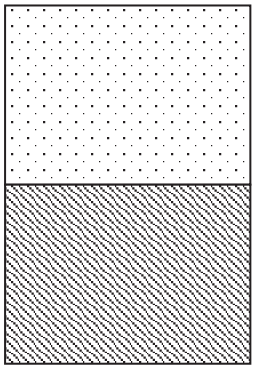
2.5Y 5/4 silty clay loam
0-33 cm

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).

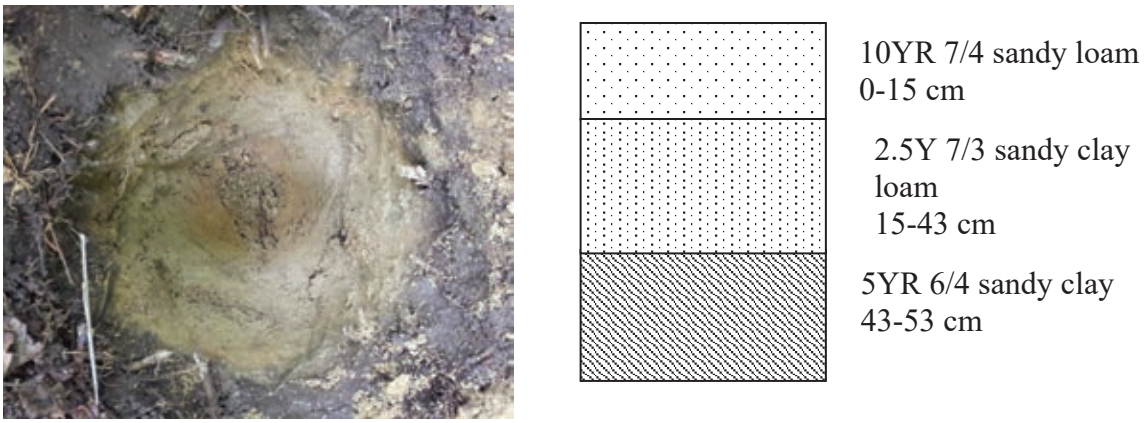


Figure 6-13: Soil profile of Judgmental 7.

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).



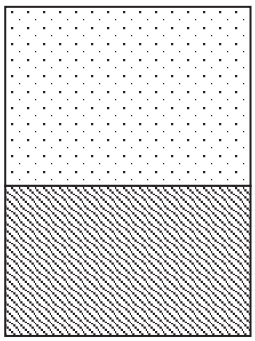


Figure 6-33: Soil Profile of Judgmental 5.



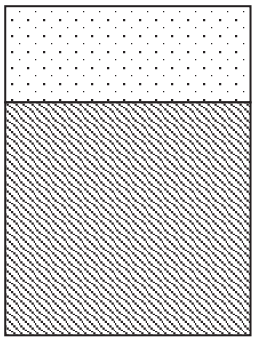
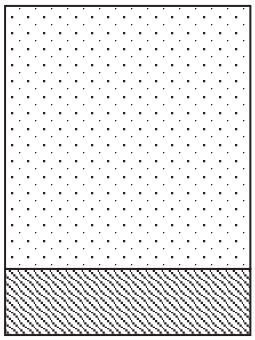


Figure 6-34: Soil Profile of Judgmental 4.





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).

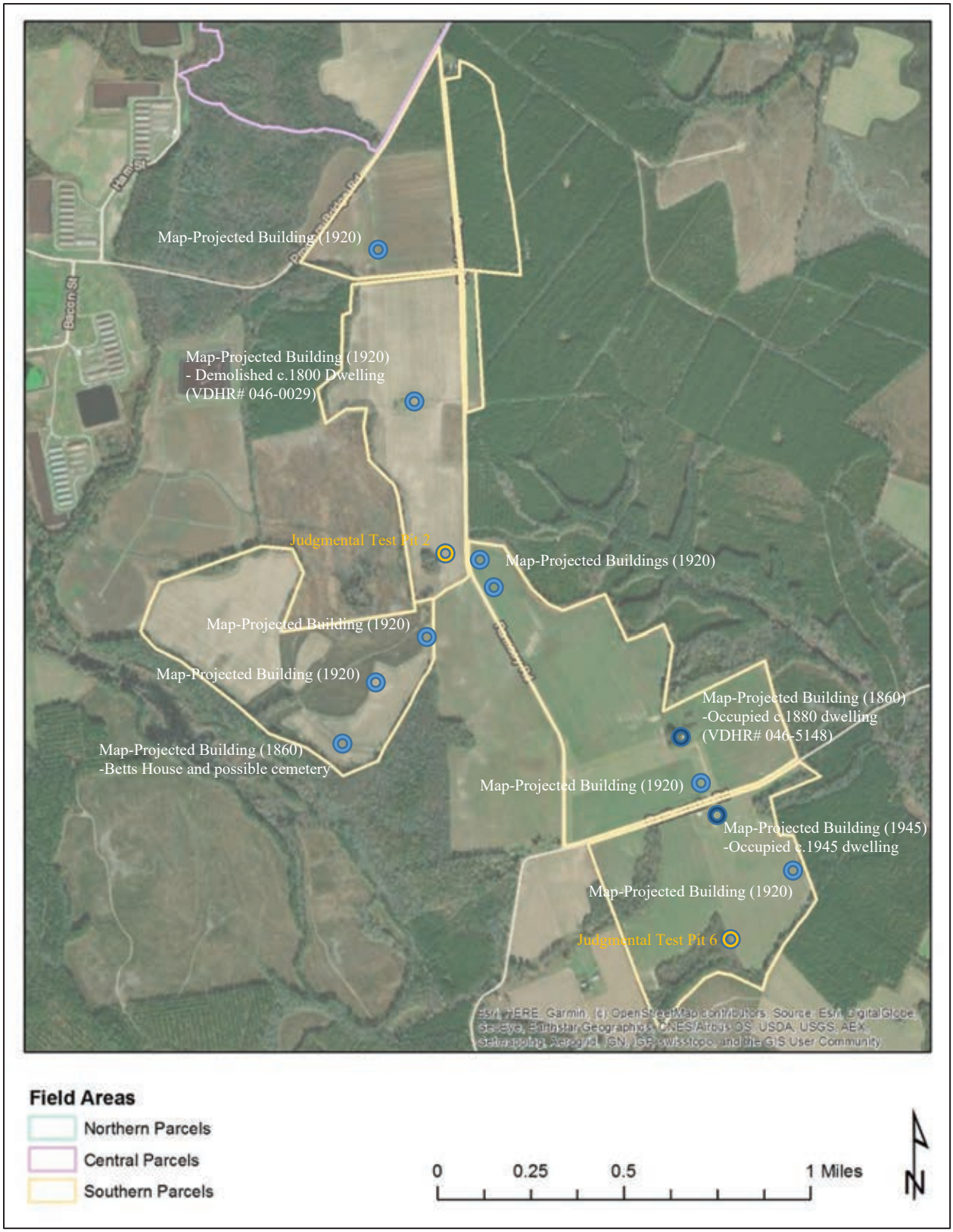


Figure 6-36: Southern parcels map.

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).

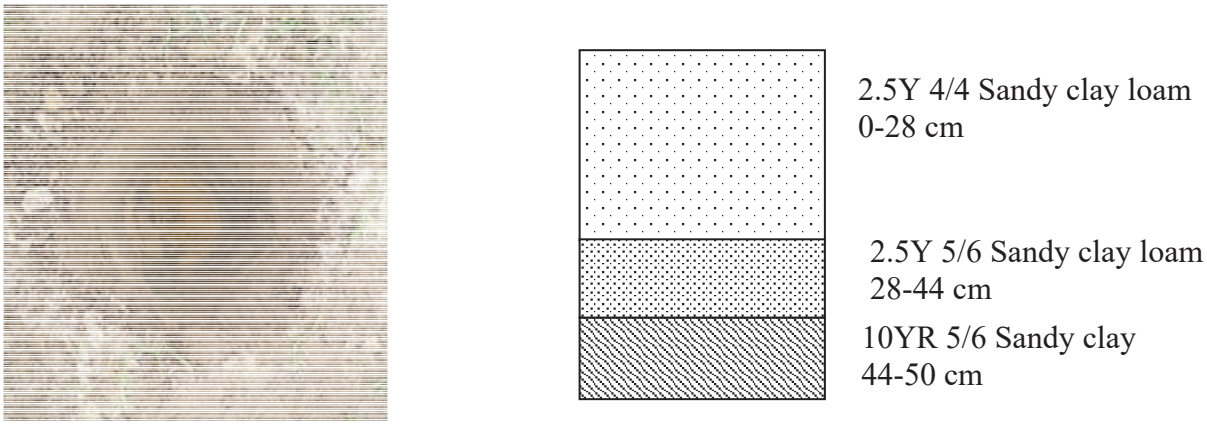
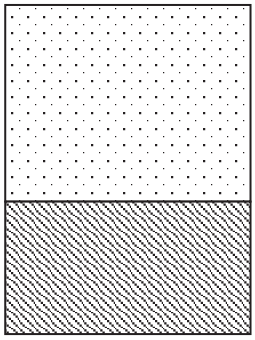


Figure 6-50: Soil Profile of Judgmental 2.





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 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**

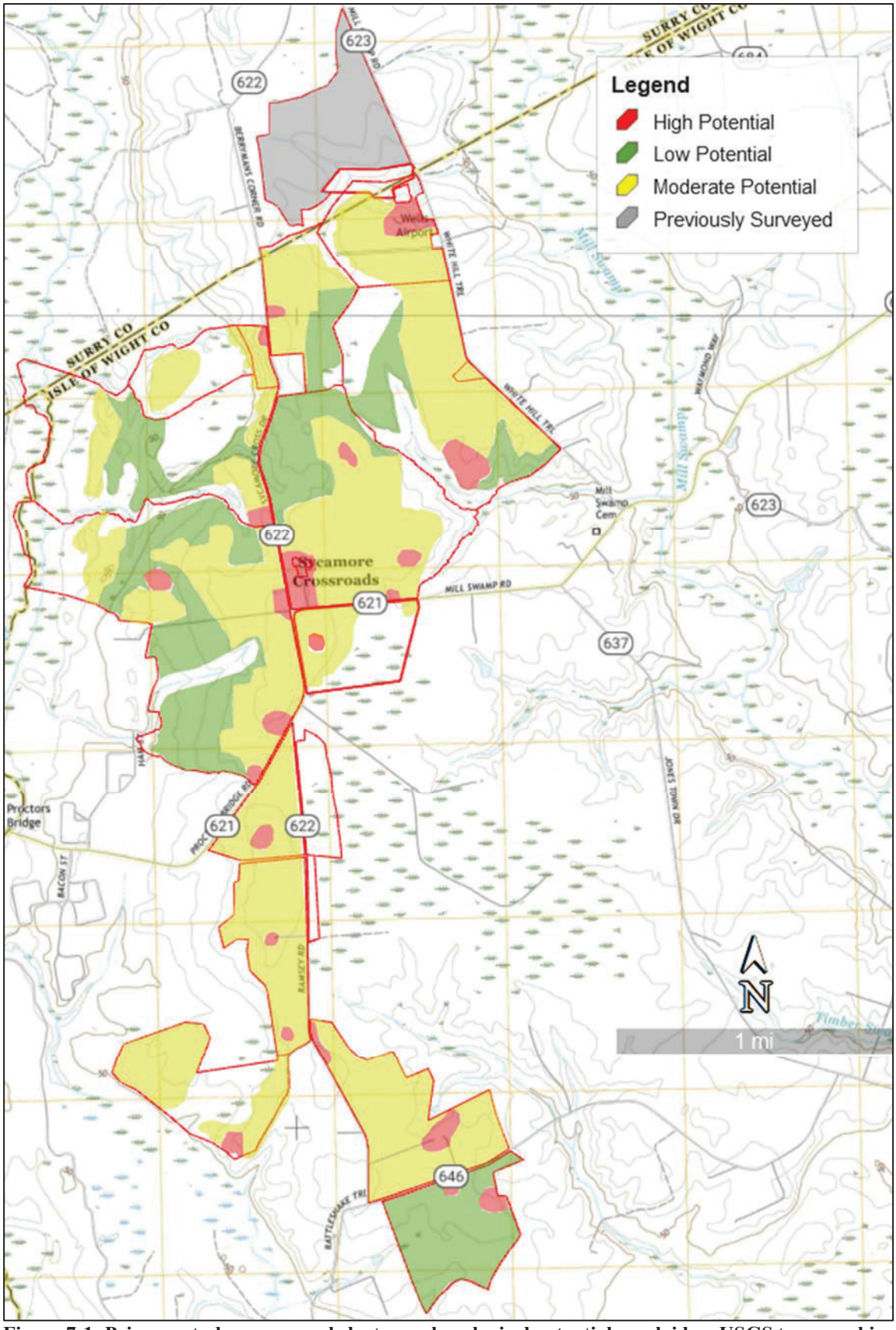


Figure 7-1: Primary study area parcel cluster archaeological potential overlaid on USGS topographic map.

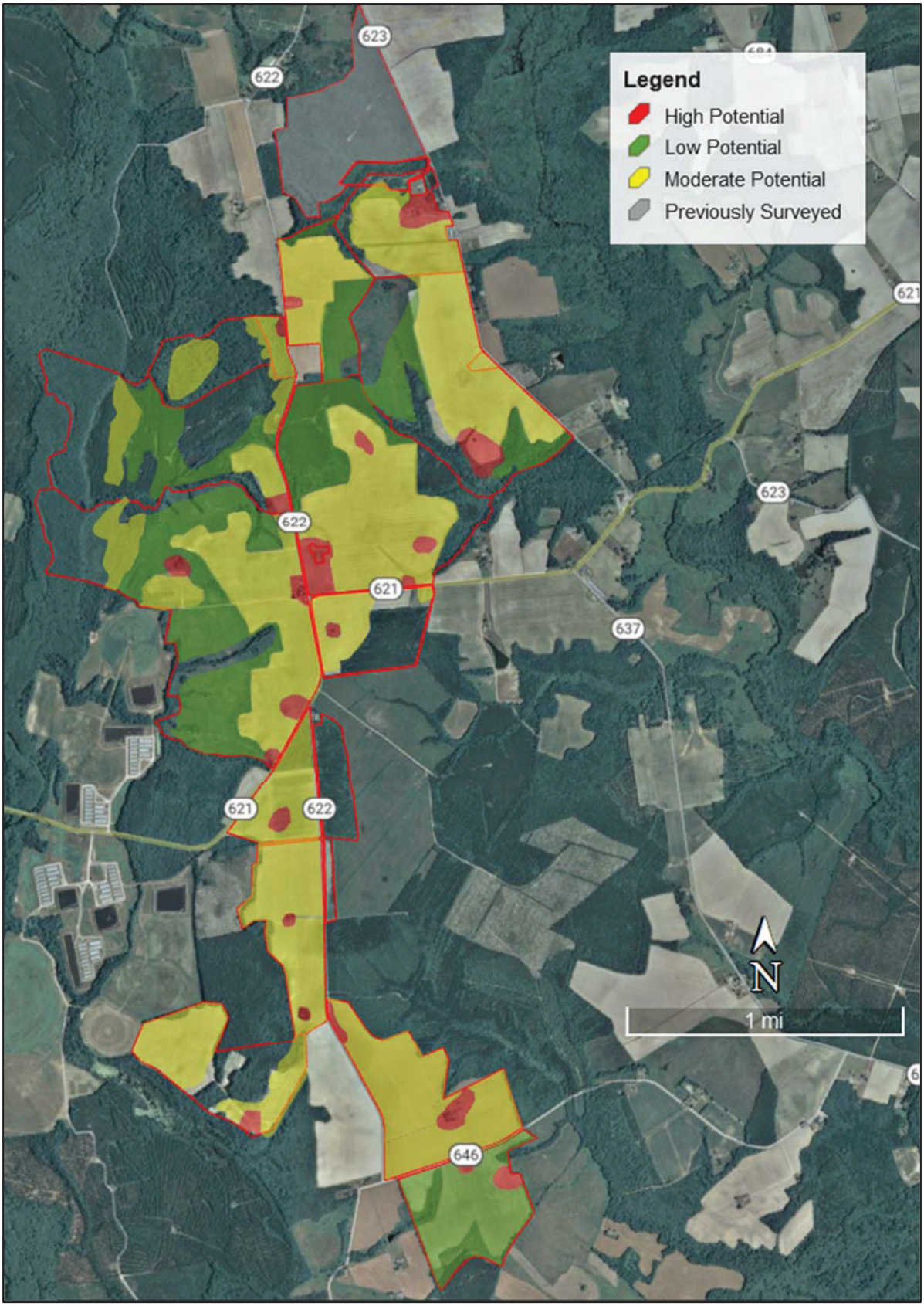


Figure 7-2: Primary study area parcel cluster archaeological potential overlaid on aerial photography.

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
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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

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.

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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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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.

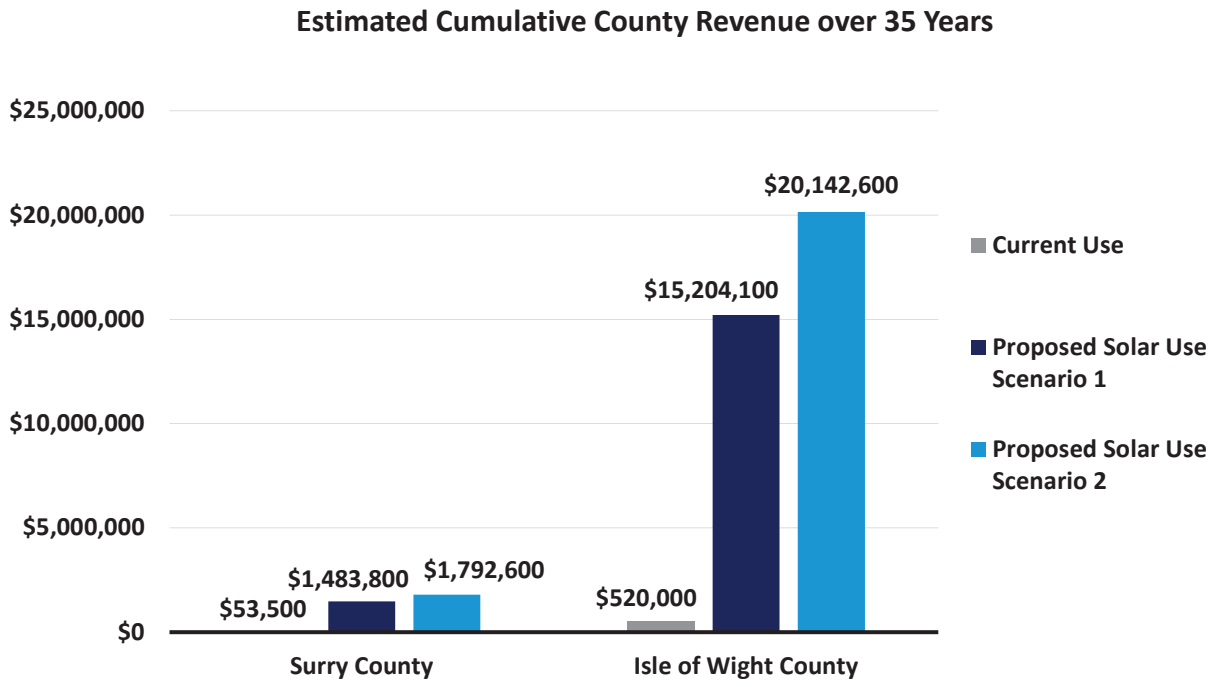
3) **The proposed Sycamore Cross Solar project would also make a significant fiscal contribution to the counties of Surry and Isle of Wight. The proposed project would generate approximately:**
    - $1.4 million in state and local tax revenue from the one-time pulse of economic activity associated with 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.

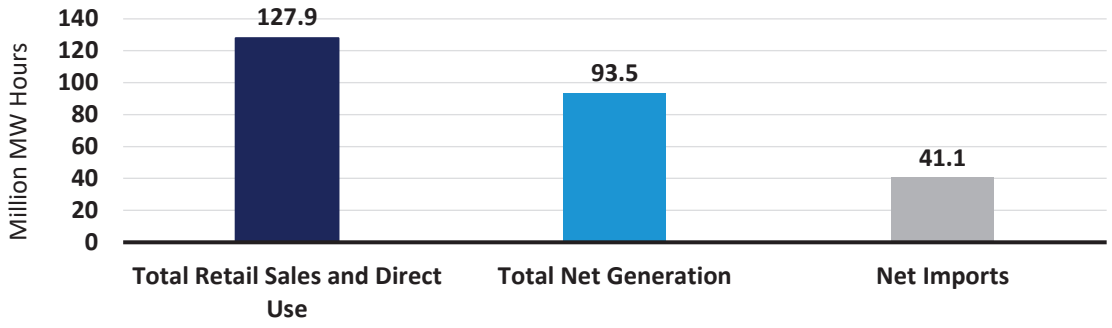
Electricity Production in Virginia

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]



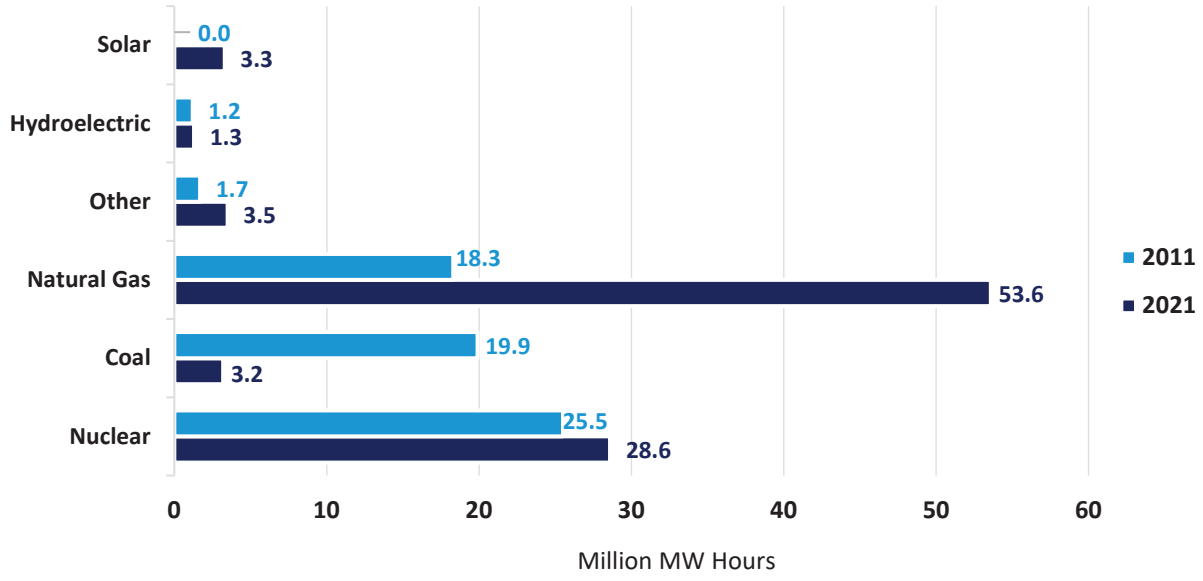
[2] Data Source: U.S. Energy Information Administration. In this chart, "Net Imports" also takes into account losses during transmission. As a result, it does not directly equal the residual of "Total Net Generation" minus "Total Retail Sales and Direct Use."

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.

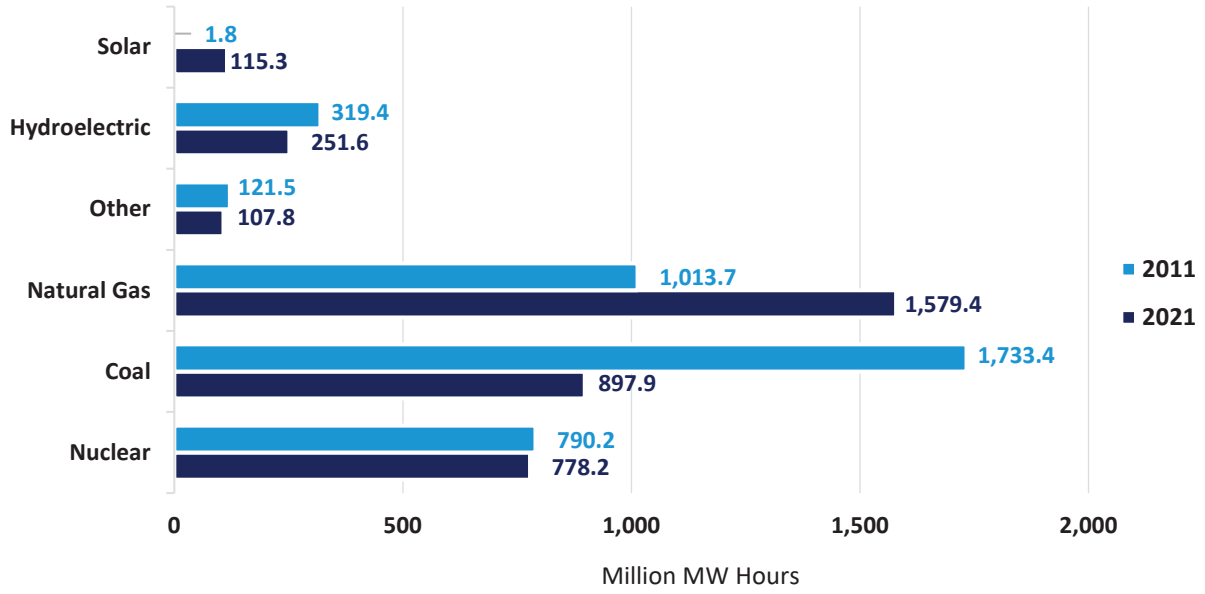
Figure 2: Electricity Generation in Virginia by Energy Source in 2011 and 2021 (in millions of megawatt-hours)[4]



[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]

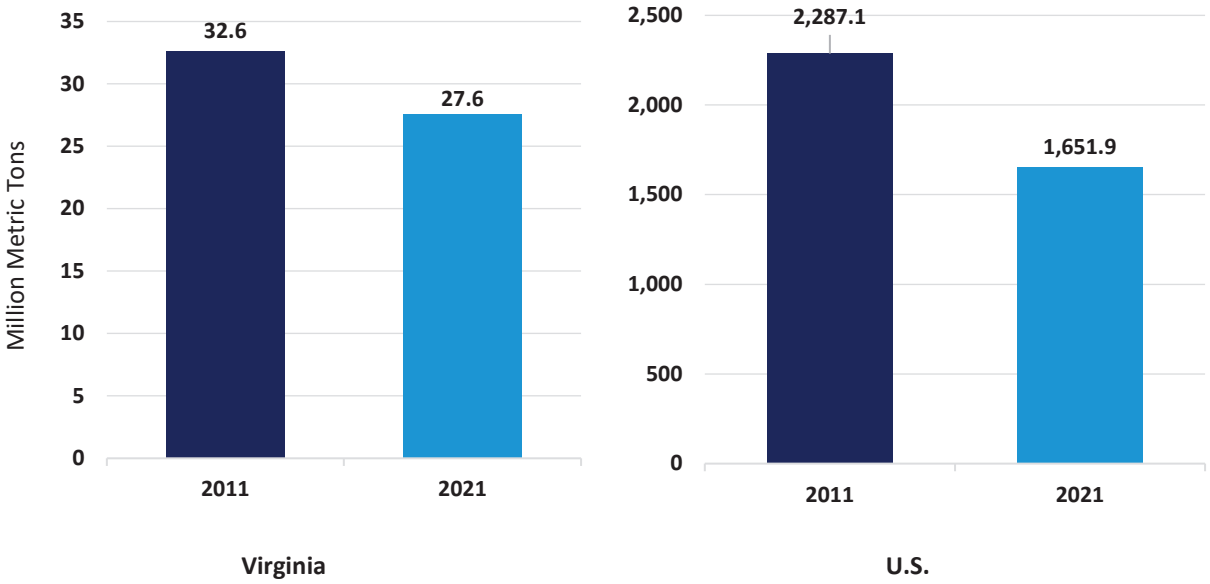


Impact on the Environment

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.

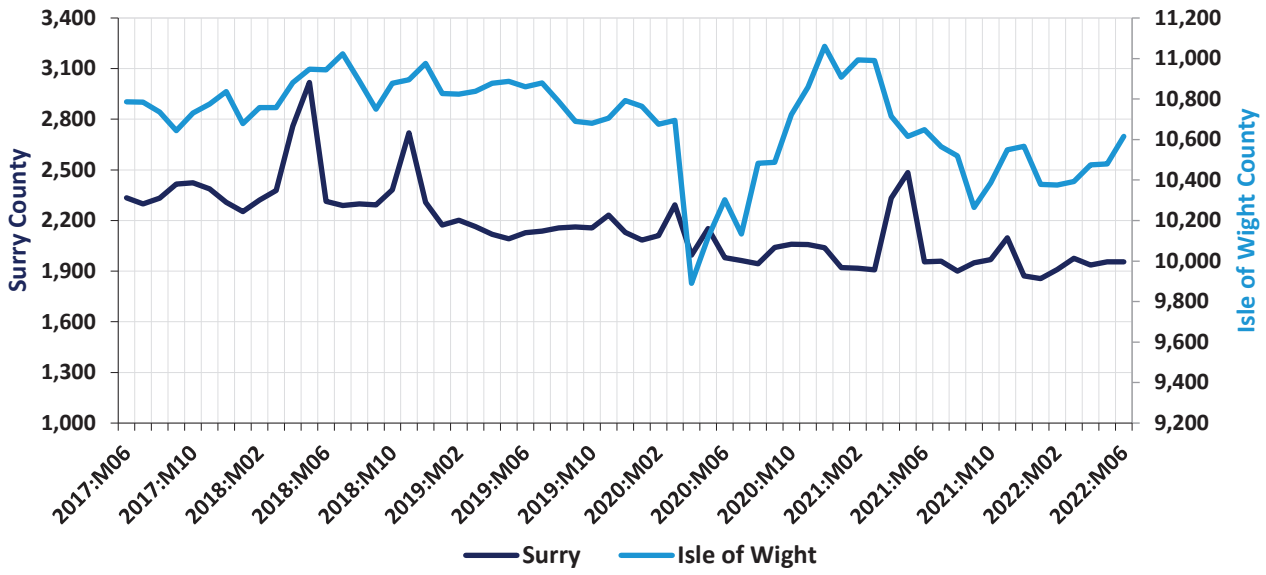
Local Economic Profile

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]

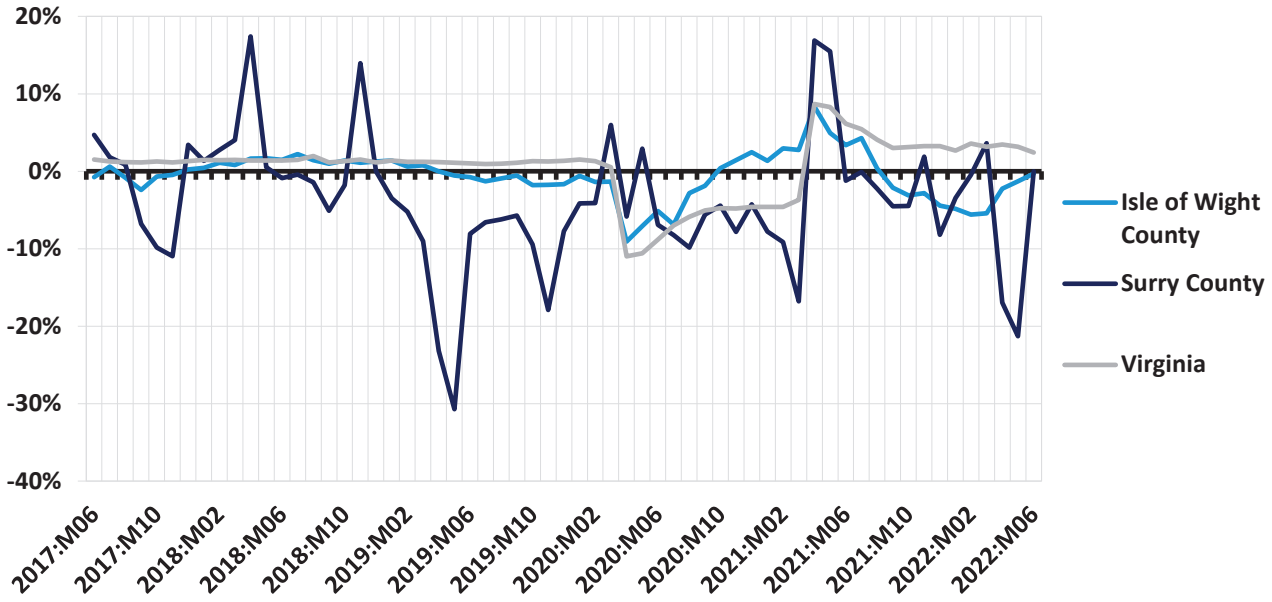


To control for seasonality and provide a point of reference, Figure 6 compares the year-over-year change in total employment in the counties of Surry and Isle of Wight to that of the state of Virginia over the same five-year period. Any point above the zero line in this graph indicates an increase in 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]

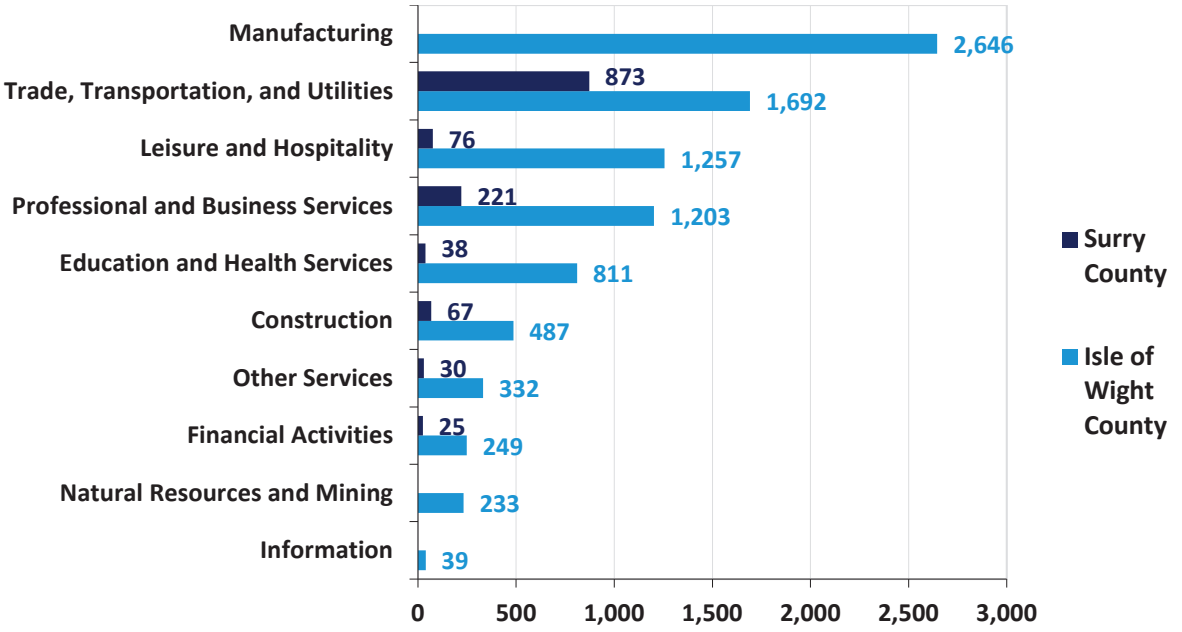
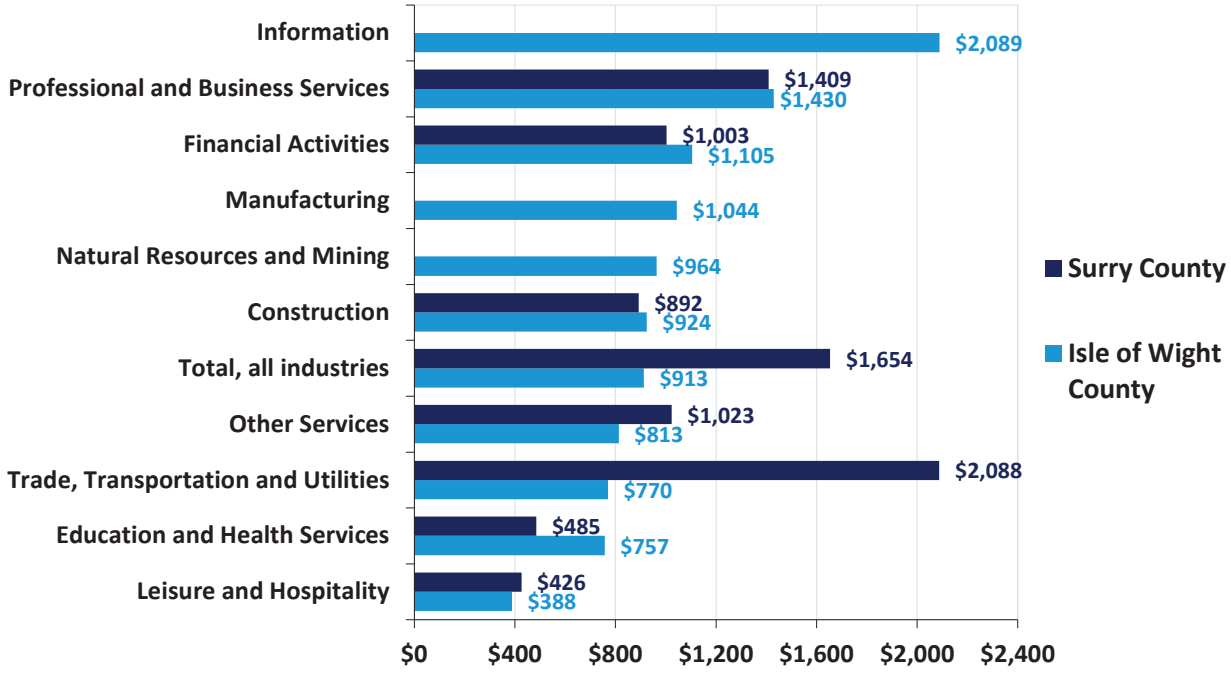


Figure 8: Average Private Weekly Wages by Industry Supersector in the Counties of Surry and Isle of Wight – 2nd Qu. 2022[12]

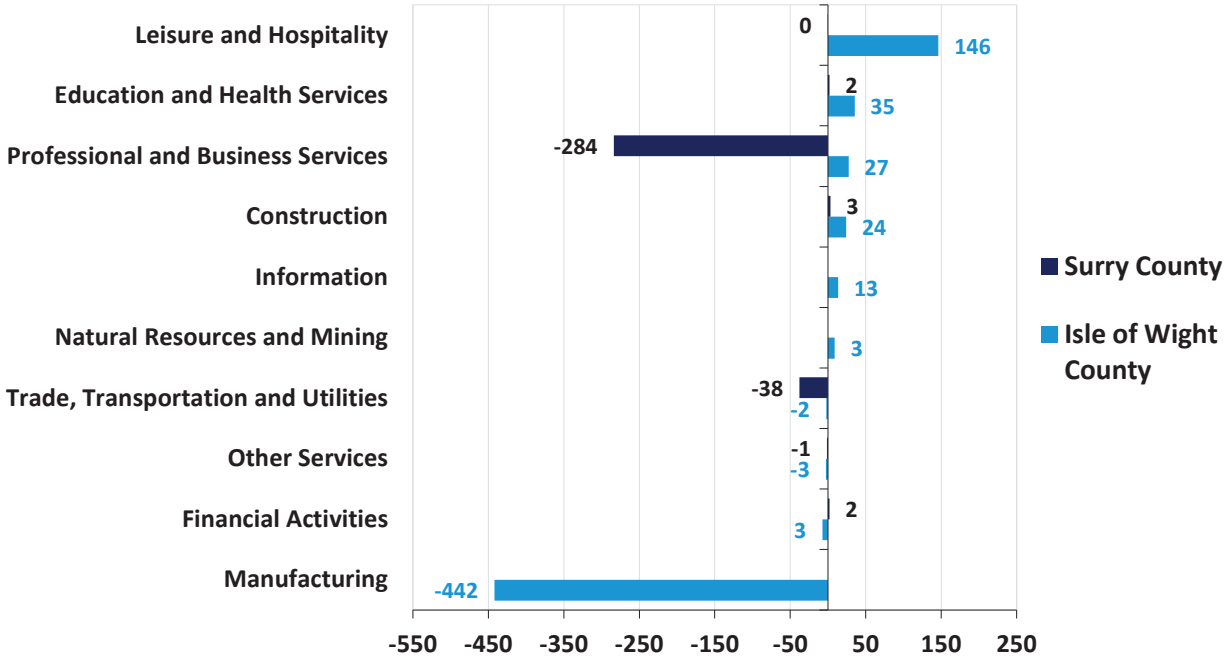


[11] Data Source: U.S. Bureau of Labor Statistics. Data on the Natural Resources and Mining, Manufacturing, and Information sectors in Surry County have been suppressed due to data confidentiality.

[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]

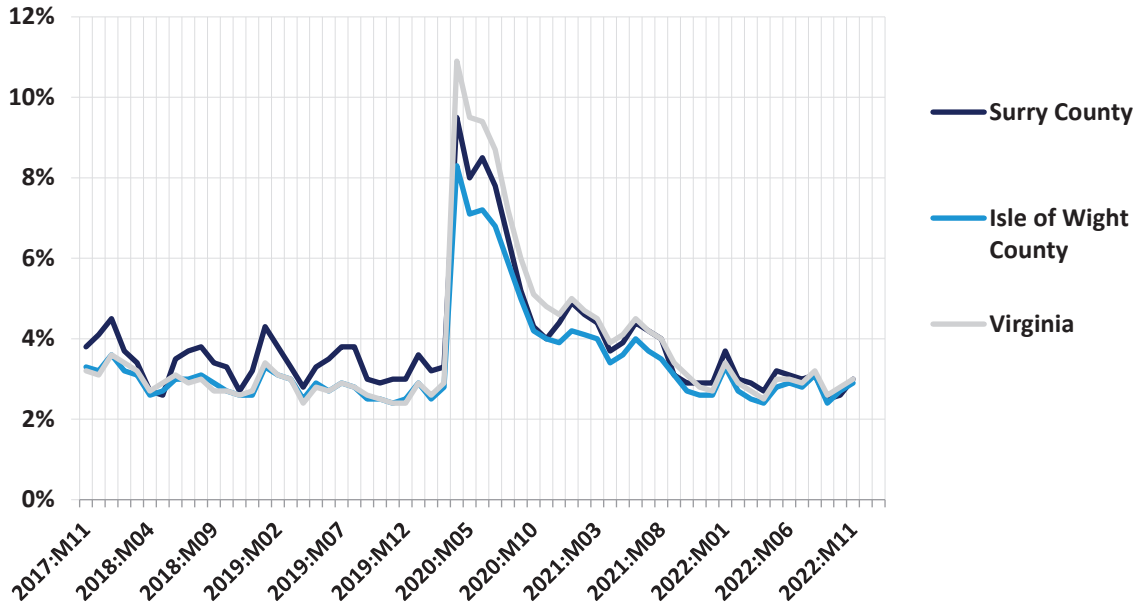


Unemployment

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 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% 0.00%	71	Approved 7/23/2023
Prairie Solar	152	152	0.12%	Longview	0.19% 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

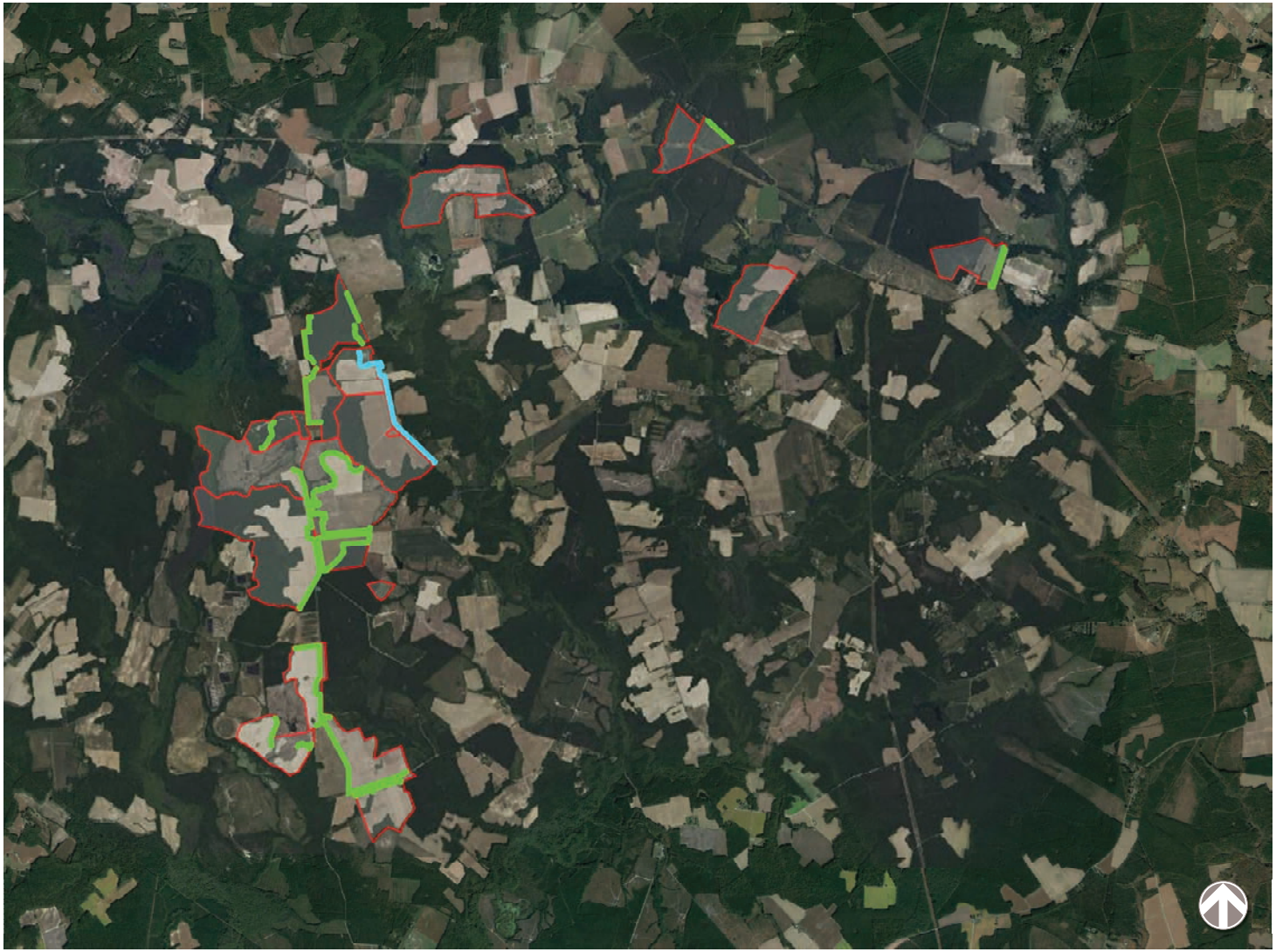
SYCAMORE CROSS SOLAR PROJECT

Isle of Wight and Surry Counties, Virginia

CONCEPTUAL LANDSCAPE

FEBRUARY 2024

LANDSCAPE SCREENING BY ZONE



LEGEND

FRONTAGE ZONE

BUFFER ZONE

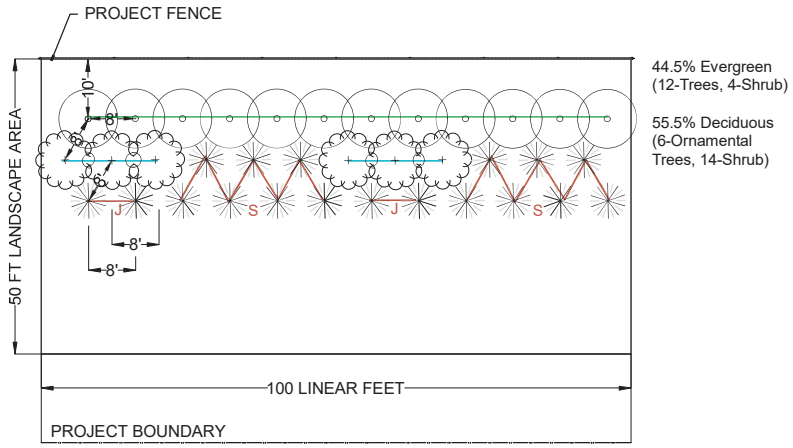
SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

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

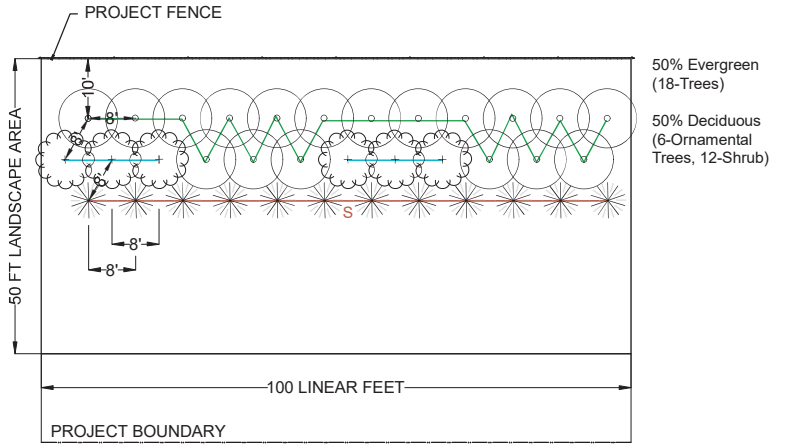


44.5% Evergreen (12-Trees, 4-Shrub)

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

S

SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

SYCAMORE CROSS SOLAR FACILITY

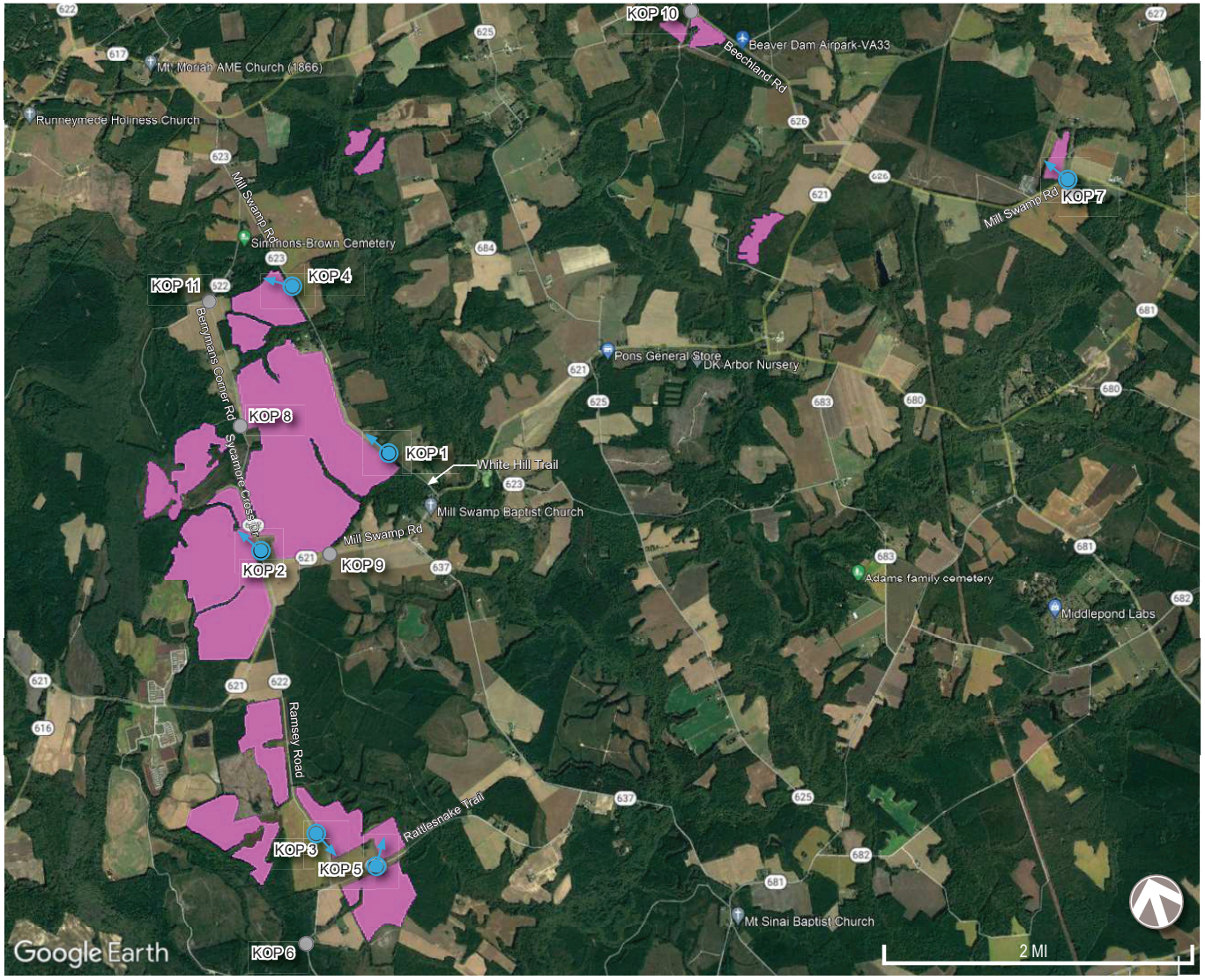
LANDSCAPE SCREENING - PLANT SCHEMATICS AND CONCEPTUAL PLANT LISTS

SYCAMORE CROSS SOLAR PROJECT

Isle of Wight and Surry Counties, Virginia

PHOTO SIMULATIONS

APRIL 2024

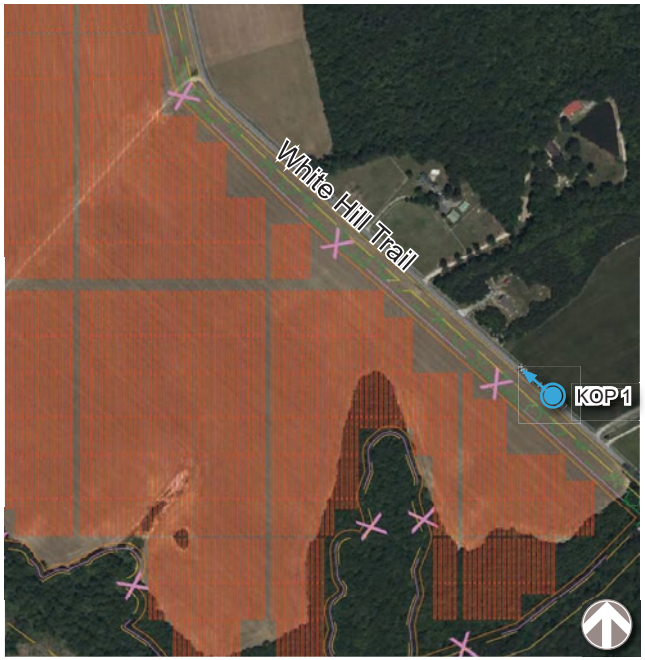


LEGEND

- 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

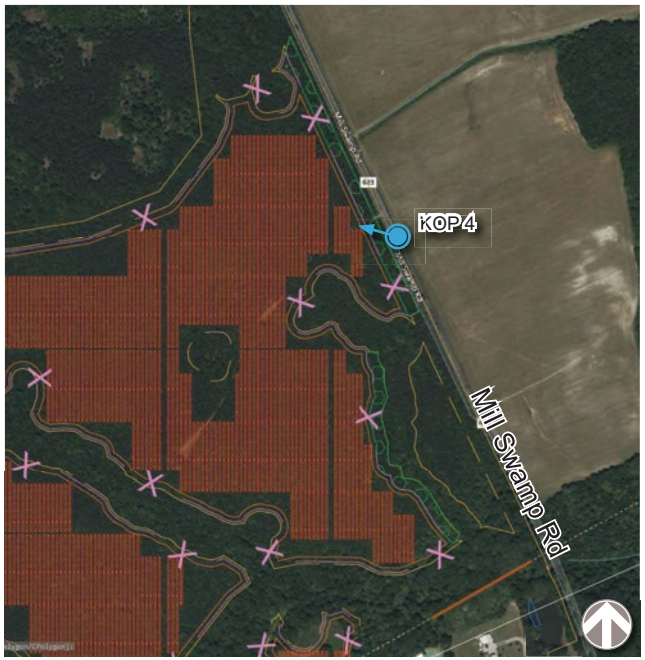
LEGEND

- PV Area
- Panels
- Fenceline
- Vegetative Buffer Area

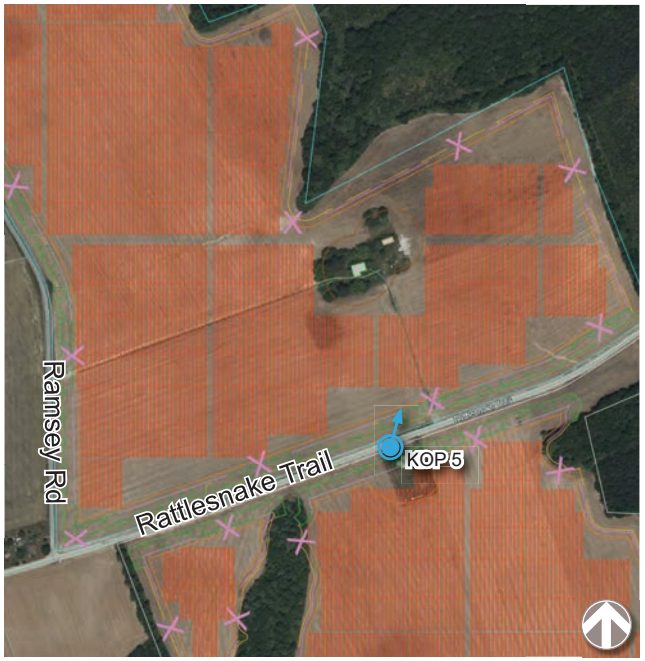
PHOTO LOCATION
& VIEWING DIRECTION

SYCAMORE CROSS SOLAR FACILITY

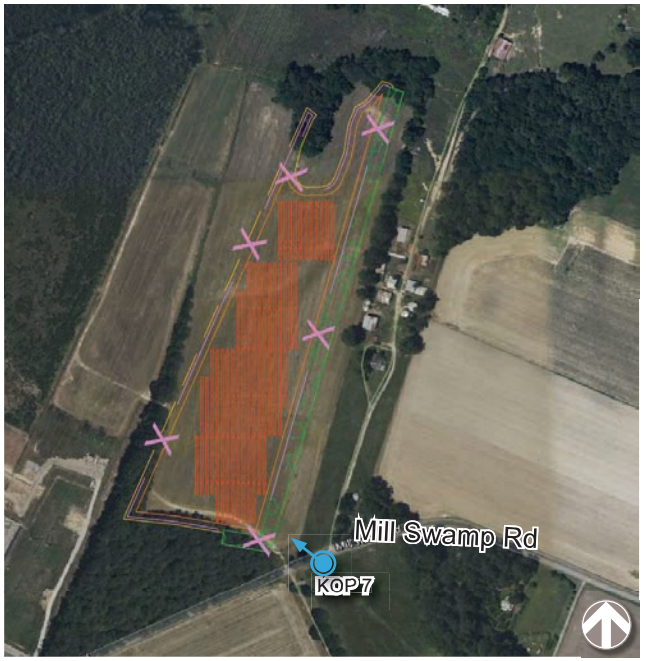
LANDSCAPE BUFFER VISUALIZATION - PHOTO LOCATIONS



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

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 2: Sycamore Cross Dr

PHOTO SIMULATION





VICINITY MAP

LEGEND

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

PHOTOGRAPH INFORMATION

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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 3: Ramsey Rd

PHOTO SIMULATION





VICINITY MAP

LEGEND

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

PHOTOGRAPH INFORMATION

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SYCAMORE CROSS SOLAR PROJECT

KOP 3: Ramsey Rd

PHOTO SIMULATION





VICINITY MAP

LEGEND

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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

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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
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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

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PHOTOGRAPH INFORMATION

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SYCAMORE CROSS SOLAR PROJECT

KOP 5: Rattlesnake Trail

PHOTO SIMULATION





VICINITY MAP

LEGEND

- PHOTO SIMULATION LOCATION
- PROJECT AREA
- KOP LOCATION

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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
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SYCAMORE CROSS SOLAR PROJECT

KOP 7: Mill Swamp Rd

PHOTO SIMULATION





VICINITY MAP

LEGEND

- PHOTO SIMULATION LOCATION
- PROJECT AREA
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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

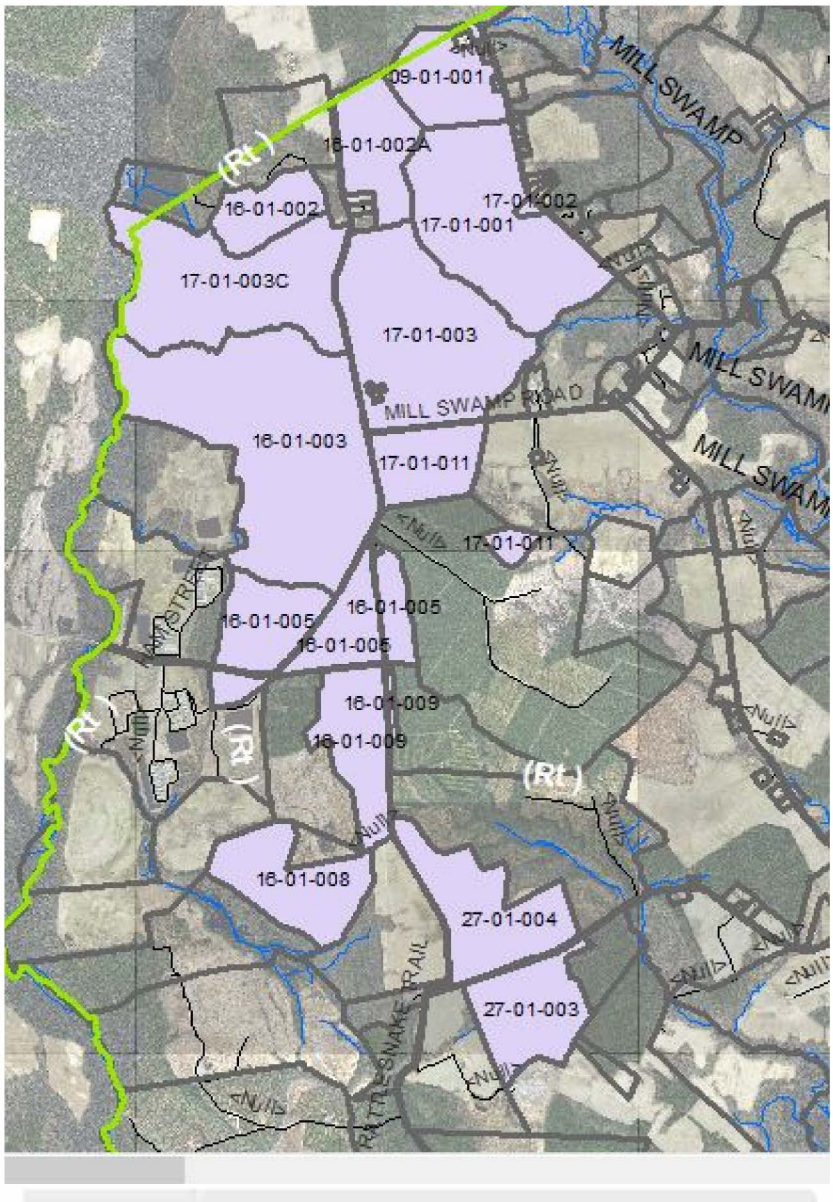

09-01-001
MILL SWAMP
16-01-002A
(Rt.)
16-01-002
17-01-002
17-01-001
17-01-003C
17-01-003
MILL SWAMP ROAD
16-01-003
17-01-011
17-01-011
16-01-005
16-01-005
16-01-005
16-01-009
16-01-009
(Rt.)
16-01-008
27-01-004
27-01-003
RATTLESNAKE TRAIL

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.

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.

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

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.

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.

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.

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

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.

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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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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

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

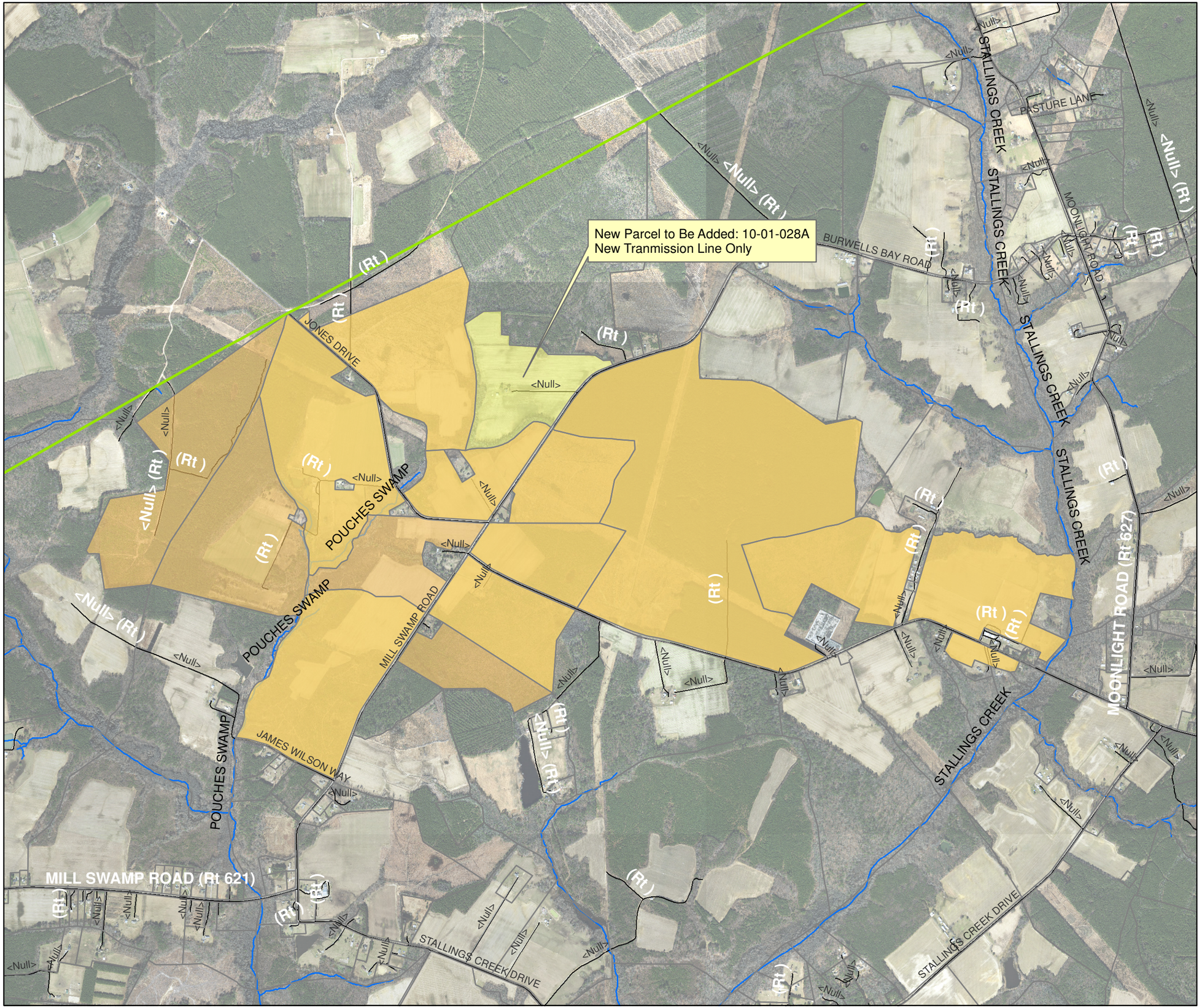
The operating period of the Project is anticipated to be approximately 35 years. At the end of the useful life of the Project, Sycamore Cross Solar, LLC, will be responsible for decommissioning the Project. Prior to final site plan approval, Sycamore Cross Solar, LLC will finalize and submit to the County 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

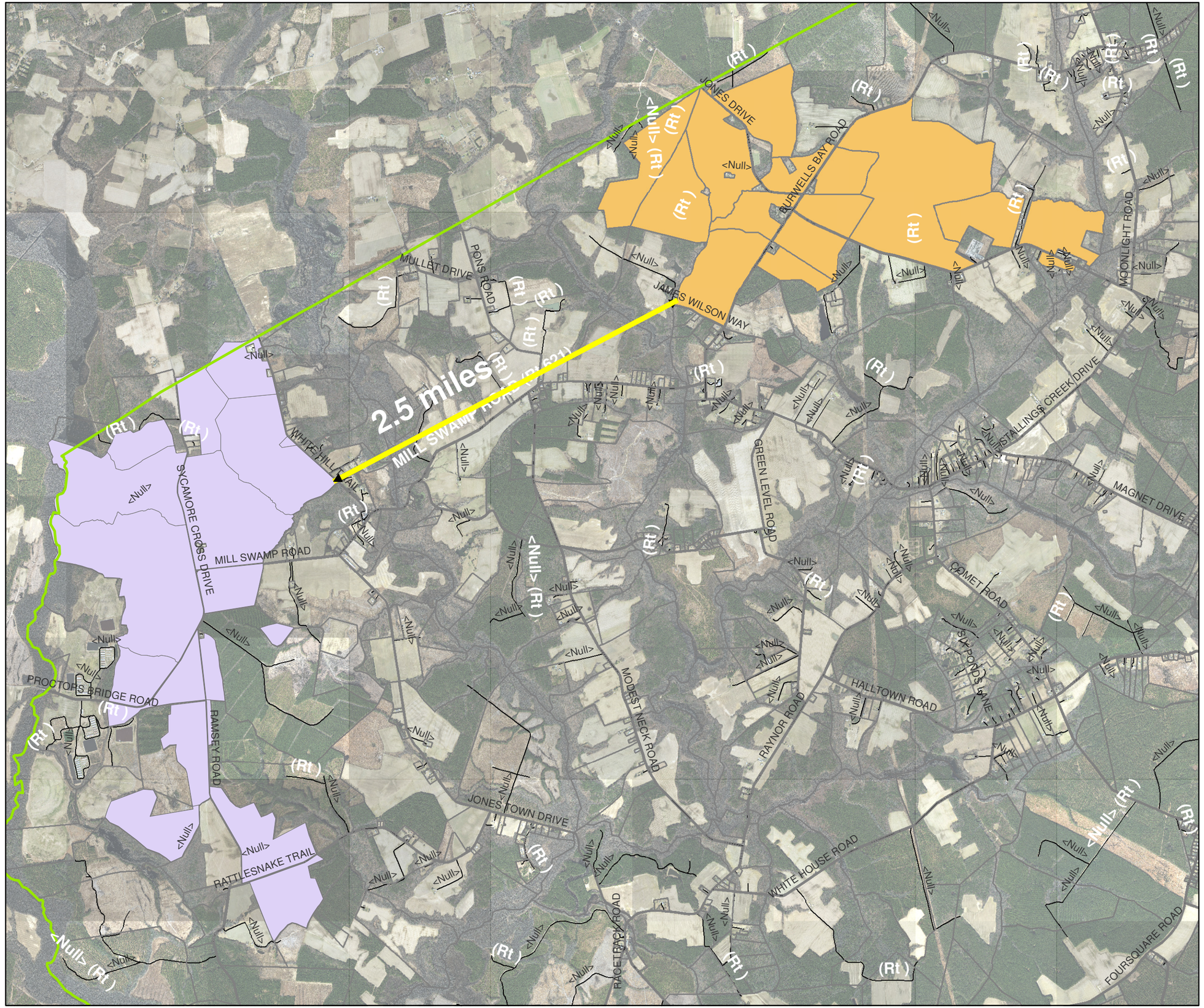
- Parcels
- Existing Cavalier Solar Parcels

N

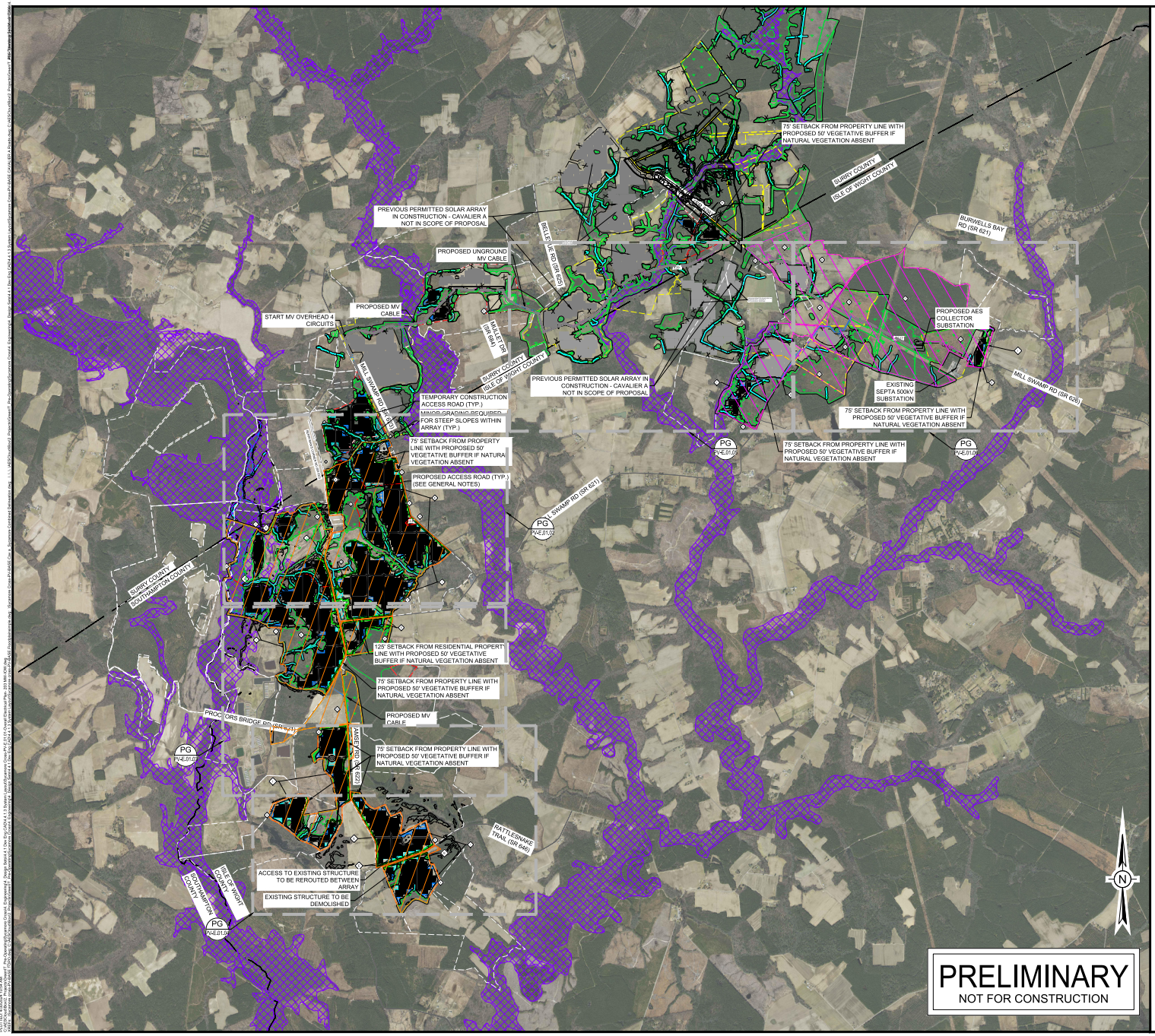


Legend

- 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

TETRA TECH
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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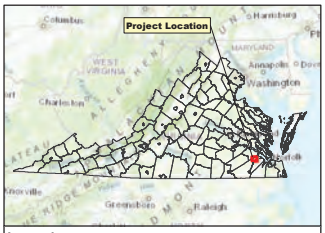
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FIGURES





Legend

- Project Study Area
- Outside Project Study Area
- County Boundary

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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

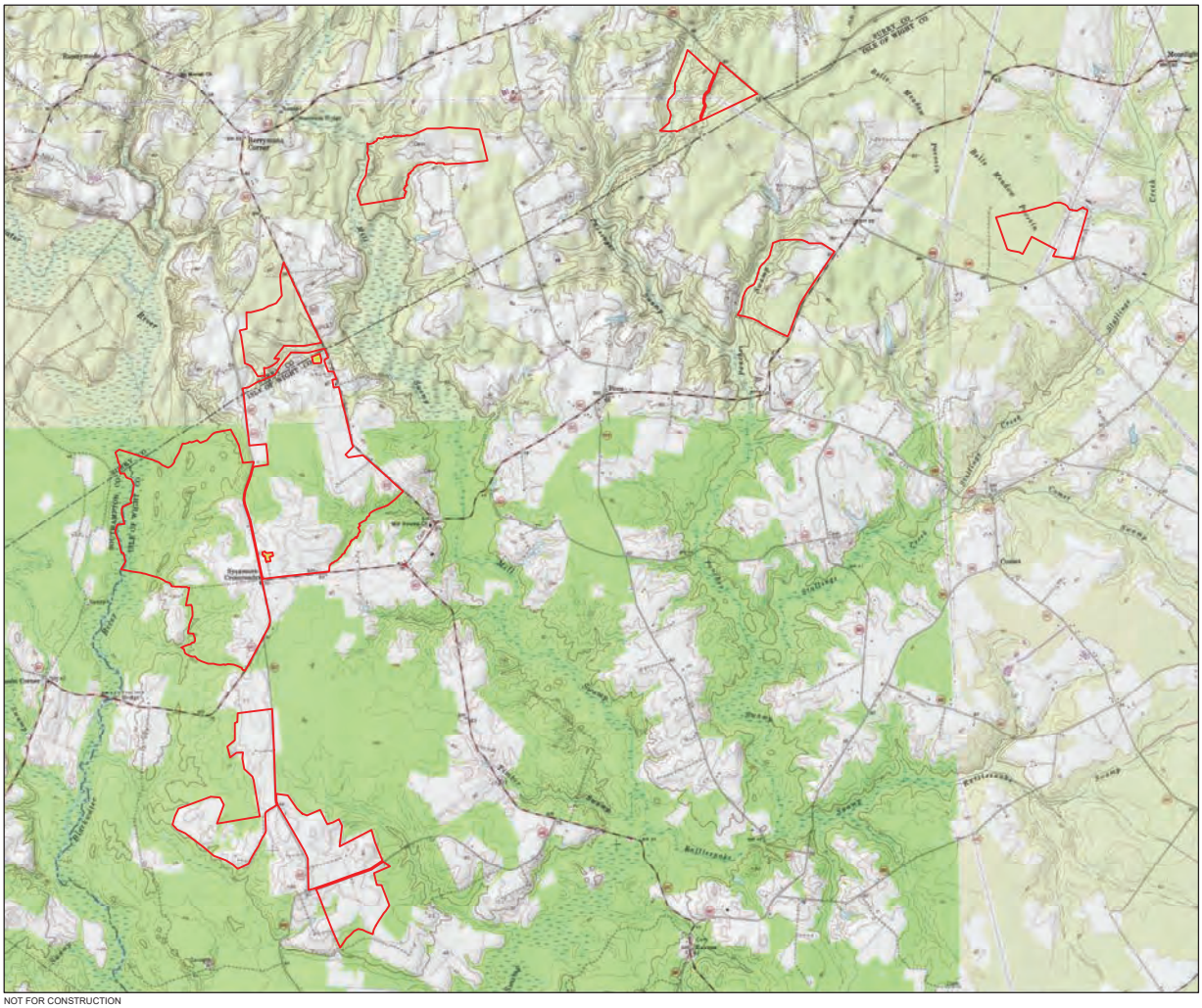
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Source: Esri, et. al., 2022; AES, 2022; Virginia Open Data Portal, 2022.

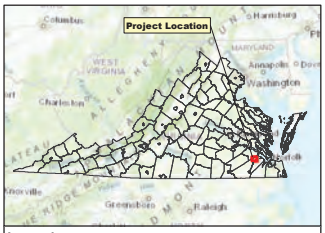
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NOT FOR CONSTRUCTION

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NOT FOR CONSTRUCTION



Legend

- Project Study Area
- Outside Project Study Area

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Figure 2
Topographic Project Location Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

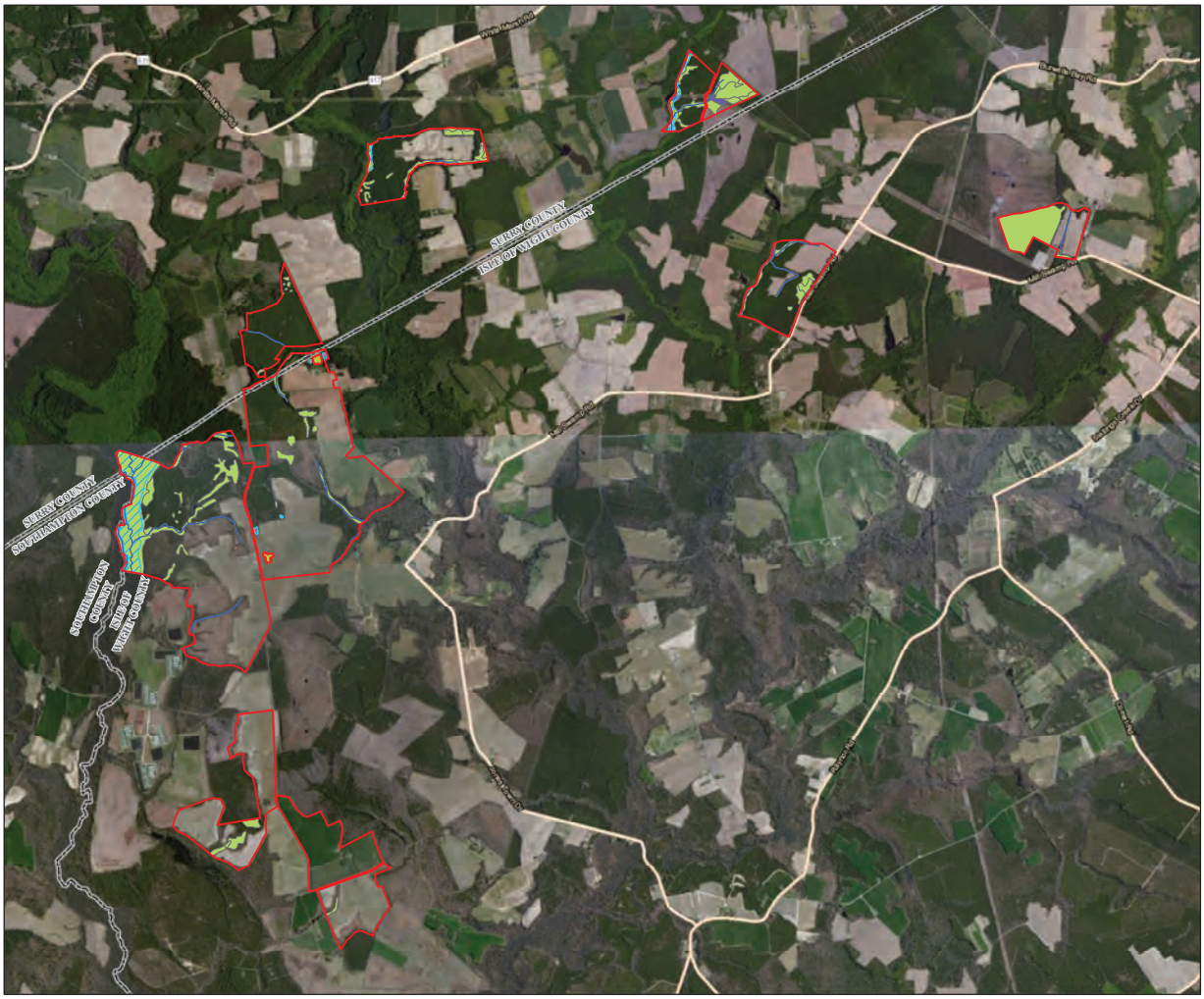
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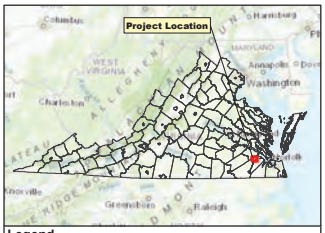
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Source: Esri, et. al., 2022; AES, 2022; Virginia Open Data Portal, 2022; USGS Topo Quads - Dendron, Runnymede, Ivor, Raynor, 2023.

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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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

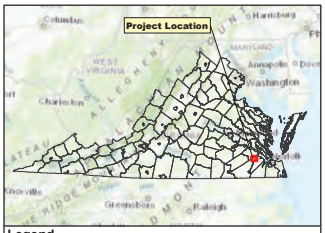
Source: Esri, et. al., 2022; AES, 2022; NHD, 2022; NWI; 2022; Virginia Open Data Portal, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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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

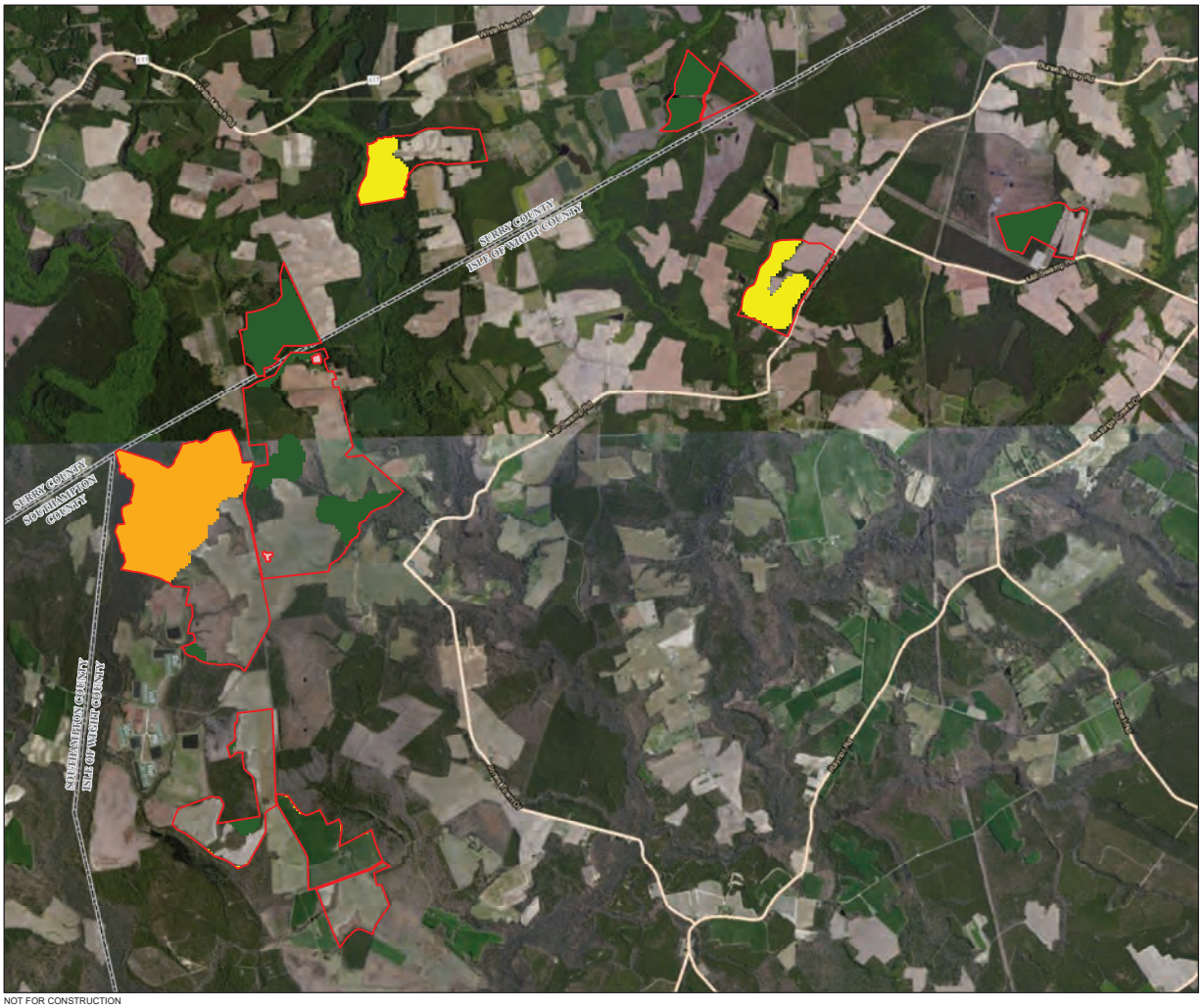
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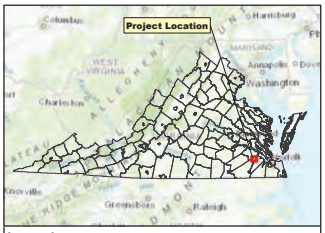
Source: Esri, et. al., 2022; AES, 2022; VDCR, 2020.

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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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Figure 5
VDCR Ecological Cores Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

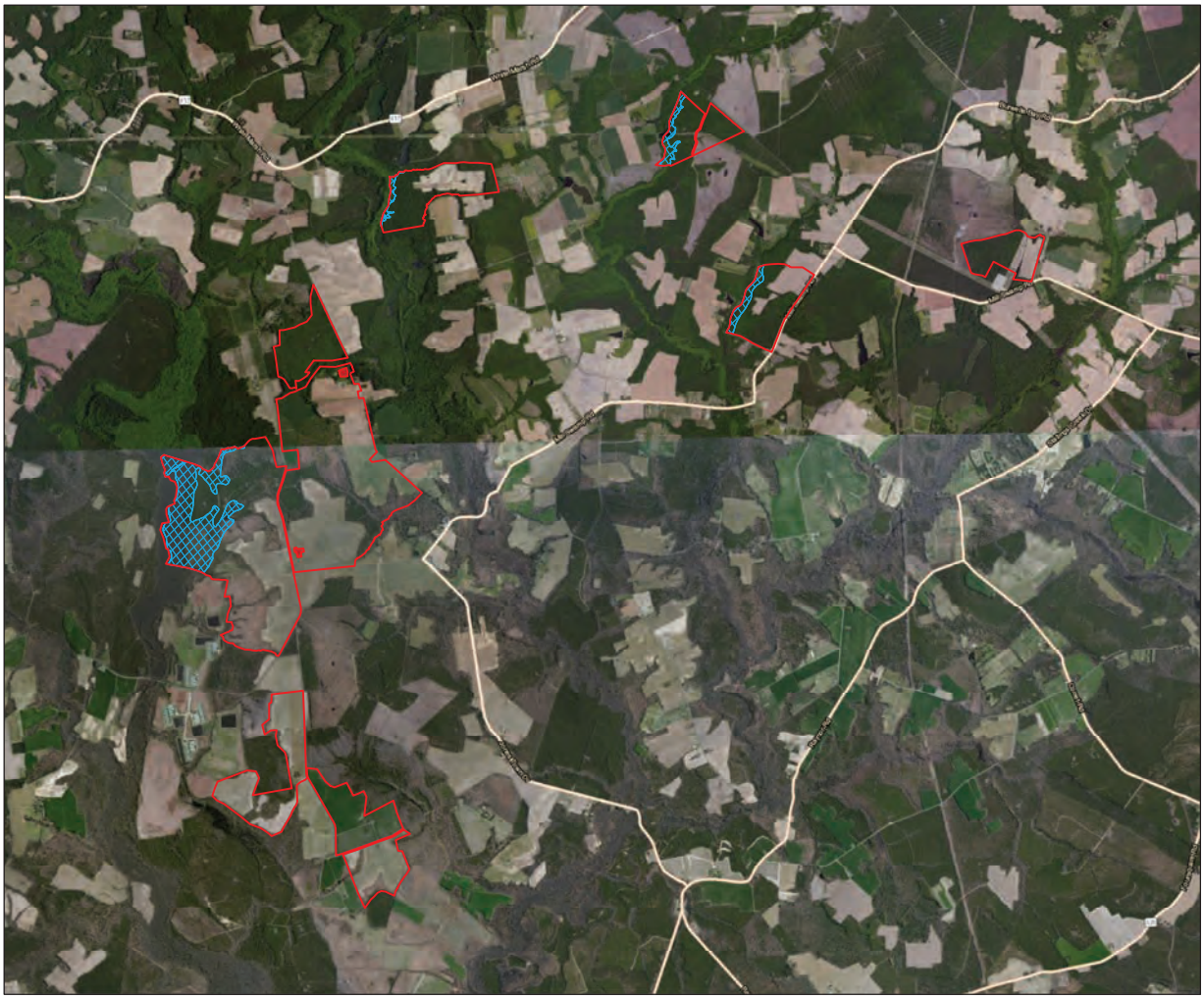
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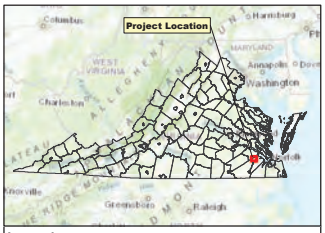
Source: Esri, et. al., 2022; AES, 2022; VDCR, 2017.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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Legend

- Project Study Area
- Outside Project Study Area

FEMA Flood Risk

- 100-year Floodplain, 1% annual chance of flooding

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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

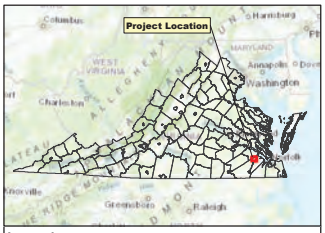
Source: Esri, et. al., 2022; AES, 2022; FEMA, 2022; FEMA FIRM number (FEMA FIRM Number 51093C0125E, effective December 2, 2015; 51093C0050E, effective December 1, 2015; and 51181C0225E, effective April 5, 2022); Virginia Open Data Portal, 2022.

Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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Legend

- Project Study Area
- Outside Project Study Area
- County Boundary
- Steep Slope (>25%)

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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.

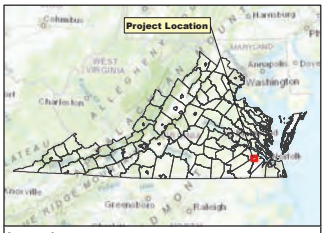
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Legend

- Project Study Area
- Outside Project Study Area
- County Boundary
- Detail Map Page

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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

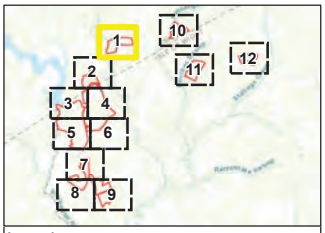
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Coordinate System: North America Datum, 1983, State Plane, Virginia South, Feet

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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

Page 1 of 12

Prepared For: aes

Prepared By: TETRA TECH

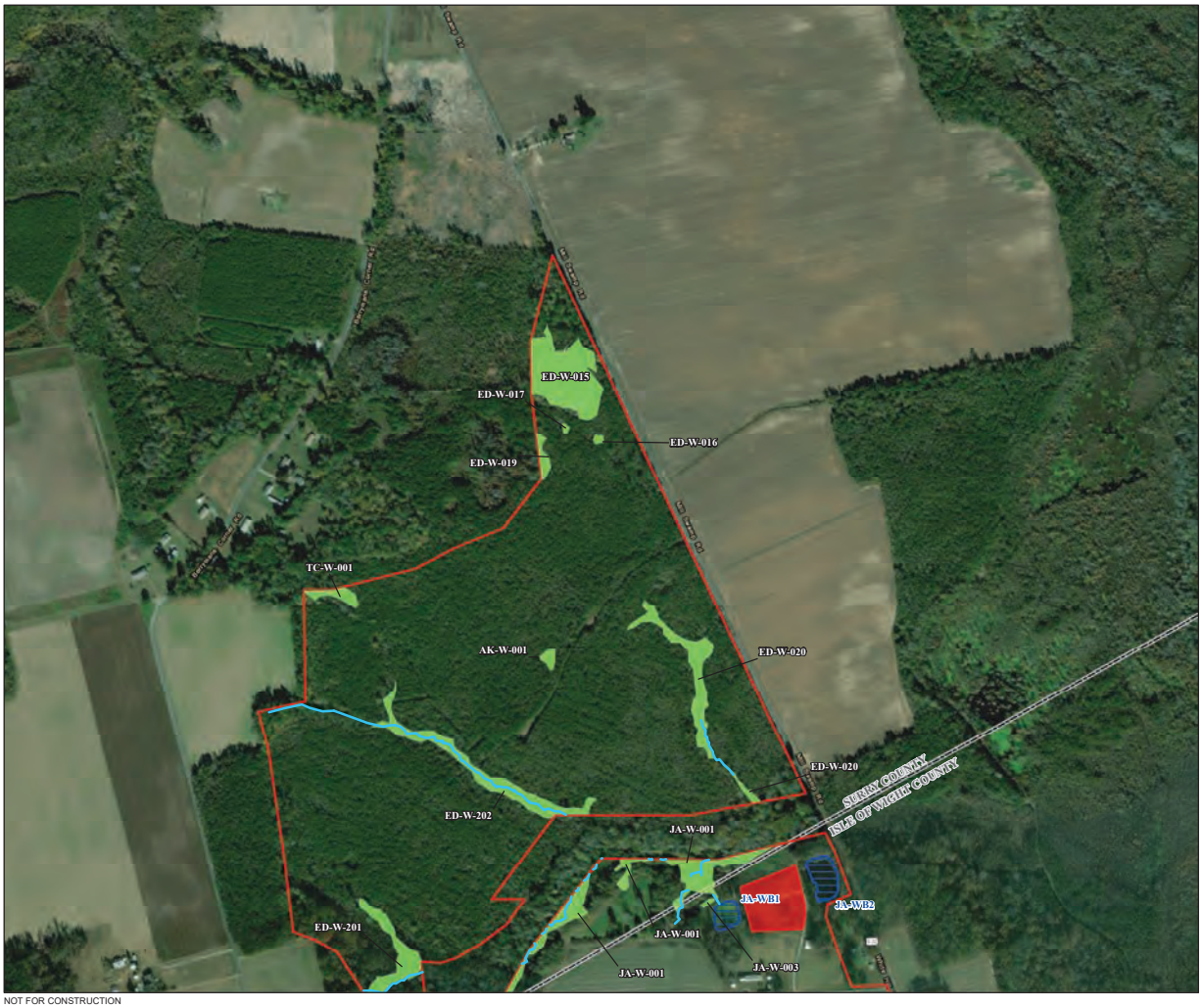
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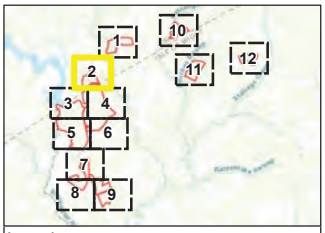
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Legend

- 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

Page 2 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

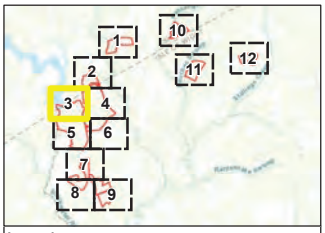
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Legend

- 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

Page 3 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

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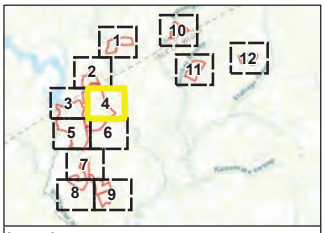
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NOT FOR CONSTRUCTION



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.

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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

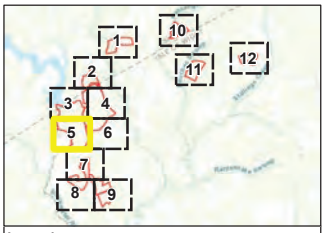
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Legend

- 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

Page 5 of 12

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

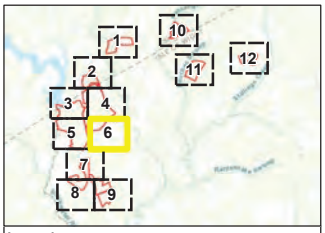
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Legend

- 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

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;

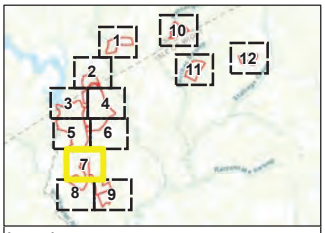
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NOT FOR CONSTRUCTION



Legend

- Project Study Area
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- Field Delineated Wetland
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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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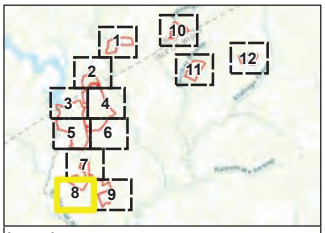
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NOT FOR CONSTRUCTION



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.

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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

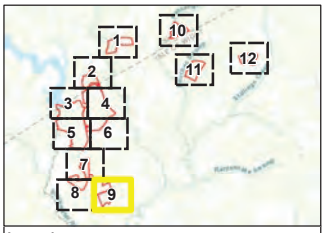
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NOT FOR CONSTRUCTION



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.

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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

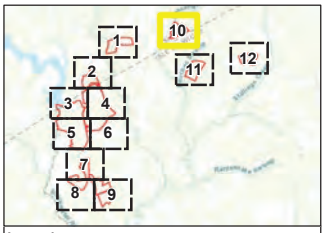
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NOT FOR CONSTRUCTION



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.

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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

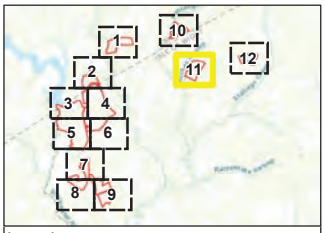
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Legend

- 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

Prepared For: aes

Prepared By: TETRA TECH

Date: 4/13/2023

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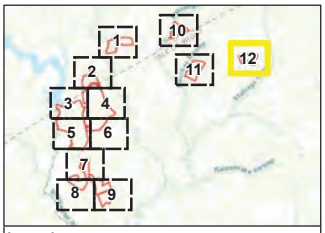
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NOT FOR CONSTRUCTION



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.

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Figure 8

Delineated Aquatic Resources Features Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Page 12 of 12

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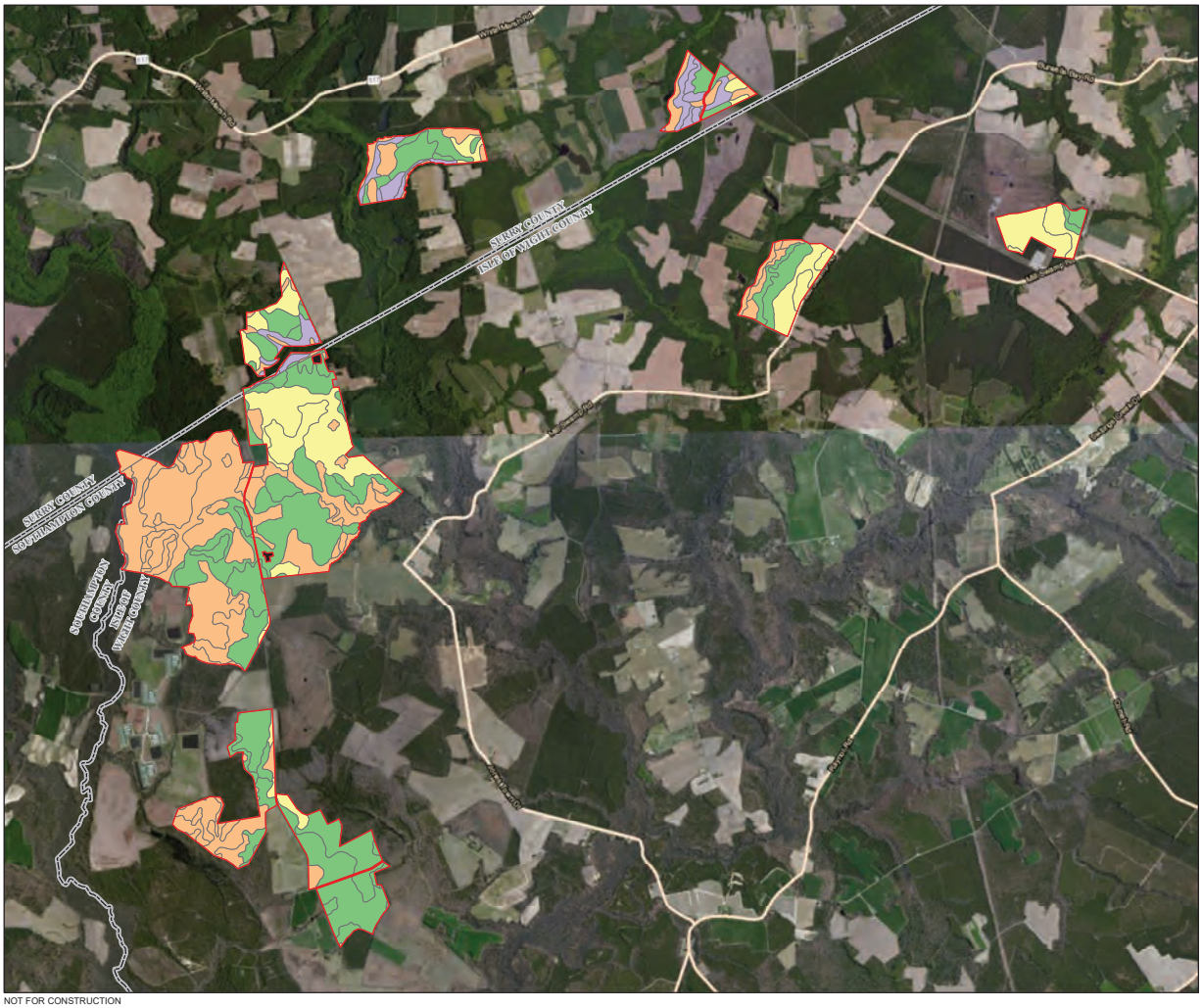
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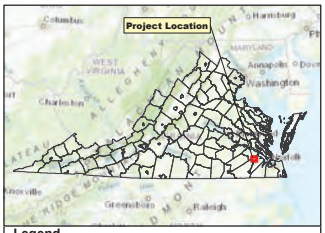
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Legend

- 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

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Figure 9
Prime Farmland Map
Sycamore Cross Solar Project
Surry and Isle of Wight Counties, VA

Prepared For: aes

Prepared By: TETRA TECH

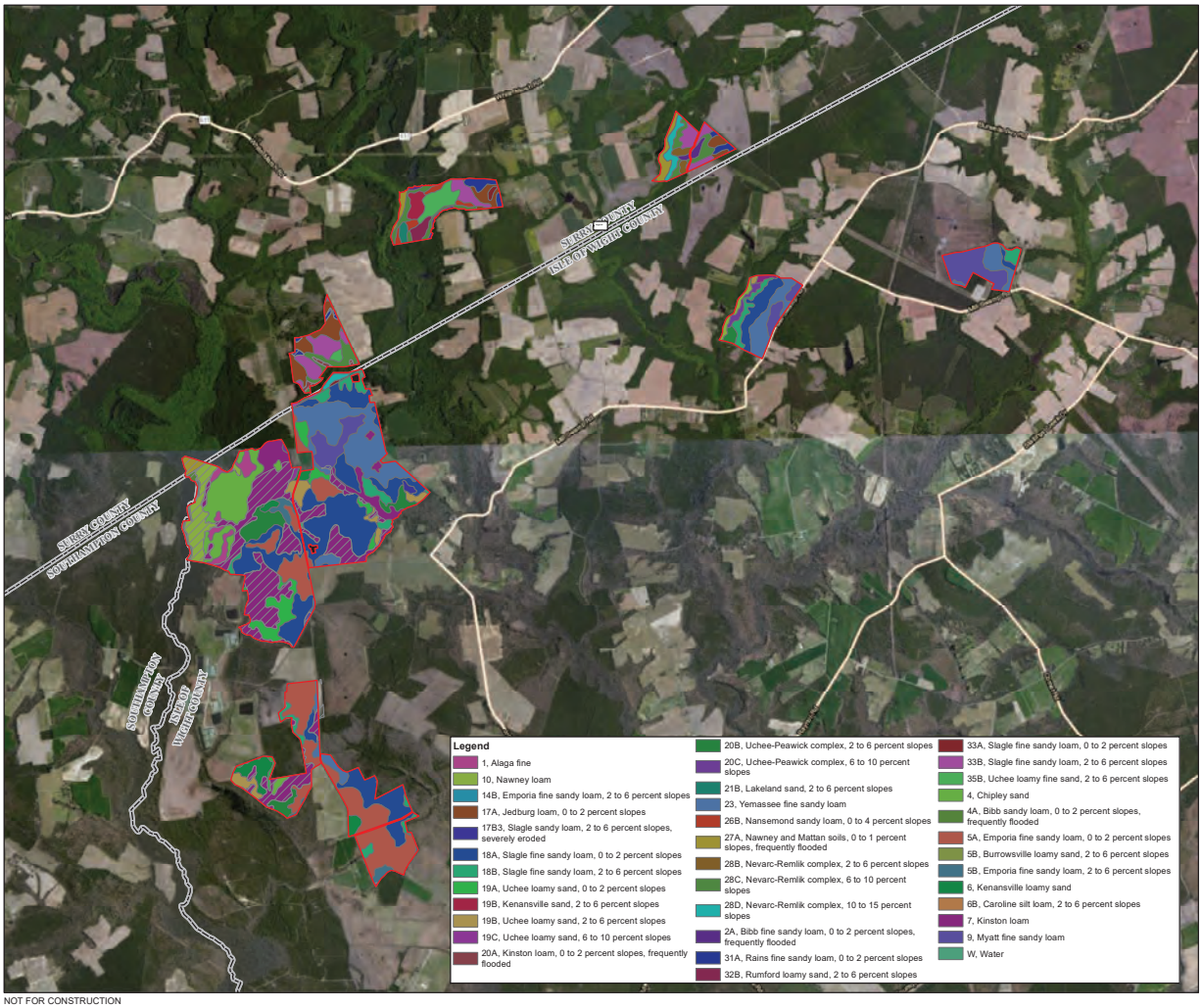
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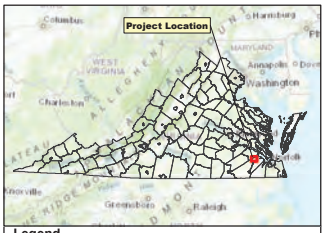
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ycamore_Cross_Solar\Graphics\MXD\Jan24\12_Env_Resource_Impact_Report\Figure_9_Sycamore_Cross_Solar_Prime_Farmland_Map.mxd



NOT FOR CONSTRUCTION



Legend

- Project Study Area
- Outside Project Study Area
- County Boundary
- Hydric Soil

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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

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APPENDIX A: USDA-NRCS SOIL REPORT

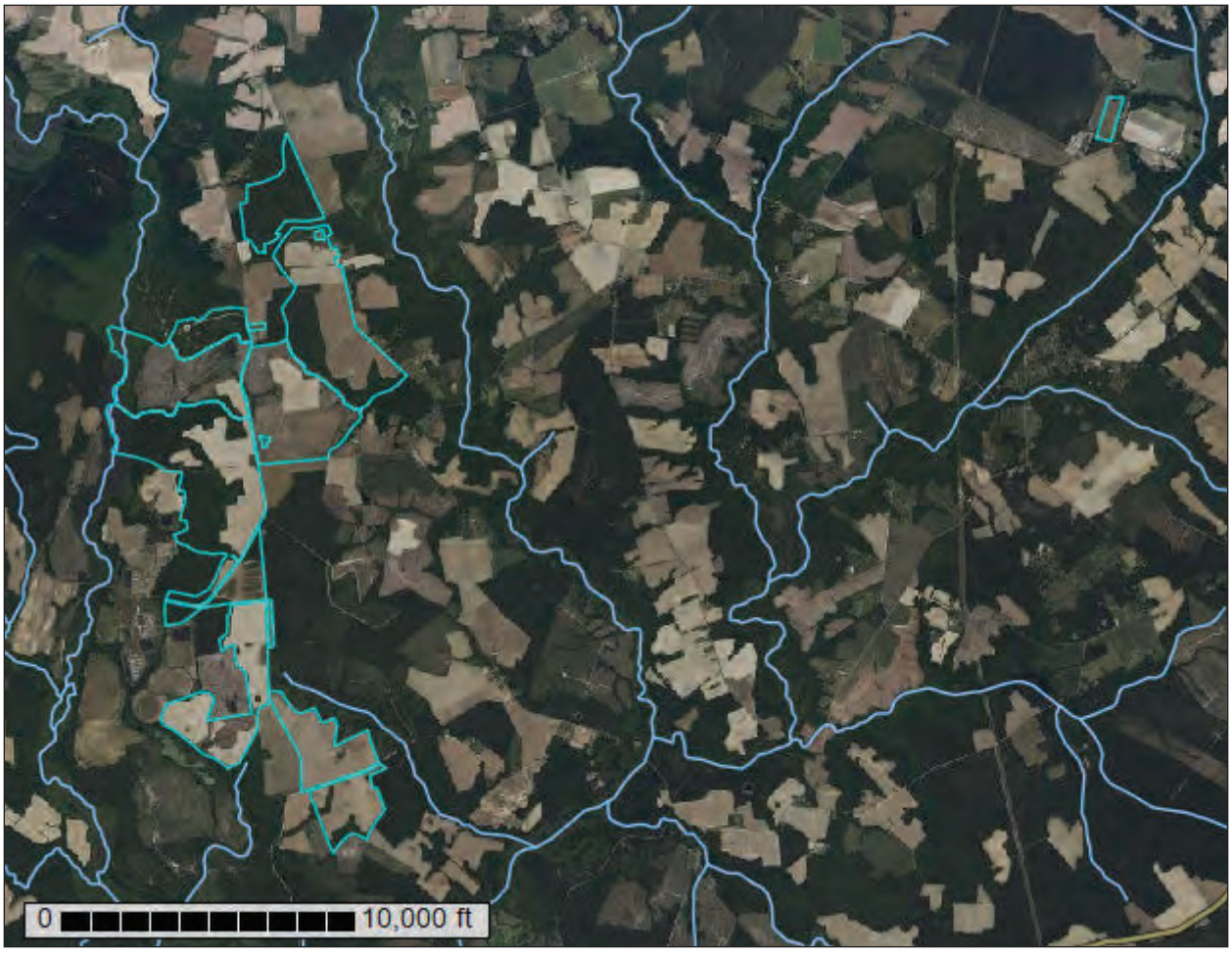
United States Department of Agriculture

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.

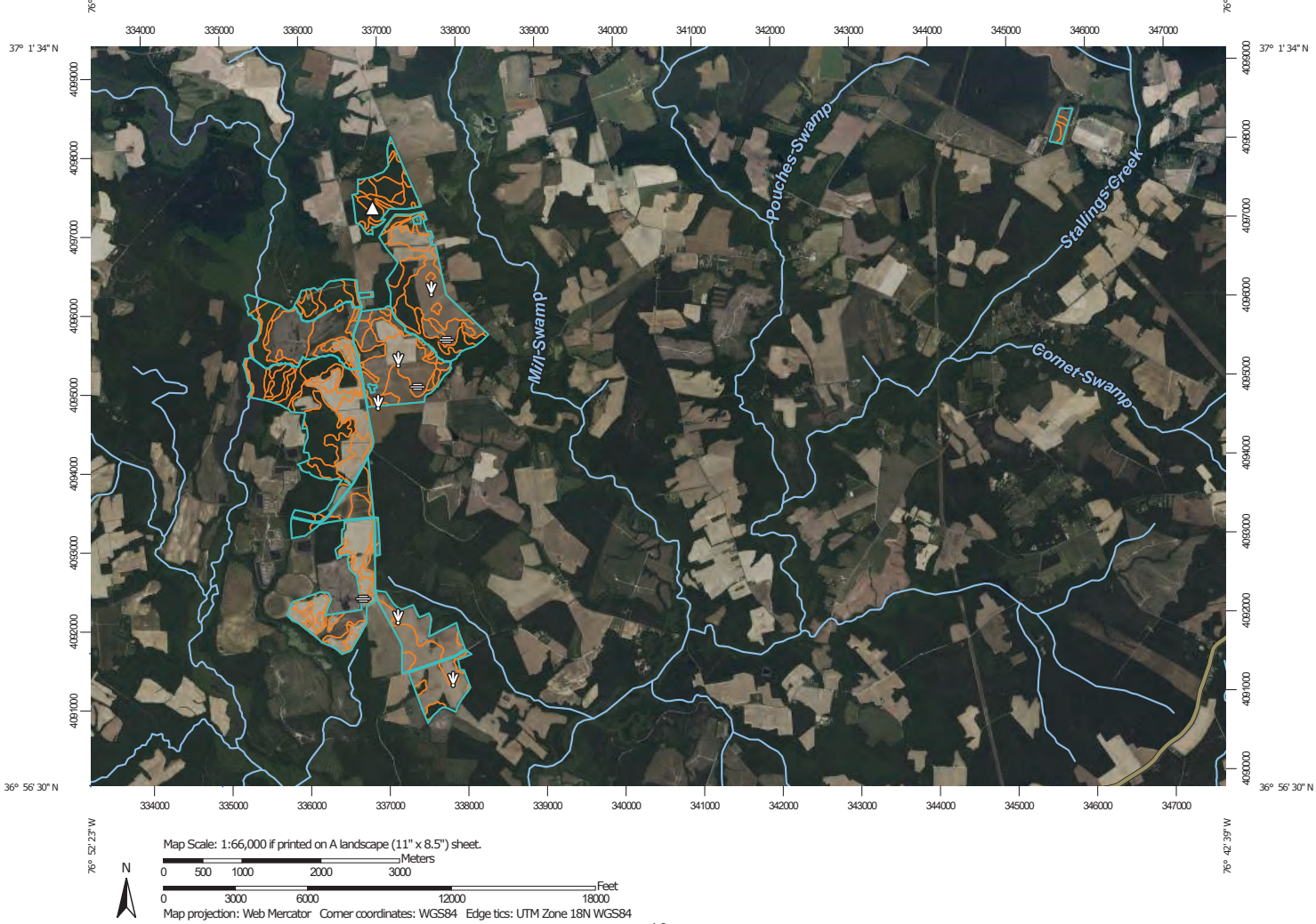
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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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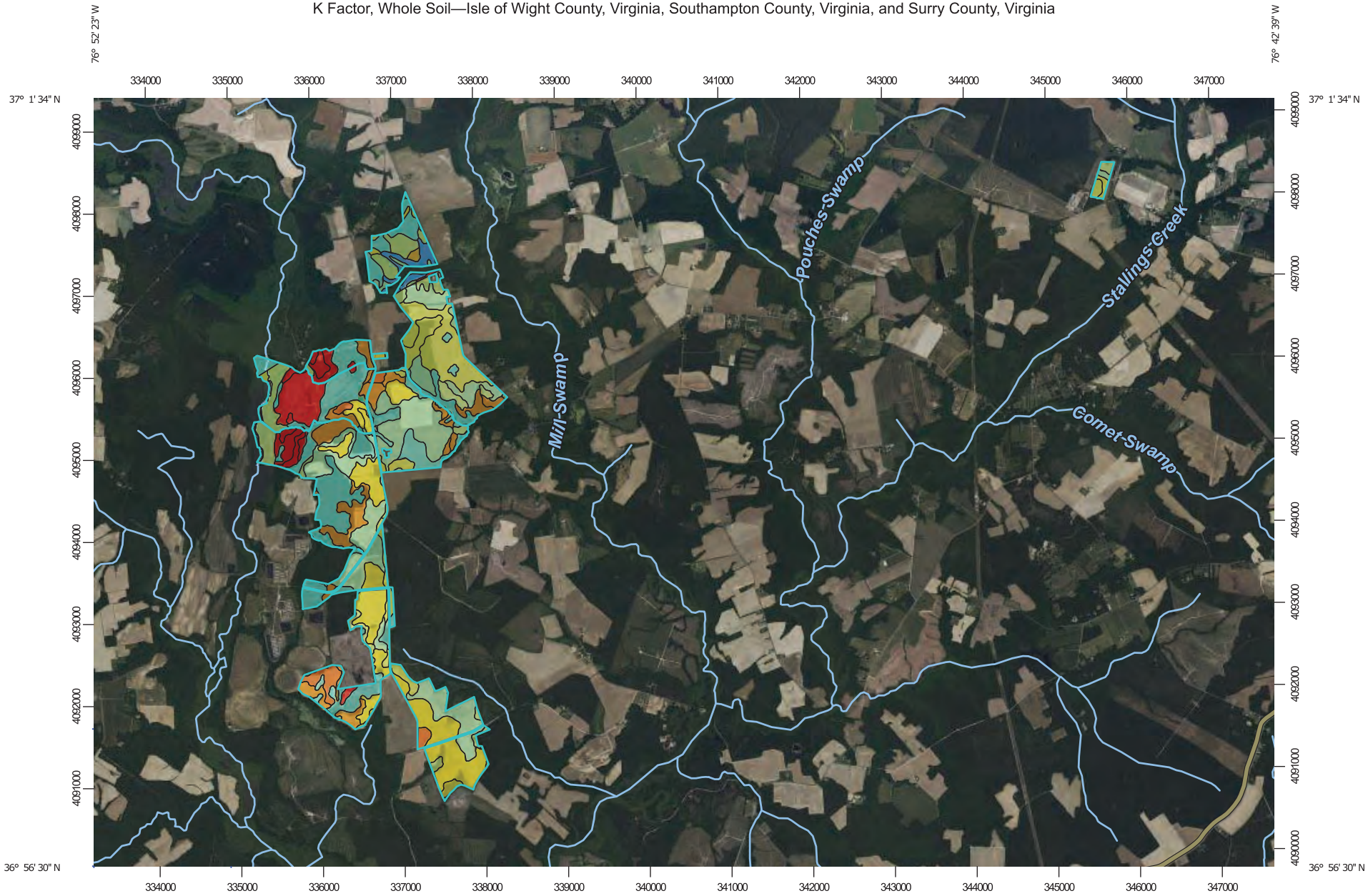
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Map Scale: 1:66,000 if printed on A landscape (11" x 8.5") sheet.

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.

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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* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

BIRDS

NAME	STATUS
Red-cockaded Woodpecker *Picoides borealis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. 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* 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* 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* 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* 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* 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* 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* 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* 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.

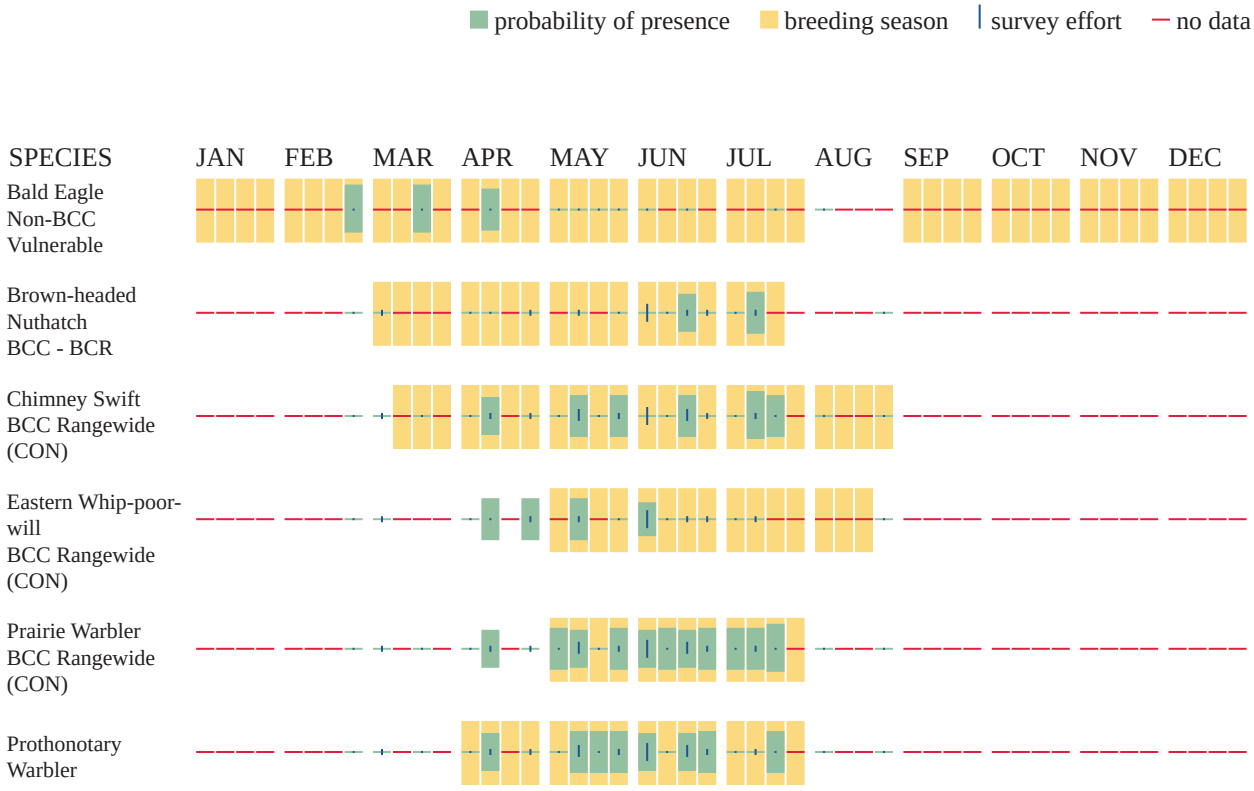
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

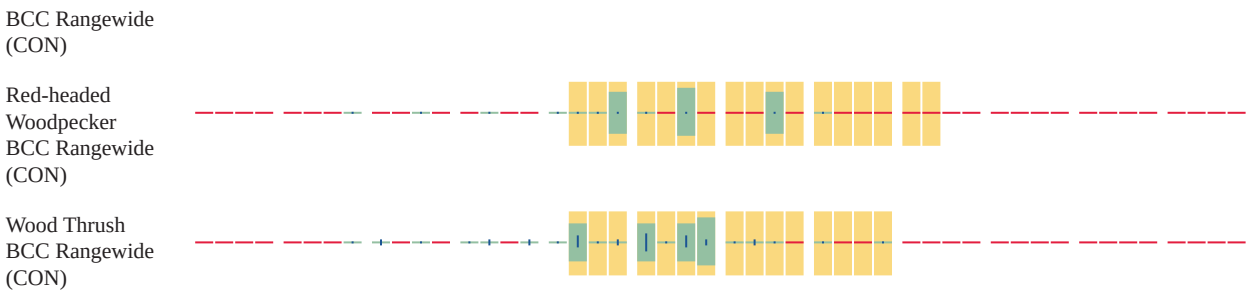
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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

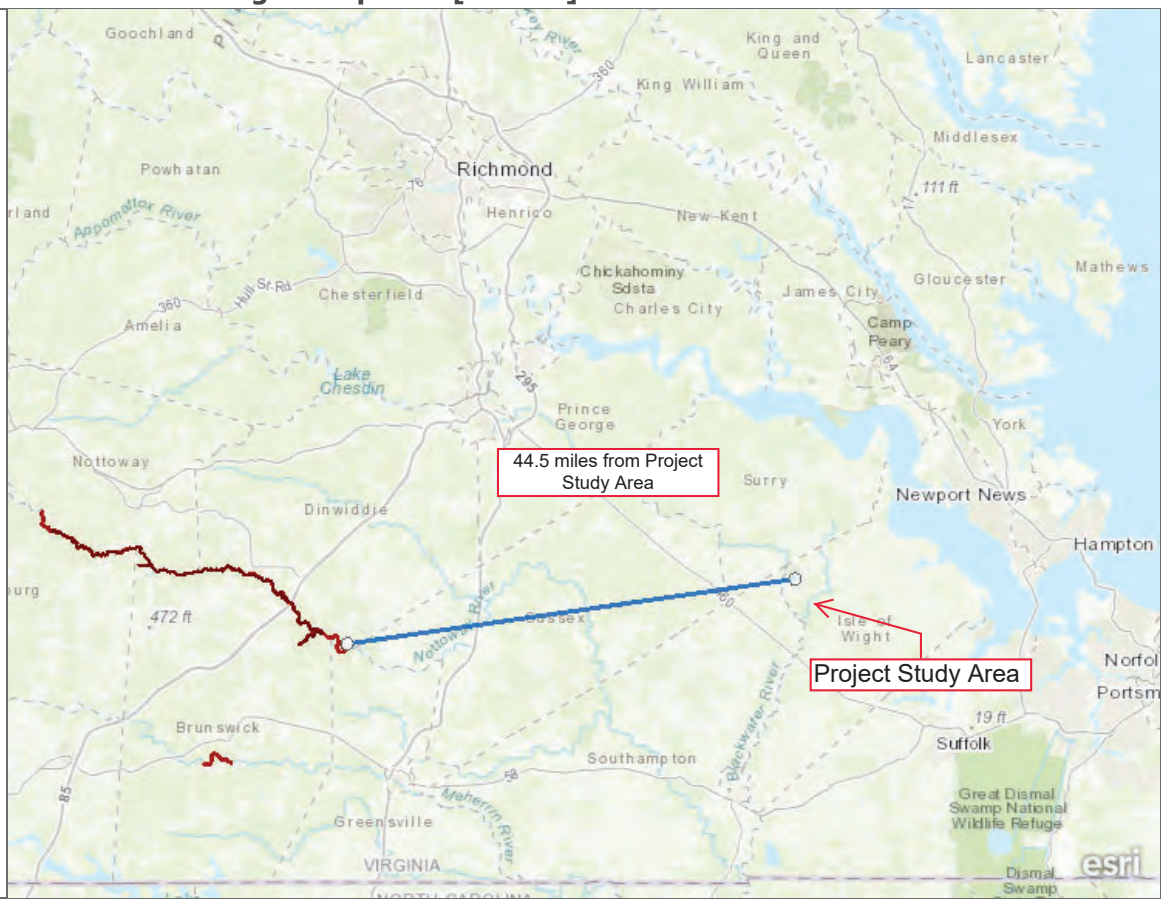
Critical Habitat for Threatened & Endangered Species [USFWS]

Final Polygon Features

Final Linear Features

Proposed Polygon Features

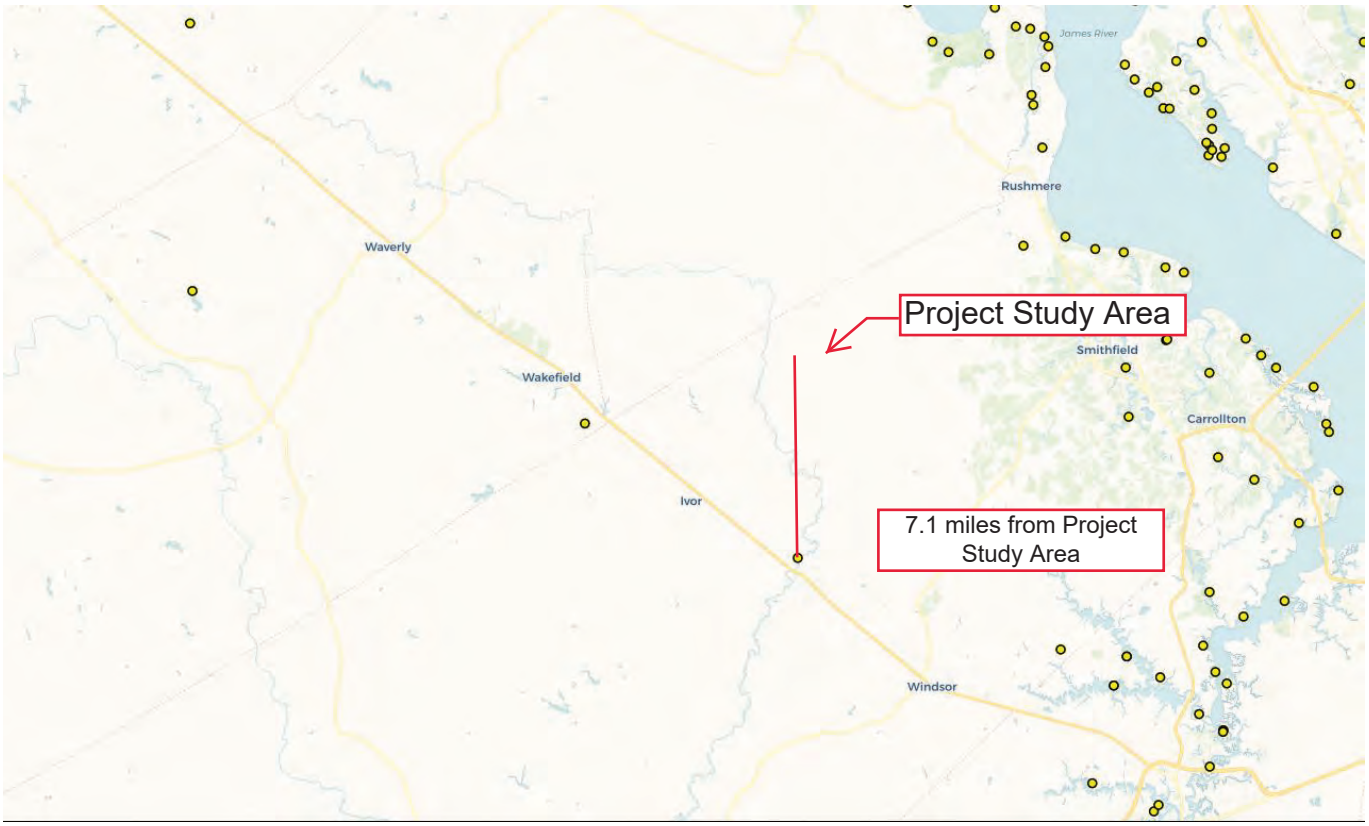
Proposed Linear Features



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]

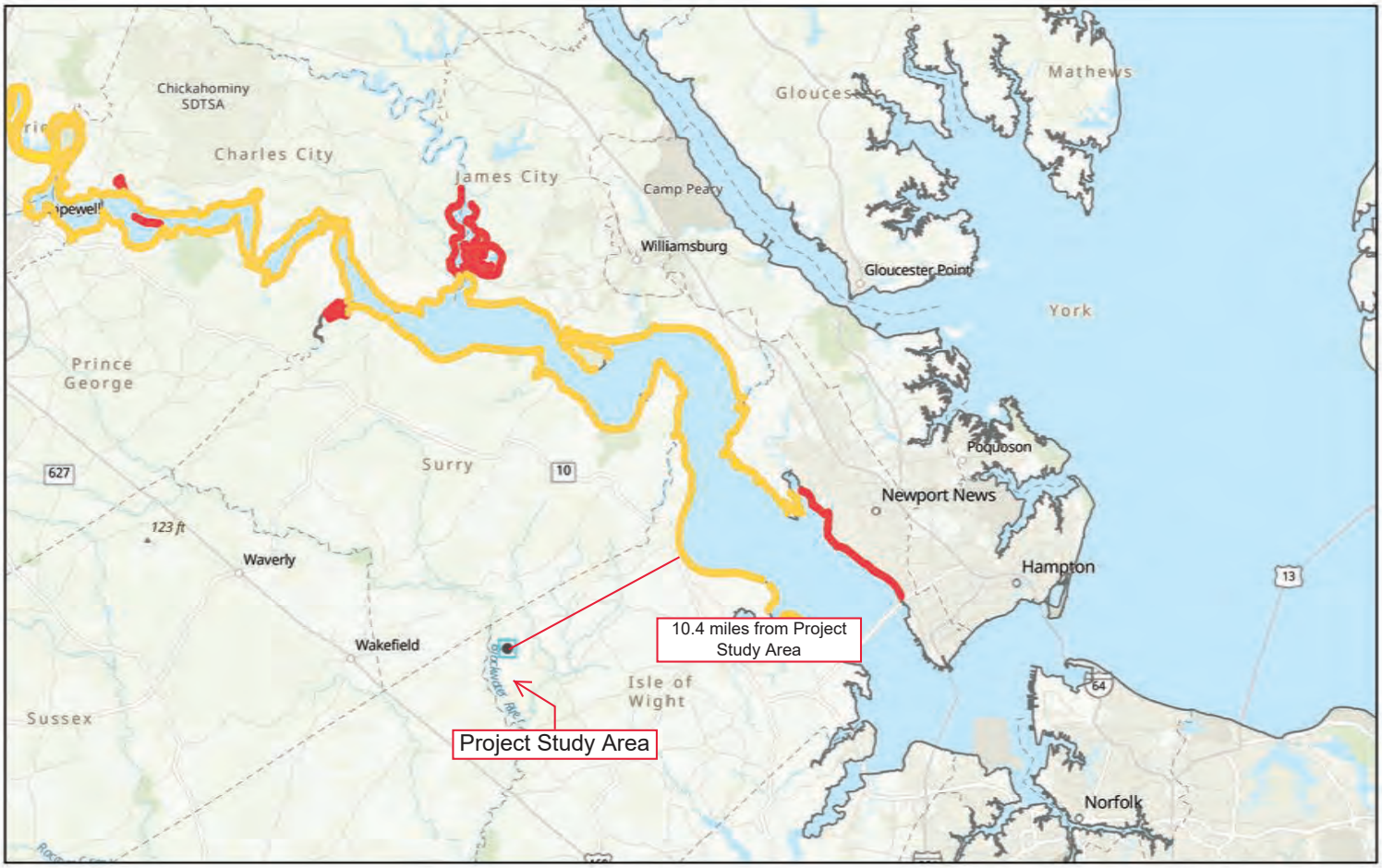
Map Link:
https://www.ccbbirds.org/maps/#layer=VA+Eagle+Nest+Buffers&layer=VA+Eagle+Nest+Locator&zoom=11&lat=36.933702217046296&lng=-76.83631896972655&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=Street+Map+%28OSM%2FCarto%29

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

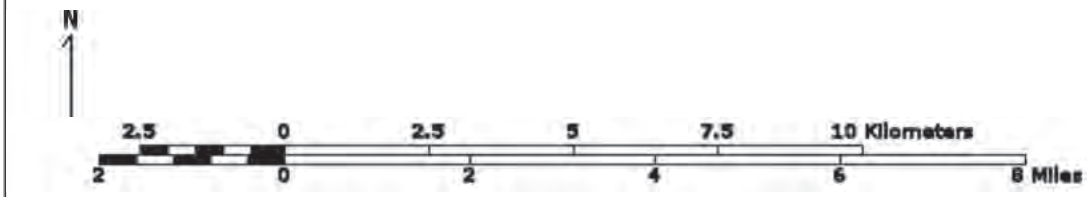
2 mile radius Search Area

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 |
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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

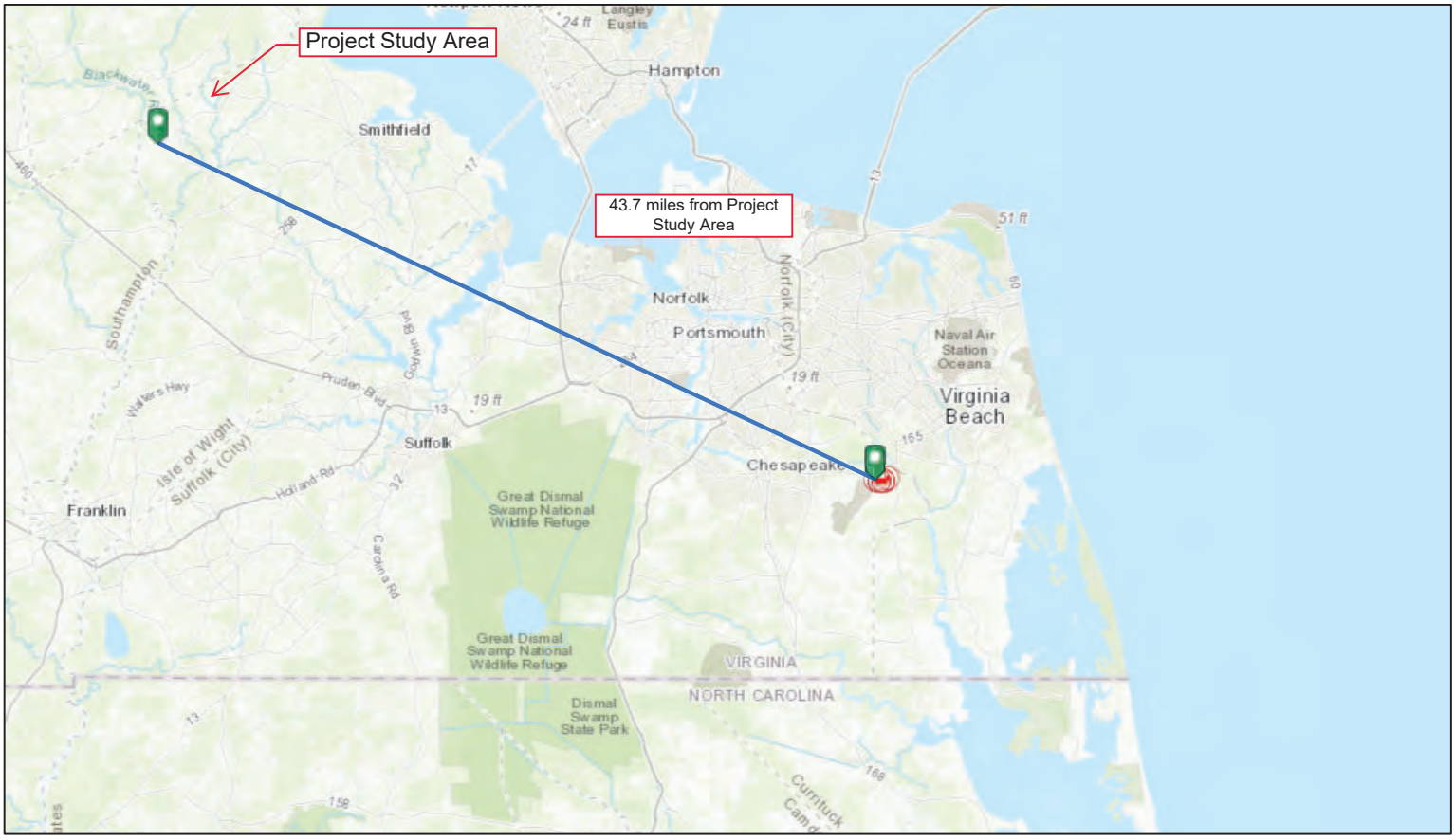
Southern Coastal Plain								
Blackwater								
Rattlesnake Swamp								
Crater								
MAMMALS								
Eastern Big-eared Bat	Corynorhinus rafinesquii macrotis	Corynorhinus rafinesquii macrotis	G3G4T3	S2	None	LE	44	Y

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

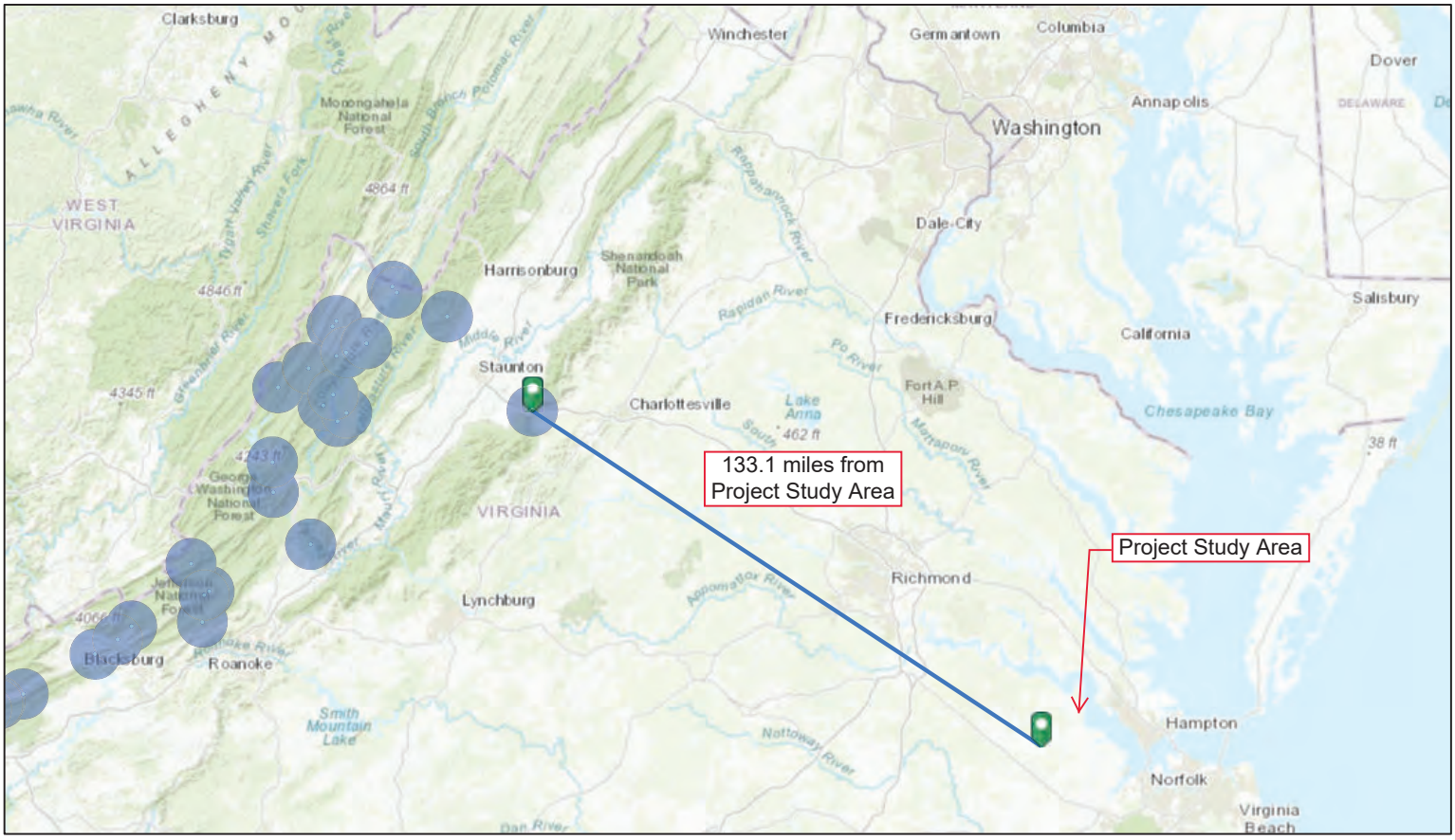
0 5 10 20 km

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

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

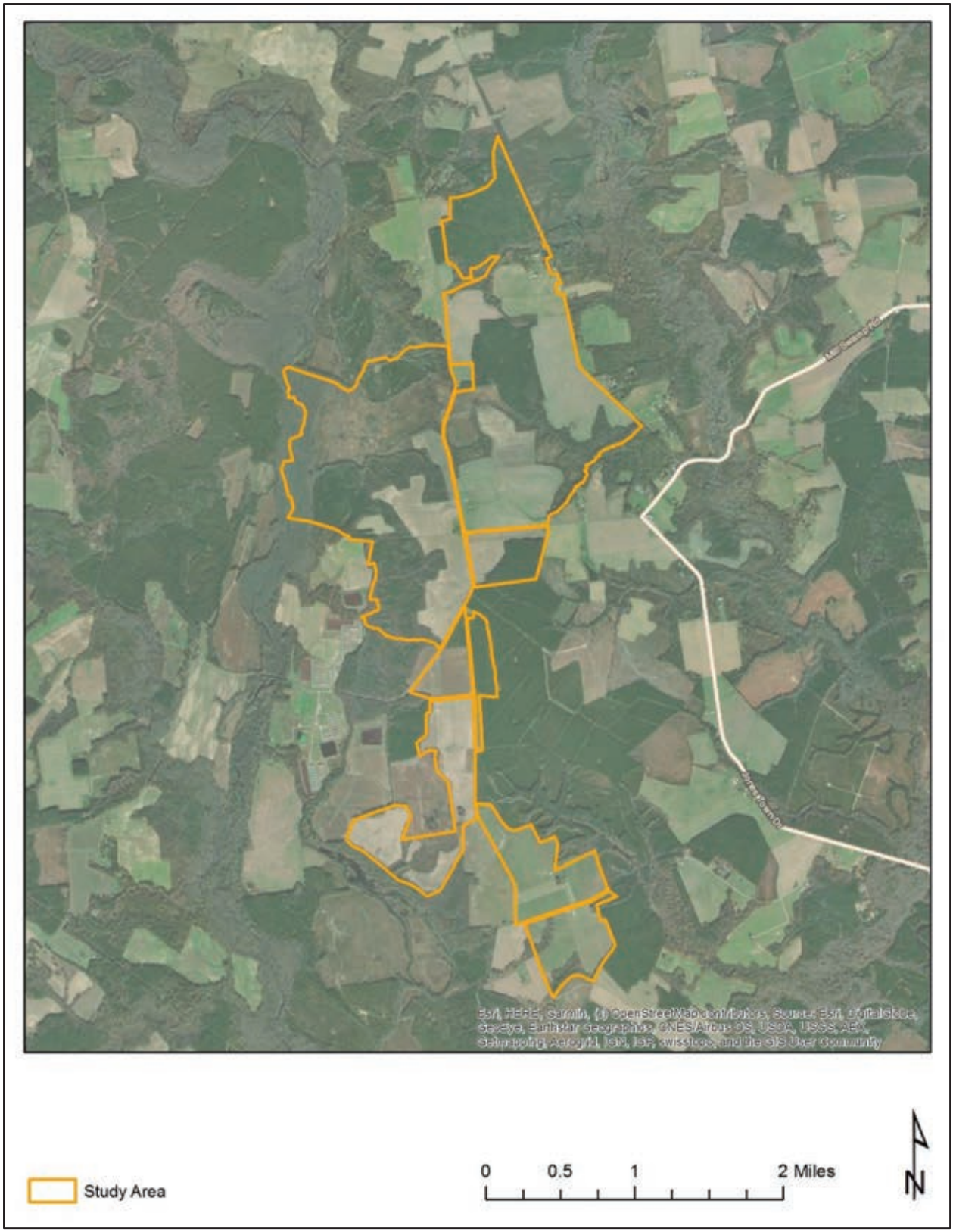


Figure 1-2: Aerial view of study area depicting parcels subject to full assessment as well as desktop-only.

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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).

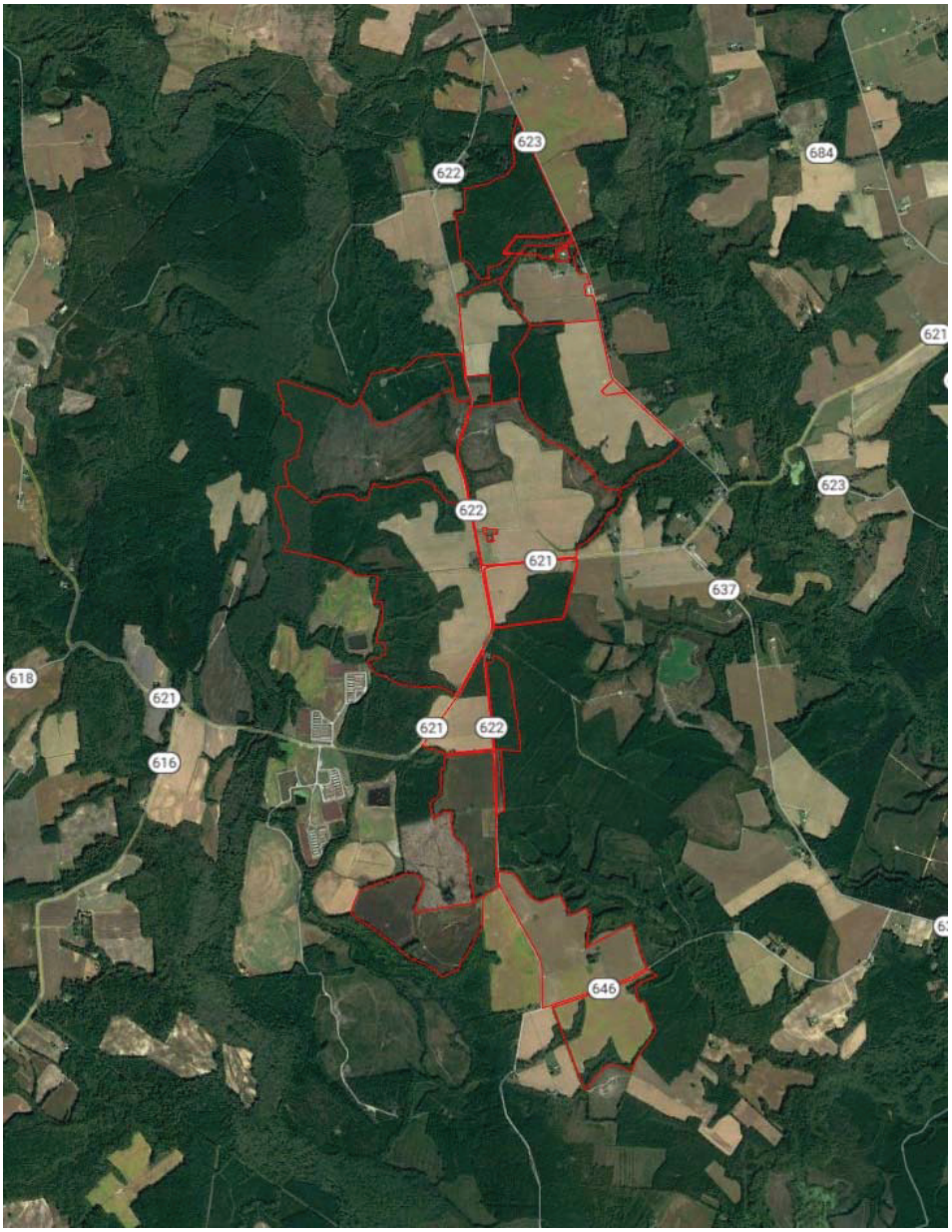


Figure 3-1. Aerial view of study area illustrating existing conditions.

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).

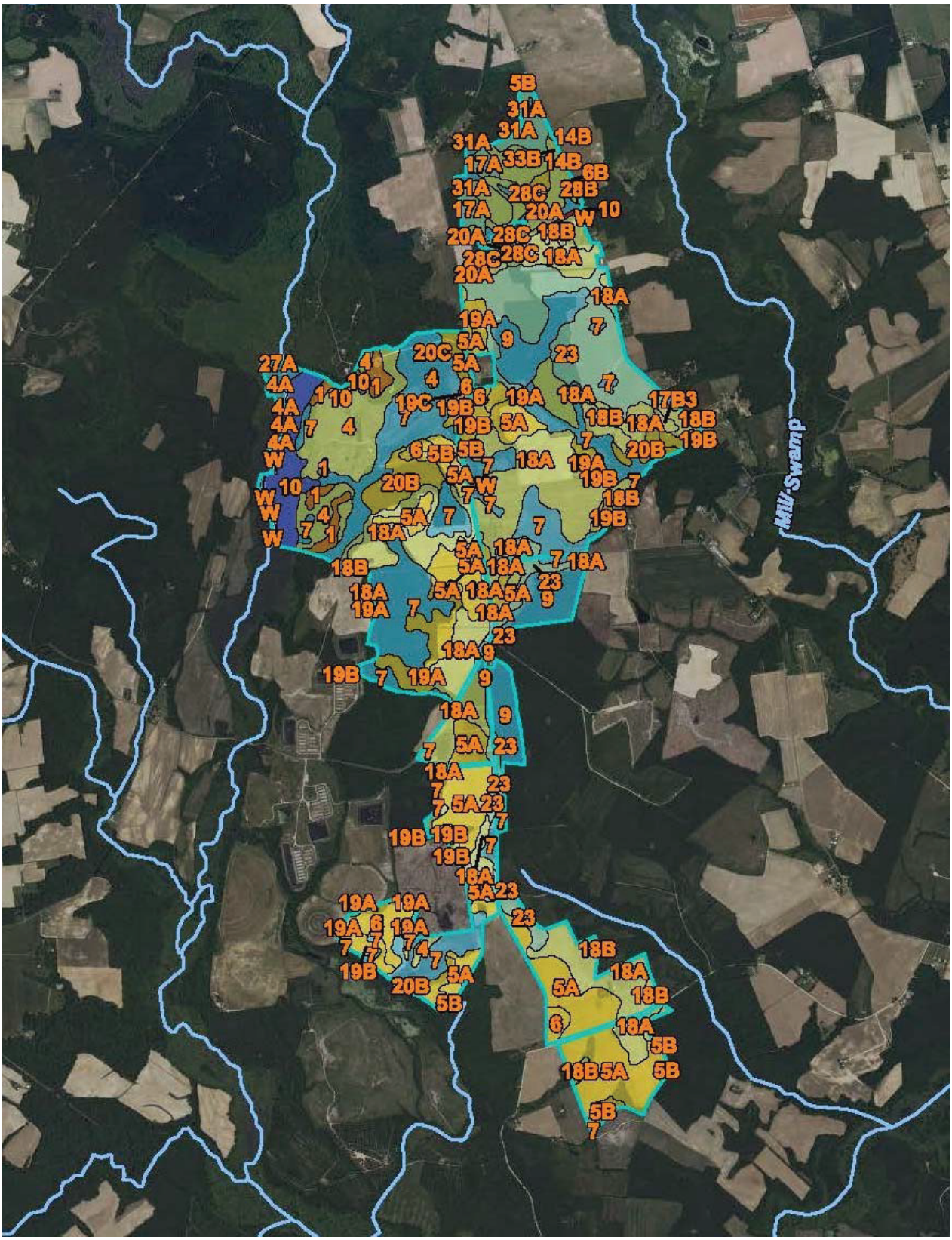


Figure 3-2: Soil survey of the Sycamore Cross study area showing drainage class (USDA 2023).

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

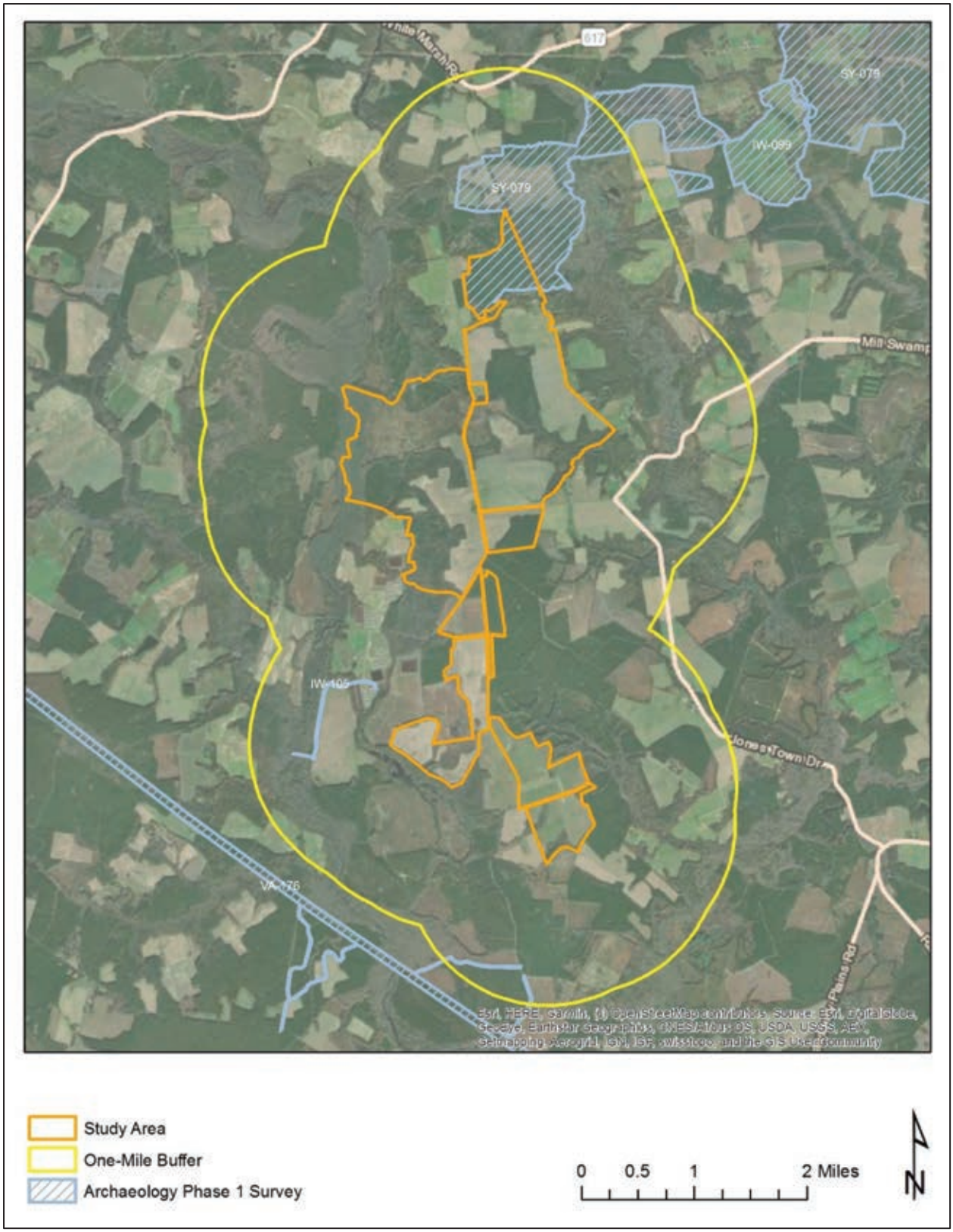


Figure 4-1: Previous Phase I surveys conducted within one mile of the study area Source: V-CRIS

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

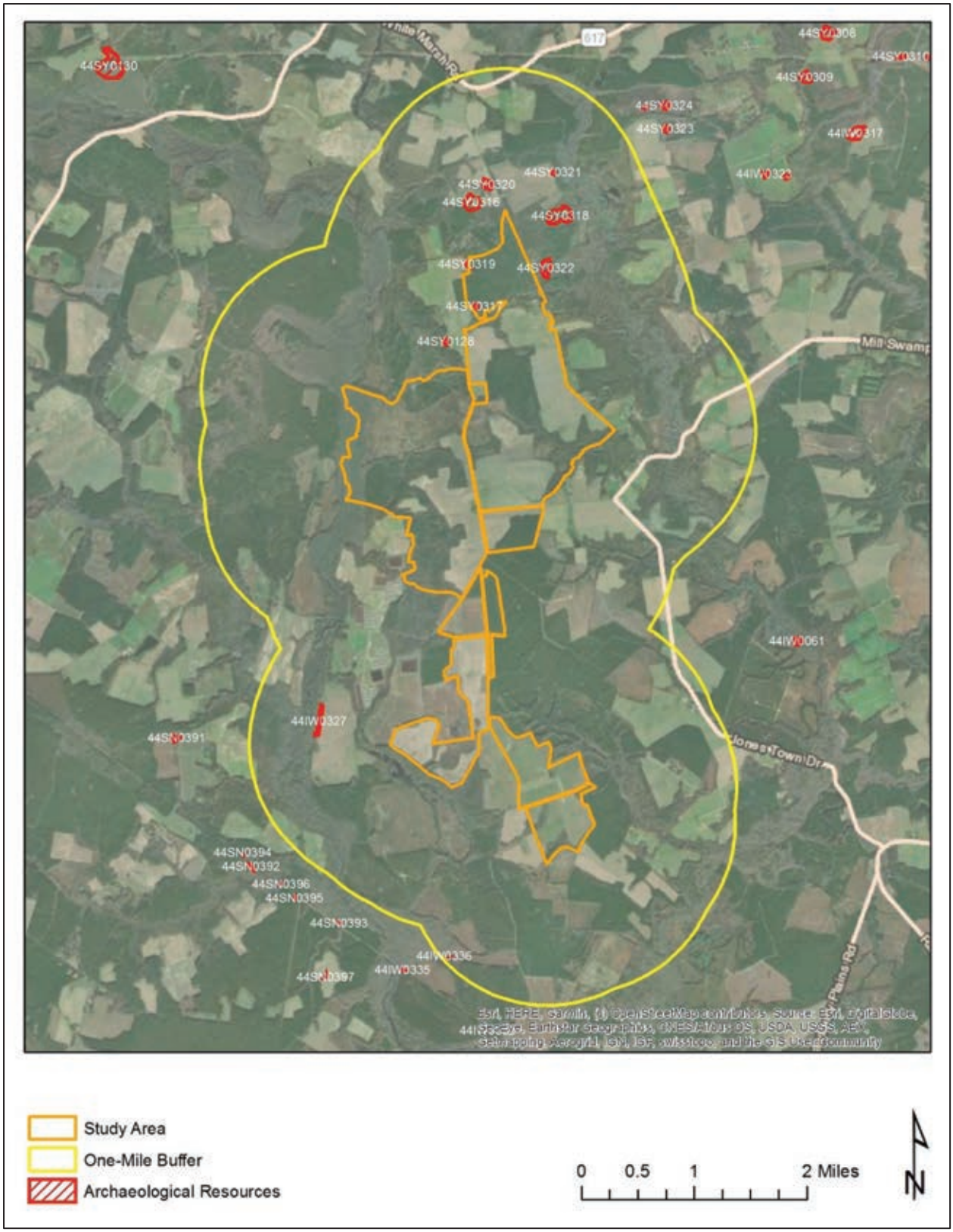


Figure 4-2: Previously recorded archaeological sites located within one mile of the study area. Source: V-CRIS

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

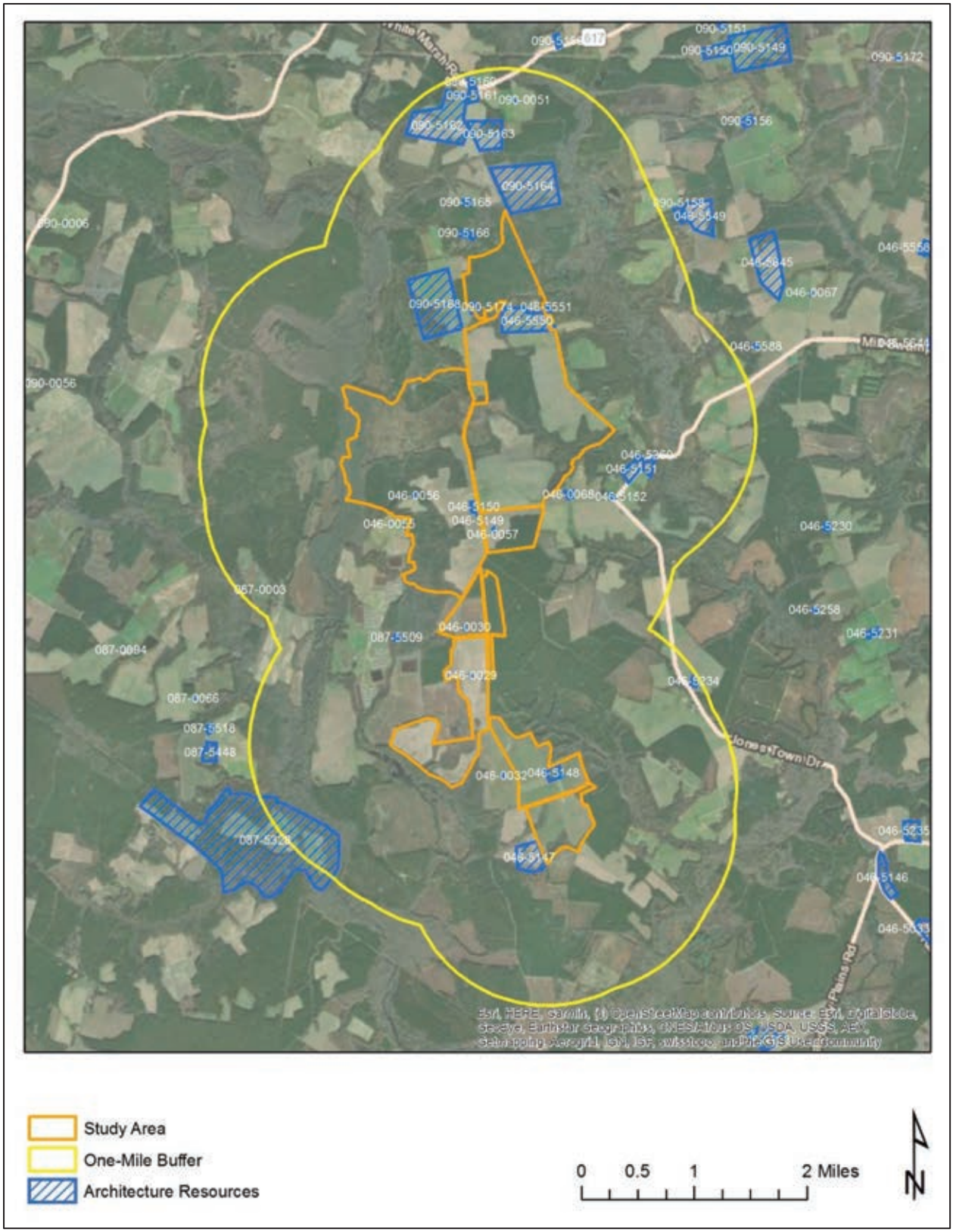


Figure 4-3: Previously recorded architectural resources within one mile of the study area. Source: V-CRIS

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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).

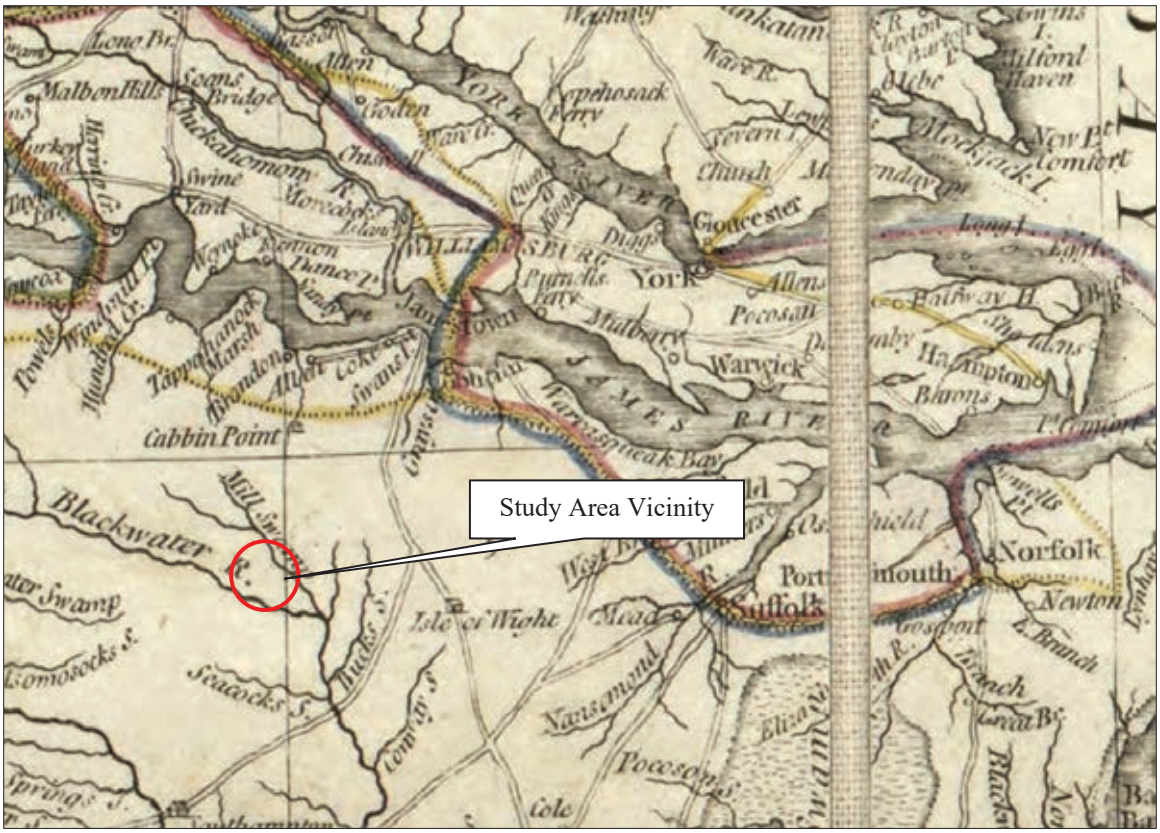


Figure 5-1: Detail of *The marches of Lord Cornwallis in the Southern Provinces*, 1787, depicting general vicinity of the study area. Source: Library of Congress

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).

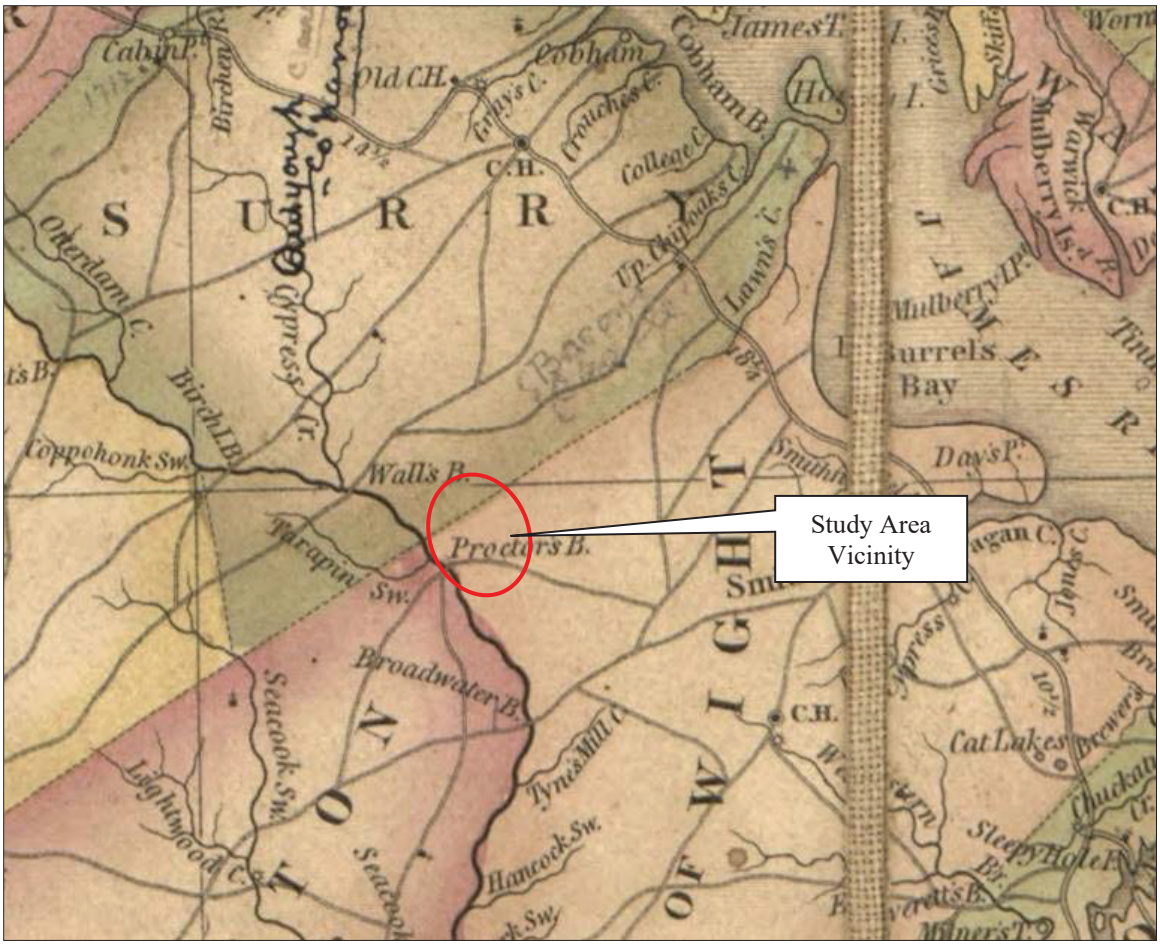


Figure 5-2: Detail of *A map of the state of Virginia*, 1827, depicting the vicinity of the study area. Source: Library of Congress

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.

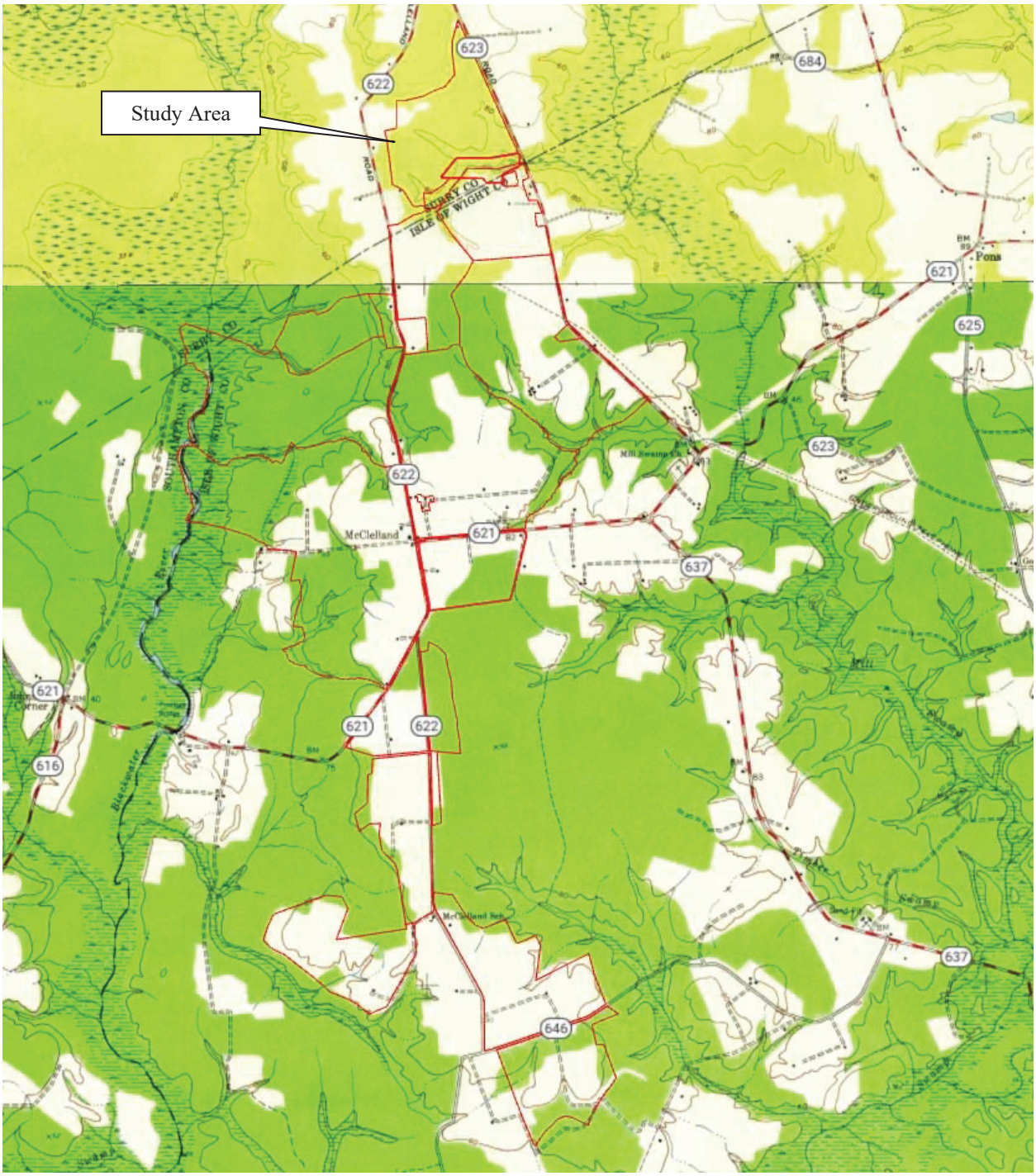


Figure 5-6: Detail of the 1944 and 1954 topographic maps, *Raynor* and *Runnymeade*, depicting the primary study area parcel cluster. Source: USGS

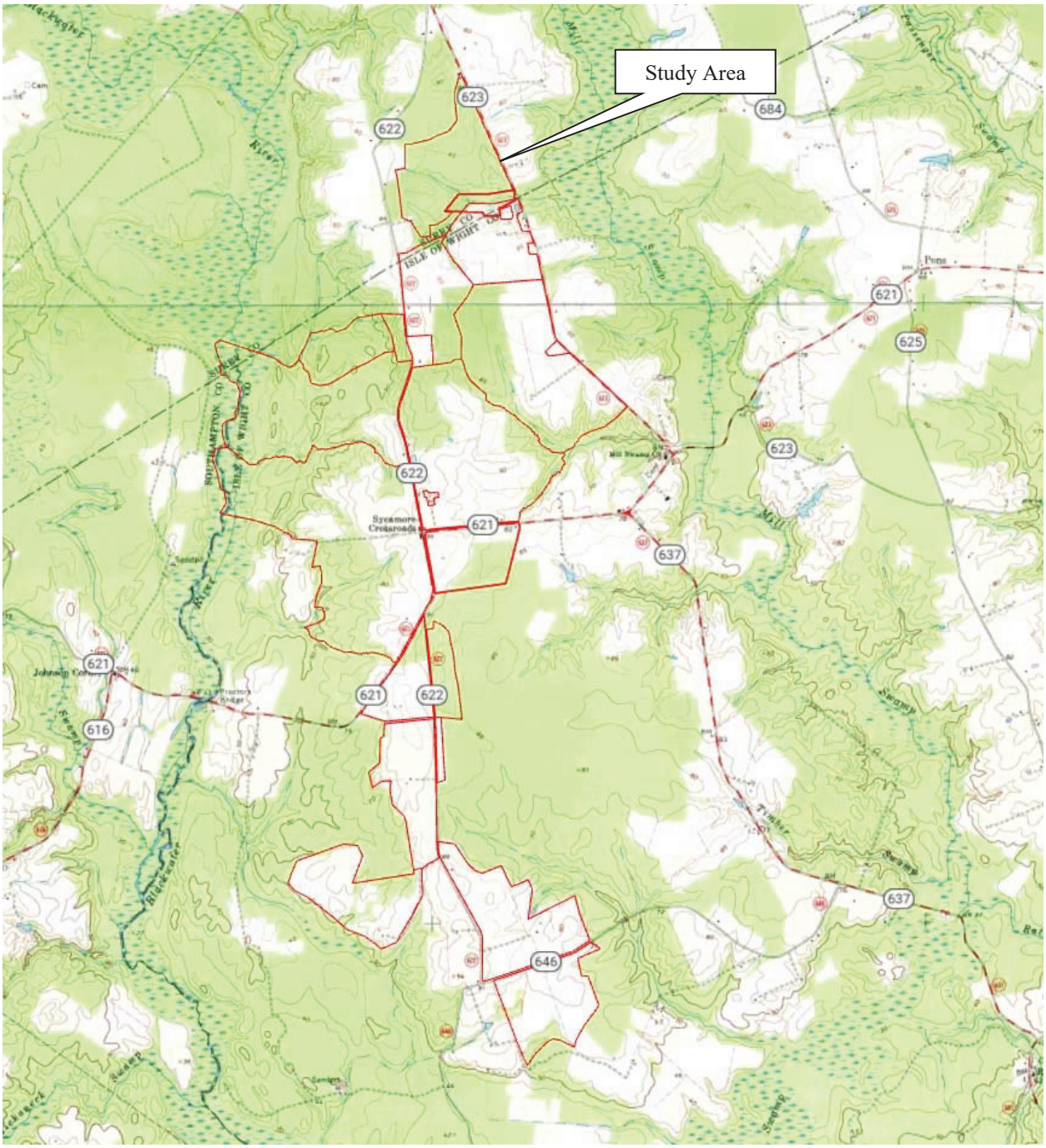


Figure 5-7: Detail of the 1968 and 1971 topographic maps, *Raynor* and *Runnymeade*, depicting the primary study area parcel cluster. Source: USGS

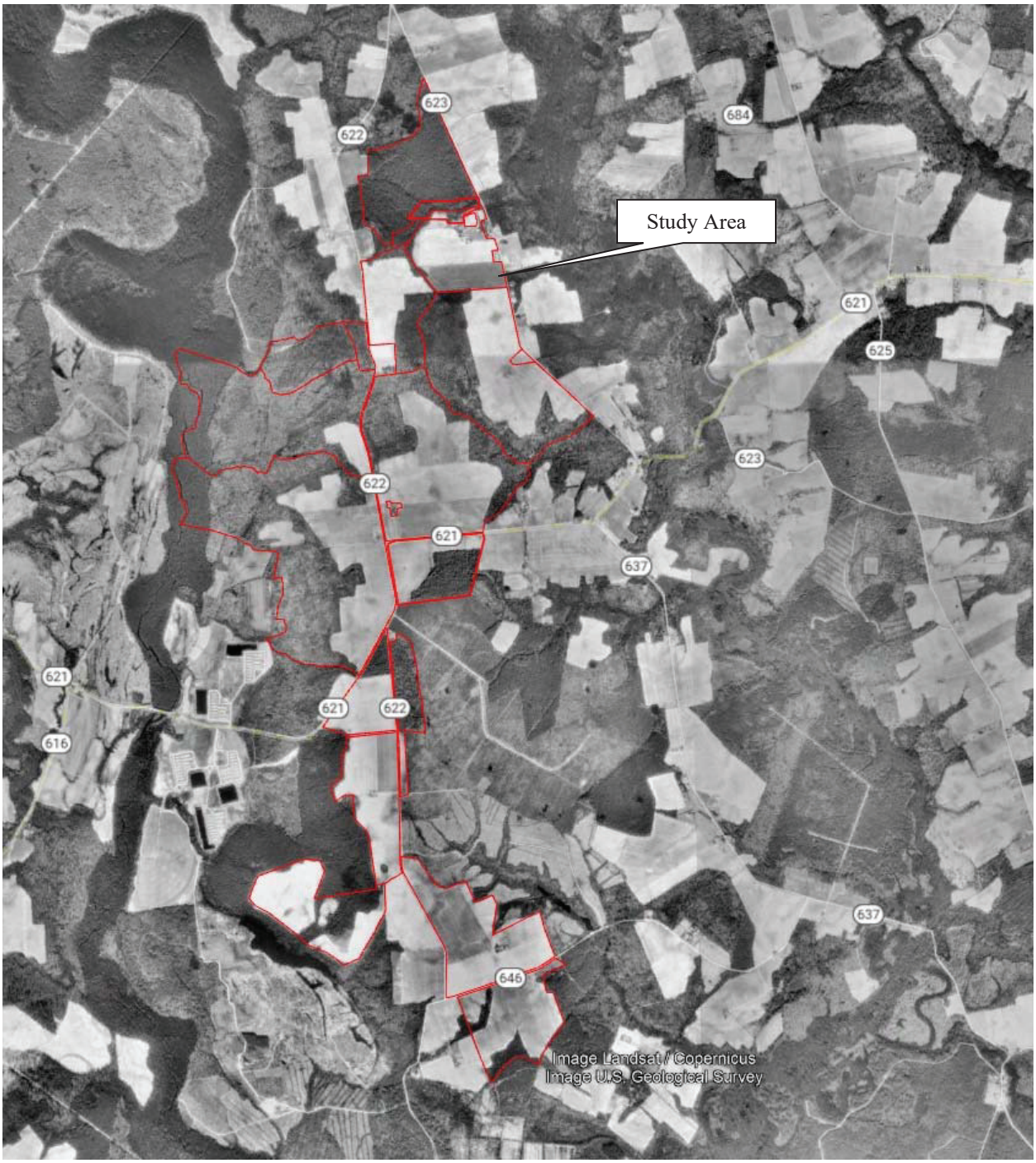


Figure 5-8: Detail of a 1990 aerial depicting the primary study area parcel cluster. Source: Google Earth



Figure 5-9: Detail of a 2003 aerial depicting the study area. Source: Google Earth

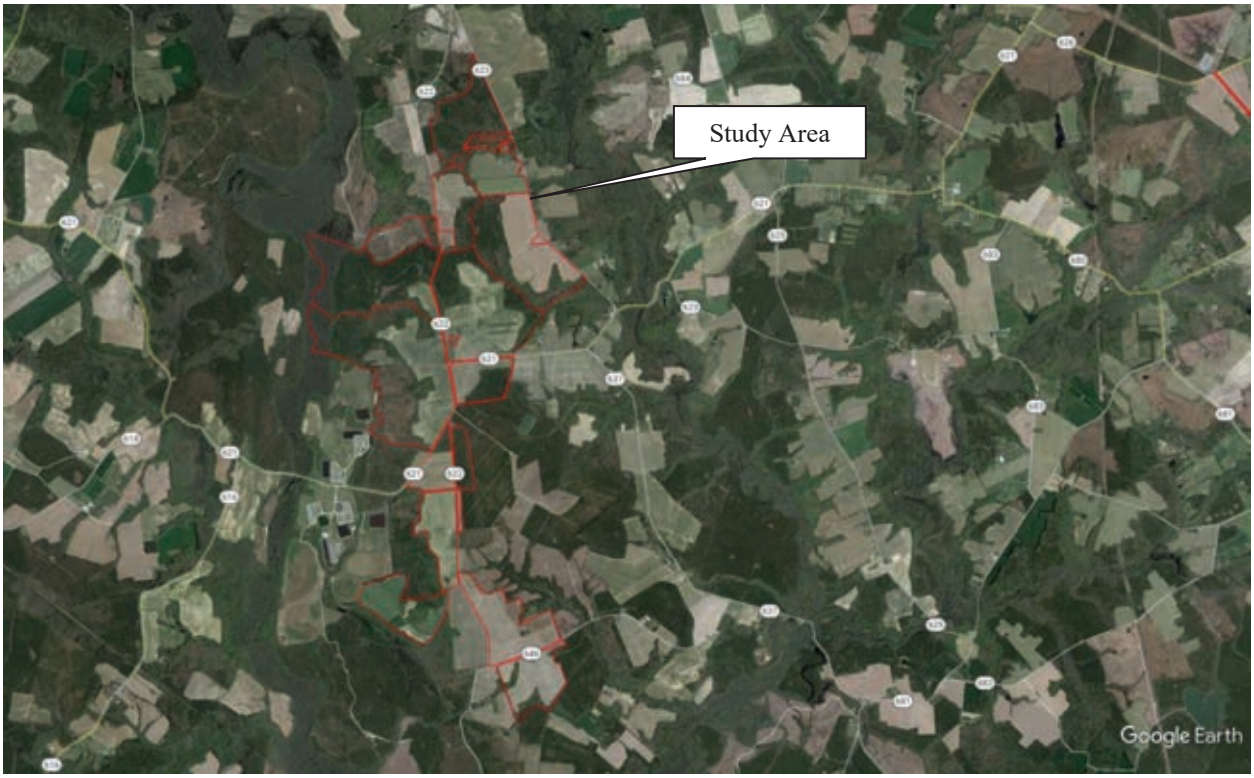


Figure 5-10: Detail of a 2017 aerial depicting the study area. Source: Google Earth

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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).

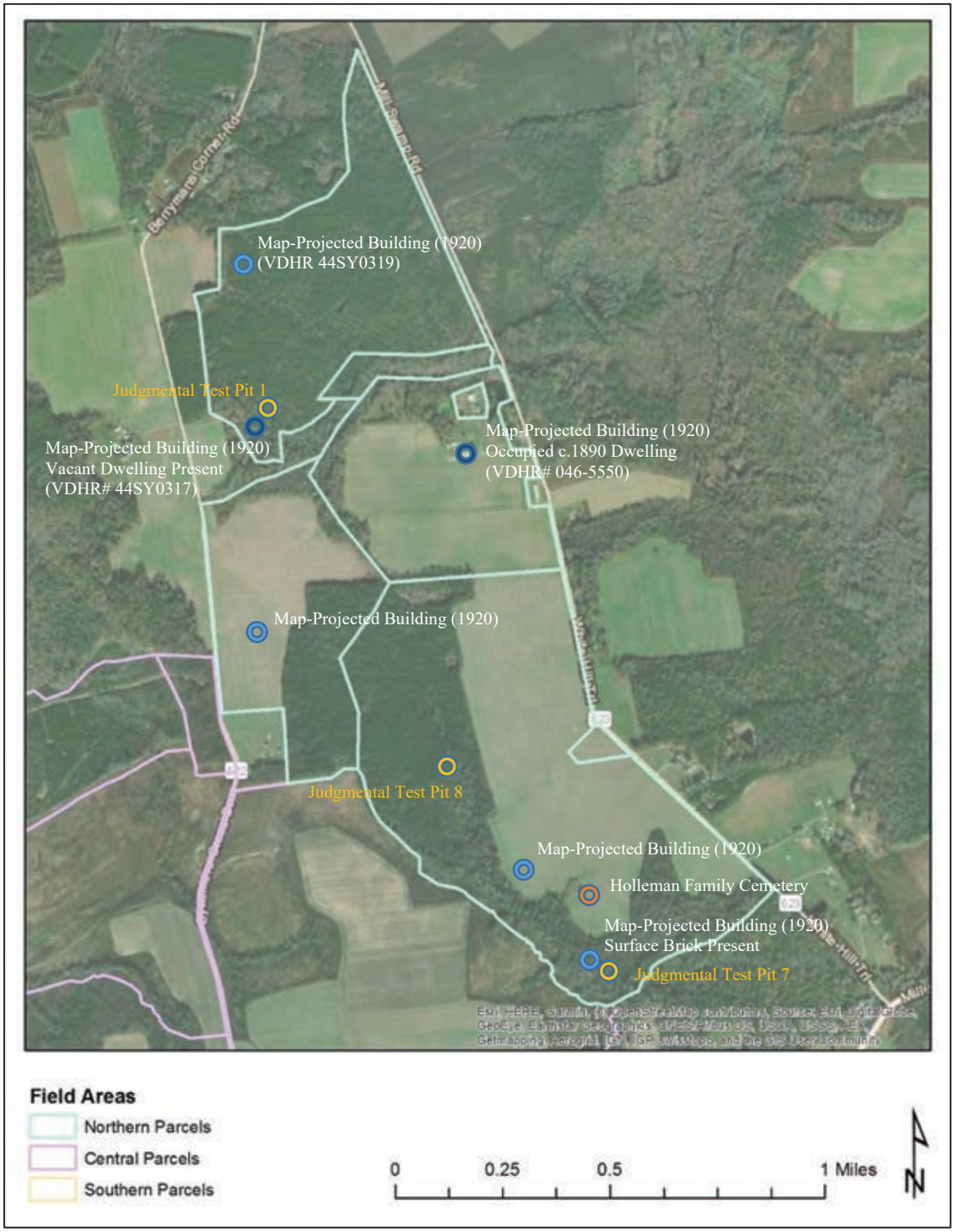


Figure 6-2: Northern parcels map.

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.



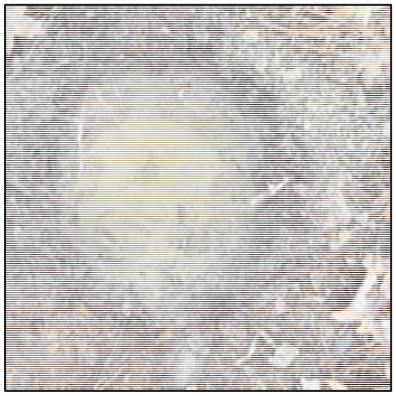
Figure 6-9: Brick on surface in the vicinity of a 1920 map projected building

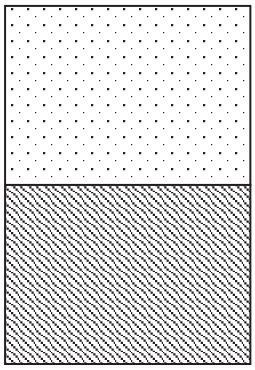


Figure 6-10: Headstone within family cemetery, looking east.

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.





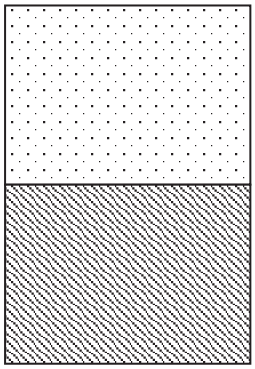
2.5Y 5/4 silty clay loam
0-33 cm

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).

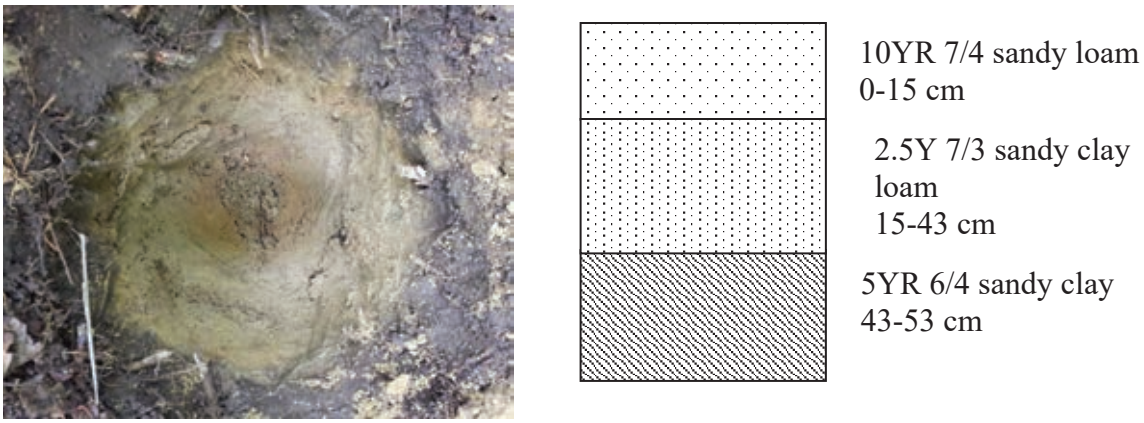


Figure 6-13: Soil profile of Judgmental 7.

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).

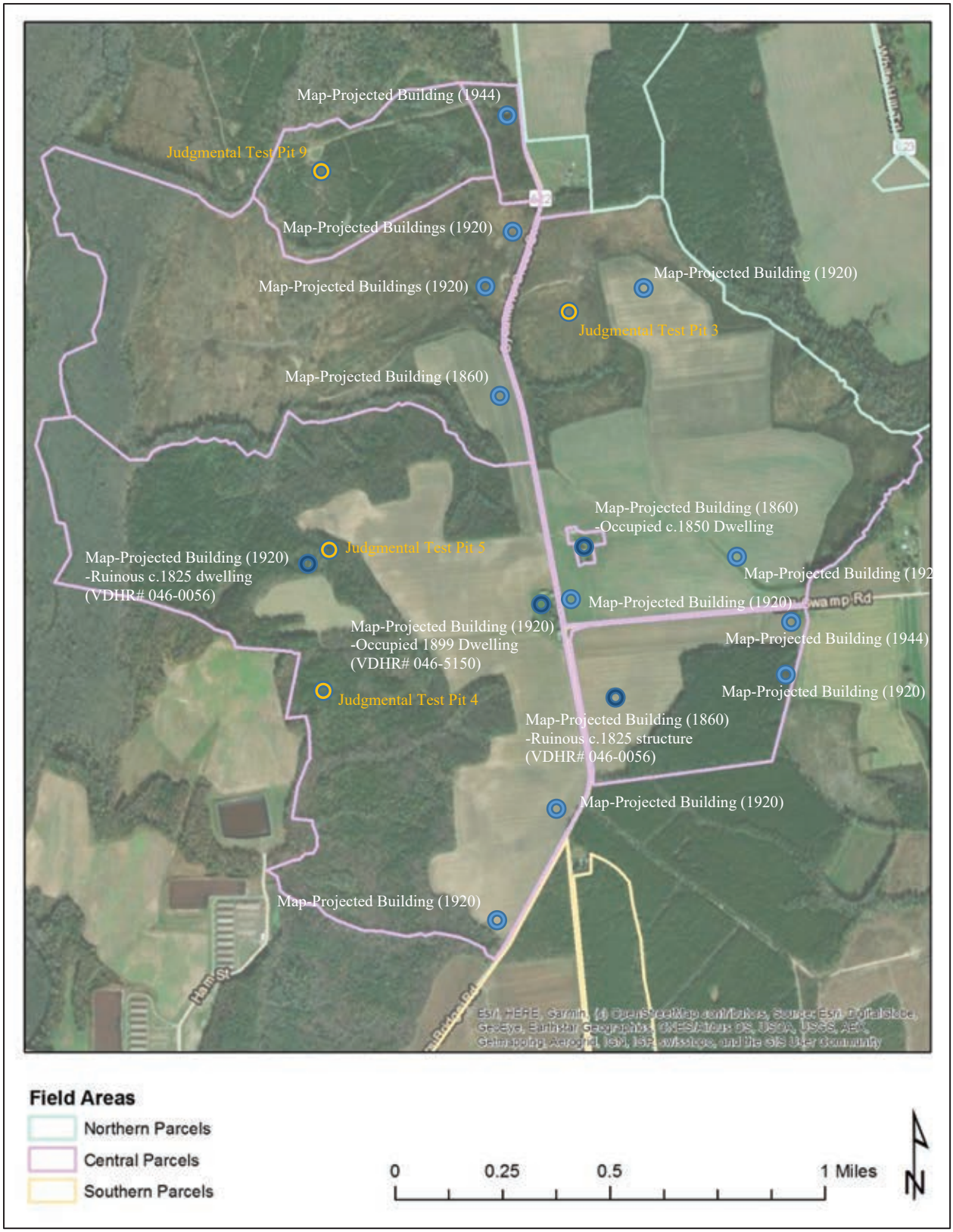


Figure 6-14: Central parcels map.

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).



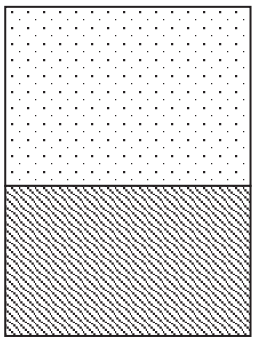


Figure 6-33: Soil Profile of Judgmental 5.



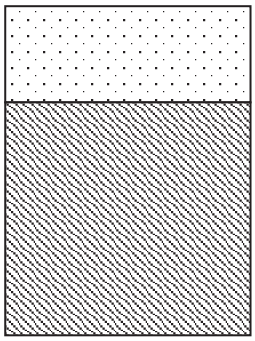
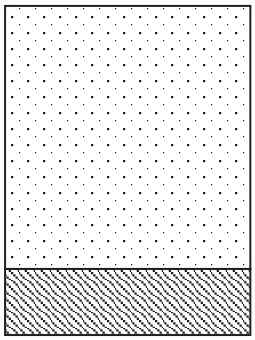


Figure 6-34: Soil Profile of Judgmental 4.





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).

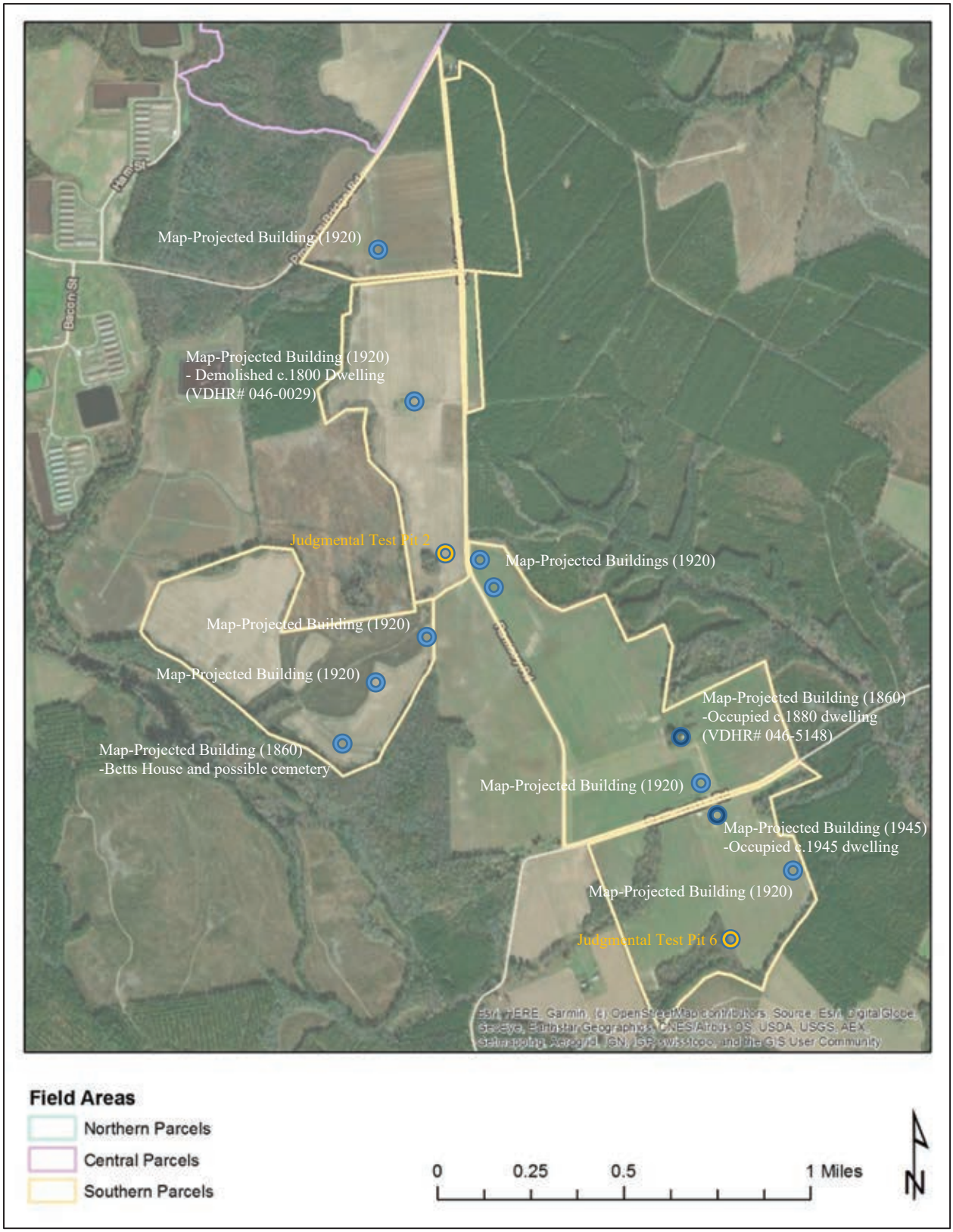


Figure 6-36: Southern parcels map.

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).

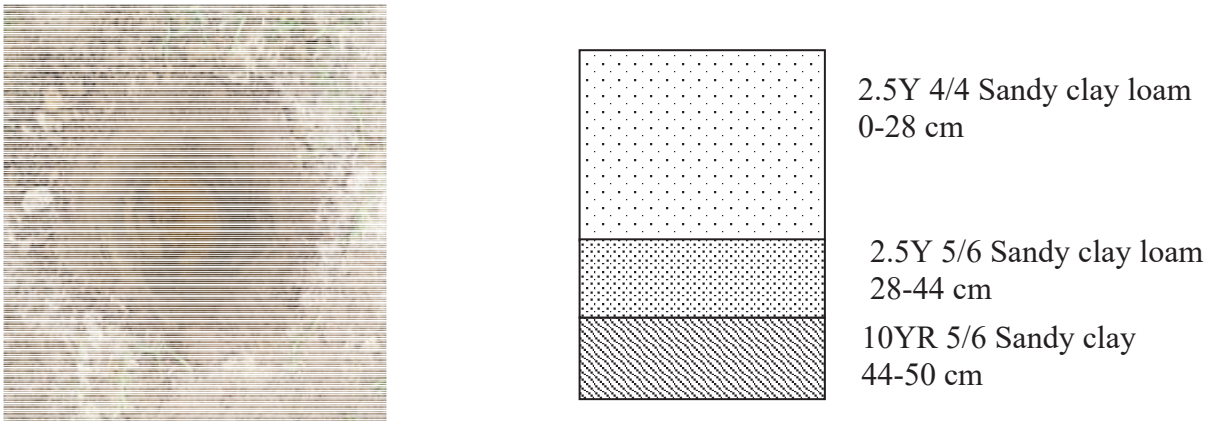
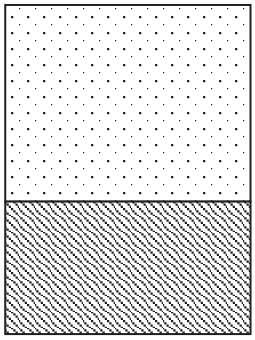


Figure 6-50: Soil Profile of Judgmental 2.





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 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**

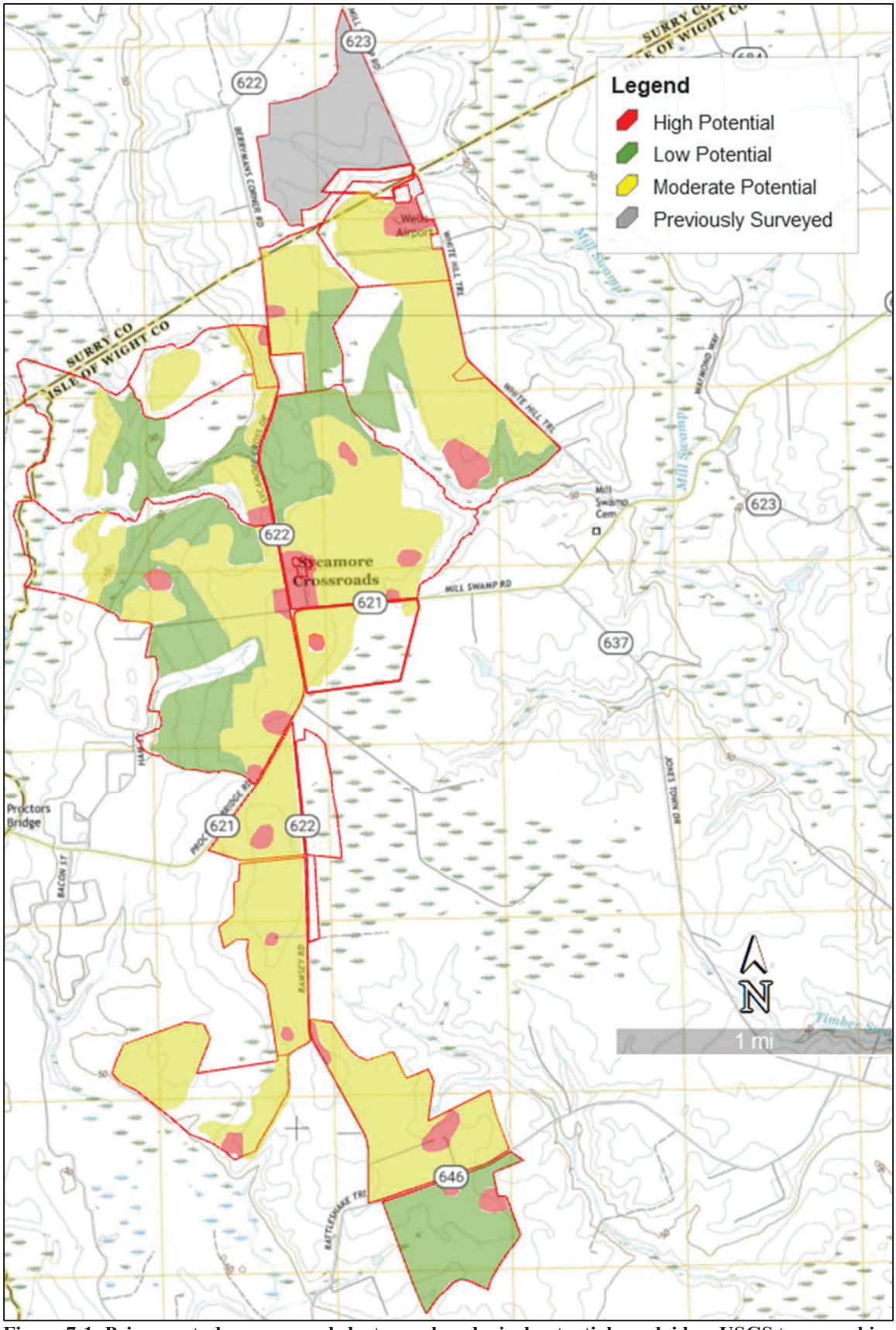


Figure 7-1: Primary study area parcel cluster archaeological potential overlaid on USGS topographic map.

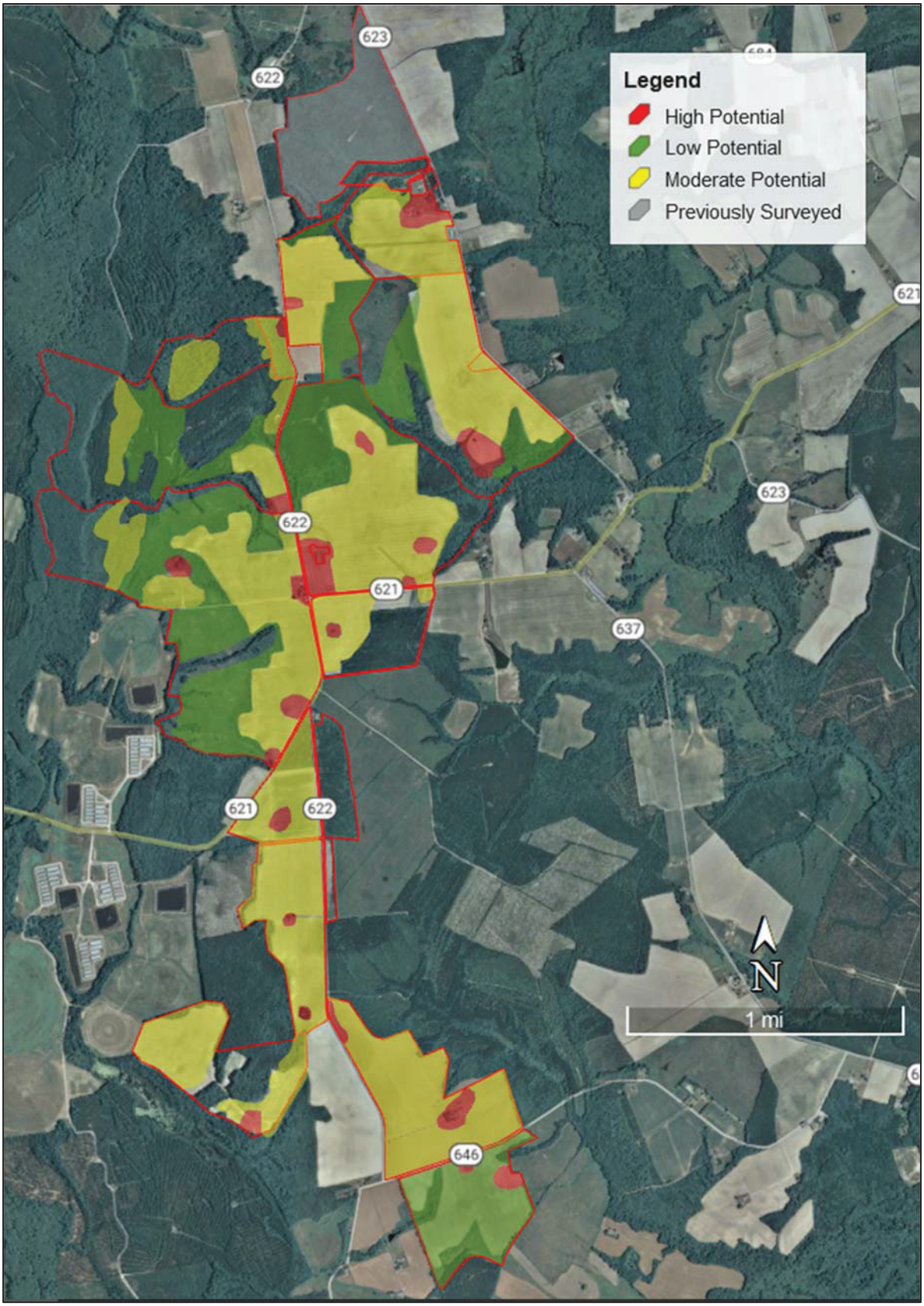


Figure 7-2: Primary study area parcel cluster archaeological potential overlaid on aerial photography.

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1954 *Runnymeade, VA Quadrangle*. 7.5 Minute Series Topographical Map, Scale 1:24000.

1971 *Runnymeade, VA Quadrangle*. 7.5 Minute Series Topographical Map, Scale 1:24000.

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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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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
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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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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
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

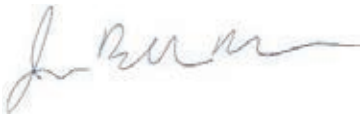
for archaeological resources. These areas should be adequately surveyed, and any identified sites should be evaluated for eligibility for listing in the VLR/NRHP and assessed for impacts. The desktop analysis also listed previously identified architectural resources within the study area that have not 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

COMMONWEALTH of VIRGINIA

Travis A. Voyles
Secretary of Natural and Historic Resources

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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

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.

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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

4198 COX ROAD, SUITE 104
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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.

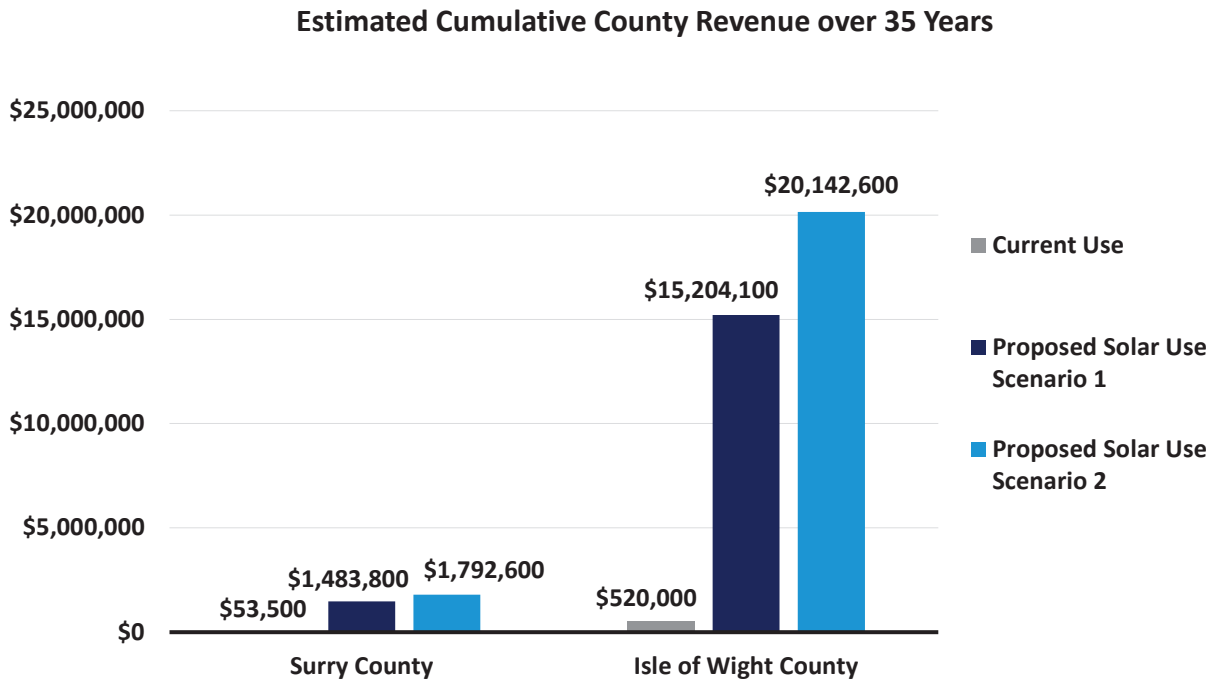
3) **The proposed Sycamore Cross Solar project would also make a significant fiscal contribution to the counties of Surry and Isle of Wight. The proposed project would generate approximately:**
    - $1.4 million in state and local tax revenue from the one-time pulse of economic activity associated with 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.

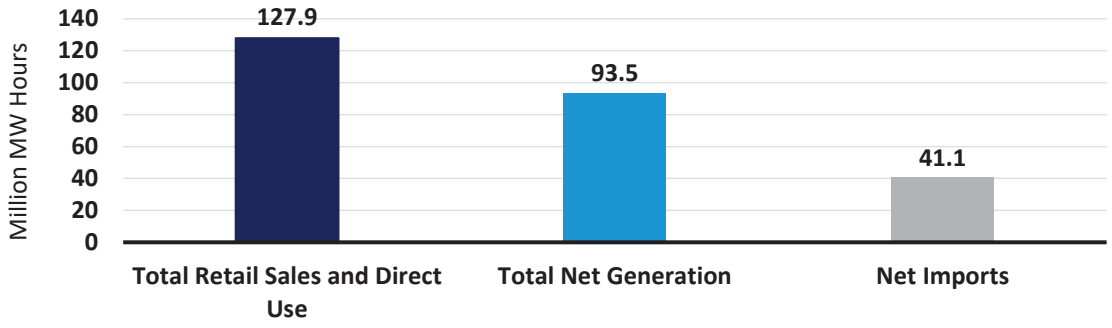
Electricity Production in Virginia

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]



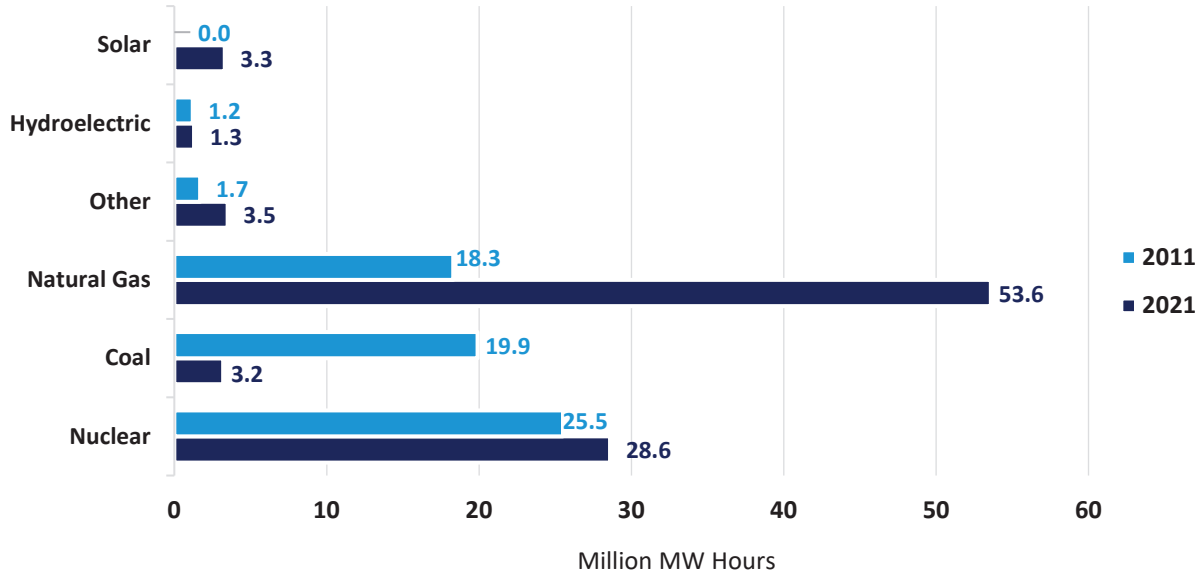
[2] Data Source: U.S. Energy Information Administration. In this chart, "Net Imports" also takes into account losses during transmission. As a result, it does not directly equal the residual of "Total Net Generation" minus "Total Retail Sales and Direct Use."

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.

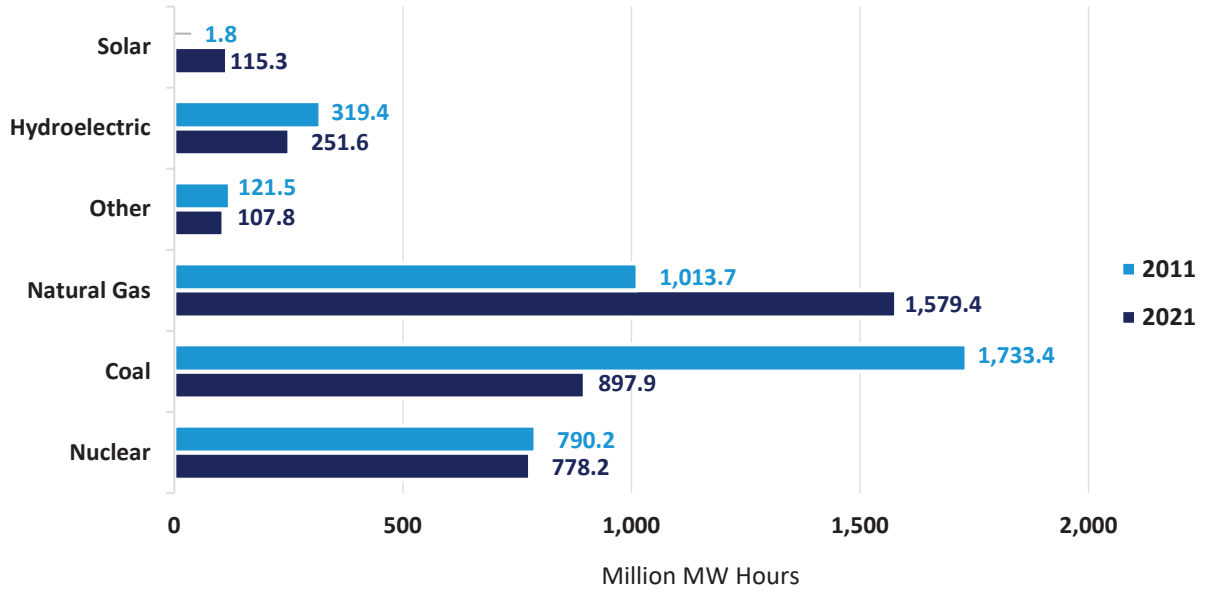
Figure 2: Electricity Generation in Virginia by Energy Source in 2011 and 2021 (in millions of megawatt-hours)[4]



[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]

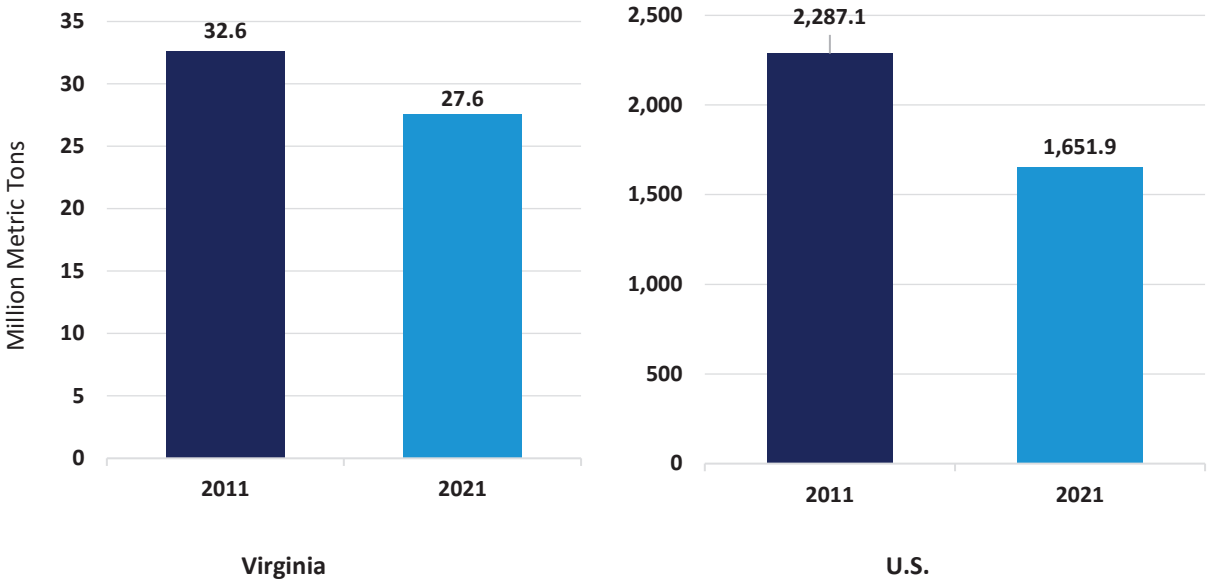


Impact on the Environment

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.

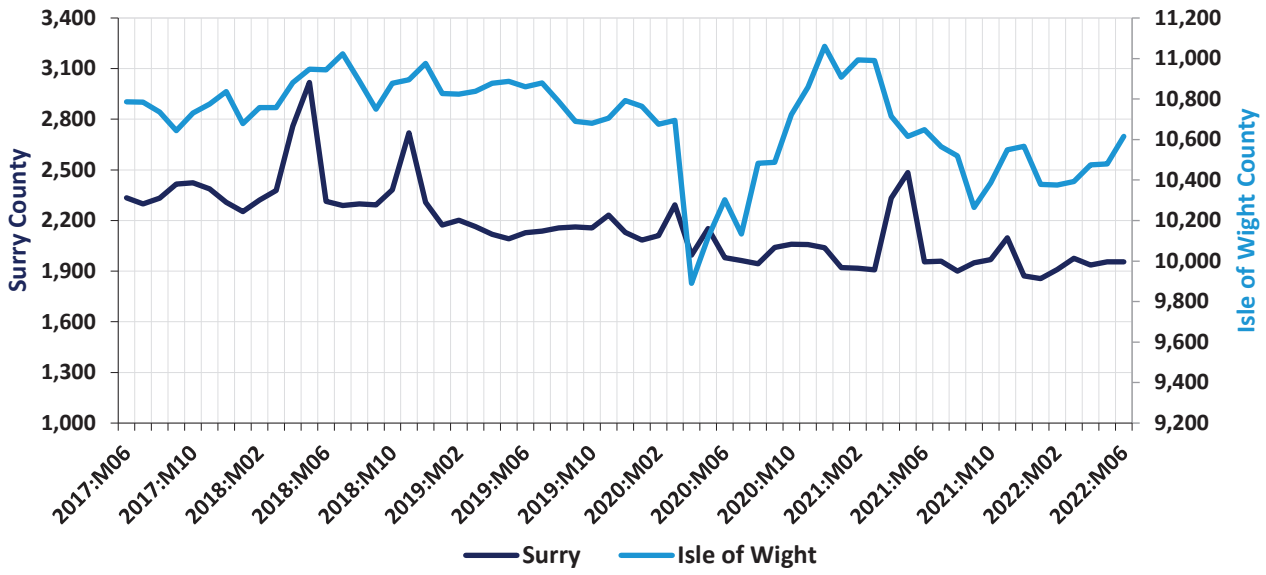
Local Economic Profile

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]

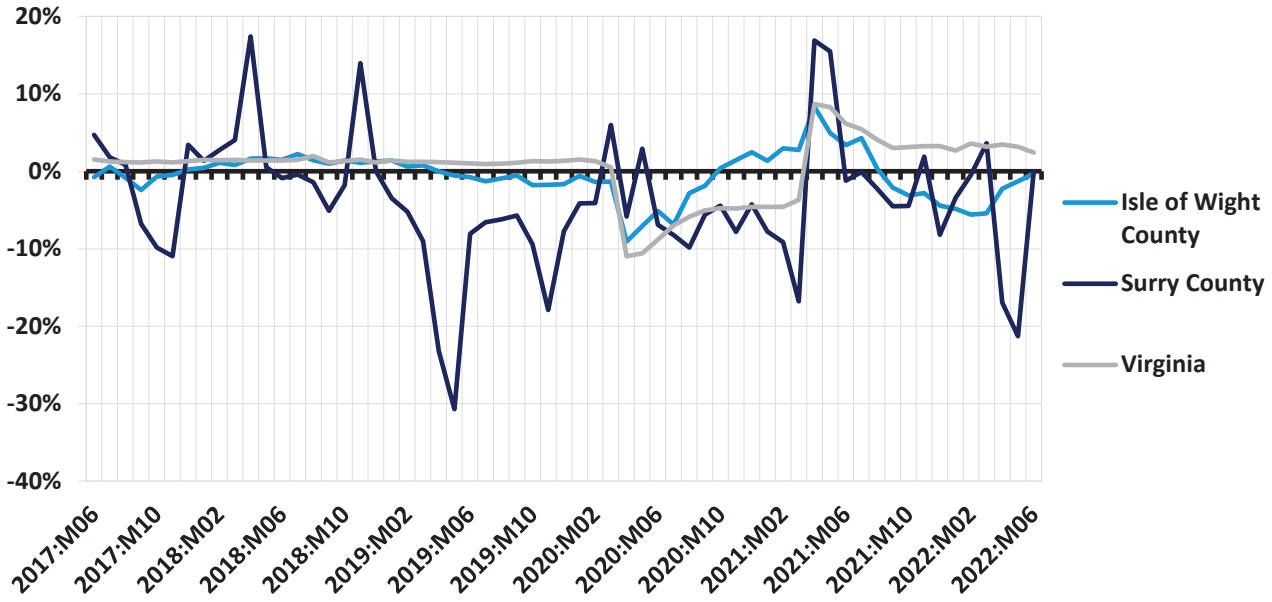


To control for seasonality and provide a point of reference, Figure 6 compares the year-over-year change in total employment in the counties of Surry and Isle of Wight to that of the state of Virginia over the same five-year period. Any point above the zero line in this graph indicates an increase in 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]

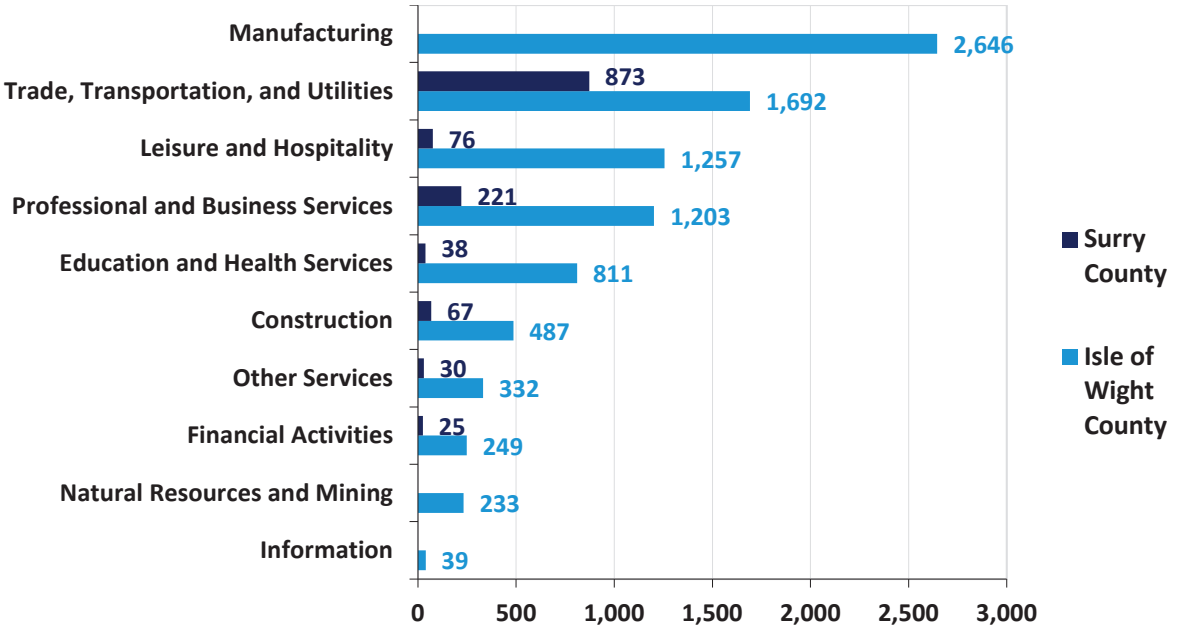
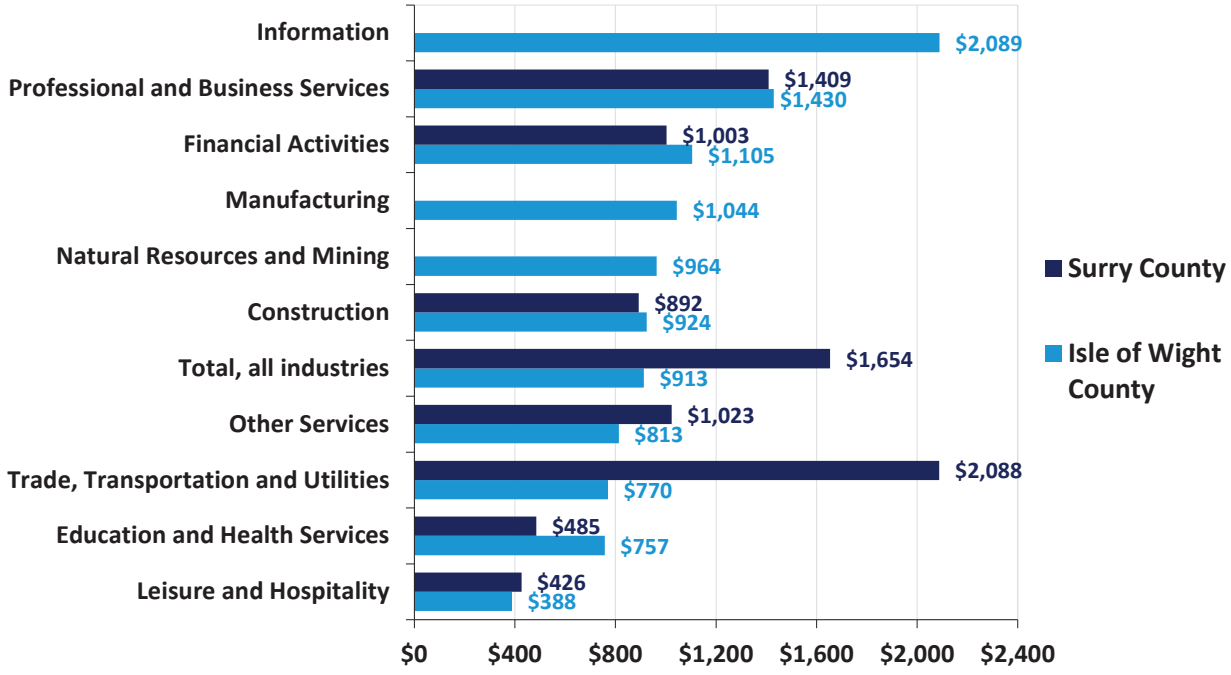


Figure 8: Average Private Weekly Wages by Industry Supersector in the Counties of Surry and Isle of Wight – 2nd Qu. 2022[12]

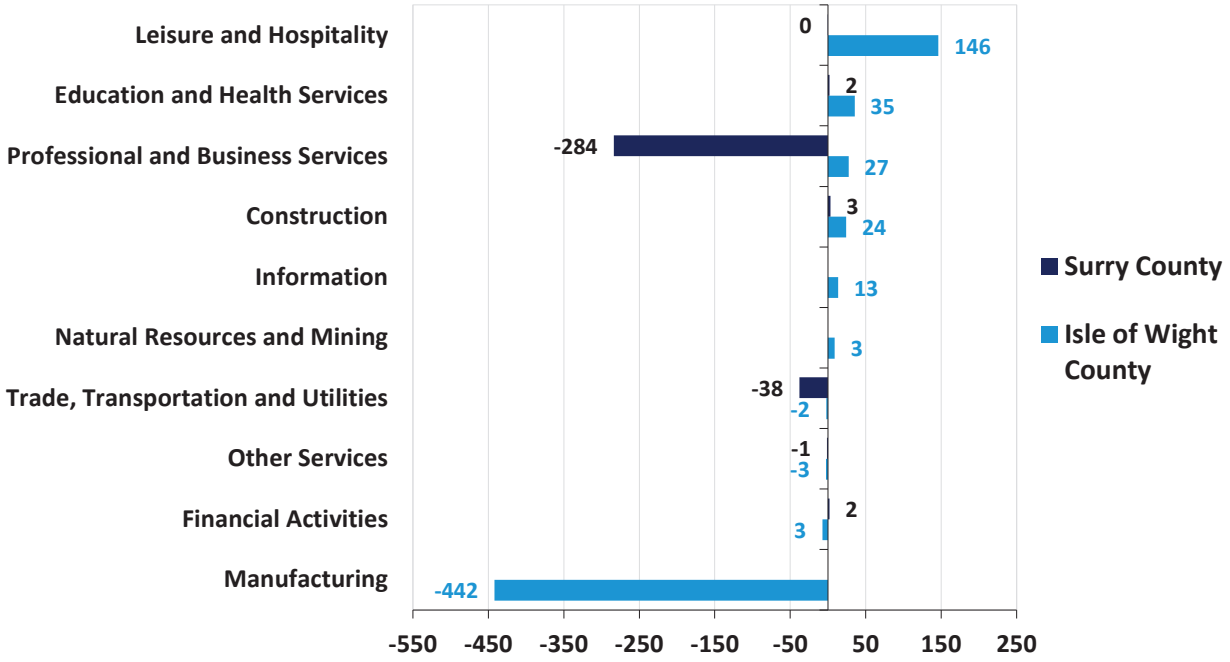


[11] Data Source: U.S. Bureau of Labor Statistics. Data on the Natural Resources and Mining, Manufacturing, and Information sectors in Surry County have been suppressed due to data confidentiality.

[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]

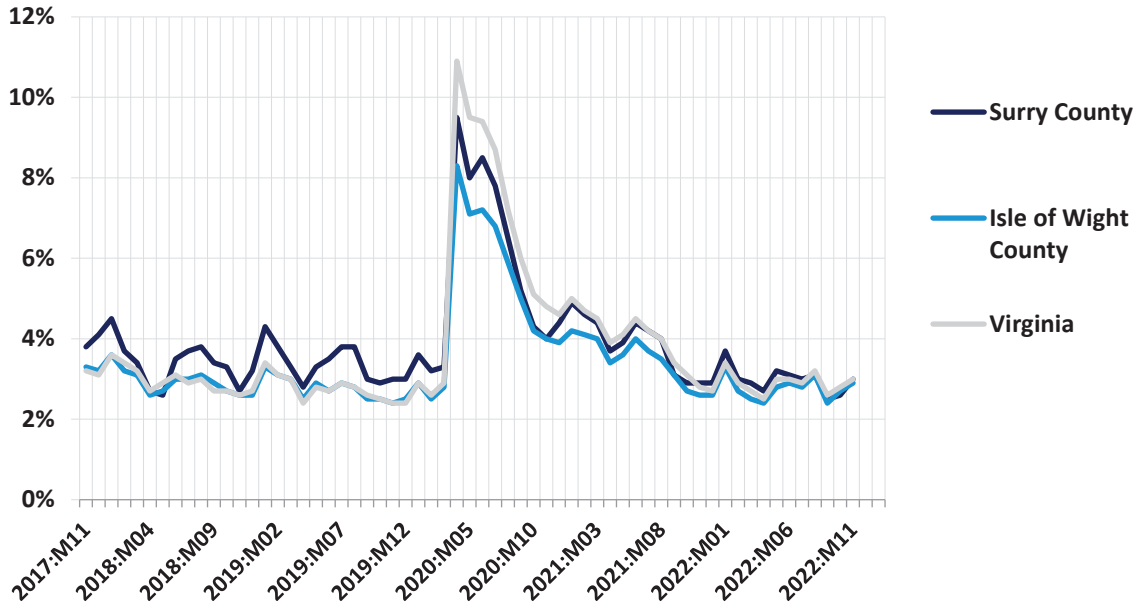


Unemployment

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.

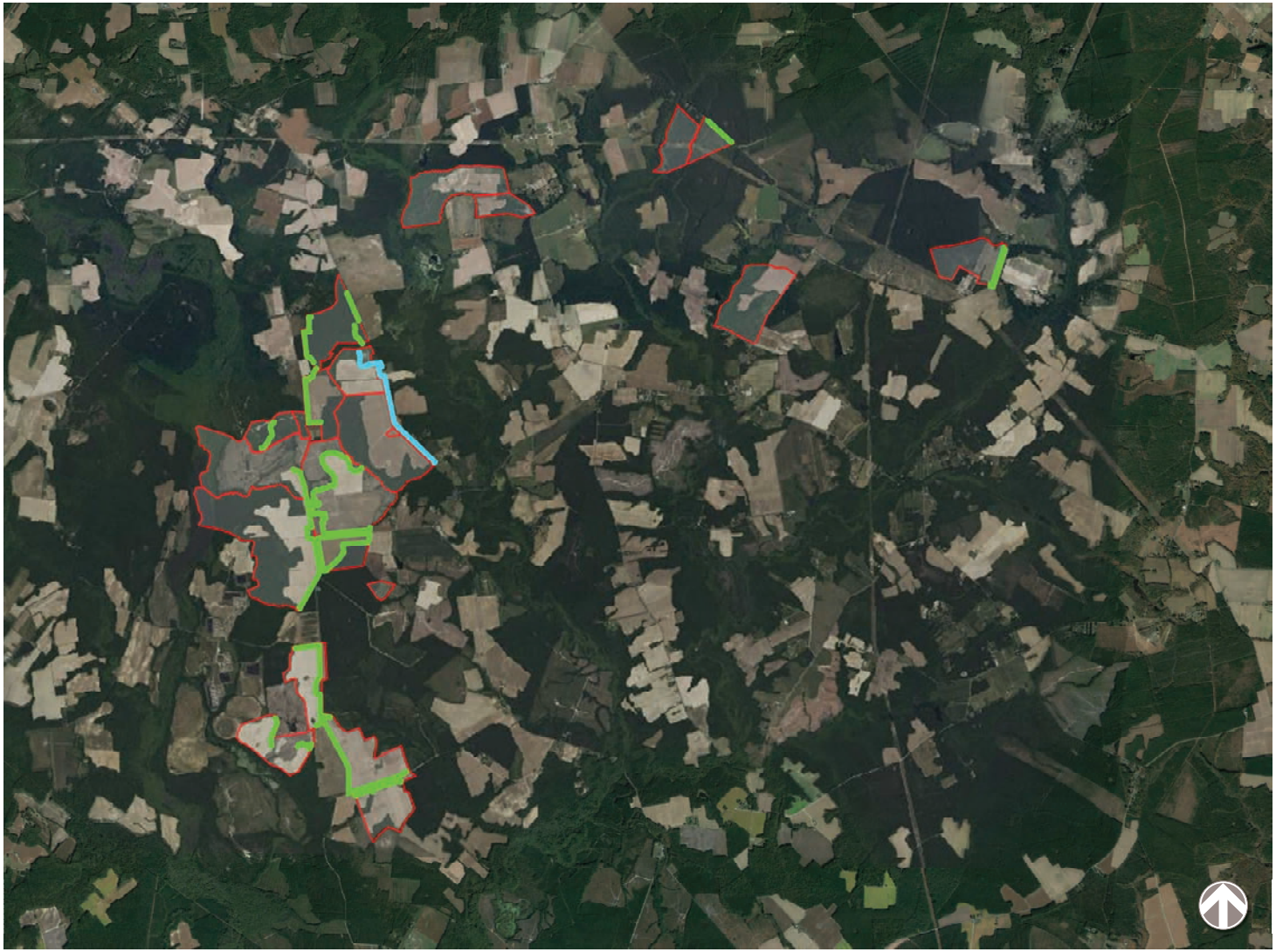
SYCAMORE CROSS SOLAR PROJECT

Isle of Wight and Surry Counties, Virginia

CONCEPTUAL LANDSCAPE

FEBRUARY 2024

LANDSCAPE SCREENING BY ZONE



LEGEND

FRONTAGE ZONE

BUFFER ZONE

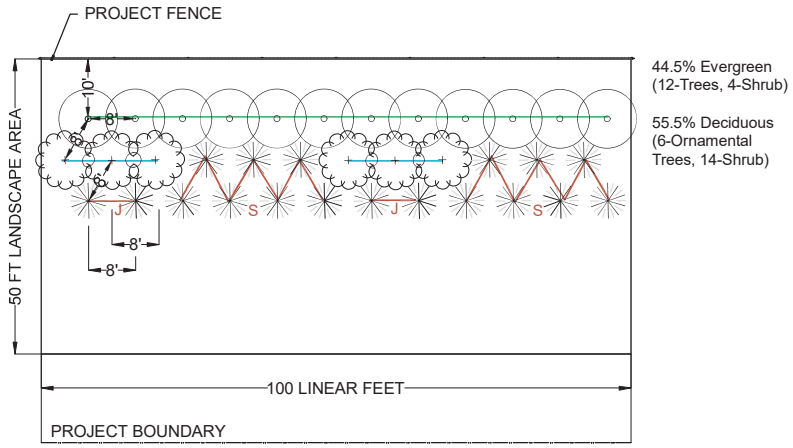
SCREENING ZONE - EXISTING VEGETATION TO REMAIN AND NEW VEGETATION TO BE PLANTED WHERE NECESSARY

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

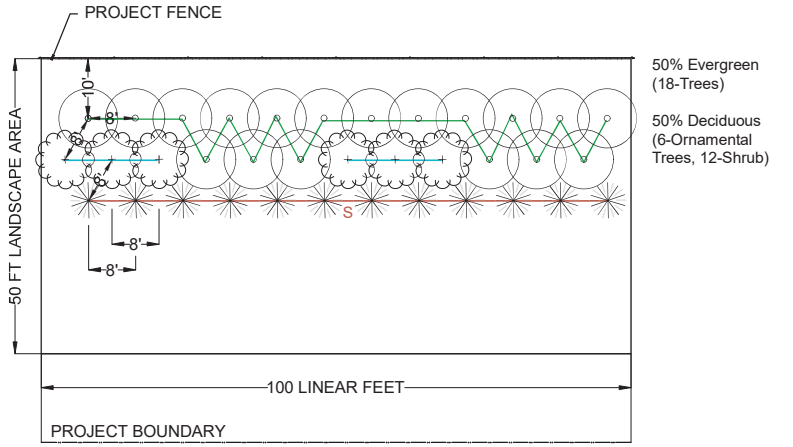


44.5% Evergreen (12-Trees, 4-Shrub)

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

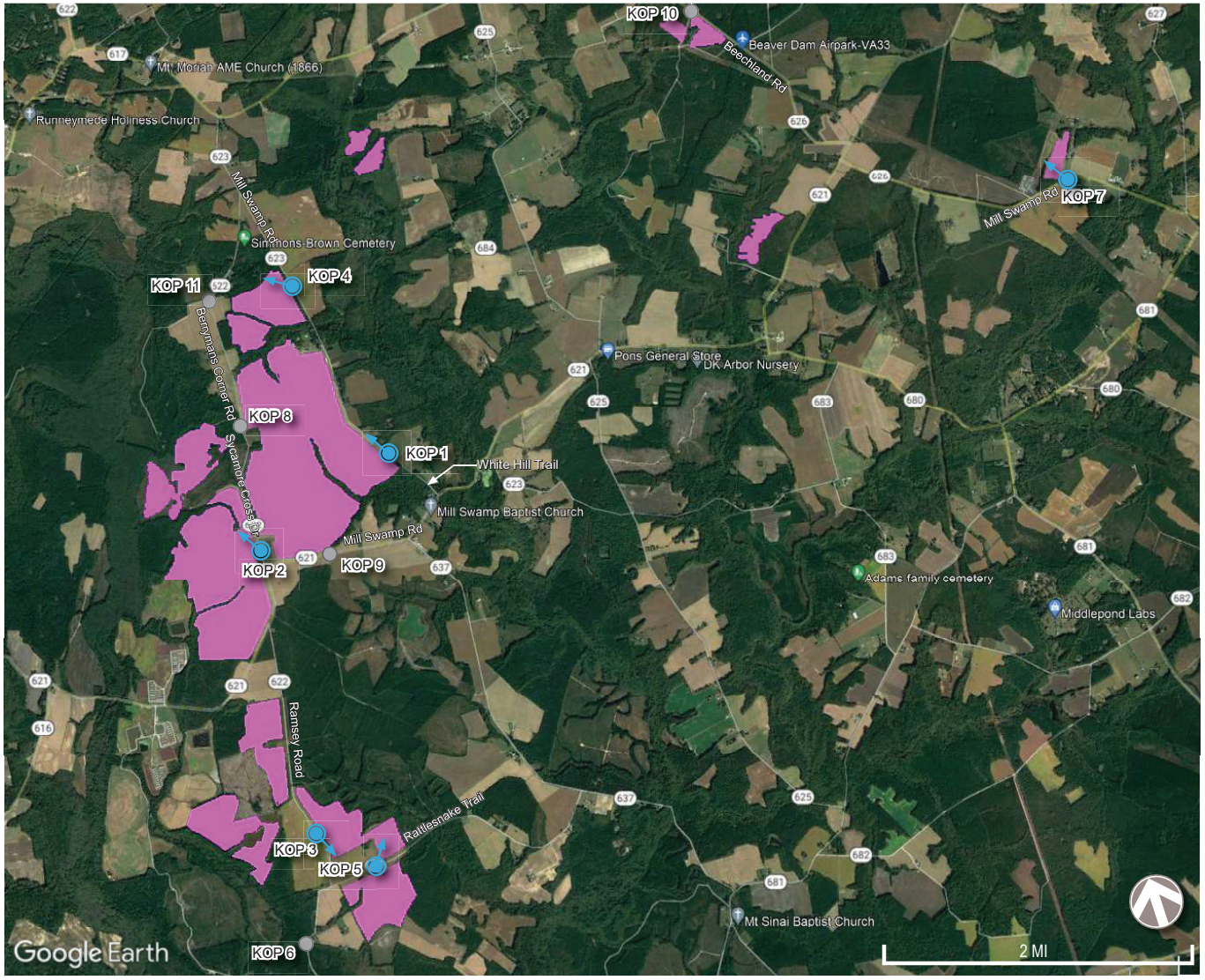
LANDSCAPE SCREENING - PLANT SCHEMATICS AND CONCEPTUAL PLANT LISTS

SYCAMORE CROSS SOLAR PROJECT

Isle of Wight and Surry Counties, Virginia

PHOTO SIMULATIONS

APRIL 2024

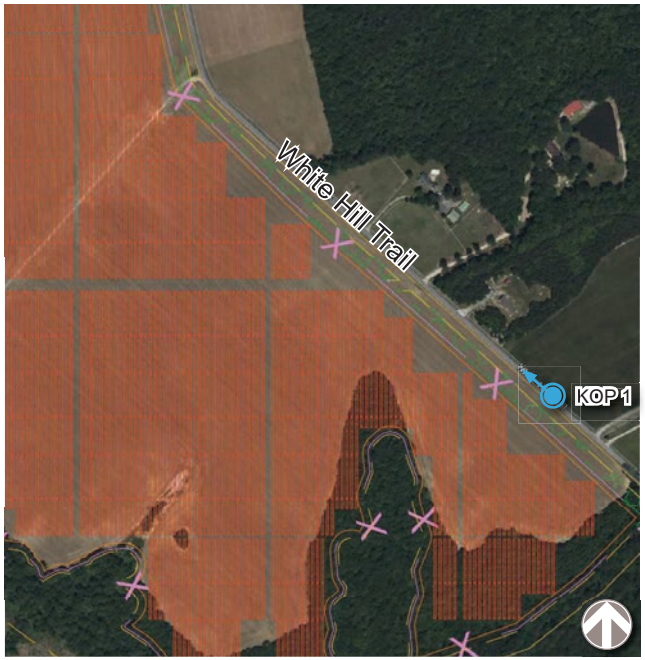


LEGEND

- 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

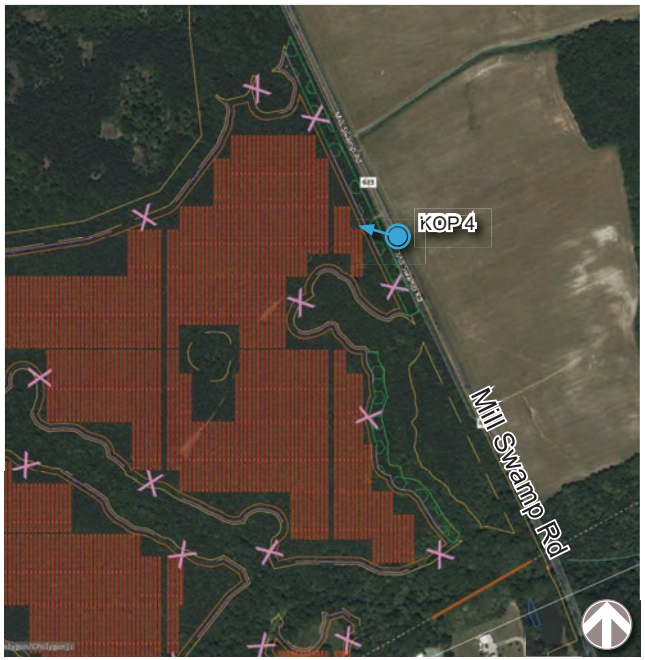
LEGEND

- PV Area
- Panels
- Fenceline
- Vegetative Buffer Area

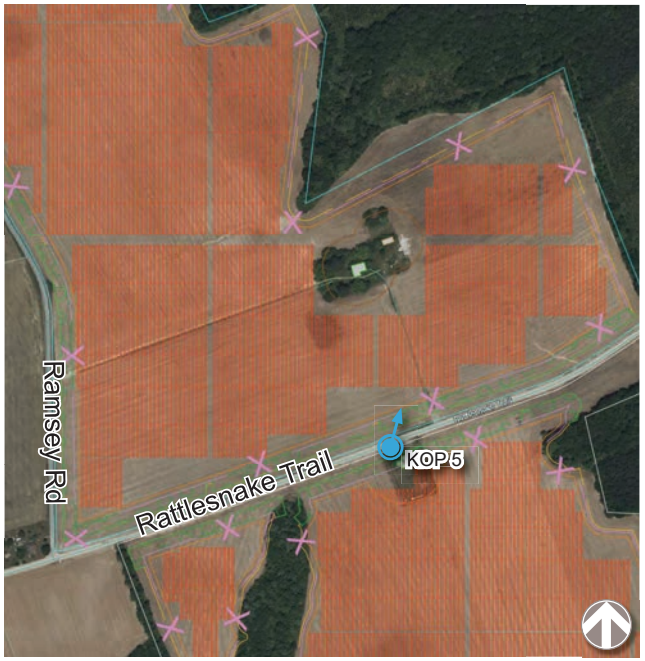
PHOTO LOCATION
& VIEWING DIRECTION

SYCAMORE CROSS SOLAR FACILITY

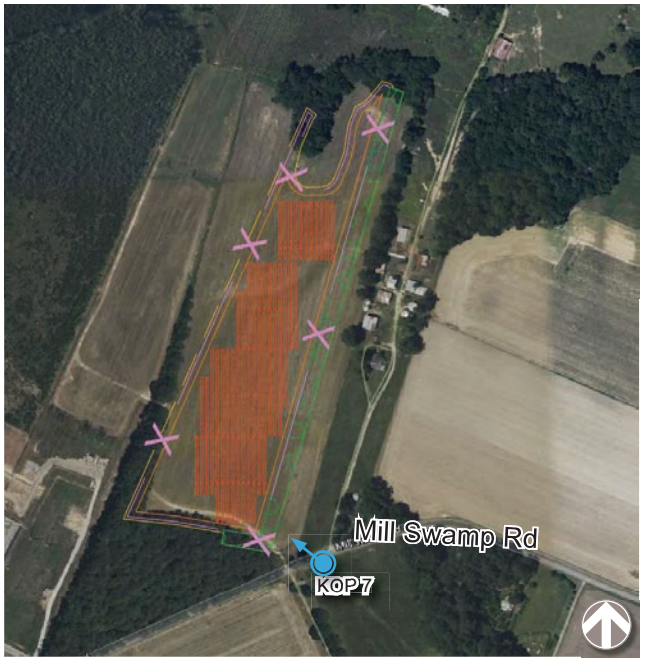
LANDSCAPE BUFFER VISUALIZATION - PHOTO LOCATIONS



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:
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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

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 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

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 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:
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 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

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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
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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

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SYCAMORE CROSS SOLAR PROJECT

KOP 5: Rattlesnake Trail

PHOTO SIMULATION





VICINITY MAP

LEGEND

- PHOTO SIMULATION LOCATION
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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
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SYCAMORE CROSS SOLAR PROJECT

KOP 7: Mill Swamp Rd

PHOTO SIMULATION





VICINITY MAP

LEGEND

- PHOTO SIMULATION LOCATION
- PROJECT AREA
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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% 0.00%	71	Approved 7/23/2023
Prairie Solar	152	152	0.12%	Longview	0.19% 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

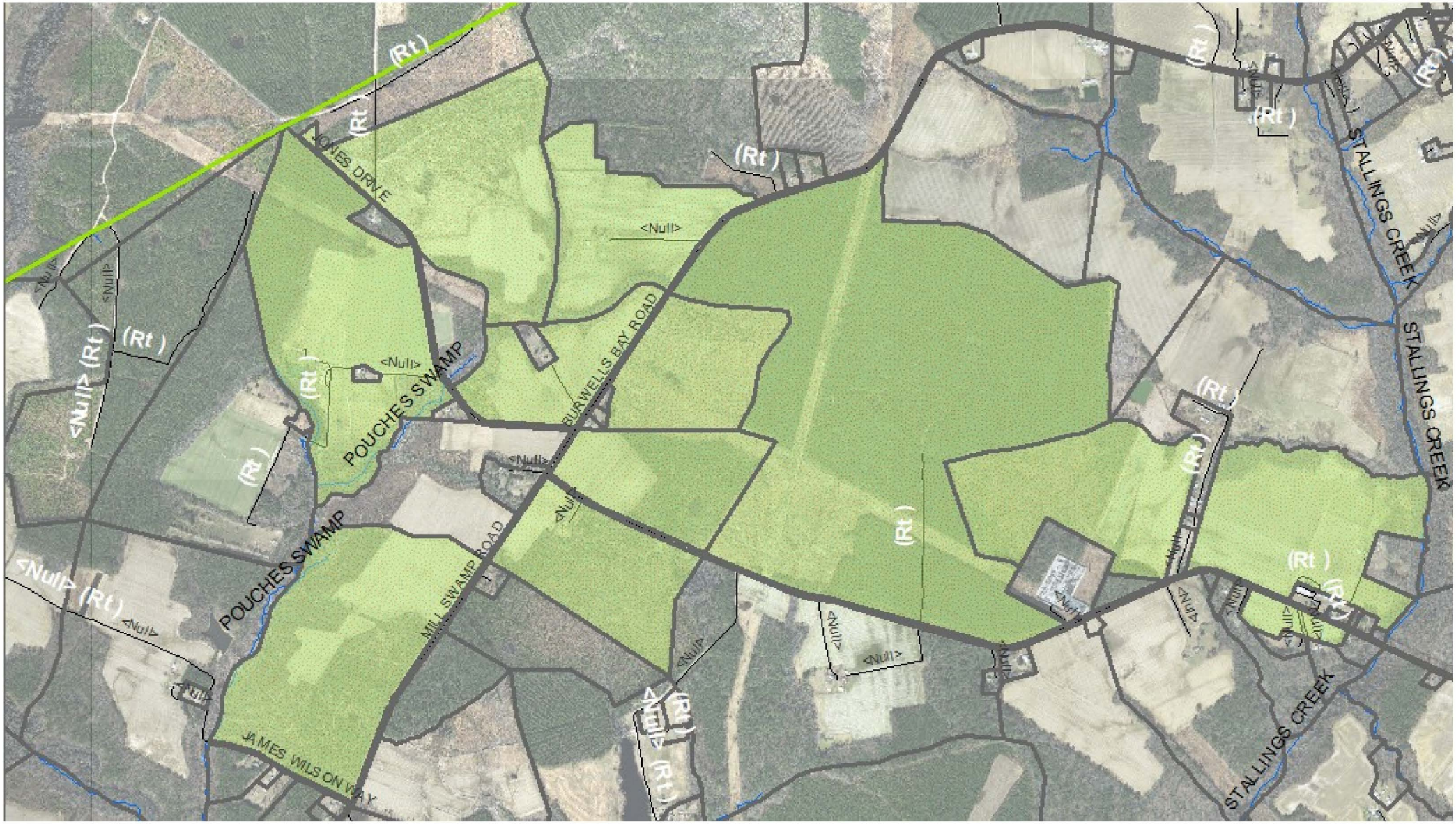

JONES DRIVE
POUCHES SWAMP
BURWELLS BAY ROAD
MILL SWAMP ROAD
JAMES WILSON WAY
STALLINGS CREEK
STALLINGS CREEK
STALLINGS CREEK
(Rt)
<Null>

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.

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	Agreement	7/5/2024

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 # _____ 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 Permit ("**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.

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**"). 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 PERMIT

EXHIBIT A-1

TAX PARCELS

Isle of Wight County Tax Parcels:

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 Revenue Share Equivalent and the M&T Taxes (the "**Annual Payments**"). Both the Revenue Share Equivalent and the M&T Tax 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.

1. **Revenue Share Equivalent.** The "**Revenue Share Equivalent**" is an annual payment amount determined by multiplying $1,400 per MWac (the "**Solar Revenue Share**") by the actual nameplate capacity (MWac) for the portion of the Project located in Isle of Wight County, to increase by ten percent (10%) every five (5) years after the Commercial Operation Date.
2. **M&T Taxes.** An estimate of the annual M&T Taxes (which will fluctuate in any given year, depending on the Project's machinery and tools).

(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, 2024, Applicant shall make a one-time payment of One Million Dollars ($1,000,000.00), to be made within sixty (60) days after approval of a CUP for the Project by the later to approve of Isle of Wight County and Surry County if no appeal is filed to either such approval or 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 Two Hundred Fifty Thousand Dollars ($250,000.00), to be made within sixty (60) days after approval of a CUP for the Project by the later to approve of Isle of Wight County and Surry County if no appeal is filed to either such approval or 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 to directly benefit residents of the County within two (2) miles of the Project area.

(3) **Final Site Plan Payment:** A one-time payment of One Million One Hundred Fifty Thousand Dollars ($1,150,000.00), to be made within sixty (60) days after the County approves a final site plan for the Project.

(4) **Commercial Operation Date Payment:** A one-time payment of One Million One Hundred Fifty Thousand Dollars ($1,150,000.00), to be made within sixty (60) days after the Commercial Operation Date.

The following illustrative schedule of payments assumes an estimated 189 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	Est. Gross Annual Tax Revenue (M&T)*	Revenue Share Equivalent**	Est. Annual Payments (Column B + C)
1	$399,403	$264,600.00	$664,002.98
2	$399,403	$264,600.00	$664,002.98
3	$399,403	$264,600.00	$664,002.98
4	$399,403	$264,600.00	$664,002.98
5	$398,205	$264,600.00	$662,804.77
6	$387,377	$291,060.00	$678,436.51
7	$375,883	$291,060.00	$666,942.58
8	$363,723	$291,060.00	$654,782.98
9	$350,853	$291,060.00	$641,913.33
10	$337,185	$291,060.00	$628,244.87
11	$322,673	$320,166.00	$642,839.23
12	$307,318	$320,166.00	$627,484.40
13	$291,032	$320,166.00	$611,197.64
14	$273,813	$320,166.00	$593,978.93
15	$255,529	$320,166.00	$575,695.15
16	$236,136	$352,107.00	$588,242.92
17	$215,589	$352,107.00	$567,695.85
18	$193,799	$352,107.00	$545,906.20
19	$170,723	$352,107.00	$522,829.58
20	$146,226	$352,107.00	$498,332.87
21	$120,309	$387,450.00	$507,759.05
22	$92,795	$387,450.00	$480,244.63
23	$63,638	$387,450.00	$451,088.21
24	$44,378	$387,450.00	$431,828.11
25	$44,378	$387,450.00	$431,828.11
26	$44,378	$426,195.00	$470,573.11
27	$44,378	$426,195.00	$470,573.11
28	$44,378	$426,195.00	$470,573.11
29	$44,378	$426,195.00	$470,573.11
30	$44,378	$426,195.00	$470,573.11
31	$44,378	$468,720.00	$513,098.11
32	$44,378	$468,720.00	$513,098.11
33	$44,378	$468,720.00	$513,098.11
34	$44,378	$468,720.00	$513,098.11
35	$44,378	$468,720.00	$513,098.11
Total			$19,584,443.91

*Assumes $328,970,412 Capital investment in Isle of Wight County, 80% exemption, and a tax rate of $0.7100/$100
**Assumes 189 MWac in Isle of Wight County, $1400/MW, and 10% escalator every 5 years

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._____

[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 _____ (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
2024 Legislative Priority List	Backup Material	5/22/2024

DRAFT ISLE OF WIGHT COUNTY
2024 LEGISLATIVE PRIORITY LIST

LOCAL ISSUES

- 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

ADDITIONAL SALES TAX FOR EDUCATION PURPOSES

ISSUE:

The Code of Virginia authorizes "the qualifying locality" to impose an additional local sales and use tax at a rate not to exceed one percent, as determined by the governing body, if initiated by a resolution of the local governing body and **approved by the voters at a referendum**. 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.

LIMITED RESIDENTIAL LODGING ACT

ISSUE:

The Limited Residential Lodging Act (the Act) allows persons to rent out their primary residences or portions thereof for charge for periods of less than 30 consecutive days or do so through a hosting platform. Localities are preempted from adopting ordinances or zoning restriction prohibiting such short-term rentals, but authorized to adopt ordinances requiring persons renting their primary residences to have a minimum of $500,000 of liability insurance, prohibiting persons from renting their primary residences if they fail to pay applicable taxes, and requiring persons renting their primary residences to register with the locality. A hosting platform must register with the Department of Taxation to collect and remit all applicable taxes on behalf of the property owner using the hosting platform. The bill defines "limited residential lodging," "booking transaction," and "hosting platform" and provides for penalties for violations of the Act. The bill contains a reenactment clause and directs the Virginia Housing Commission to convene a work group to further study the issues presented in the bill and make recommendations for consideration by the 2017 Session of the General Assembly.

COUNTY POSITION:

The General Assembly should adopt legislation that provides localities the ability to ensure the safety, well-being and use of property by persons renting properties, as well as adjacent and neighboring property owners.

Isle of Wight County is **opposed** to any legislation that would exempt short-term rental rooms or entire residences through booking platforms such as AirBnB from local zoning regulations.

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.

HB2175 - FIRE SERVICES FUNDING

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.

ISSUE:

Discussion of Holding a Strategic Planning Retreat

BACKGROUND:

At its regular meeting on June 13, 2024, the Board expressed its desire to hold a retreat in order to discuss the update of its strategic plan in an effort to help guide the budget process and expenditures.

The Board may wish to continue discussing potential dates in the fall and locations for its next retreat so staff can begin securing a speaker/facilitator, location, transportation, etc.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Per the Board's discussion.

ISSUE:

Staff Update re: Congressionally Directed Funding for Broadband Expansion

BACKGROUND:

The County has previously been awarded Congressionally-directed funding for the purpose of broadband expansion. It has been determined that the project cannot move forward as originally envisioned. Staff will provide an update on the status of the project and the next steps.

BUDGETARY IMPACT:

The County will decline $318,750 for broadband expansion purposes.

RECOMMENDATION:

For the Board's information.

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
Delinquent Tax Collections - May 2024	Backup Material	7/11/2024
Statement of Treasurer's Accountability - May 2024	Backup Material	7/5/2024
Incidents by Zone Map - June 2024	Backup Material	7/2/2024
Incidents by Zone Data - June 2024	Backup Material	7/2/2024
Station Activity Report - June 2024	Backup Material	7/2/2024
Museum Report - June 2024	Backup Material	7/8/2024

COUNTY OF ISLE OF WIGHT
TAX BILLINGS & COLLECTIONS AS OF MAY 2024
REAL ESTATE

TAX YEAR	TAX LEVY	SUPPLEMENTS	PUBLIC SERVICE	ADJUSTMENTS & ABATEMENTS	TOTAL TAX LEVIES	TAX COLLECTED	TAX OUTSTDG.	% COLLECTED	% UNC.
Prior 2018					$ 244,100,903.63	$ 244,091,371.18	$ 9,532.45	100.00%	0.00%
2019-2020	$ 39,703,728.23	$ 274,918.89	$ 1,455,114.04	$ (1,137,371.79)	$ 40,296,389.37	$ 40,291,028.96	$ 5,360.41	99.99%	0.01%
2020-2021	$ 40,264,498.73	$ 400,481.38	$ 1,637,435.57	$ (1,266,196.09)	$ 41,036,219.59	$ 41,017,257.90	$ 18,961.69	99.95%	0.05%
2021-2022	$ 41,155,420.28	$ 370,483.53	$ 1,535,777.50	$ (1,512,045.83)	$ 41,549,635.48	$ 41,478,705.39	$ 70,930.09	99.83%	0.17%
2022-2023	$ 41,962,855.68	$ 412,251.64	$ 1,428,098.18	$ (1,902,240.75)	$ 41,900,964.75	$ 41,681,827.99	$ 219,136.76	99.48%	0.52%
2023-2024	$ 23,061,552.16	$ 110,009.53	$ 1,172,045.46	$ (1,312,954.10)	$ 23,030,653.05	$ 22,799,693.05	$ 230,960.00	99.00%	1.00%
					DELINQUENT REAL ESTATE =	$ 554,881.40	99.87%	0.14%	

PERSONAL PROPERTY

PERSONAL PROPERTY

TAX	TAX LEVY	SUPPLEMENTS	PUBLIC SERVICE	ADJUSTMENTS	TOTAL TAX	TAX COLLECTED	TAX OUTSTDG.	% COLLECTED	% UNC.
prior 2017					$ 102,478,852.53	$ 67,214,902.15	$ 104,241.68	65.59%	0.10%
2018	$ 14,385,655.01	$ 1,445,325.25	$ 29,880.46	$ (1,100,732.06)	$ 14,760,128.66	$ 14,707,022.25	$ 53,106.41	99.64%	0.36%
LIC. FEE	$ 995,518.00	$ 172,363.00	$ -	$ (90,500.00)	$ 1,077,381.00	$ 1,065,632.10	$ 11,748.90	98.91%	1.09%
2019	$ 15,920,628.76	$ 1,442,262.52	$ 38,859.89	$ (1,055,272.78)	$ 16,346,478.39	$ 16,260,842.84	$ 85,635.55	99.48%	0.52%
LIC. FEE	$ 986,732.00	$ 154,039.00	$ -	$ (45,682.00)	$ 1,095,089.00	$ 1,078,544.17	$ 16,544.83	98.49%	1.51%
2020	$ 16,352,666.74	$ 1,398,940.42	$ 38,691.28	$ (1,021,641.20)	$ 16,768,657.24	$ 16,658,209.71	$ 110,447.53	99.34%	0.66%
LIC. FEE	$ 942,740.00	$ 130,837.00	$ -	$ (28,744.00)	$ 1,044,833.00	$ 1,026,129.35	$ 18,703.65	98.21%	1.79%
2021	$ 19,301,665.16	$ 1,280,732.13	$ 46,882.14	$ (1,539,751.82)	$ 19,089,527.61	$ 18,906,893.19	$ 182,634.42	99.04%	0.96%
LIC. FEE	$ 959,443.00	$ 161,957.00	$ -	$ (38,831.00)	$ 1,082,569.00	$ 1,056,053.99	$ 26,515.01	97.55%	2.45%
2022	$ 22,290,687.31	$ 2,061,212.73	$ 34,783.40	$ (1,811,497.58)	$ 22,575,185.86	$ 22,027,208.11	$ 547,977.75	97.57%	2.43%
LIC. FEE	$ 971,360.00	$ 128,325.00	$ -	$ (35,043.70)	$ 1,064,641.30	$ 1,020,120.09	$ 44,521.21	95.82%	4.18%
2023	$ 22,522,944.74	$ 3,706,006.90	$ 38,008.94	$ (1,805,377.26)	$ 24,461,583.31	$ 22,872,735.76	$ 1,588,847.55	93.50%	6.50%
LIC. FEE	$ 990,267.00	$ 135,871.00		$ (35,190.00)	$ 1,090,948.00	$ 966,481.28	$ 124,466.72	88.59%	11.41%
					DELINQUENT PERSONAL PROP. =	$ 2,915,391.21	82.92%	1.31%	
					TOTAL DELINQUENT=	**$ 3,470,272.61**	94.10%	0.57%	

Local Roots, Global Reach

ISLE OF WIGHT
COUNTY, VIRGINIA

STATEMENT OF CASH ACCOUNTABILITY
May 2024

Institution	Instrument	Rate	Balance	Previous Year Balance
	Cash			
	Petty Cash		$2,350.00	$2,300.00
SUB TOTAL			**$2,350.00**	**$2,300.00**
	Checking Accounts			
Bank of America	General Fund Checking	2.28%	$23,173,067.26	$15,797,518.21
Bank of America	School General Fund Checking	2.28%	$6,382,085.17	$4,338,514.32
Bank of America	DSS General Fund Checking	2.28%	$2,692,313.06	$2,480,182.28
Bank of America	County Payroll Account	2.38%	$155,942.87	$99,049.09
Bank of America	School Payroll Account	2.38%	$3,260.74	$1,636.77
Bank of America	DSS Payroll Account	2.38%	$47.03	$3,149.53
SUB TOTAL			**$32,406,716.13**	**$22,720,050.20**
	Investments			
Bank of America	Emergency Fund Checking	2.38%	$2,702.01	$2,639.56
LGIP	General Fund Investment	5.55%	$17,927,505.11	$19,921,778.63
VIP	VIP Long Term	5.44%	$81,800.98	$79,201.45
VIP	VIP Short Term	5.44%	$13,488,289.25	$8,759,540.71
SUB TOTAL			**$31,500,297.35**	**$28,763,160.35**
	Restricted Funds			
Bank of America	School Escrow Fund	0.00%	$0.00	$0.00
Bank of America	General Recoupment Funds	0.00%	$11,696.13	$15,141.84
Bank of America	Special Welfare Funds	0.60%	$36,223.70	$0.00
Bank of America	Special Welfare Donated Funds	2.38%	$18,691.37	$20,094.45
Bank of America	Special Welfare Child Support	2.35%	$178.32	$288.57
Bank of America	School's Camp Foundation	2.38%	$25,867.89	$25,270.06
Towne Bank	School Food Service Funds	0.10%	$1,559,710.50	$1,788,348.00
BNY Mellon	Pace Funds		$2,055,597.41	$2,228,604.33
Bank of America	County Escrow Fund	2.38%	$4,505.56	$10,770.09
Bank of America	Opioid Funds	0.20%	$106,280.00	$0.00
Bank of America	Health Equity		$1,582,505.98	$0.00
SUB TOTAL			**$5,401,256.86**	**$4,088,517.34**
	Bond Proceeds--Invested in SNAP			
	2016 Bond	5.48%	$164,452.66	$334,009.58
	2016 Bond Interest	5.48%	$245,833.20	$221,247.65
	2020A Bond	5.48%	$0.00	$7,150,884.58
	2020A Bond Interest	5.48%	$0.00	$492,366.37
	2022 GO Bond	5.48%	$4,550,993.97	$18,509,158.87
	2022 GO Bond Interest	5.48%	$1,299,156.37	$718,889.02
SUB TOTAL			**$6,260,436.20**	**$27,426,556.07**
TOTAL OF ALL FUNDS			**$75,571,056.54**	**$83,000,583.96**

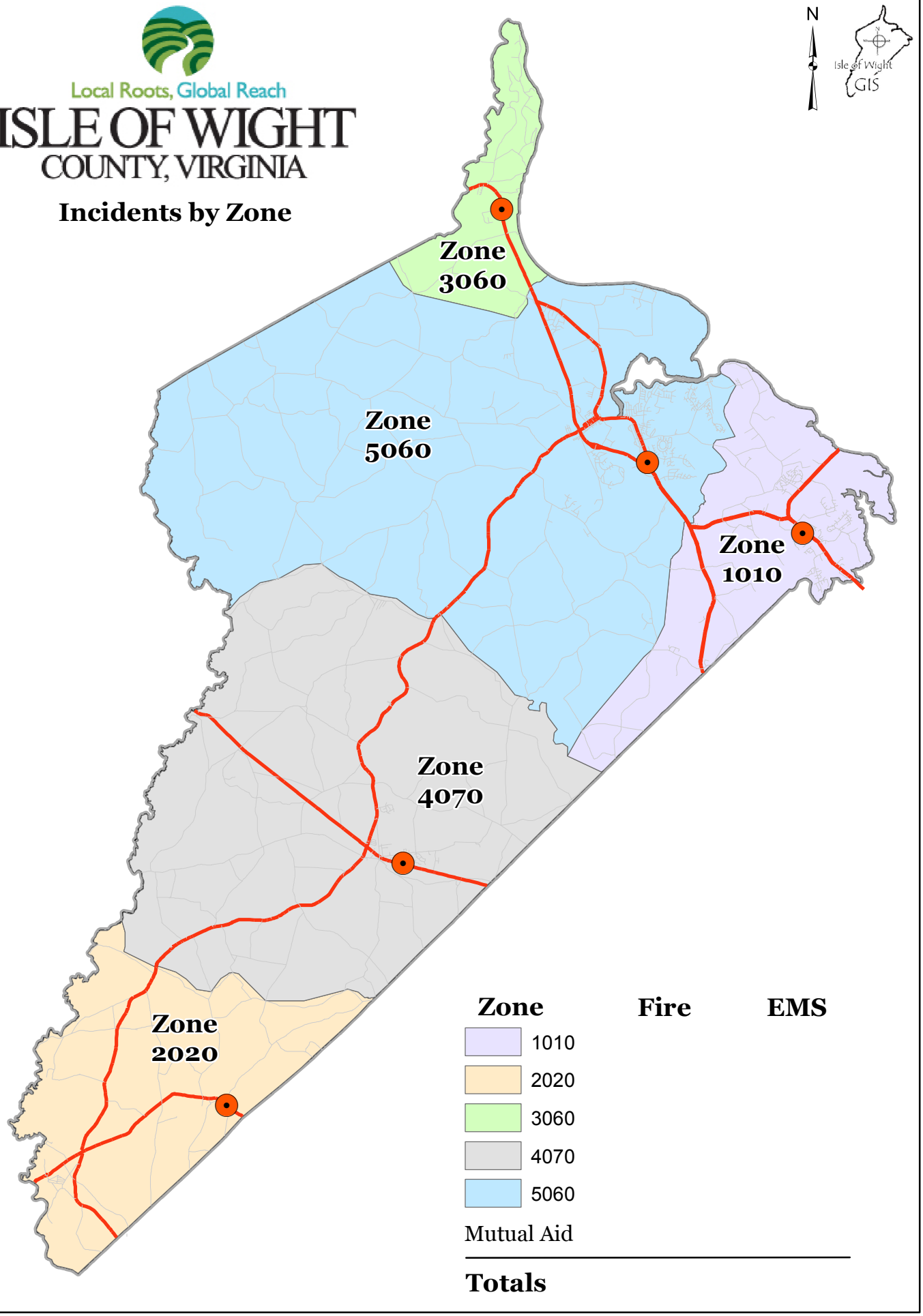
Julie Slye

Julie Slye, Treasurer

Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

Incidents by Zone



ISLE OF WIGHT

Incident by Zone - June 2024

Agency: IWFR, Event date/Time range: 06/01/2024 00:00:00 - 06/30/2024 23:59:59

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
1010	ABDOMINAL PAIN	0	2	2	1%	0:02:55	0:06:35	1:20:46	3:00:32	1:30:16
	ABRASIONS BRUISES ETC	0	4	4	3%	0:00:40	0:06:18	0:30:19	2:29:10	0:37:18
	ACCIDENT UNKNOWN INJURIES	0	4	4	3%	0:01:07	0:02:10	0:53:05	3:45:32	0:56:23
	ACCIDENT WITH INJURIES	0	2	2	1%	0:01:26	0:05:42	1:11:47	2:37:50	1:18:55
	ALARM - MEDICAL	0	2	2	1%	0:02:03	0:04:57	0:00:57	0:14:51	0:07:26
	ALLERGIC REACTIONS	0	2	2	1%	0:01:29	0:05:46	0:42:45	1:40:00	0:50:00
	BLEEDING/HEMORRHAGING	0	2	2	1%	0:01:06	0:04:29	0:20:02	0:51:15	0:25:38
	CARDIAC ARREST	0	1	1	1%	0:01:22	0:04:22	1:32:09	1:37:53	1:37:53
	CHEST PAIN	1	9	10	7%	0:01:37	0:05:44	0:56:17	10:29:03	1:02:54
	CHILD OR ANIMAL LOCKED IN CAR	0	1	1	1%	0:00:17	0:08:52	0:23:22	0:32:31	0:32:31
	DIFFICULTY BREATHING	0	13	13	10%	0:01:45	0:06:28	0:54:36	12:39:00	0:58:23
	EYE INJURIES	0	1	1	1%	0:02:29	0:03:27	1:27:18	1:33:14	1:33:14
	FALLS AND RELATED INJURIES	0	16	16	12%	0:01:51	0:07:05	0:45:52	14:36:50	0:54:48
	HEAD INJURY	0	1	1	1%	0:01:10	0:00:00	0:00:00	0:04:11	0:04:11
	HEART PROBLEMS	0	2	2	1%	0:01:31	0:06:26	1:11:20	2:38:33	1:19:17
	HEAT AND COLD EXPOSURE	0	3	3	2%	0:01:26	0:10:48	1:06:45	3:56:58	1:18:59
	LIFT ASSIST	0	8	8	6%	0:01:36	0:11:17	0:09:32	2:59:24	0:22:26
	MEDIC STANDBY	2	0	2	1%	0:00:00	0:00:00	5:06:13	10:12:27	5:06:14
	OVERDOSE	0	1	1	1%	0:02:06	0:07:08	1:14:07	1:23:21	1:23:21
	PAIN	0	5	5	4%	0:02:19	0:08:44	0:59:29	5:52:43	1:10:33
	SEIZURE	0	2	2	1%	0:01:03	0:05:37	1:06:04	2:25:27	1:12:44
	SICK / ILL OR RESCUE	1	21	22	16%	0:01:37	0:07:34	1:03:03	24:11:25	1:09:07
	UNCONSCIOUS OR FAINTING	0	4	4	3%	0:00:58	0:05:49	0:30:45	2:30:07	0:37:32
	Subtotals for EMS	**4**	**106**	**110**	**81%**	**0:01:32**	**0:06:27**	**1:03:56**	**112:22:17**	**1:08:16**

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	ARCING WIRES DOWN POWER LINES	0	1	1	1%	0:01:47	0:02:11	0:27:23	0:31:21	0:31:21
	ASSIST BOATER	0	1	1	1%	0:00:34	0:09:00	0:04:49	0:14:23	0:14:23
	BURNING COMPLAINT	0	2	2	1%	0:01:42	0:04:36	0:09:37	0:31:49	0:15:55
	CAR FIRE	0	1	1	1%	0:01:56	0:06:17	0:51:08	0:59:21	0:59:21
	CARBON MONOXIDE ALARM	0	3	3	2%	0:02:14	0:08:25	0:14:23	1:15:09	0:25:03
	FIRE ALARM	0	13	13	10%	0:01:20	0:08:16	0:10:25	3:56:02	0:18:09
	FIRE OTHER NOT LISTED	0	1	1	1%	0:00:04	0:07:14	0:36:35	0:43:53	0:43:53
	RUPTURE GAS LINE	0	1	1	1%	0:00:45	0:08:40	0:05:13	0:14:38	0:14:38
	SMELL OR ODOR OF SMOKE	0	1	1	1%	0:00:53	0:07:46	1:58:13	2:06:52	2:06:52
	STRUCTURE FIRE	0	1	1	1%	0:00:19	0:05:46	0:12:23	0:18:28	0:18:28
	Subtotals for FIRE	**0**	**25**	**25**	**19%**	**0:01:09**	**0:06:49**	**0:29:01**	**10:51:56**	**0:36:48**
	Totals for 1010	**4**	**131**	**135**	**100%**	**0:01:25**	**0:06:34**	**0:53:01**	**123:14:13**	**0:58:44**
2020	ABRASIONS BRUISES ETC	0	1	1	3%	0:00:07	0:10:44	0:13:36	0:24:27	0:24:27
	ACCIDENT UNKNOWN INJURIES	1	3	4	12%	0:00:49	0:06:18	0:54:56	4:01:51	1:00:28
	ALLERGIC REACTIONS	1	0	1	3%	0:00:00	0:00:00	0:43:11	0:43:11	0:43:11
	CARDIAC ARREST	0	1	1	3%	0:01:07	0:07:59	0:12:53	0:21:59	0:21:59
	CHEST PAIN	1	2	3	9%	0:00:42	0:06:59	0:33:01	2:02:05	0:40:42
	DIFFICULTY BREATHING	0	1	1	3%	0:01:19	0:07:10	1:05:52	1:14:21	1:14:21
	FALLS AND RELATED INJURIES	0	2	2	6%	0:01:30	0:09:57	1:02:48	2:28:30	1:14:15
	FRACTURES OR BROKEN BONES	0	1	1	3%	0:00:34	0:10:15	0:41:51	0:52:40	0:52:40
	HEART PROBLEMS	0	1	1	3%	0:02:38	0:13:53	0:13:09	0:29:40	0:29:40
	LIFT ASSIST	0	2	2	6%	0:01:23	0:12:19	0:13:42	0:54:46	0:27:23
	OVERDOSE	0	1	1	3%	0:00:39	0:10:54	0:18:36	0:30:09	0:30:09
	PAIN	0	6	6	18%	0:01:35	0:10:34	0:34:09	4:49:37	0:48:16

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	PSYCHIATRIC PROBLEMS	0	1	1	3%	0:00:05	0:11:44	0:21:54	0:33:43	0:33:43
	SEIZURE	0	1	1	3%	0:01:23	0:14:05	1:19:59	1:35:27	1:35:27
	SICK / ILL OR RESCUE	0	2	2	6%	0:01:23	0:07:28	0:40:01	1:37:43	0:48:52
	UNCONSCIOUS OR FAINTING	0	2	2	6%	0:00:51	0:06:05	0:56:17	2:06:26	1:03:13
	Subtotals for EMS	**3**	**27**	**30**	**91%**	**0:01:04**	**0:09:46**	**0:37:52**	**24:46:35**	**0:48:03**
	FIRE ALARM	0	2	2	6%	0:01:01	0:09:31	0:03:41	0:26:18	0:13:09
	FIRE DEPT TRAINING EVENT	0	1	1	3%	0:01:10	0:12:21	4:10:32	4:24:03	4:24:03
	Subtotals for FIRE	**0**	**3**	**3**	**9%**	**0:01:06**	**0:10:56**	**2:07:06**	**4:50:21**	**2:18:36**
	Totals for 2020	**3**	**30**	**33**	**100%**	**0:01:04**	**0:09:54**	**0:47:47**	**29:36:56**	**0:58:07**
3060	CHEST PAIN	0	2	2	13%	0:01:17	0:08:30	1:44:29	3:48:33	1:54:17
	DIABETIC PROBLEMS	0	1	1	7%	0:02:59	0:05:03	1:18:11	1:26:13	1:26:13
	DIFFICULTY BREATHING	0	3	3	20%	0:01:41	0:14:22	0:14:15	1:30:57	0:30:19
	FALLS AND RELATED INJURIES	0	1	1	7%	0:02:54	0:07:54	0:16:09	0:26:57	0:26:57
	PAIN	0	2	2	13%	0:01:29	0:09:26	1:03:44	2:29:16	1:14:38
	SICK / ILL OR RESCUE	0	1	1	7%	0:01:37	0:05:55	2:00:01	2:07:33	2:07:33
	Subtotals for EMS	**0**	**10**	**10**	**67%**	**0:02:00**	**0:08:32**	**1:06:08**	**11:49:29**	**1:16:40**
	ARCING WIRES DOWN POWER LINES	0	2	2	13%	0:01:13	0:11:29	1:48:26	4:02:14	2:01:07
	ASSIST BOATER	0	1	1	7%	0:00:47	0:14:12	0:21:06	0:36:05	0:36:05
	BURNING COMPLAINT	0	1	1	7%	0:02:10	0:00:00	0:00:00	0:09:16	0:09:16
	STRUCTURE FIRE	0	1	1	7%	0:03:07	0:05:16	2:59:28	3:07:51	3:07:51
	Subtotals for FIRE	**0**	**5**	**5**	**33%**	**0:01:49**	**0:10:19**	**1:43:00**	**7:55:26**	**1:28:35**
	Totals for 3060	**0**	**15**	**15**	**100%**	**0:01:55**	**0:09:07**	**1:18:25**	**19:44:55**	**1:21:26**
4070	ABDOMINAL PAIN	0	2	2	2%	0:02:42	0:10:34	0:57:50	2:22:12	1:11:06
	ABRASIONS BRUISES ETC	1	3	4	3%	0:00:44	0:11:25	0:24:26	2:14:56	0:33:44

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	ACCIDENT (FATALITY)	0	1	1	1%	0:01:12	0:14:23	0:56:11	1:11:46	1:11:46
	ACCIDENT UNKNOWN INJURIES	0	6	6	5%	0:00:50	0:08:00	1:00:51	6:58:06	1:09:41
	ACCIDENT WITH INJURIES	0	1	1	1%	0:01:00	0:03:33	1:05:42	1:10:15	1:10:15
	ALARM - MEDICAL	0	1	1	1%	0:01:49	0:00:00	0:00:00	0:08:56	0:08:56
	ALLERGIC REACTIONS	0	2	2	2%	0:01:49	0:12:11	0:14:52	0:57:44	0:28:52
	ASSAULT WITH INJURIES	0	3	3	2%	0:02:18	0:10:32	0:39:49	2:37:59	0:52:40
	ATTEMPT SUICIDE	0	1	1	1%	0:03:17	0:01:10	1:20:29	1:24:56	1:24:56
	BITE	0	1	1	1%	0:01:34	0:16:47	1:03:41	1:22:02	1:22:02
	BLEEDING/HEMORRHAGING	0	3	3	2%	0:01:15	0:05:21	0:48:40	2:45:48	0:55:16
	BURN INJURIES	0	1	1	1%	0:02:10	0:03:53	0:38:22	0:44:25	0:44:25
	CARDIAC ARREST	0	1	1	1%	0:01:21	0:03:52	1:28:25	1:33:38	1:33:38
	CHEST PAIN	0	11	11	9%	0:01:42	0:06:06	0:54:16	11:22:41	1:02:04
	DIABETIC PROBLEMS	0	2	2	2%	0:02:32	0:12:51	1:13:06	2:56:58	1:28:29
	DIFFICULTY BREATHING	1	6	7	6%	0:01:25	0:09:06	0:49:35	7:00:45	1:00:06
	FALLS AND RELATED INJURIES	0	11	11	9%	0:01:38	0:09:59	0:54:54	12:11:39	1:06:31
	FRACTURES OR BROKEN BONES	1	1	2	2%	0:00:43	0:05:10	1:40:16	3:27:07	1:43:34
	HEART PROBLEMS	0	1	1	1%	0:01:45	0:06:55	1:13:14	1:21:54	1:21:54
	LIFT ASSIST	0	6	6	5%	0:01:04	0:09:13	0:12:53	2:18:59	0:23:10
	MEDIC STANDBY	1	0	1	1%	0:00:00	0:00:00	8:31:55	8:31:55	8:31:55
	PAIN	0	4	4	3%	0:02:30	0:17:19	0:58:42	5:14:05	1:18:31
	SEIZURE	0	3	3	2%	0:01:11	0:07:30	0:59:27	3:24:24	1:08:08
	SICK / ILL OR RESCUE	1	31	32	25%	0:01:33	0:10:30	0:51:59	33:47:46	1:03:22
	STROKE	0	1	1	1%	0:00:24	0:12:53	0:14:39	0:27:56	0:27:56
	UNCONSCIOUS OR FAINTING	0	5	5	4%	0:02:00	0:07:19	0:56:41	5:30:01	1:06:00
	Subtotals for EMS	**5**	**108**	**113**	**90%**	**0:01:37**	**0:09:01**	**1:12:26**	**123:08:53**	**1:19:34**
	BURNING COMPLAINT	0	3	3	2%	0:01:48	0:07:23	0:36:09	2:16:00	0:45:20
	FIRE ALARM	0	1	1	1%	0:01:29	0:06:15	0:02:08	0:09:52	0:09:52

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	FIRE OTHER NOT LISTED	4	1	5	4%	0:00:07	0:10:29	0:23:43	2:51:38	0:34:20
	LANDING ZONE	0	1	1	1%	0:00:41	0:02:09	0:31:39	0:34:29	0:34:29
	SMELL OR ODOR OF SMOKE	0	2	2	2%	0:01:34	0:10:08	0:29:58	1:23:20	0:41:40
	STRUCTURE FIRE	0	1	1	1%	0:03:16	0:05:26	0:09:32	0:18:14	0:18:14
	Subtotals for FIRE	**4**	**9**	**13**	**10%**	**0:01:29**	**0:06:58**	**0:22:12**	**7:33:33**	**0:30:39**
	Totals for 4070	**9**	**117**	**126**	**100%**	**0:01:36**	**0:08:37**	**1:02:43**	**130:42:26**	**1:10:24**
5060	ABDOMINAL PAIN	0	3	3	1%	0:01:29	0:10:29	0:34:36	2:19:43	0:46:34
	ABRASIONS BRUISES ETC	0	6	6	3%	0:01:12	0:13:24	0:29:40	4:25:40	0:44:17
	ACCIDENT UNKNOWN INJURIES	0	10	10	4%	0:01:16	0:07:31	0:23:17	4:53:26	0:29:21
	ACCIDENT WITH ENTRAPMENT	0	1	1	0%	0:01:14	0:04:13	1:48:08	1:53:35	1:53:35
	ACCIDENT WITH INJURIES	0	3	3	1%	0:01:49	0:07:00	1:16:01	4:07:29	1:22:30
	ALARM - MEDICAL	0	2	2	1%	0:02:29	0:09:32	0:03:54	0:31:48	0:15:54
	ALLERGIC REACTIONS	0	2	2	1%	0:01:48	0:08:54	0:24:52	1:11:08	0:35:34
	ATTEMPT SUICIDE	0	1	1	0%	0:04:00	0:10:14	1:28:12	1:42:26	1:42:26
	BACK PAIN (NON TRAUMATIC)	0	2	2	1%	0:01:27	0:11:31	1:03:11	2:32:18	1:16:09
	BITE	0	2	2	1%	0:01:24	0:09:03	1:15:45	2:52:24	1:26:12
	BLEEDING/HEMORRHAGING	0	5	5	2%	0:01:49	0:11:17	0:57:11	5:51:28	1:10:18
	CARDIAC ARREST	0	4	4	2%	0:01:00	0:04:47	0:21:11	1:47:55	0:26:59
	CHEST PAIN	0	15	15	6%	0:01:43	0:10:03	0:51:19	15:46:09	1:03:05
	CHILD OR ANIMAL LOCKED IN CAR	2	1	3	1%	0:00:44	0:07:27	0:03:52	0:19:48	0:06:36
	CHOKING	1	1	2	1%	0:02:31	0:06:52	0:35:23	1:20:10	0:40:05
	DIABETIC PROBLEMS	1	1	2	1%	0:00:47	0:10:23	0:42:10	1:46:38	0:53:19
	DIFFICULTY BREATHING	0	14	14	6%	0:01:29	0:09:36	1:09:05	18:42:39	1:20:11
	EYE INJURIES	0	1	1	0%	0:00:46	0:05:48	0:03:26	0:10:00	0:10:00
	FALLS AND RELATED INJURIES	1	28	29	12%	0:01:22	0:10:28	0:53:47	29:47:27	1:01:38
	FRACTURES OR BROKEN BONES	0	2	2	1%	0:00:44	0:08:06	1:24:54	3:07:27	1:33:44

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	HEAD INJURY	0	1	1	0%	0:01:31	0:09:23	1:43:24	1:54:18	1:54:18
	HEADACHE	0	1	1	0%	0:00:07	0:09:07	0:53:05	1:02:19	1:02:19
	HEART PROBLEMS	0	4	4	2%	0:01:43	0:11:21	0:48:52	4:07:43	1:01:56
	HEAT AND COLD EXPOSURE	0	4	4	2%	0:01:57	0:09:21	0:45:46	3:48:19	0:57:05
	INDUSTRIAL ACCIDENT	0	1	1	0%	0:01:08	0:13:10	1:26:26	1:40:44	1:40:44
	LIFT ASSIST	0	13	13	6%	0:01:25	0:13:15	0:12:57	5:59:04	0:27:37
	PAIN	0	15	15	6%	0:01:40	0:08:49	0:58:57	17:21:43	1:09:27
	PSYCHIATRIC PROBLEMS	0	1	1	0%	0:00:04	0:08:58	0:53:26	1:02:28	1:02:28
	SEIZURE	0	3	3	1%	0:00:39	0:07:13	1:05:31	3:40:09	1:13:23
	SICK / ILL OR RESCUE	2	42	44	19%	0:01:28	0:11:17	0:53:37	47:39:04	1:04:59
	STROKE	0	3	3	1%	0:00:53	0:12:50	0:55:53	3:28:50	1:09:37
	UNCONSCIOUS OR FAINTING	0	9	9	4%	0:01:04	0:06:37	0:56:07	9:34:14	1:03:48
	Subtotals for EMS	**7**	**201**	**208**	**88%**	**0:01:24**	**0:09:19**	**0:51:22**	**206:28:33**	**1:01:26**
	ARCING WIRES DOWN POWER LINES	0	1	1	0%	0:01:34	0:08:18	1:16:17	1:26:09	1:26:09
	ASSIST BOATER	0	1	1	0%	0:00:39	0:07:31	1:25:17	1:33:27	1:33:27
	BRUSH FIRE	0	2	2	1%	0:01:15	0:06:24	0:13:14	0:41:45	0:20:53
	BURNING COMPLAINT	0	2	2	1%	0:02:17	0:00:00	0:00:00	0:46:48	0:23:24
	CAR FIRE	0	1	1	0%	0:00:35	0:08:26	0:25:37	0:34:38	0:34:38
	FIRE ALARM	0	12	12	5%	0:00:58	0:07:26	0:05:32	2:28:52	0:12:24
	FIRE OTHER NOT LISTED	0	4	4	2%	0:00:15	0:07:54	0:07:20	0:52:56	0:13:14
	SMELL OR ODOR OF SMOKE	0	1	1	0%	0:01:25	0:04:04	0:13:37	0:19:06	0:19:06
	STRUCTURE FIRE	0	2	2	1%	0:02:04	0:05:33	0:27:49	1:10:51	0:35:26
	TRASH OR DUMPSTER FIRE	0	2	2	1%	0:01:40	0:09:42	0:37:15	1:37:13	0:48:37
	Subtotals for FIRE	**0**	**28**	**28**	**12%**	**0:01:16**	**0:07:15**	**0:32:26**	**11:31:45**	**0:38:44**
	Totals for 5060	**7**	**229**	**236**	**100%**	**0:01:22**	**0:08:52**	**0:47:13**	**218:00:18**	**0:56:02**

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
FRA	FIRE MUTUAL AID	0	1	1	100%	0:00:40	0:10:09	1:19:30	1:30:19	1:30:19
	Subtotals for MUTA	**0**	**1**	**1**	**100%**	**0:00:40**	**0:10:09**	**1:19:30**	**1:30:19**	**1:30:19**
	Totals for FRA	**0**	**1**	**1**	**100%**	**0:00:40**	**0:10:09**	**1:19:30**	**1:30:19**	**1:30:19**
SOU	FIRE MUTUAL AID	0	2	2	100%	0:01:27	0:08:55	2:10:02	4:40:47	2:20:24
	Subtotals for MUTA	**0**	**2**	**2**	**100%**	**0:01:27**	**0:08:55**	**2:10:02**	**4:40:47**	**2:20:24**
	Totals for SOU	**0**	**2**	**2**	**100%**	**0:01:27**	**0:08:55**	**2:10:02**	**4:40:47**	**2:20:24**
SRY	FIRE MUTUAL AID	0	1	1	25%	0:00:48	7:07:01	14:06:41	21:14:30	21:14:30
	RESCUE MUTUAL AID	0	3	3	75%	0:01:40	0:17:15	1:10:58	4:29:39	1:29:53
	Subtotals for MUTA	**0**	**4**	**4**	**100%**	**0:01:14**	**3:42:08**	**7:38:50**	**25:44:09**	**11:22:12**
	Totals for SRY	**0**	**4**	**4**	**100%**	**0:01:14**	**3:42:08**	**7:38:50**	**25:44:09**	**11:22:12**
SUF	FIRE MUTUAL AID	0	2	2	33%	0:00:58	1:01:19	1:53:43	3:31:08	1:45:34
	RESCUE MUTUAL AID	0	4	4	67%	0:01:25	0:09:00	0:52:32	3:11:30	0:47:53
	Subtotals for MUTA	**0**	**6**	**6**	**100%**	**0:01:12**	**0:35:10**	**1:23:08**	**6:42:38**	**1:16:44**
	Totals for SUF	**0**	**6**	**6**	**100%**	**0:01:12**	**0:35:10**	**1:23:08**	**6:42:38**	**1:16:44**

ISLE OF WIGHT COUNTY

FIRE-EMS ACTIVITY REPORT 2024

STATION RESPONSES	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	YTD
CARROLLTON	133	97	126	114	155	155							780
CARRSVILLE	42	33	53	46	41	54							269
RUSHMERE	33	21	26	18	24	18							140
WINDSOR FIRE	25	29	33	37	54	32							210
SMITHFIELD FIRE	85	58	64	57	78	69							411
IOW RESCUE	279	219	266	242	242	243							1491
WINDSOR RESCUE	107	98	110	113	111	120							659
TOTAL STATION RESPONSES													**3960**

VOL. ACTIVITY HOURS	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER	YTD
CARROLLTON					0
CARRSVILLE					
RUSHMERE					0
WINDSOR FIRE					0
SMITHFIELD FIRE					
IOW RESCUE					
WINDSOR RESCUE					0
TOTAL VOL. HOURS REPORTED					**0**

Note: *1. Station Responses- Data pulled from E911 Computer Aided Dispatch (CAD) system* *n/r not reported*

2. VOL. Activity Hours- Information as reported by Volunteer Agencies

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



June 2024 Report

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

Isle of Wight County Museum 103 Main Street, Smithfield

- **VISITATION**: 728
- **SPECIAL EVENTS**
    - **June 14. LUNCH & LEARN: Flags Over Isle of Wight County.** Today is National Flag Day. Join us as we present the various official and unofficial flags observed flying in our county. You are invited to bring one (or more) flags you think we may have missed. 10 guests.
- **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:
    - **June 4. LIVE at 12:05: Stories in Stone at Ivy Hill Cemetery...Symbols.** In the coming weeks, this series will highlight some of the various symbols commonly seen in cemeteries. This orientation video highlights a Celtic cross. Tune in next week to continue learning about how to "read" a cemetery.
    - **June 6. LIVE at 12:05: Country Store Post Office.** Join Curator Rachel Popp in this behind-the-counter look at the post office slots from the Carroll Shop that once did business in Carrollton, VA. Country stores like the Carroll Shop often had post office portions where the community could take care of all of their mail-related needs. In rural communities in particular like those in Isle of Wight County, country stores were longtime epicenters of commerce and gossip - the one stop shop for all of your needs.
    - **June 11. LIVE at 12:05: Stories in Stone at Ivy Hill Cemetery...Tombstone Shapes**. One of the first steps in learning to "read" a cemetery is understanding the different parts and styles of tombstones.
    - **June 13. LIVE at 12:05: Exhibits with Riverside Hospital.** We are working with Riverside Smithfield Hospital to design exhibits for the new hospital's interior. With plenty of medical artifacts and with plenty of Smithfield and Isle







of Wight County history to showcase, we are very excited to implement this project in our community.

- **June 18. LIVE at 12:05: Exploring Country Graveyards.** Explore the Uzzles Graveyard with Kathy Walls Mountjoy in this Tuesday's episode of LIVE at 12:05.
- **June 20. LIVE at 12:05: Happy First Day of Summer!** Summer is officially here! Be sure to get out and enjoy all Smithfield and Isle of Wight County have to offer this summer. Enjoy a stroll through our many historic sites like Windsor Castle Park, Nike Park, Fort Boykin and Fort Huger. Enjoy exhibits at Windsor Castle and Boykin's Tavern and informative signage at all sites interpreted by the Isle of Wight County Museum. If you need to beat the heat, the Isle of Wight County Museum is a cool respite.
- **Jun 25. LIVE at 12:05: Where's Waldo?** Where's Waldo - ahem, sorry - Kathy Mountjoy in this Tuesday's episode of LIVE at 12:05? You guessed it! Windsor Castle Park! Explore the rich history of the Smith Family, the many Arthur Smiths and more by checking out this week's cemetery adventure.
- **June 27. LIVE at 12:05: Bomb Pop Day & the Cold War in Isle of Wight County Virginia.** Today is Bomb Pop Day. These tasty treats, created in 1971 during the Cold War, resemble bombs with six fins and are patriotic in color. They remind us of Isle of Wight County's role in defense during this time period - notably during Carrollton-Nike Park's time as a Nike-Ajax missile battery as well as our local Civil Defense history. Director Jennifer England reviews our county's connections to that time period as well as some exciting news about an upcoming production by WHRO.







- **MY ISLE: MEMORIES & RECOLLECTIONS**
  - This video series, launched in 2023, features residents and family members sharing stories of Isle of Wight County. **Airing on June 28, was a feature on the Independent Grocery with Freddie Chapman.** 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**
  - June 1. Smithfield and Isle of Wight County Tourism familiarization tour. 12 guests.
  - June 26. Main Street Baptist Summer Camp, Smithfield. 23 students.

MY ISLE
Memories & Recollections
Isle Of Wight County Museum
SMITHFIELD, VIRGINIA

Behind These Walls



- **GIFT SHOP**
  - Pig tape measures were re-ordered.
- **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 has been designed and requires editing. The wall has been repaired and painted.
  - **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 is working to schedule the return of the door and glass. Once complete and exhibits are installed, a reception and/or ribbon-cutting will be organized in conjunction with the pub opening in the location of the former Chamber of Commerce.
  - **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 are in production for two exhibits.



- **ARTIFACTS**
  - Donations included medical equipment, 18th century coins, 1955 diploma from the Antiaircraft and Guided Missile Branch of the U.S. Army and receipts.
  - One June 10, Kate Ridgeway and Chelsea Blake of the Virginia Department of Historic Resources and Bly Straube and Kelly Ladd-Kostro of the James River Institute for Archaeology visited yesterday to inspect objects in our collection from Site 44IW13. Previously thought to be the site of Basse's Choice, recent research suggests that 44IW13 was actually the wealthy home of Giles Jones. Several of the metal items from the Giles Jones Collection have been removed from display for conservation treatment that will be conducted by VDHR in concert with ongoing archaeological research by JRIA.
  - Smithfield Times. The oldest issue of *The Smithfield Times* in our collection is dated March 23, 1923. We have two copies. Each was digitized for the Library of Virginia so that they can be added to VirginiaChronicle.com.
  - Town of Smithfield Records. Digitization has begun. The first of eight books is complete. Book 2 is in progress.



- **STAFF TRAINING AND REQUIREMENTS**
  - June 12. Collections and storage seminar hosted by Space Saver.
  - June 25. Belonging in Exhibit Design: Community Building in Design Process. Hosted by the Virginia Association of Museums.

Financials

• Gift Shop Sales:	$ 951.60
• Gift Shop Tax:	$ 57.21
• Donations:	$ 0.00
• Admission:	$ 1,144.00
• Program/Lecture Fees:	$
Total Monthly Deposit:	**$ 2,152.81**

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: 323/342 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. 1,442 followers.
- **Instagram.** @Isleofwightcountymuseum. 1,154 followers.
- **YouTube.** Isle of Wight County Museum. 193 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 March 28 through June 3: 101,203.



Media Coverage/Promotion/Advertising/Lobbying



- Various pieces in area publications to include calendars and events.
- **June 5. *Smithfield Times*.** Article: Commemorating 250 Years of Freedom: English settlement in Isle of Wight County: Article: Juneteenth events planned for Isle of Wight, Surry.
- **June 27.** WHRO. Interview at Nike-Carrollton Park for an upcoming piece on Nike-Ajax missiles and the former Nike missile battery located here.

Outreach Lectures & Events

- June 17. The Chesapeake, Newport News. Topic: Postcards. 20 guests.

Windsor Castle 705 Cedar Street, Smithfield



- **June 2. Windsor Castle 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. 18 guests.
- **June 25. 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: Fishing.

Fort Boykin 7410 Fort Boykin Trail, Isle of Wight County

- No updates.

Fort Huger 15080 Talcott Terrace, Isle of Wight County



- **June 8. 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. 14 guests.
- June 21. Meeting with Parks and Recreation to assess needs for the park's maintenance and improvement.

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.
- **June 22. Cold War Defense: Carrollton-Nike Park 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. 6 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

- June 12. Town of Smithfield Safety Committee.
- June 18. Town of Smithfield staff meeting.

Other Events & Notable Information

- **Volunteer Hours**: 120
- **Isle of Wight County Museum Economic Impact Survey for June 2024:**
  19.9% made a gift shop purchase
  57.6% indicated that they had lunch/dinner plans in Smithfield/Isle of Wight County
  50.9% 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**
  - No updates.
- **Virginia American Revolution 250 Commission**
  - June 12. Meeting with Isle of Wight County Schools to discuss a crossover project with the article series.
  - Smithfield Times Article Series: 2024-2026. Published June 5 was ***Commemorating 250 Years of Freedom:*** *English Settlement in Isle of Wight County.*
- **The Schoolhouse Museum**
  - June 12. Tuskegee Airmen planning committee meeting.
- **Ivy Hill Cemetery**
  - June 26. Board meeting.
- **Town of Smithfield Department of Community Development & Planning**
  - No updates.
- **Special Thanks to our Co-Workers**
  - All of them in all County and Town departments!



Safety & Repairs

- Fire drills and fire extinguisher safety were reviewed by all staff.

Selections from Our Website and Social Media





ISSUE:

Amendment to the Agreement for the Creation of the Western Tidewater Regional Jail Authority to Allow the City of Hampton to Join

BACKGROUND:

The City of Hampton wishes to join the Western Tidewater Regional Jail Authority. The Authority consists of the Cities of Suffolk, Franklin, and the County of Isle of Wight. In order to allow the City of Hampton to join the Authority, it is necessary to amend the original agreement.

BUDGETARY IMPACT:

TBD

RECOMMENDATION:

Per the Board's discussion and direction.

ATTACHMENTS:

Description	Type	Upload Date
WTRJ Agreement	Agreement	7/9/2024
WTRJ Resolution	Resolution	7/9/2024
City of Hampton Resolution	Resolution	7/9/2024

AMENDMENT TO THE AGREEMENT FOR CREATION OF THE WESTERN TIDEWATER REGIONAL JAIL AUTHORITY

THIS **AMENDMENT TO THE AGREEMENT FOR CREATION OF THE WESTERN TIDEWATER REGIONAL JAIL AUTHORITY** (the "Amendment"), effective as of the date set forth below, by and among the **WESTERN TIDEWATER REGIONAL JAIL AUTHORITY** (the "Regional Authority"), the **CITY OF SUFFOLK, VIRGINIA**, the **COUNTY OF ISLE OF WIGHT, VIRGINIA**, the **CITY OF FRANKLIN, VIRGINIA**, and the **CITY OF HAMPTON, VIRGINIA** (collectively, the "Members," or individually, "Member"), each of which is a political subdivision of the Commonwealth of Virginia.

WHEREAS, On November 1, 1990, pursuant to Article 3.1, Title 53.1 of the Code of Virginia, the City of Suffolk, the County of Isle of Wight, and the City of Franklin (collectively, the "Initial Member Jurisdictions") entered into an agreement for the creation of the Western Tidewater Regional Jail Authority (the "Member Agreement") for the purpose of setting forth their basic arrangement for the development, construction and operation of the Western Tidewater Regional Jail (the "Regional Jail"), that was built, and is now operated by the Regional Authority in the City of Suffolk; and

WHEREAS, such Member Agreement was amended by agreement of the Regional Authority and the Initial Member Jurisdictions by Resolution adopted August 20, 2003, which sought to remove the provision of Section F, Subsection 3 of the Member Agreement that appointed the City of Franklin the fiscal agent for the Regional Authority; and

WHEREAS, such Member Agreement was amended by agreement of the Regional Authority and the Initial Member Jurisdictions by Resolution adopted September 21, 2006, which sought to remove Section I, Subsection 4 of the Member Agreement to remove the maximum number of inmates housed in the Regional Jail at any one time; and

WHEREAS, the City of Hampton, Virginia, the Regional Authority, and the Initial Member Jurisdictions have determined it is in the best interest of the Regional Authority and all Members for the City of Hampton to become a Member of the Regional Authority, effective July 1, 2024, or such later date on which all necessary approvals of the Regional Authority, the City of Hampton, and the Initial Member Jurisdictions may be given; and

WHEREAS, in order for the City of Hampton to be admitted as a Member of the Regional Authority, the Member Agreement must be amended; and

WHEREAS, the Regional Authority, the Initial Member Jurisdictions, and the City of Hampton now desire to amend the Member Agreement in order to confirm the admission of the City of Hampton as a Member of the Regional Authority, and to provide for the provision of services by the Regional Authority to its Members following such admission.

NOW THEREFORE, it is agreed that the specific provisions of the Member Agreement outlined below shall be amended as follows:

I. SECTION A. AUTHORITY POWERS, SUBSECTION (9)

Section A., Subsection (9) of the Member Agreement shall be deleted and amended to read as follows:

> (9) The Regional Authority shall consist of twelve (12) representatives and no more than one (1) alternate per each Member. The governing body of each jurisdiction shall appoint (3) representatives and no more than one (1) alternate to the Regional Authority. The representatives and alternates shall serve at the will of the governing body, with each representative having one (1) vote at Regional Authority meetings. A Member's alternate(s) may vote when a representative(s) from that Member is unable to be present. In no event shall a Member have more than three (3) voting representatives count toward any vote at any Regional Authority meeting.

II. SECTION A. AUTHORITY POWERS, SUBSECTION (10)

Section A., Subsection (10) of the Member Agreement shall be deleted in its entirety.

III. SECTION D. OPERATION AND MAINTENANCE, SUBSECTION 2.

Section D., Subsection 2. of the Member Agreement shall be deleted and amended to read as follows:

> 2. The total net cost of operation and maintenance shall be borne ratably by the Members on a prisoner-per-day basis. The prisoner-per-day basis is calculated using a rolling three (3) year average of the aggregate number of days spent in the Regional Jail by persons committed from each Member as compared to the total aggregate number of days spent in the Regional Jail by all persons confined therein. This calculation determines each Member's ratable cost of the net cost of operation and maintenance.

IV. SECTION F. ADMINISTRATION, SUBSECTION 3.

Section F., Subsection 3. of the Member Agreement shall be deleted and amended to read as follows:

> 3. The Regional Authority shall serve as the fiscal agent and shall maintain all financial records and accounting, including all funds received, deposited, disbursed,

collected, and spent, and make such records available for inspection by any Member during normal business hours.

V. SECTION F. ADMINISTRATION, SUBSECTION 4.

Section F., Subsection 4. of the Member Agreement shall be deleted in its entirety.

VI. SECTION H. ADDITIONAL PARTIES

Section H. of the Member Agreement shall be deleted and amended to read as follows:

1. Southampton County, Virginia shall be allowed to later join as a Member of this Regional Authority. In such event that Southampton County, Virginia wishes to become a Member of the Regional Authority, as compensation and reimbursement for its proportionate share of the initial costs covered by the Members and for any later costs for planning, design, construction and other capital outlay and purchase of other tangible personal property. Southampton County, Virginia shall also pay an additional sun, as represented and determined by the inflation factor based on the Consumer Price Index.

2. The City of Hampton, Virginia shall be allowed to join as a Member of this Regional Authority, provided it obtains approval of its governing body and all Member governing bodies. Upon approval, the City of Hampton may join and participate in this Member Agreement and the Regional Authority, under such additional terms and conditions as are set forth below.

a. In order for the City of Hampton, Virginia to be admitted as a Member to the Member Agreement, it shall agree:

i. To make a payment of five million, seven hundred thirty-six thousand, one hundred sixty-two dollars ($5,736,162.00) to the Regional Authority, in addition to its required payments for prisoners as provided in Section D (2) of this Member Agreement. This payment covers the City of Hampton's share of construction costs and reserves for the Jail and shall be paid no later than three hundred sixty-five (365) days after joining the Regional Authority;

ii. That its share of costs for the first three (3) years shall be based on a fixed two hundred (200) inmate count and will adjust in year four (4) to a three (3) year rolling average;

iii. To provide transportation for its prisoners to and from the Regional Jail until the staffing of the Regional Jail's transportation corps has 85% of the approved and allocated corps. The Regional Jail shall be responsible for all transportation of Hampton prisoners to and from the Jail to medical appointments; and

iv. That for the first three (3) years of Hampton's membership, the Regional Jail shall be responsible for up to $250,000.00 of costs incurred

resulting from costs for extraordinary medical care for Hampton prisoners housed at the Regional Jail for medical care that cannot be provided in the Regional Jail. Such figure represents the pro-rata share of the budget for expenses, based on the historical costs incurred on behalf of the Initial Member Jurisdictions. Any extraordinary medical costs for City of Hampton's prisoners over two hundred fifty-thousand dollar ($250,000.00) annually, shall be paid by the City of Hampton. In the fourth year, these costs shall be incorporated into Hampton's base per diem rate at a level consistent with the rolling three (3) year average of expenses, as it is with the Initial Member Jurisdictions, unless otherwise agreed to by the Members.

VI. SECTION I. OTHER PROVISIONS, SUBSECTION 4.

Section I., subsection 4 of the Member Agreement shall be deleted in its entirety.

IN WITNESS WHEREOF the Member have hereto have executed this Amendment to the Member Agreement on the day and year herein above written:

CITY OF SUFFOLK, VIRGINIA

By:_____ Date:_____
City Manager

ATTEST:

By:_____ Date:_____
City Clerk

Approved as to Form:

By:_____ Date:_____
City Attorney

ISLE OF WIGHT COUNTY, VIRGINIA

By:_____ Date:_____
County Manager

ATTEST:

By:_____ Date:_____
County Clerk

Approved as to Form:

By:_____ Date:_____
County Attorney

CITY OF FRANKLIN, VIRGINIA

By:_____ Date:_____
City Manager

ATTEST:

By:_____ Date:_____
City Clerk

Approved as to Form:

By:_____ Date:_____
City Attorney

CITY OF HAMPTON, VIRGINIA

By:_____ Date:_____
City Manager

ATTEST:

By:_____ Date:_____
City Clerk

Approved as to Form:

By:_____ Date:_____
City Attorney

A RESOLUTION AMENDING THE AGREEMENT
OF THE MEMBER JURISDICTIONS OF
THE WESTERN TIDEWATER REGIONAL JAIL AUTHORITY
OF NOVEMBER 1, 1990

THIS RESOLUTION, adopted this 12th day of June, 2024, by the Board of Directors of the Western Tidewater Regional Jail Authority.

WITNESSETH:

WHEREAS, the City of Suffolk, Virginia, the County of Isle of Wight, Virginia, and the City of Franklin, Virginia entered into an agreement dated November 1, 1990, for the development, construction, operation and maintenance of the Western Tidewater Regional Jail Authority, pursuant to Title 53.1, Article 3.1, of the Code of Virginia; and

WHEREAS, the initial members of the Regional Authority consisted of the City of Suffolk, County of Isle of Wight, and the City of Franklin; and

WHEREAS, said Agreement limited the addition of new members to only the County of Southampton, Virginia; and

WHEREAS, the City of Hampton, Virginia, has initiated a request to become a member of the Western Tidewater Regional Jail Authority and the Board is considering said City joining the Authority pursuant to Section 53.1-95.5 of the Code of Virginia; and

WHEREAS, the Authority is considering the City of Hampton becoming a member of the Authority subject to the Agreement of November 1, 1990 of the jurisdictions as amended; and

WHEREAS, the Authority and the City of Hampton have drafted the Amended and Restated Agreement for Creation of the Western Tidewater Regional Jail Authority, which said Authority and the City of Hampton are recommending to the jurisdictions of the City of Suffolk, County of Isle of Wight and City of Franklin for their approval and acceptance; and

NOW THEREFORE, the parties hereto agree that the Agreement of November 1, 1990 as stated in the attached Amended and Restated Agreement for Creation of the Western Tidewater Regional Jail Authority be approved and that the City of Hampton be accepted as a new member of the Authority subject to the conditions and requirements as provided in said Amended and Restated Agreement.

NOW, THEREFORE, BE IT RESOLVED, by the Board of Directors of the Western Tidewater Regional Jail Authority that said Board hereby requests that the Amended and Restated Agreement for Creation of the Western Tidewater Regional Jail Authority hereto attached be accepted and approved by the member jurisdictions of said Authority to allow the City of Hampton to join the Authority as an additional member, pursuant to §53.1-95.5 of the Code of Virginia.

WESTERN TIDEWATER REGIONAL
JAIL AUTHORITY
BOARD OF DIRECTORS

By: _____
Chairman

APPROVED AS TO FORM:

_____
Attorney for the Western Tidewater
Regional Jail Authority

Attest:

_____
Secretary

City of Hampton

22 Lincoln Street
Hampton, VA 23669
www.hampton.gov

Official Record

Resolution: 24-0266

File Number: 24-0266

Resolution Authorizing the City Manager to Execute the Amendment to the Agreement for Creation of the Western Tidewater Regional Jail Authority that Adds the City of Hampton, Virginia as a Member

WHEREAS, the Hampton Roads Regional Jail has not been able to reach proper staffing levels necessary to provide full service to the City of Hampton and its other Member Cities;

WHEREAS, the City of Hampton and the other Member Cities have decided to close the Hampton Roads Regional Jail and sell the building and equipment to the City of Portsmouth;

WHEREAS, the City of Hampton cannot house all of its jail inmates at its local jails, thus necessitating a need for a permanent place to house its inmates;

WHEREAS, the Hampton Sheriff has been housing inmates it cannot house in the local jail to the Western Tidewater Regional Jail;

WHEREAS, the Sheriff has been satisfied with the service provided by the Western Tidewater Regional Jail;

WHEREAS, the City Manager and Sheriff have explored becoming a permanent member of the Western Tidewater Regional Jail;

WHEREAS, the City of Hampton and the Western Tidewater Regional Jail Authority Board have negotiated mutually agreeable terms for Hampton to become a permanent member;

WHEREAS, the Western Tidewater Regional Jail Authority Board have extended permanent membership to the City of Hampton under mutually agreeable terms, subject to the approval of their current Member Jurisdictions (the City of Suffolk, the City of Franklin and Isle of Wight County);

WHEREAS, it is the City of Hampton's understanding that, once the Hampton City Council takes action to approve the Amendment To The Agreement For Creation Of The Western Tidewater Regional Jail Authority, that adds the City of Hampton as a Member under the terms outlined in the Amendment, the other Member Jurisdictions will be asked to take this same action;

WHEREAS, once the Amendment To The Agreement For Creation Of The Western Tidewater Regional Jail Authority that adds Hampton as a member is ratified by all Member

Jurisdictions, the City of Hampton will be admitted as a permanent member of the Western Tidewater Regional Jail Authority effective July 1, 2024; and

WHEREAS, becoming a permanent member of the Western Tidewater Regional Jail Authority will provide Hampton a permanent, cost effective, solution to house Hampton inmates.

NOW THEREFORE BE IT RESOLVED, by the Council of the City of Hampton, Virginia, as follows:

1. That it approves the Amendment To The Agreement For Creation Of The Western Tidewater Regional Jail Authority that adds Hampton as a member under the terms therein; and

2. That the City Manager or her Authorized Designee is authorized to execute and deliver to the Western Tidewater Regional Jail Authority the Amendment To The Agreement For Creation Of The Western Tidewater Regional Jail Authority that adds Hampton as a member in substantially the same form as attached hereto.

approved by the Hampton City Council on 5/22/2024.

Aye: 6 Councilmember Bowman, Councilmember Brown, Vice Mayor Gray, Councilmember Harper, Councilmember Hobbs and Councilmember Mugler

Absent: 1 Mayor Tuck

Signed by: _____ Date MAY 22 2024
Donnie R. Tuck

Attested by: _____ Date MAY 22 2024
Katherine K. Glass

ISSUE:

Sheriff's Office Request for Vehicles

BACKGROUND:

Within the last 45 to 60 days, the Sheriff's Office has had two vehicles that have had to be taken out of service due to major mechanical failures. The failures were unexpected because both vehicles had below 100,000 miles and it was hoped that they would be functioning for another year or two before having to replace them.

The Sheriff can replace both vehicles and outfit them for a total cost of roughly $101,000 ($50,486 for each vehicle).

BUDGETARY IMPACT:

Funding the replacement vehicles would reduce the Unassigned Fund Balance by the amount of the acquisitions.

RECOMMENDATION:

Per the Board's discussion and direction.