Environmental Assessment

Amelia Solar II Energy Project
Amelia Court House, Amelia County Virginia

U.S. Department of Agriculture
Rural Utilities Service (RUS)

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ACS	American Community Survey
ANSI	American National Standards Institute
AMSL	Above mean sea level
ASTM	American Society for Testing and Materials
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
CAA	Clean Air Act
CBRA	Coastal Barrier Resources Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dBA	Decibels
DCR	Department of Conservation and Recreation
DEQ	Department of Environmental Quality
DNH	Division of Natural Heritage
EA	Environmental Assessment
EJSCREEN	Environmental Justice Screening and Mapping Tool
EMF	Electromagnetic Fields
EMI	Electromagnetic Interference
E.O.	Executive Order
ePIX	Electronic Project Information Exchange
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FPPA	Farmland Protection Policy Act
HUD	Housing & Urban Development
IPaC	Information, Planning and Conservation
LESA	Land Evaluation Site Assessment
MTBA	Migratory Bird Treaty Act
MW ac	Megawatts alternating current
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historical Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NRI	National Rivers Inventory
NRHP	National Register of Historic Places

LIST OF ACRONYMS (CONTINUED)

NWI	National Wetlands Inventory
NWP	Nationwide Permit
OSHA	Occupational Safety and Health Administration
PBR	Permit by Rule
RD	Rural Development
REC	Recognized environmental conditions
RUS	Rural Utilities Service
SEC	Southside Electric Cooperative
SFHA	Special Flood Hazard Area
SPCC	Spill Control and Countermeasures Plan
SSA	Sole source aquifer
SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Officer
USACE	United States Army Corp. of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
USFWS	United States Fish and Wildlife Service
VaFWIS	Virginia Fish and Wildlife Information Service
VCRIS	Virginia Cultural Resource Information Services
VDGIF	Department of Game and Inland Fisheries
VDHR	Virginia Department of Historic Resources
VDOT	Virginia Department of Transportation
WOTUS	Waters of the United States

1.0 PROJECT DESCRIPTION

The Amelia Solar II Project (Project) is a small-scale utility solar project which will be located south of Giles Road near the intersection of Giles Road and South Giles Road in the town of Amelia Court House, Virginia. The Project will disturb approximately 41.3 acres of a larger, 189-acre parent parcel. The project area is privately owned and will be leased for the operational life of the facility. The project area has recently been timbered and contains a transmission line alongside a gravel road. Land use in the vicinity includes agricultural lands, forestland, and scattered residences.

The Project will generate a total of 5 megawatts alternating current (MW ac) of clean, reliable solar energy when complete. The Project would utilize solar modules, mounted on a steel racking system which will be anchored into the ground using driven steel piers, to convert the sun's energy to usable power. The estimated duration of construction is 4 months, and it is anticipated that the Project will operate for a minimum of 35 years. The project area can be returned to its pre-construction state once the Project has reached the end of its useful life.

The Project would be accessed from Giles Road. An interior road would be constructed inside the perimeter and is anticipated to be flat and will match existing grades to minimize earth work. The project area will be secured by a security fence with standard gates for emergency and maintenance vehicles.

The Project will interconnect to Southside Electric Cooperative's (SEC) electrical distribution system located offsite. SEC has existing infrastructure located on the parcel directly south of the project area. SEC will install three-phase infrastructure in an underground utility easement along the eastern boundary of the project area. The underground electric utility easement will travel into the adjoining southern parcel and span approximately 5,000 feet. SEC would construct all necessary distribution system upgrades to interconnect the facility to their electrical system at a delivery point.

HCE Amelia Solar II, LLC (Applicant) will contract with an engineering, procurement, and construction contractor to build the facility, which would include erecting the security fence, foundations, and racking system before installing the solar modules and inverters. An electrical contractor would wire the installed electrical components and work with SEC to complete the final facility commissioning. An operations and maintenance contractor would maintain the facility. SEC would construct all necessary distribution system upgrades to interconnect the facility to their electrical system at a delivery point.

1.1 Purpose and Need

United States Department of Agriculture (USDA) Rural Development (RD) is a mission area that includes three federal agencies – Rural Business-Cooperative Service, Rural Housing Service and Rural Utilities Service. The agencies have in excess of 50 programs that provide

financial assistance and a variety of technical and educational assistance to eligible rural and tribal populations, eligible communities, individuals, cooperatives, and other entities with a goal of improving the quality of life, sustainability, infrastructure, economic opportunity, development, and security in rural America. Financial assistance can include direct loans, guaranteed loans, and grants in order to accomplish program objectives. The Applicant is seeking financial assistance from the Rural Utilities Service (RUS). RUS programs are administered based on regulations within RD 4280 Subpart A.

The Applicant proposes to construct a 5-MW solar facility approximately seven miles north of the town of Amelia Court House, Virginia. The purpose of the Project is to provide a source of long-term renewable energy for rural Virginia residents.

The Applicant and their lender are jointly seeking financial assistance via the RUS to enable credit to be extended to the Project. Utilizing the loan guarantee process will allow the lender to extend credit to the Project and in turn, the borrower will be able to build a renewable energy system. The Project will provide positive economic impacts by increasing the tax base for the county. The Project will also provide long-term, emission free electricity to the local utility.

SEC is charged to provide reliable and affordable power to homes and businesses in Virginia. HCE Amelia Solar II, LLC can provide reliable power to customers in Amelia County at competitive rates. Additionally, Virginia residents have expressed interest in procuring clean power from a solar farm; however, rooftop solar is cost prohibitive for most families due to the high upfront cost. HCE Amelia Solar II, LLC solves this dilemma by providing solar power from a solar farm located within Virginia. The Applicant is responding to a regional need for an affordable, reliable, and consistent supply of electric power at competitive rates to Virginia residents.

Pursuant to the National Environmental Policy Act of 1969, National Historic Preservation Act of 1966 as amended and 7 Code of Federal Regulations (CFR) 1970 Rural Development Policy and Procedures, an Environmental Assessment (EA) has been prepared to evaluate the environmental impacts of the construction and operation of a solar farm for the review of USDA Rural Development Rural Utility Service.

2.0 ALTERNATIVES EVALUATED INCLUDING THE PROPOSED ACTION AND NO ACTION

2.1 Introduction

The National Environmental Policy Act (NEPA) requires that Federal agencies describe alternatives, including the "No Action" and "Proposed Action" alternatives, in their environmental documents (see Sections 102(2)(C)(iii) and 102(2)(E) of NEPA and 40 CFR § 1502.14). In accordance with 7 CFR § 1970.13(a), the Project only needs to be evaluated with a "No Action" alternative since the Applicant is proposing to only complete a project at one specific site and no adverse environmental impacts are anticipated. The Applicant has an interconnection agreement at this specific location and a power purchase agreement to only sell power from this specific location/facility; therefore, the Project should be evaluated on the basis that No Action should occur if the Project poses adverse environmental impacts that cannot be mitigated. Both the interconnection agreement and power purchase agreement shall be provided to USDA Rural Development as part of the credit evaluation for the Project.

2.2 Proposed Action Alternative

Under the Proposed Action Alternative, USDA would consider providing financial assistance to the Applicant to construct the Project as described in the Project Description section of this document. The Project will have a positive economic impact on the area by expanding the tax base in the County and would assist the Applicant and SEC in meeting the demands of its customers. The Project will also help meet national and state goals to expand the use of renewable energy.

Selection of a viable solar energy generation project site is based on several factors including:

- Quality of terrain including existing topography;
- Local transmission capacity;
- Potential conservation and environmental impacts;
- Opportunities and limitations presented by local zoning and land use ordinances and the existing land uses at and proximate to a potential site; and
- The availability of land of sufficient area for a solar facility.

The project area was selected based on proximity to an existing substation with capacity to receive power generated by the Project; suitable topography resulting in minimal grading to construct the Project; minimal tree clearing required; limited wetland and stream impacts; appropriate local zoning district; and local support.

2.3 No Action Alternative

Under the No Action Alternative, USDA would not provide financial assistance to the Applicant, and the Project may not be constructed. The No Action Alternative is not responsive to the

needs of the Applicant and SEC in fulfilling the demands of its customers for affordable and reliable solar energy. Furthermore, the opportunity to reduce consumer consumption of non-renewable energy will be forgone and the environmental benefit of this shift in energy supply unrealized. Other traditional generation technologies utilize large amounts of water and typically have high levels of greenhouse gas emissions (coal-fired and combined cycle natural gas facilities). In this analysis, the No Action Alternative serves as the baseline environmental condition to evaluate the impacts of the Project.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The affected environment and environmental consequences of the Project and alternatives are discussed in this section. Also outlined in this section are mitigation measures necessary to compensate for unavoidable adverse impacts to specific environmental resources.

3.1 Land Ownership and Land Use

This section describes an overview of the existing land use at and surrounding the project area and the potential impacts to those resources associated with the Project.

3.1.1 Affected Environment

Land use is defined as the way people use and develop land, including agricultural, residential and industrial development. Many municipalities develop zoning ordinances and planning documents to control the direction of development and to keep similar land uses together.

General Land Ownership and Use

According to the Amelia County Assessor, the project area is privately owned and will be leased by HCE Amelia Solar II for the operational life of the facility. This project area is situated in a mix-use area north of the town of Amelia Court House, consisting of agricultural lands, undeveloped wooded areas, and residences. The project area is currently partially forested and partially agricultural land; conditions that date back to at least 1963. The project area is bound by agricultural fields and a farmstead to the north, and privately owned forestland, agricultural land, and farmsteads to the east, south, and west.

The Project is below the threshold requiring a Virginia Department of Environmental Quality (DEQ) Solar Permit by Rule (PBR) authorization. According to 9VAC15-60-130, projects with a rated capacity of 5 megawatts or less require notification to DEQ and submission of a certification by the governing body of the locality that the Project complies with all applicable land use ordinances (reference Appendix IV).

Formally Classified Lands

Formally classified lands are properties administered either by federal, state or local agencies or have been given special protection through formal legislative designation, including but not limited to: National parks, monuments, historic landmarks, battlefield and military parks, historic sites and parks, natural landmarks, wildlife refuges, seashores, lake shores and trails, wilderness areas, wild, scenic and recreational rivers, state parks, fish and wildlife management areas, public lands and Native American owned lands, see Table 1.

Table 1. Formally Classified Lands

Formally Classified Land	Source	Determination of Effect
Coastal Barriers/National Seashores	https://koordinates.com/layer/20522-us-coastal-zone-management-act-boundary/ https://www.fws.gov/CBRA/Maps/Mapper.html	No Effect
National Forests	https://www.fs.fed.us/	No Effect
National Parks	https://www.nps.gov/state/va/index.htm	No Effect
National Trails	https://www.nps.gov/subjects/nationaltrailssystem/national-scenic-trails.htm https://www.nps.gov/subjects/nationaltrailssystem/national-historic-trails.htm	No Effect
Wild & Scenic Rivers	https://www.rivers.gov/virginia.php https://www.epa.gov/nepa/nepassist	No Effect
National Rivers Inventory	https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm	No Effect
National Wildlife & Refuges	https://www.fws.gov/refuges/friends/friendsLocatorMaps/Virginia.html	No Effect
National Wilderness	https://www.wilderness.net/NWPS/maps	No Effect
Federal Lands	https://www.epa.gov/nepa/nepassist	No Effect
Protected Lands & State Parks	http://www.protectedlands.net/map/ https://www.dcr.virginia.gov/state-parks/find-a-park	No Effect

A review of mapping systems from various state and federal agencies: U.S. Fish and Wildlife Service (USFWS), USDA Natural Resources Conservation Service (NRCS) Soil Mapper, the Coastal Barriers/National Seashores, the National Parks Service (NPS) in identification of National Forests, Landmarks, Parks, and Trails, Wild & Scenic Rivers and Nationwide Rivers Inventory, National Wildlife & Refuges, National Wilderness, Federal Lands and State Parks did not identify any formally classified lands in or adjacent to the project area.

3.1.2 Environmental Consequences

Under the Proposed Action, effects on land use and formally classified lands would be negligible. Construction and operation of the Project would not affect formally classified lands as they are absent from the project area and nearby surroundings. There also are no potential impacts associated with the interconnection.

3.1.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to formally classified lands.

3.2 Geology, Soils and Prime Farmland

This section describes an overview of the existing geological resources at the project area and the potential impacts to those resources associated with the Project. Components of geological resources that are analyzed include geology, soils, and prime farmlands.

3.2.1 Affected Environment

Geology

The project area is located in the Piedmont Physiographic Province is underlain by crystalline bedrock formations. This region is characterized by the bedrock being overlain by a mantle of residual soil and saprolite. Saprolite is typically thickest on hilltops and in stream valleys and thinnest or absent altogether on hillsides. The topography slopes downgradient towards the north, east, and south the project area with approximate elevations ranging from 310 to 250 feet above mean sea level (AMSL).

Soils

According to the NRCS Web Soil Survey, the project area consists of five unique soil unit (as illustrated in Table 2). The most prominent soils types are Winnsboro loam, Cecil loam. The Winnsboro series consists of deep, well drained, slowly permeable fine soils that are formed in weathered material from dark colored basic rocks of the Piedmont. The Cecil series consists of well drained, moderately permeable soils that have been formed in residuum weathered from felsic, igneous, and high-grade metamorphic rocks of the Piedmont uplands. The soils are very deep and exist on ridges and side slopes of the Piedmont uplands.

Prime Farmland

The Farmland Protection Policy Act of 1981 (FPPA) was established in order to minimize the extent of unnecessary and irreversible conversion of farmland to nonagricultural uses contributed by Federal programs. The regulation's ultimate goal was to reduce the rate and amount of adaptation of the nation's farmlands, forest lands and range lands which impairs the ability to produce sufficient domestic needs and export markets.

Upon review of the project area's Farmland Classification obtained through the Web Soil Survey, it was determined that approximately 56.9%, or 24 acres, of the project area are identified as prime farmland soils for Amelia County while 29.7%, or 12.5 acres, of the project area is classified as farmland of statewide importance and the remaining 13.3%, or 5.6 acres, of the project area is not classified as prime farmland (Table 2; Appendix IV).

Table 2. Soil Types

Map Unit Name	Map Unit Symbol	Acres	Percent	Farmland Classification
Appling fine sandy loam 7 to 15 percent slopes	1C	8.7	20.7%	Farmland of Statewide Importance
Cecil fine sandy loam 2 to 7 percent slopes	3B	11.9	28.2%	Prime Farmland
Cecil fine sandy loam 7 to 15 percent slopes	3C	0.2	0.5%	Farmland of Statewide Importance
Chewacla silt loam 0 to 2 percent slopes	5A	1.3	3.0%	Not Prime Farmland
Partlow fine sandy loam 0 to 2 percent slopes	16A	4.3	10.3%	Not Prime Farmland
Winnsboro sandy loam 2 to 7 percent slopes	22B	12.1	28.7%	Prime Farmland
Winnsboro sandy loam 7 to 15 percent slopes	22C	3.6	8.5%	Farmland of Statewide Importance

The NRCS defines prime farmland soils in the FPPA as soils with an adequate and dependable source for water, favorable temperatures and growing season, acceptable acidity/alkalinity level, few or no rocks, sufficient permeability for water and air, and slopes averaging zero to six percent.

Form AD-1006, Farmland Conversion Impact Rating, is used to determine whether a site is farmland subject to the FPPA. This impact is based on soil characteristics, as well as site assessment criteria, such as agriculture and urban infrastructure, support services, farm size, compatibility factors, on-farm investments and potential farm production loss to the local community and county.

Consultation with the NRCS was initiated on June 18, 2020. Louise Jacques, Area Resource Soil Scientist, assisted in the completion Parts II through V of the Form AD-1006 on June 19, 2020. The USDA-RD, as the lead federal agency, is responsible for completing Parts VI and VII of the form. The total points on the form equaled 128. Pursuant 7 CFR § 658.4 (C)(2), sites receiving a total score of less than 160 need not be given further consideration for protection and no additional sites need to be evaluated (reference Appendix IV).

3.2.2 Environmental Consequences

Under the Proposed Action, potential impacts include soil erosion, loss of soil productivity and the establishment of noxious weeds on the soil surface. Construction activities such as vegetation clearing, grading, and trenching may also increase erosion potential by destabilizing the soil surface; additionally, soil compaction can result from the movement of heavy equipment. These impacts would be minimized using best management practices

(BMPs) and short-term in nature. The Project will be constructed and operated in accordance with the approved erosion and sedimentation control plan and National Pollutant Discharge Elimination System (NPDES) Permit. A full decommissioning plan has also been submitted and approved by the County and will be done at the HCE Amelia Solar II, LLC's expense. The interconnection includes the installation of three-phase infrastructure which will only require an additional 0.9 acres of land clearing within the new 40-foot utility easement.

3.2.3 Mitigation

Best management practices (BMPs) for soil erosion and sediment control measures, such as sediment basins, temporary diversion ditches, and silt fencing around soil stockpiles, will be used to minimize the potential for increased erosion and runoff. Post-construction, the disturbed soils will be stabilized and re-vegetated in order to reduce the potential for erosion impacts during facility operations.

3.3 Floodplains

This section describes an overview of the existing floodplain resources at the project area and the potential impacts to those resources that would be associated with the Project.

A floodplain is any land area susceptible to being inundated by floodwaters from any source. Floodplains are essential to clean water, recharge of water supplies, reduction of flood risks and protection of property, human safety, health and welfare and fish and wildlife habitat. Proper floodplain management will reduce flood losses and ensure the protection of the natural resources and functions of floodplains. The relevant floodplain area to be evaluated is an area that has either a one-percent probability of flood occurrence in a given year (100-year flood) or a 0.2-percent probability of flooding in a given year (500-year flood).

Executive Order (E.O.) 11988, *Floodplain Management*, requires federal agencies to avoid actions, to the extent possible, where there are long and short-term adverse impacts associated with the occupancy or modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practical alternative. Facilities located in a floodplain may be damaged or destroyed by a flood or may change the flood-handling capability of the natural floodplain or the pattern or magnitude of flood flows.

3.3.1 Affected Environment

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Number 51007C0075C (effective 04/16/2009), the entire project area (to be disturbed/constructed) is located outside the Special Flood Hazard Area (SFHA) and 100-year and 500-year floodplain zones (reference Appendix V).

3.3.2 Environmental Consequences

Under the Proposed Action, there would be no impacts to floodplains as they are absent from

the project area and the Project will not be located in a SFHA. Additionally, the Project will not result in any impacts that would result in any increases to the 100-year or 500-year flood elevation or present barriers to floodway passage within the vicinity of the project area. There also are no potential impacts associated with the interconnection.

3.3.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

3.4 Wetlands

Federal Agencies are required to avoid, wherever possible, adverse impacts to wetlands, minimize wetlands destruction and preserve the values of wetlands, and to avoid, to the extent possible, the long- and short-term adverse impacts associated with destruction or modification of wetlands, and avoid direct and indirect support of new construction in wetlands wherever there is a practicable alternative under Executive Order 11990 Protection of Wetlands 1977. Under USDA's Land Use Policy, Department Regulation 9500-3, the Agency is responsible for assuring that Agency programs discourage the unwarranted alteration of wetlands or the unwarranted expansion of the peripheral boundaries of existing settlements. Section 363 of the Consolidated Farm and Rural Development Act (7 U.S.C. 2006e) 1990, known as the Con Act, prohibits the use of loan funds for certain purposes. Under the Con Act the Secretary of Agriculture shall not approve any loan under this title to drain, dredge, fill, or level or otherwise manipulate a wetland, or to engage in any activity that results in impairing or reducing the flow, circulation, or reach of water, except in the case of activity related to the maintenance of previously converted wetlands, or in the case of such activity that is already commenced prior to the enactment of this section. This project is not subject to the provisions of the Con Act. The Agency shall not assist in actions that would convert these lands to other uses unless there is a demonstrated, significant need for the project or there are no practicable alternative actions or sites that would avoid conversion, or if conversion is unavoidable, reduce the number of acres to be converted or encroached upon directly or indirectly.

Regulatory oversight of wetlands falls under Section 404 of the Clean Water Act (CWA) and permits are administered by the U.S. Army Corps of Engineers (USACE) with oversight by the U.S. Environmental Protection Agency (USEPA). Section 404 established a Federal permitting program that requires anyone who is proposing to place dredged or fill material into "waters of the United States"(WOTUS), which includes wetlands, to obtain a permit from the USACE.

3.4.1 Affected Environment

Soils data, United States Geological Survey (USGS) topographic maps, aerial imagery, and the National Wetland Inventory (NWI) map were reviewed. The Amelia County soil survey does depict hydric soils within the project area; however, they occupy only 34.6% or approximately 14.5 acres of the project area. The NWI map does not depict any wetlands on

the project area; however, there are riverine and freshwater forested, or shrub wetlands located within the larger, parent parcel (reference Appendix VI).

HCE Amelia Solar II, LLC prepared a Jurisdictional Waters of the U.S. delineation package in January of 2019 in order to identify WOTUS including stream and wetland boundaries in accordance with the 1987 USACE Wetland Delineation Manual, the Regional Supplement to the USACE Wetland Delineation Manual, and the Eastern Mountains and Piedmont Region (Version 2.0). A Preliminary Jurisdictional Determination from the USACE in March of 2020. The USACE responded in a letter dated May 8, 2020 confirming the delineations outlined in Wetland Delineation Report. This determination concluded that there are 1.93 acres of wetlands and 4,422 linear feet of waters located within the parent parcel (reference Appendix VI).

3.4.2 Environmental Consequences

Under the Proposed Action, short-term and minor adverse water quality impacts may occur during the construction of the Project. These impacts would be associated with soils from disturbed areas being washed by storm water into adjacent waters during rainstorm events; however, these impacts would be avoided with the establishment of site-specific BMPs and would not significantly alter water quality conditions.

Impacts to WOTUS for the Project are limited to one stream crossing for installation of the access road. This stream crossing will be 60 linear feet of permanent impacts for culvert installation and road construction – this impact is below the ½-acre threshold that would require a Nationwide Permit from the USACE. The Project's interconnection plan includes the installation of three-phase infrastructure which will occur underground and may also require a Nationwide Permit from the USACE. All appropriate permits and authorizations related to the interconnection will be obtained by SEC.

Executive Order 11990 requires federal agencies to take action to minimize the destruction, loss, or degradation of wetlands and to provide opportunity for early public review for any proposals for new construction in wetlands. To meet these requirements, the Eight-Step Decision Making Process for Alternative Consideration was utilized to determine that there is no practicable alternative to wetland impacts and measures will be implemented to minimize harm to wetlands (reference Appendix VI).

3.4.3 Mitigation

Portions of the existing access roads will be utilized when possible. In addition, the newly constructed access road will be constructed at the minimum allowable width, limiting the amount of stream impacts. Access roads will not be paved and will consist of gravel surfaces with appropriate stormwater management controls.

A stormwater management system will be incorporated into the Project design that will provide treatment to stormwater prior to potentially entering or impacting wetland areas. Stormwater treatment measures will comply with state and municipal regulations. Wherever possible existing drainage and grading patterns will be maintained in the proposed design.

An erosion and sedimentation control plan will be implemented before construction. The plan will include erosion control measures that will be incorporated into the construction and restoration phases of the Project to minimize potential adverse impacts. Construction practices that will be utilized by the Project to avoid and minimize potential impacts to wetlands and waterbodies will include the following protective measures (as determined to be necessary during construction): compost filter socks, conveyance channels, sediment basins, emergency basin spillways, silt fence, silt fence rock outlets and silt fencing around stockpiles will be used as temporary measures during construction to control the flow of water.

When disposing of excess spoil or other construction materials on public or private property, wetlands will not be filled in or otherwise converted.

Lastly, ground vegetation will be maintained throughout the operation life of the facility.

3.5 Water Resources

This section provides an overview of water resources at the project area and addresses water quantity and quality issues related to discharges to or appropriations from surface or ground water, ground water protection programs (e.g., sole source aquifers and recharge areas) and water quality degradation from temporary construction activities. Water quality and quantity changes can impact other environmental resources including but not limited to groundwater and drinking water supplies, threatened and endangered species, other fish and wildlife species and wetlands. Impacts to surface and/or ground water will be the Applicant's responsibility and permitting requirements, typically through state agencies, must be adhered to.

3.5.1 Affected Environment

The USEPA defines a sole source aquifer (SSA) as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. These areas may have no alternative drinking water source(s) that could physically, legally, and economically supply all those who depend on the aquifer for drinking water. All applicant proposals that have the potential to contaminate a designated SSA or adversely affect an SSA recharge area are subject to USEPA review. Pursuant to Section 1424(e) of the Safe Drinking Water Act (Pub. L. 93-523), no commitment for federal financial assistance may be entered into for any project which USEPA determines may contaminate the SSA so as to create a significant hazard to public health. The USEPA's SSA map does not depict the project area within or near an SSA (reference Appendix VII).

The Project will be located within the Appomattox watershed (Hydrological Unit Code: 02080207). Most of the project area is surrounded by riverine and freshwater forested, or shrub wetlands. The project area drains east and northeast to unnamed tributaries which eventually flows into the Appomattox River. The Appomattox River bounds Amelia County to the north and most of the eastern and western borders of the county.

3.5.2 Environmental Consequences

Under the Proposed Action, impacts to water resources would be minimal. There are no anticipated impacts to groundwater aquifers associated with the Project. Wastewater will not be generated, and process water will not be required for construction or operation of the Project. The Project will only add minor amounts of impervious surfaces to the project area and vegetation will be maintained wherever possible throughout the operational life of the facility.

Additionally, the Project does not include any work related to water distribution and does not include the construction or removal of any water intake facilities, therefore, impacts to water quantity are not anticipated. There also are no potential impacts associated with the interconnection.

Dust suppression shall be carried out as a best management practice but not as a wastewater disposal and at a minimum to avoid illicit discharge to water resources.

3.5.3 Mitigation

Depending on local requirements, a Stormwater Management (SWM) plan may be required. SWM requirements should be requested from the appropriate County/Town office. [References: Virginia Stormwater Management Act, Virginia Code 62.1.44.15 et seq.; Virginia Stormwater Management Program (VSMP) Permit Regulations, 9 VAC 25-870-54 et seq.] Additional guidance may be obtained from DEQ's Office of Stormwater Management.

For any land disturbing activities equal to or exceeding one acre, or equal to or exceeding 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and management Regulations adopted pursuant to the Chesapeake Bay Preservation Act, the operator or owner of a construction project is required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities (VAR10) and develop a project-specific stormwater pollution prevention plan (SWPPP). The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit and it must address water quality and quantity in accordance with the VSMP Permit Regulations. General information and registration forms for the General Permit are available from DEQ at http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/Constr

uctionGeneralPermit.aspx. [References: Virginia Stormwater Management Act, Virginia Code sections 62.1.44.15 et seq.; VSMP Permit Regulations, 9 VAC 25-870-10 et seq.].

3.6 Biological Resources

This section describes an overview of the existing biological resources at the project area and the potential impacts to those resources that would be associated with the Project.

Biological resources refer to the flora (plants) and fauna (invertebrates, fish, birds, amphibians, reptiles, birds, and mammals) that may be found or have historically been found at the project area. Biological resources can also include rivers, lakes, wetlands, upland communities, and other habitat types necessary to support local flora and fauna. Vegetation is a key habitat component and acts to stabilize soils and prevent erosion; additionally, information on vegetation can be used in evaluating potential impacts to species and habitats. Potential impacts to biological resources can be direct (project-related mortality) or indirect (displacement, degradation, or loss of habitat). Effects of the proposed action on Federal and State-listed species, as well as other species of concern, and critical habitat must be addressed.

3.6.1 Affected Environment

General Fish, Wildlife and Vegetation

The project area lies within Virginia's Piedmont Level III Ecoregion and Northern Outer Piedmont Level IV sub-ecoregion. The potential natural vegetation consists of Oak-Hickory-Pine Forests where the dominant species include hickory (*Carya* spp.), shortleaf pine (*Pinus echinata*), loblolly pine (*Pinus taeda*), white oak (*Quercus alba*) and post oak (*Quercus stellata*). Today however, shortleaf, loblolly, and Virginia pine woodlands are common. The project area itself is primarily open field, with wooded areas in the western and southeastern portion of the project area. A transmission line runs north to south through the project area.

Wildlife around the project area includes species that adapt well to disturbance and the presence of humans and that are typically found in rural, agricultural areas in Virginia. Examples of typical mammals found in rural, Virginia include white-tailed deer (*Odocoileus virginianus*), meadow vole (*Microtus pennsylvanicus pennsylvanicus*), northern raccoon (*Procyon lotor lotor*), Virginia opossum (*Didelphis virginiana virginiana*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), marsh rabbit (*Sylvilagus palustris*), striped skunk (*Mephitis mephitis*), eastern chipmunk (*Tamias striatus*), eastern fox squirrel (*Sciurus niger vulpinus*), black rat (*Rattus rattus*) and big brown bat (*Eptesicus fuscus fuscus*).

Listed Threatened and Endangered Species

The Endangered Species Act (ESA) is enforced by the USFWS and provides the protection and recovery of species threatened with extinction and ensures federal agencies use their authorities to further the purpose of the ESA to protect and conserve endangered and

threatened species. The ESA defines a federally endangered species as any species which is in danger of extinction throughout all or a significant portion of its range. The ESA also identifies habitats critical to listed species and potential mitigation strategies within these habitats. Section 7 of the ESA requires that all federal agencies consult with the USFWS regarding potential impacts that their federal actions could have to listed species.

A review of the USFWS Information, Planning, and Conservation (IPaC) database was conducted to evaluate which species have the potential to inhabit the project area. The IPaC database identified one federally listed threatened species (Table 3) in Amelia County having the potential to occur (reference Appendix XIII).

Table 3. Federally Listed Species with Potential to Occur

Species	Federal Status	ESA Determination
Northern Long-eared bat *Myotis septentrionalis*	Threatened	Reliance on Final 4(d) Rule

Northern Long-eared Bat (*Myotis septentrionalis*)

The Northern long-eared bat (NLEB) is found across much of the eastern and northern central United States. During the summer, the species roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. The bat spends the winter hibernating in caves and mines, called hibernacula. The species will typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. According to Virginia's Department of Game and Inland Fisheries' (VDGIF) NLEB Winter Habitat and Roost Trees Application, the project area is located over eighty miles from a known hibernaculum.

The Virginia Fish and Wildlife Information Service (VaFWIS) database identified thirteen state listed species that are known or likely to occur within a 2-mile radius of the project area (Table 4).

Table 4. State Listed Threatened and Endangered Species

Species	State Status	Preferred Habitat	Confirmed Observations within 2 miles
Dwarf Wedgemussel *Alasmidonta heterodon*	Endangered	Shallow to deep quick running water on cobble, fine gravel, or on firm silt or sandy bottoms	No
Brook Floater *Alasmidonta varicosa*	Endangered	High relief streams among boulders in sand	No
Henslow's Sparrow *Centronyx henslowii*	Threatened	Old pastures, weedy fields and occasionally in hayfields. Breeds in fields and	No

Species	State Status	Preferred Habitat	Confirmed Observations within 2 miles
		meadows, often in low-lying or damp areas with tall grass, standing dead weeds and scattered shrubs	
Rafinesque's Eastern Big-eared Bat *Corynorhinus rafinesquii macrotis*	Endangered	Roosts in forested areas, caves, rock shelters in sandstone formations	No
Yellow Lance *Elliptio lanceolata*	Threatened	Main channels of drainages down to streams as small as 1 meter across. Prefers clean, coarse to medium-sized sand and gravel substrates	No
Atlantic Pigtoe *Fusconaia masoni*	Threatened	Fast waters with high quality riverine/large creek habitat in headwaters or rural watersheds. Prefers coarse sand and gravel at the downstream edges or riffles	No
Loggerhead Shrike *Lanius ludovicianus*	Threatened	Semi-open country with lookout posts; wires, trees, scrub	**Yes**
Migrant Loggerhead Shrike *Lanius ludovicianus migrans*	Threatened	Open countryside, short-grass pastures, weedy fields, grasslands, agricultural areas, swampy thickets, orchards	No
Green Floater *Lasmigona subviridis*	Threatened	Smaller streams, quiet pools and eddies with gravelly and sandy bottoms	No
Little Brown Bat *Myotis lucifugus*	Endangered	Roosts in buildings, caves, trees, rocks, and wood piles	No
Northern Long-eared Bat *Myotis septentrionalis*	Threatened	Roosts underneath bark, in cavities or in crevices of both live trees and snags (dead trees), caves, and mines	No
James Spinymussel *Parvaspina collina*	Endangered	Large rivers to shallow streams with slow to moderate current and relatively hard water on sand and mixed sand and gravel substrates	No
Tri-colored Bat *Perimyotis subflavus*	Endangered	Forested landscapes, often in open woods	No

Loggerhead Shrike (*Lanius ludovicianus)*
According to data provided by the VaFWIS, the Loggerhead Shrike (*Lanius ludovicianus)* was observed over 500 feet from the project area (reference Appendix XIII). The species typically leaves their breeding grounds between September and November and return between early March and late April. Egg-laying occurs between mid-March and mid-June and nests are usually found in isolated trees rather than an area with a continuous line of trees. Habitat for this species includes open pasture, grassy fields, and agricultural fields with sparsely growing small trees and shrubs.

Migratory Birds
The Migratory Bird Treaty Act (MBTA) is enforced by the USFWS and makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter any migratory bird or the parts, nests, eggs of such bird except under the terms of a valid permit issued.

The USFWS IPaC Report and VDIGF did not identify any migratory bird species that may be potentially affected by activities within the project area (reference Appendix XIII).

Bald and Golden Eagles
The Bald and Golden Eagle Protection Act (BGEPA) is enforced by the USFWS and makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter any bald or golden eagle or the parts, nests, eggs of such bird except under the terms of a valid permit issued. The BGEPA also prohibits any activity that could cause injury to the species, nest abandonment or a decrease in productivity.

The Center for Conservation Biology's Mapping Portal depicts no eagle nests or roosts within 10 miles of the project area (reference Appendix XIII).

Invasive Species
E.O. 13112, *Invasive Species*, directs federal agencies to not authorize, fund or carry out actions believed to cause or promote the introduction or spread of invasive species unless the Agency determines that the benefits of such actions outweigh the potential harm caused by invasive species.

The Project will be located within Virginia's Piedmont Plateau province. True North utilized the Virginia DCR's DNH to identify invasive plant species with the potential to occur within the project area. According to the Invasive Plant Species search, eighty-three species have the potential to occur within the Piedmont region in areas most commonly characterized as having exposure to full sun and mixed moisture levels (reference Appendix XIII).

3.6.2 Environmental Consequences

Under the Proposed Action, impacts to biological communities are expected to be negligible.

It is unlikely any threatened or endangered species will be affected by the Project based on the lack of suitable habitat and protected species' requirements. No designated critical habitat for federally listed species occurs within the project area nor will any be affected by the Project. In accordance with the ESA, the USFWS is not required to provide comments for projects that list the NLEB as the only species and if a review of IPaC's assisted determination key indicates that a project may rely on the Service's January 14, 2016 Final 4(d) Rule. The Project meets the criteria for reliance upon the Final 4(d) Rule and a Self-Certification letter was obtained through the USFWS Virginia Field Office Online Project Review. This letter represents the USFWS's concurrence of a "no effect" determination for the NLEB in regard to the Project (reference Appendix XIII).

The state threatened Loggerhead Shrike (*Lanius ludovicianus*) was observed within two miles of the project area; however, impacts to the species would be unlikely as most trees located within the project area have been timbered and woodlands surrounding are contiguous with no sparsely growing smaller trees. The Department of Conservation and Recreation's (DCR) Division of Natural Heritage (DNH) has also confirmed that no natural heritage resources have been documented within the project area and no state listed plants or insects will be affected by the Project (reference Appendix XIII).

Impacts to migratory birds and/or birds of interest are expected to be negligible based on the lack of suitable nesting and foraging habitat. Also, ground mounted solar arrays pose little to no risk to migratory birds. Additionally, the solar panels proposed for use at this facility are designed to absorb the sunlight (photovoltaic panels) versus reflect the light; therefore, a reflective glare and the "lake effect" phenomenon is not a concern for this facility.

While Bald and Golden Eagles may be visitors to the area surrounding the project area, suitable nesting habitat, which includes tall, large diameter trees and preferred foraging areas including large, open expanses of water, are not present within the project area.

The potential increase of invasive species is not anticipated with the Project. Vegetation must be maintained under the panel surface in order to prevent shading which will be the responsibility of the facility owner and will be performed on a monthly or bi-monthly basis. Given that only minor earthwork is required for the construction of the Project and no fill material is being imported, the establishment of invasive species would be insignificant.

There also are no potential impacts to biological resources associated with the interconnection.

3.6.3 Mitigation

The contractor shall comply with the Endangered Species Act, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought

to the attention of the contractor, the contractor will immediately report this evidence to the Owner and a representative of the Agency. Construction shall be temporarily halted pending the notification process and further directions issued by the Agency after consultation with the USFWS.

A time of year restriction will be implemented to prohibit any required tree removal during the NLEB pup season (June 1-July 31).

The following measures will be implemented:

- Use of appropriate seed mix/plants and seasonal mowing developed in consultation with the DCR;
- Development of a monitoring and control plan for invasive species;
- Planting of native pollinator plants in the buffer areas of the planned facility, and;
- Minimizing habitat fragmentation by leaving round versus long, skinny natural cover and forest land fragments; retaining connective corridors that allow significant wildlife migrations between fragments and designing the intervening landscape to benefit habitat; and natural cover as opposed to turf grass and mowed lawn.

3.7 Cultural Resources and Historic Properties

This section describes an overview of the existing cultural and historic resources at the project area and the potential impacts to those resources that would be associated with the Project.

The National Historic Preservation Act (NHPA) is intended to protect and preserve historical and archeological sites within the United States; Section 106 of the NHPA requires all Federal agencies to consider the effects of the actions and the actions they fund, permit and/or license on historic properties. The NHPA defines historic properties as any prehistoric or historic district, site, building, structure, or object included in, or eligible for listing in, the National Register of Historic Places (NRHP).

The NHPA also allows the Applicant to notify, engage, involve and work with Native American tribes as they proceed through the steps of Section 106 review. During the review process, consultation with any Native American tribe that attaches religious and cultural significance to historic properties that may be affected by the agency's undertakings is conducted and a reasonable opportunity to comment on such undertakings is granted.

3.7.1 Affected Environment

The Virginia Cultural Resource Information Services (VCRIS) database did not identify any resources within the project area but did list one architectural resource and one archaeological resource adjacent to the project area. Pursuant Section 106 of the NHPA, the Project was submitted to the VDHR's Electronic Project Information Exchange (ePIX) system

on June 14, 2020. In a response dated July 14, 2020, the VDHR concluded that it is their opinion that no historic properties will be affected by the Project. A copy of all VDHR correspondence is presented in Appendix IX.

Tribal Consultation

Upon review of U.S. Department of Housing and Urban Development's (HUD) Tribal Directory Assessment Tool, it was determined that the Delaware Nation and Nansemond Indian Nation were listed as the tribes with interest in the area.

True North Consultants (True North) sent a letter to each Tribal Historic Preservation Office (THPO) on June 12, 2020 providing notification of intent to initiate the Section 106 review process. A response from the Nansemond Indian Nation was received on June 17, 2020 which stated that they have no objections or pending issues regarding this matter. The Delaware Nation provided acceptance of our invitation for consultation on June 29, 2020 and in a response dated July 9, 2020, they concluded that the location of the Project does not endanger cultural, or religious sites of interest. The Delaware Nation instructed the Project to continue as planned but asked that if any archaeological site or artifacts inadvertently be uncovered, all construction and ground disturbing activities be immediately halted until they, and the appropriate state agencies, are notified.

A copy of all THPO correspondence is also presented in Appendix IX.

3.7.2 Environmental Consequences

Under the Proposed Action, no known historic properties and/or archaeological sites will be affected, as concluded by consultation with the VDHR and THPOs. There also are no potential impacts associated with the interconnection.

3.7.3 Mitigation

In the event of inadvertent discovery, a stop work order shall be issued immediately; the project engineer and RD will be notified. The Agency will issue further directions after coordination with VDHR, interested Tribes and the Advisory Council on Historic Preservation (ACHP).

3.8 Air Quality

This section describes an overview of the existing air quality at the project area and the potential impacts that would be associated with the Project.

Air quality management and protection responsibilities exist at the federal, state and local levels; however, the primary statutes that establish ambient air quality standards and establish regulatory authorities to enforce regulations designed to attain those standards are codified by the federal Clean Air Act (CAA).

The CAA and its amendments mandate requirements for managing air quality across the nation by establishing primary and secondary air quality standards. Primary air quality standards protect the public heath, including the health of sensitive populations including people with asthma, children and older adults. Secondary air quality standards protect public welfare by promoting ecosystem health, damage to crops and buildings and preventing decreased visibility. Potential air quality effects can be short-term (construction-related) or long-term (facility emissions and increased traffic).

3.8.1 Affected Environment

Under the CAA, the USEPA has established and continues to update the National Ambient Air Quality Standards (NAAQS) for "criteria" pollutants including ozone (O_3), particulate matter ($PM_{2.5}$ and PM_{10}), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2) and lead (Pb). The NAAQS for these pollutants are listed in Table 5 and represent the levels of air quality deemed necessary by the USEPA to protect the public health and welfare with an adequate margin of safety.

Table 5. National Ambient Air Quality Standards

Pollutant		Averaging Time	Level	Form
Carbon Monoxide (CO)		8 hours	9 ppm	Not to be exceeded more than once per year
		1 hour	35 ppm	
Lead (Pb)		Rolling 3-month average	0.15 µg/m3	Not to be exceeded
Nitrogen Dioxide (NO2)		1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		1 year	53 ppb	Annual Mean
Ozone (O3)		8 hours	0.070 ppm	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particle Pollution (PM)	$PM_{2.5}$	1 year	12.0 µg/m^3	annual mean, averaged over 3 years
		1 year	15.0 µg/m^3	annual mean, averaged over 3 years
		24 hours	35 µg/m^3	98th percentile, averaged over 3 years
	PM_{10}	24 hours	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO2)		1 hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		3 hours	0.5 ppm	Not to be exceeded more than once per year

The USEPA Green Book provides detailed information about area NAAQS designations, classifications, and nonattainment status. Established under the CAA, the General

Conformity Rule plays an important role in helping states improve air quality in those areas that do not meet the NAAQS. These regulations require that projects in federal nonattainment areas that could be built with funding from a federal agency such as the RBS must demonstrate conformity with the applicable state or local attainment plan. The project area is not located in any Nonattainment or Maintenance Areas for the six criteria pollutants including: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter and sulfur dioxide (reference Appendix X); therefore, the project area is in conformance with the State Implementation Plan for air quality.

3.8.2 Environmental Consequences

Under the Proposed Action, impacts to air quality are expected to be minor and short-term in nature. During the construction phase, air quality impacts may result from dust generated during movement of soils and an increase in emissions from equipment and vehicles. It is estimated that during the peak construction period, there could be approximately 10-15 semi-trucks visiting the project area per day but on average, there will only be 6-7. Earth work will be completed using six skid steers and one mini excavator. A telehandler will also be utilized. Given the nature of operations of a solar facility, the Project would not contribute to air pollution nor result in a conflict or obstruction to an air quality plan.

The Project would produce electricity with no direct air emissions of greenhouse gases or other air pollutants, and very low life-cycle emissions relative to traditional fossil fuels. In the long-term, there will ultimately be a small reduction in harmful emissions by reducing the energy demand from traditional fossil fuel sources in the area which would improve air quality in the region. The Project's interconnection plan will also include the installation of three-phase infrastructure in an underground easement which will assist in the transmission of electricity. The interconnection will not create air emissions, therefore, no potential impacts to air quality are expected.

3.8.3 Mitigation

Fugitive dust caused by the movement of construction materials and construction equipment will be controlled by adherence to the DEQ regulations and 9 VAC 5-50-60 et. seq., which governs the abatement of visible emissions and fugitive dust emissions. Measures include, but are not limited to, the following: use, where possible, of water or chemicals for dust control, installation and use of hoods, fans and fabric filters to enclose and vent the handling of dusty materials, covering of open equipment for conveying materials, and prompt removal of spilled or tracked dirt or other materials from paved streets and removal of dried sediments resulting from soil erosion. Land clearing wastes (vegetative debris) generated during construction should be properly managed in accordance with applicable regulations and local ordinances. Shredding/chipping of vegetative debris and reuse on-site is recommended over open burning. If project activities include open burning or the use of special incineration devices, this activity must meet the requirements under 9 VAC 5-130-10 through 9 VAC 130-60 and 9 VAC 5-130-100 of the *Regulations* for open burning. In addition, the *Regulations*

provide for, but do not require, the local adoption of a model ordinance concerning open burning.

3.9 Socioeconomics and Environmental Justice

E.O. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, require that federal agencies, whenever feasible, maintain information of populations by race, national origin or income and will use this information to determine whether their actions have disproportionately high and adverse human health or environmental effects on minority or low-income populations.

Additionally, the socioeconomic conditions of the project area are analyzed for any potential impacts associated with the construction and operation of the Project. Factors considered in this analysis include population, employment, and income.

3.9.1 Affected Environment

The USEPA's Environmental Justice Screening and Mapping Tool (EJSCREEN) and data from the US Census Bureau were utilized to determine the possible socio-economic impacts and environmental justice impacts of minority and low-income populations for the project area and surroundings (reference Appendix XI).

According to the EJSCREEN American Community Survey (ACS) Summary Report, the total population of the project area and 10-mile radius is 20,466. The area's race makeup consists of White (approximately 85%) and Black (approximately 12%). The area's population is distributed with 5% under the age of 4, 17% from 4 to 17, 61% from 18 to 64 and 17% over the age of 65.

According to the US Census Bureau, the median household income for Amelia County is $58,526 with 9.9% of individuals below poverty level.

3.9.2 Environmental Consequences

Under the Proposed Action, impacts related to socioeconomic and environmental justice are not anticipated. As the Project does not include the addition of new homes or businesses, implementation of the Project would not directly stimulate unplanned population growth in the project area. Local residents would not notice a change in business or economic activity, shifts in population movement and growth, or impact on public service demands. The Project will not adversely or significantly affect low income or minority populations but will provide positive economic impacts by expanding the tax base in the County. There also are no potential impacts associated with the interconnection.

3.9.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

3.10 Coastal Zone and Coastal Barrier Resources

This section describes an overview of the existing coastal resources at the project area and the potential impacts that would be associated with the Project.

Coastal areas and barrier systems provide diverse and unique habitats as well as protect inland areas from hurricanes, other storms and storm surges. Heavy pressure from residential, recreational, and industrial development urged Congress to enact two major laws for their protection: The Coastal Zone Management Act (CZMA) of 1972 and the Coastal Barrier Resources Act (CBRA) of 1982. The CZMA requires federal actions that are reasonably likely to affect any land or water use or natural resource in a coastal zone be consistent with the enforceable policies while the CBRA prohibits federal activities in CBRA units (undeveloped coastal barrier lands along the Atlantic, Gulf and Great Lakes coasts).

“Coastal State” means a State of the United States in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes. According to the National Oceanic and Atmospheric Administration (NOAA), Virginia’s coastal zone includes the 29 counties, 17 cities and 42 incorporated towns of Tidewater Virginia, including the Atlantic Coast watershed and portions of the Chesapeake Bay and Albemarle-Pamlico Sound watersheds.

3.10.1 Affected Environment

The project area is located over 80 miles from the coast and according to the USFWS’s Coastal Barrier Resource System mapper, the project area is not located in or adjacent to state’s coastal zone (reference Appendix XII).

3.10.2 Environmental Consequences

Under the Proposed Action, there would be no impacts to coastal resources as they are absent from the project area and surrounding area. There also are no potential impacts associated with the interconnection.

3.10.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

3.11 Noise

This section describes an overview of the existing ambient sound environment at the project area and the potential impacts that would be associated with the Project.

The construction and operation of the Project could create noise impacts. Certain activities

inherently produce sound levels or characteristics that have the potential to create noise. There are two main categories of noise – community noise and job-related noise. Job-related noise is regulated by the Occupational Safety and Health Administration (OSHA). The other category, community noise, refers to the combination of multiple sources of noise which may result in an overall unacceptable level for those living, working or recreating in the area especially in noise-sensitive areas including residences, schools, hospitals, churches, parks, wildlife refuges, etc.

3.11.1 Affected Environment

The project area is located in Amelia County, over eight miles from Amelia Court House's city center. Ambient noise at the project area consists predominantly of rural or natural sounds, as well as manmade noise from agricultural practices and vehicle traffic traveling on local roads and highways. Noise-sensitive areas are not located within the project area or nearby surroundings.

3.11.2 Environmental Consequences

Under the Proposed Action, there will be a direct, short-term increase in noise related to construction activities. According to the American National Standards Institute (ANSI), average construction sound levels range between 80-90 decibels (dBA) – this singular impact will be temporary, occurring only during daytime hours within the 4-month period. Land clearing activities will include skid steers and one mini excavator and during the first two weeks of construction, pile driving machines will also be utilized. Noise related to traffic increase will also be encountered. It is estimated that during the peak of construction, approximately 10-15 semi-trucks will visit the project area per day but on average, there will only be 6-7. Post-construction, the ambient sound environment would be expected to return to existing levels. Noise from equipment (i.e., the inverter) will only be audible during the daylight hours when the panels are producing power and will likely only be heard by individuals within the perimeter fence. An annual site inspection will occur throughout the operational life of the Project along with monthly mowing activities. Consequently, the Project, and associated interconnection, would only cause temporary noise impacts and will not result in a long-term increase to the ambient noise levels of the area.

3.11.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

3.12 Traffic and Transportation

This section provides an overview of the existing traffic and transportation resources at the project area and describes the potential impacts the Project could have on these resources.

Transportation impacts include increases and decreases in traffic and transportation that might be causes or exacerbated by development of the Project. Other impacts considered are the

transportation of materials to or from the facility either during construction or during operation. Any possible changes in transportation patterns or intensity are also evaluated.

3.12.1 Affected Environment

The Project will be located to the north of Genito Road (State Road 616) and west of Royalton Road (State Road 609). Royalton Road is a two-lane highway that connects Highway 13 to the north and Genito Road to the south. Virginia's Department of Transportation (VDOT) average daily traffic counts for Royalton Road between Genito Road and Highway 13 in 2019 is 1,400 vehicles. The nearest railroad line is located over 8 miles south of the project area in Amelia Court House, and the nearest airport is the Farmville Regional Airport. This general aviation airport is located approximately 25 miles southwest of the project area.

3.12.2 Environmental Consequences

Under the Proposed Action, significant impacts to transportation would not result due to the Project, given the short, 4-month duration of the construction phase and the limited number of workers and equipment required for operation and maintenance. The majority of the traffic burden as a result of the Project will occur during the construction phases – both build-out and end-of-life tear down. During these short duration phases, it is anticipated that traffic will increase slightly to account for construction personnel and equipment. It is estimated that during the peak construction period, there could be approximately 10-15 semi-trucks visiting the project area per day but on average, there will only be 6-7. During operation of the Project, there will be monthly mowing activities and an annual site inspection – a significant increase in traffic for any maintenance or inspection activities is not anticipated. The Project's interconnection would also not contribute to any long-term impacts to transportation and/traffic.

3.12.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

3.13 Visual Resources

This section describes an overview of the existing visual resources at the project area and the potential impacts to those resources associated with the Project. Visual resources are the visual character of a place, both manmade and natural, that give a particular landscape its character and aesthetic quality.

As development in rural areas increases in scope and complexity, aesthetics or visual impacts may be a concern. The visual quality of an area may be affected by the introduction of new buildings or structures. Where visual impacts are identified, and avoidance of the impacted area is not feasible, efforts should be made to design, construct and operate in such a way that would minimize aesthetic impacts.

3.13.1 Affected Environment

The Project will be located in Amelia County over eight miles north of the town of Amelia Court House. The project area is currently a mix of forestland with some agriculture on adjoining areas, mimicking the surrounding properties.

3.13.2 Environmental Consequences

Under the Proposed Action, visual impacts would occur during both the construction and operation phase of the Project. During the construction stage, machinery would be present, and the project area would be graded – these impacts would be considered minor since construction would be temporary. Once the facility becomes operational, visual impacts would include the addition of solar modules mounted on a steel racking system, surrounded by a chain-link security fence. Impacts to the visual quality of the project area and surroundings would be insignificant as the Project will be set back from the road and the project area is surrounded by trees. There also are no potential impacts associated with the interconnection, as the three-phase infrastructure will occur underground.

3.13.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

3.14 Human Health and Safety

This section describes public health and safety associated with the construction and operation of the Project and the potential impacts. There is an importance in evaluating the Project's impact on public health and safety per 40 CFR Part 1508.27. The Project would require all personnel and visitors to follow the OSHA guidelines during construction and operation.

Electromagnetic Fields and Interference

Electromagnetic Fields (EMF) are associated with any electric device. Power-frequency EMFs are associated with the generation, transmission and use of electric power. Electromagnetic Interference (EMI) is the disruption to the standard operation of an electronic device created by electromagnetic fields in its vicinity. This interference can be continuous or intermittent and can vary based on the distance and field levels that are produced by the source. Effects from high-voltage electric transmission lines and substations may include interference to radio and television reception in the immediate vicinity. Linkages between EMFs and human health have been made; however, are generally considered weak.

Environmental Risk Management

Environmental risk management informs Agency staff on the proper procedures for environmental due diligence relating to hazardous substances, hazardous wastes, and petroleum waste products. If properly conducted, environmental risk management proactively

recognizes potential hazards and legal and financial vulnerabilities associated with the major hazardous materials, federal and state laws, as well as possible hazards to the human environment in compliance with NEPA.

Reflectivity, Glare or Dazzle

Reflectivity refers to light that is reflected off surfaces. The potential impacts of reflectivity are glint, glare or dazzle which can cause a brief loss of vision. According to the Federal Aviation Authority (FAA), solar energy projects introduce new visual surfaces to the airport setting, where reflectivity could result in glare that cause flash blindness episodes for pilots and air traffic controllers.

3.14.1 Affected Environment

Environmental due diligence is the process of inquiring into the environmental condition of real property to determine the potential for contamination and was conducted by the completion of a Phase I Environmental Site Assessment in May of 2020. The report was performed in accordance with the procedures included in American Society for Testing and Materials (ASTM) E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The assessment revealed no evidence of recognized environmental conditions (RECs) inside or immediately surrounding the project area and concluded that no further investigation is required.

3.14.2 Environmental Consequences

Under the Proposed Action, significant impacts to human health and safety are not anticipated. There are no foreseeable health and safety risks from induced currents, electric shock, effects on cardiac pacemakers and nuisance factors, such as audible noise, potential interference with radio and television broadcast reception and electronic equipment. During the construction phase, hazardous materials such as diesel, maintenance fluids and paints would be stored and used onsite; however, the operation of the solar facility would not the use, release, or generate hazardous materials. A fuel tank will be kept within the project area and will sit on an overflow containment trap. The Project's will also include the installation of infrastructure in an underground easement which will assist in the transmission of electricity. There are no potential impacts associated with the interconnection.

PV systems do not emit any material during their operation; however, they do generate EMF, sometimes referred to as radiation. The EMF produced by electricity is non-ionizing radiation, meaning the radiation has enough energy to move atoms in a molecule around (experienced as heat), but not enough energy to remove electrons from an atom or molecule (ionize) or to damage DNA. Modern humans are all exposed to EMF throughout our daily lives without negative health impact. An individual outside of the fenced perimeter of a solar facility is not exposed to significant EMF; therefore, there is no negative health impact from the EMF produced in a solar farm.

The amount of reflectivity varies among solar technologies. The Project will reduce reflectivity by utilizing photovoltaic panels which are primarily absorptive compared to concentrated solar power technologies. Lastly, the Project does not include lighting; therefore, the Project would not result in light exposure or result in light pollution or glare.

3.14.3 Mitigation

Waste generation will be managed in accordance with Federal, State and local regulations. Site safety will be managed by strict adherence to OSHA requirements. Procedures included in an emergency response plan will include management efforts, a Hazardous Operations Manual, and Spill Control and Countermeasures (SPCC) plans designed to protect workers and the public from further exposure to hazards.

4.0 SUMMARY OF MITIGATION

Mitigation and monitoring actions will be performed to reduce any impacts to the environmental resources associated with the Project. These actions are as follows:

- The Applicant shall obtain and comply with all required County, State and Federal permits.
- BMPs will be implemented, including those required by the NPDES permitting and SWPPP.
- When disposing of excess spoil or other construction materials on public or private property, wetlands will not be filled in or otherwise converted.
- Ground vegetation will be maintained throughout the operational life of the facility.
- Depending on local requirements, a Stormwater Management (SWM) plan may be required. SWM requirements should be requested from the appropriate County/Town office. [References: Virginia Stormwater Management Act, Virginia Code 62.1.44.15 et seq.; Virginia Stormwater Management Program (VSMP) Permit Regulations, 9 VAC 25-870-54 et seq.] Additional guidance may be obtained from DEQ's Office of Stormwater Management.
- For any land disturbing activities equal to or exceeding one acre, or equal to or exceeding 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and management Regulations adopted pursuant to the Chesapeake Bay Preservation Act, the operator or owner of a construction project is required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities (VAR10) and develop a SWPPP. The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit and it must address water quality and quantity in accordance with the VSMP Permit Regulations. General information and registration forms for the General Permit are available from DEQ at http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx. [References: Virginia Stormwater Management Act, Virginia Code sections 62.1.44.15 et seq.; VSMP Permit Regulations, 9 VAC 25-870-10 et seq.].
- The contractor shall comply with the Endangered Species Act, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought to the attention of the contractor, the contractor will immediately report this evidence to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the USFWS.
- Tree removal will not occur during the NLEB pup season (June 1-July 31).
- The following will be implemented:
    - Use of appropriate seed mix/plants and seasonal mowing developed in

consultation with the DCR;
    - Development of a monitoring and control plan for invasive species;
    - Planting of native pollinator plants in the buffer areas of the planned facility, and;
    - Minimizing habitat fragmentation by leaving round versus long, skinny natural cover and forest land fragments; retaining connective corridors that allow significant wildlife migrations between fragments and designing the intervening landscape to benefit habitat; and natural cover as opposed to turf grass and mowed lawn.
- In the event of inadvertent discovery, a stop work order shall be issued immediately; the project engineer and RD will be notified. The Agency will issue further directions after coordination with VDHR, interested Tribes and the ACHP.
- Fugitive dust caused by the movement of construction materials and construction equipment will be controlled by adherence to the Virginia DEQ regulations and 9 VAC 5-50-60 et. seq., which governs the abatement of visible emissions and fugitive dust emissions. Measures include, but are not limited to, the following: use, where possible, of water or chemicals for dust control, installation and use of hoods, fans and fabric filters to enclose and vent the handling of dusty materials, covering of open equipment for conveying materials, and prompt removal of spilled or tracked dirt or other materials from paved streets and removal of dried sediments resulting from soil erosion. Land clearing wastes (vegetative debris) generated during construction should be properly managed in accordance with applicable regulations and local ordinances. Shredding/chipping of vegetative debris and reuse on-site is recommended over open burning. If project activities include open burning or the use of special incineration devices, this activity must meet the requirements under 9 VAC 5-130-10 through 9 VAC 130-60 and 9 VAC 5-130-100 of the Regulations for open burning. In addition, the Regulations provide for, but do not require, the local adoption of a model ordinance concerning open burning. Waste generation will be managed in accordance with Federal, State and local regulations.
- Waste generation will be managed in accordance with Federal, State and local regulations.
- Site safety will be managed by strict adherence to OSHA requirements. Procedures included in an emergency response plan will include management efforts, a Hazardous Operations Manual, and SPCC plans designed to protect workers and the public from further exposure to hazards.

5.0 SUMMARY OF IMPACTS

Under the Proposed Action, the Project would have both short-term (temporary) and long-term direct effects – these effects are expected to be minor, insignificant, and unlikely to contribute to cumulative effects.

The mitigation measures discussed in Section 4.0 of this EA will be implemented to avoid or minimize the Project's cumulative effects to the environment.

Table 6. Summary of Impacts

Resource	Impact Analysis
Land Use	No adverse impacts
Formally Classified Lands	None present; no impacts
Geology	No adverse impacts
Soils	No adverse impacts
Prime Farmland	Approximately 36.5 acres of prime or important farmland being converted
Floodplains	None present; no impacts
Wetland	60 linear feet of permanent impacts
Water Resources	No adverse impacts
General Fish, Wildlife and Vegetation	No adverse impacts
Listed Threatened and Endangered Species	Not likely to adversely effect listed threatened and endangered species
Migratory Birds	No adverse impacts
Bald and Golden Eagles	No adverse impacts
Invasive Species	No adverse impacts
Cultural Resources and Historic Properties	No adverse impacts
Air Quality	Temporary impacts during construction; no long-term impacts
Socioeconomic and Environmental Justice	No adverse impacts
Coastal Resources	None present; no impacts
Noise	Temporary impacts during construction; no long-term impacts
Traffic and Transportation	Temporary impacts during construction; no long-term impacts
Visual Resources	No adverse impacts
Human Health and Safety	No adverse impacts

6.0 COORDINATION, CONSULTATION AND CORRESPONDENCE

Agency correspondence regarding the Project includes:

- DEQ correspondence and PBR certification, dated May 11, 2020 and June 17, 2020.
- DEQ Local Governing Body Certification, dated May 7, 2020.
- NRCS correspondence and AD-1006, regarding prime farmlands, dated May 8, 2020.
- USACE correspondence regarding wetlands and WOTUS, dated May 8, 2020.
- USFWS correspondence regarding threatened and endangered species, dated July 1, 2020 and April 9, 2021.
- VDHR correspondences, regarding historic properties, dated June 14, 2020 and July 14, 2020.
- Consultation was initiated with the following THPOs:
    - Nansemond Indian Nation
      1001 Pembroke Lane
      Suffolk, Virginia 23434
    - Erin Paden
      Historic Preservation Director
      Delaware Nation of Oklahoma
      P.O. Box 825
      Anadarko, Oklahoma 73005

Copies of all communications are included in this EA.

7.0 LIST OF PREPARERS

Holocene Clean Energy:

- Davis Plunkett, Development Manager

True North Consultants, Inc.:

- Brian Mihelich, Executive Vice President
- Leslie Schroeder, Staff Consultant
- Marina Jawad, Associate Consultant

USDA Personnel:

- Michael Geiger, Environmental Protection Specialist
- James Warner, State Environmental / Civil Rights Coordinator

8.0 REFERENCES

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APPENDIX I

Figures

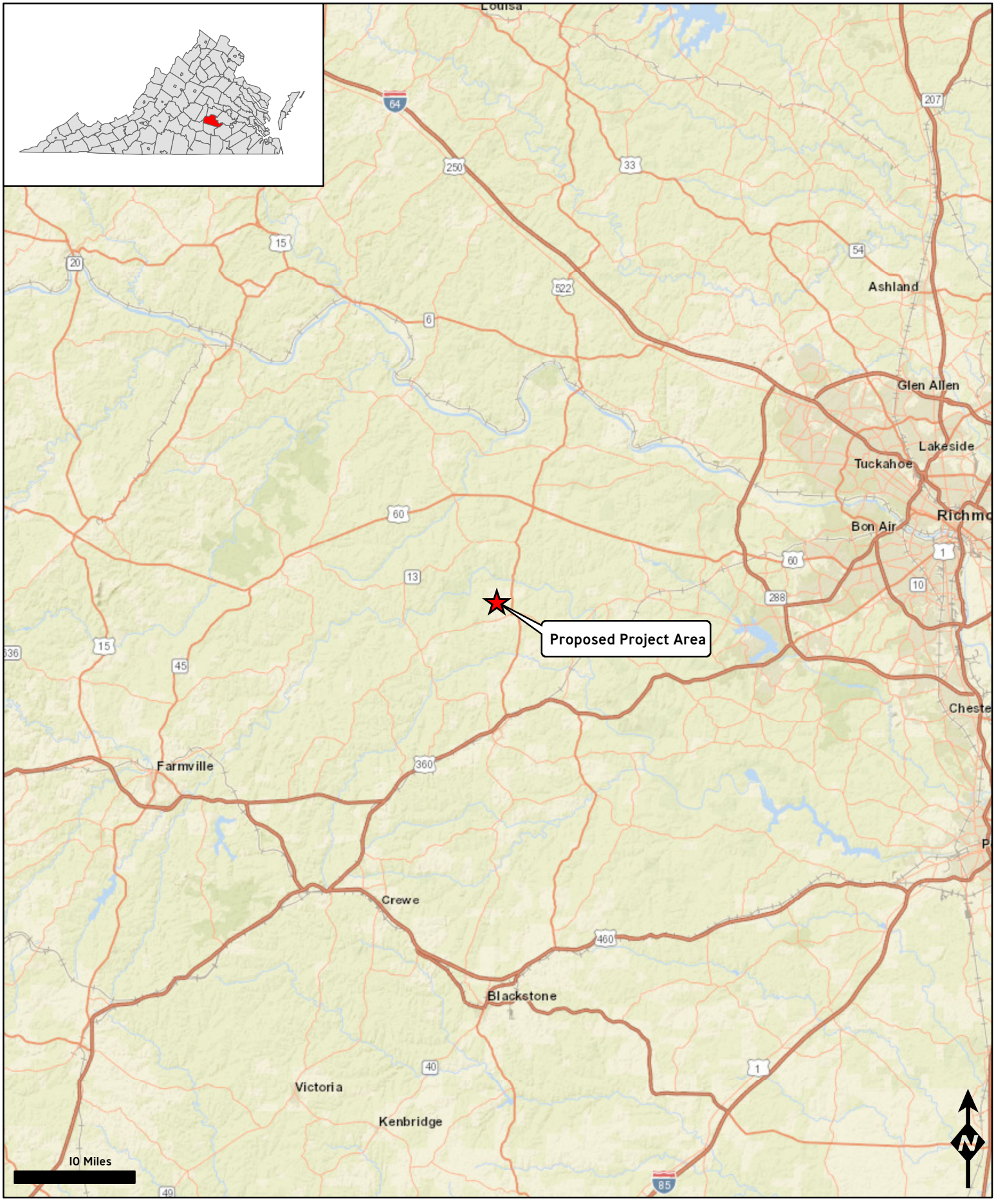

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FIGURE I

Regional Map

Proposed Amelia Solar II

Amelia Court House, Amelia County, Virginia

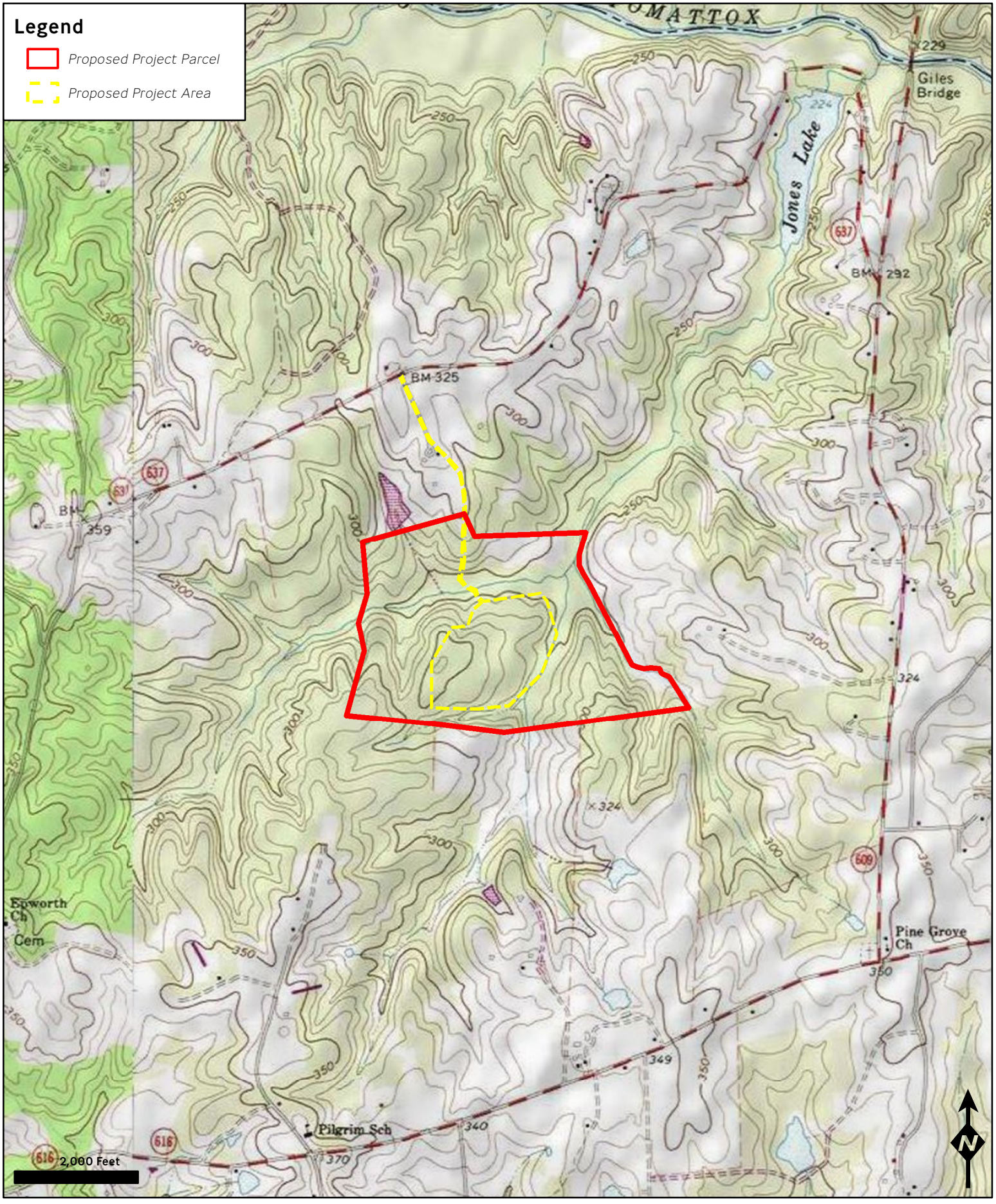

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FIGURE 2

Topographic Map

Proposed Amelia Solar II

Amelia Court House, Amelia County, Virginia

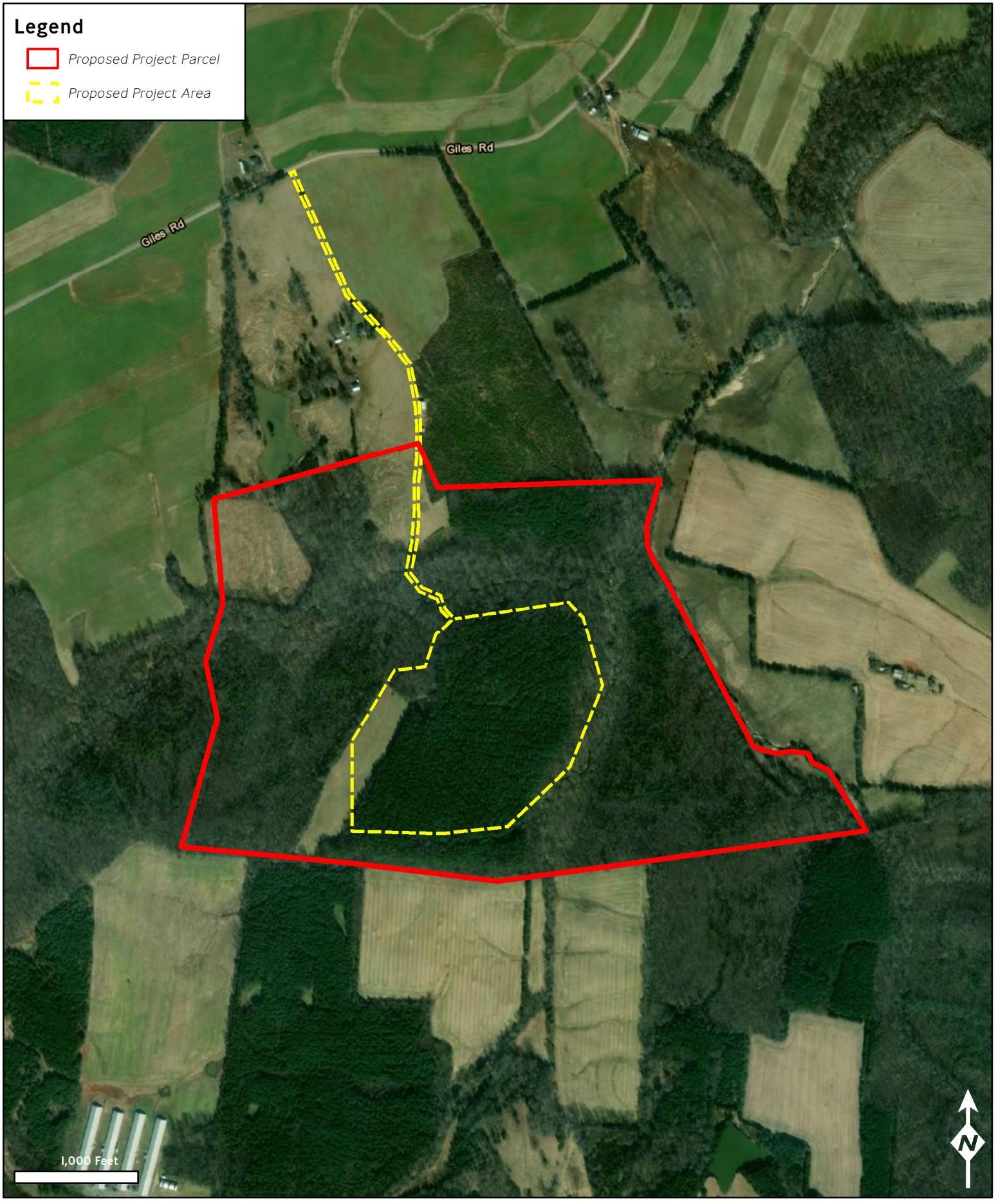

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FIGURE 3

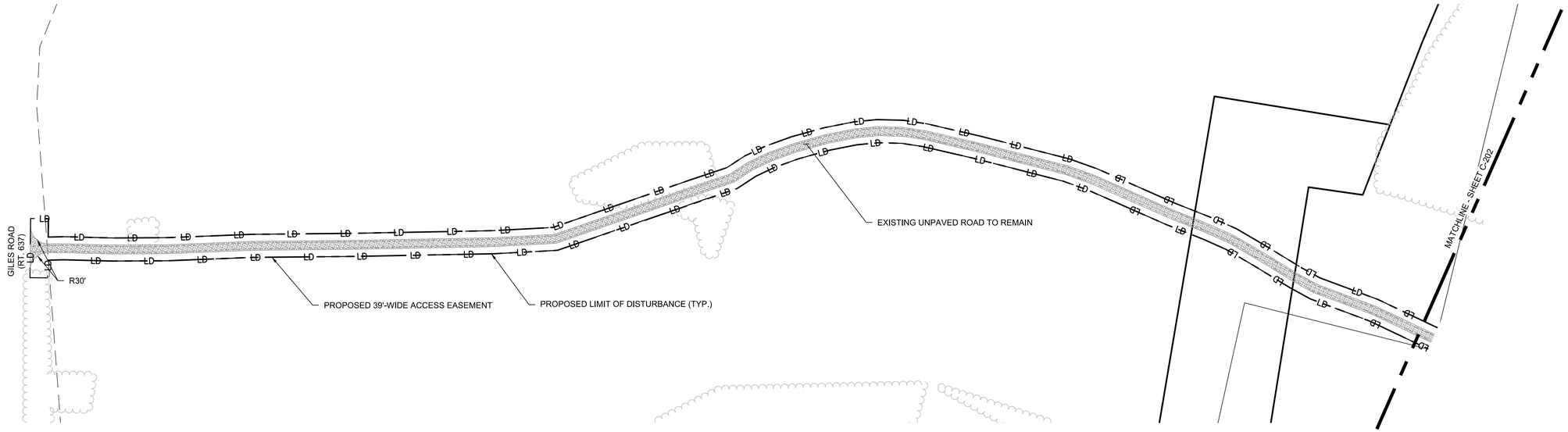
Area Map

Proposed Amelia Solar II

Amelia Court House, Amelia County, Virginia

APPENDIX II

Drawings



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Bright People. Right Solutions.

3200 Gateway Centre Blvd., Suite 100
Morrisville, NC 27560
Phone: 919-755-5011
www.kleinfelder.com
VA Business Entity ID: F1954900

REVISIONS

REV	DESCRIPTION	DSN / DWN	CHK / APP	DATE
A	ISSUED FOR PERMIT	BMP / BMP	MDI / CGO	5/27/2020

ISSUED FOR PERMITTING

SCALE VERIFICATION

THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING

0 1"

IF IT'S NOT 1 INCH ON THIS SHEET ADJUST YOUR SCALES ACCORDINGLY

0 100 200 300

SCALE: 1" = 100' SCALE IN FEET

ORIGINAL DRAWING SIZE IS 22 x 34

SITE PLAN

AMELIA SOLAR II, LLC
GILES ROAD
AMELIA COUNTY, VIRGINIA

Holocene
CLEAN ENERGY

IFP DESIGN PLANS

PROJECT NO.	20203784.001A
ISSUE DATE	5/27/2020
CURRENT REVISION	A
DESIGNED BY	BMP
DRAWN BY	BMP
CHECKED BY	MDI
APPROVED BY	CGO

C-201

SHEET NUMBER

MATCHLINE - SHEET C-201

PROPOSED VARIABLE WIDTH ACCESS EASEMENT

PROPOSED 15'-WIDE GRAVEL ACCESS ROAD (TYP.)

PROPOSED LIMIT OF DISTURBANCE (TYP.)

PROPOSED SECURITY FENCE (TYP.)

PROPOSED 14'-WIDE SWING GATE

PROPOSED 48 LF OF 15"Ø CMP

PROPOSED 60 LF OF 48"Ø CMP

PROPOSED TRUCK TURNAROUND AND/OR LAYDOWN AREA

PROPOSED TREE LINE (TYP.)

EXISTING UNPAVED ROAD TO REMAIN

135'

92'

PROPOSED SOLAR ARRAY PV MODULES ON GROUND MOUNTED RACKING SYSTEM (TYP.)

PROPOSED 14'-WIDE SWING GATE

PROPOSED ELECTRICAL EQUIPMENT PAD (TYP.)

PROPOSED BASIN LOCATION (TYP.)

PROPOSED 25'-WIDE LANDSCAPE BUFFER (TYP.)

MATCHLINE - SHEET C-201

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REV	DESCRIPTION	DSN	CHK	DATE
		DWN	APP	
A	ISSUED FOR PERMIT	BMP	MDI	5/27/2020
		BMP	CGO	

ISSUED FOR PERMITTING

SCALE VERIFICATION

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SCALE: 1" = 100' SCALE IN FEET

ORIGINAL DRAWING SIZE IS 22 x 34

SITE PLAN

AMELIA SOLAR II, LLC
GILES ROAD
AMELIA COUNTY, VIRGINIA

Holocene
CLEAN ENERGY

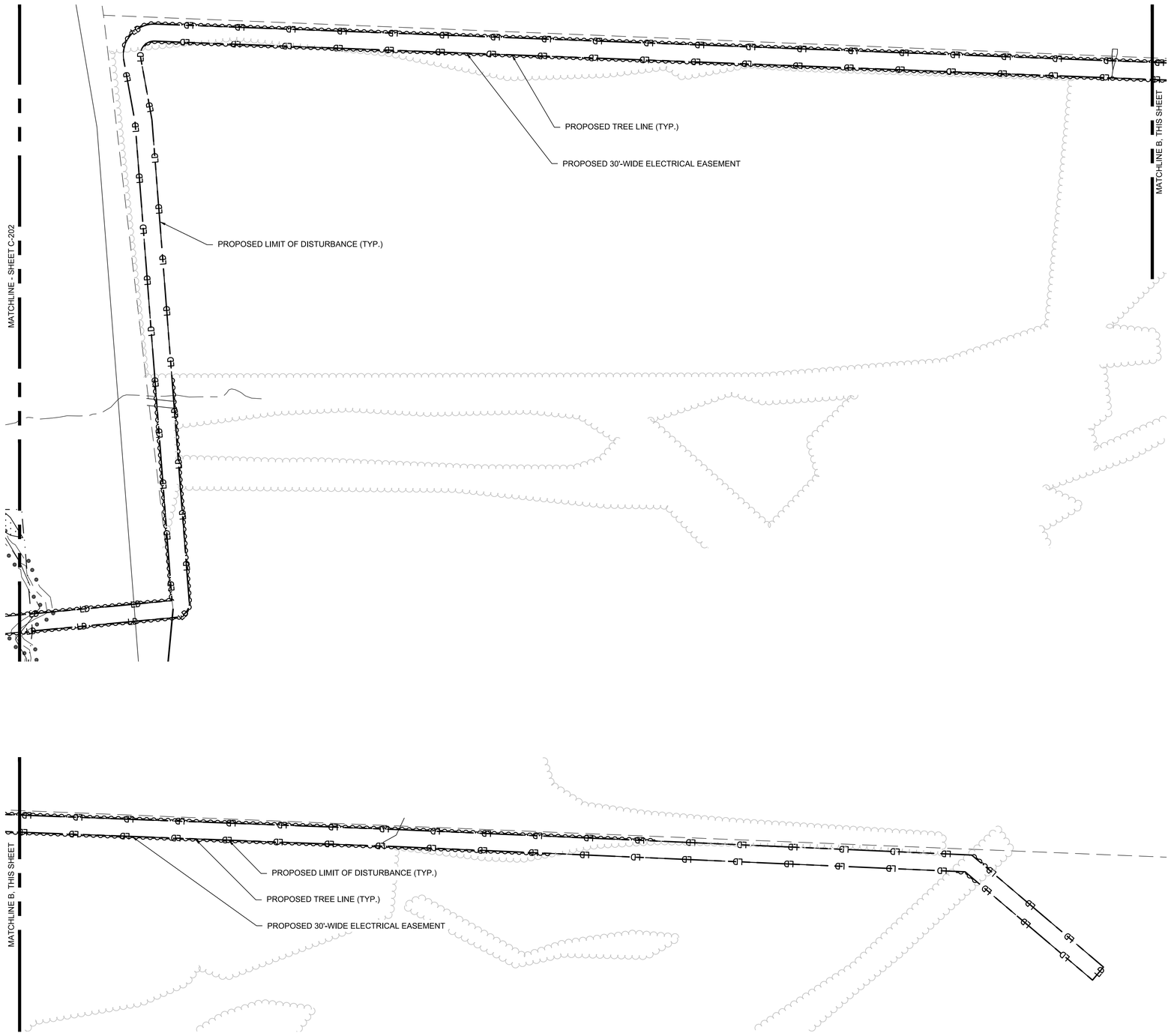
IFP DESIGN PLANS

PROJECT NO.	20203784.001A
ISSUE DATE	5/27/2020
CURRENT REVISION	A
DESIGNED BY	BMP
DRAWN BY	BMP
CHECKED BY	MDI
APPROVED BY	CGO

C-202

SHEET NUMBER

CAD FILE: \\kleinfelder\shares\RALEIGH-DATA\Working\Civil\Solar\Holocene\Amelia II\CAD\Plans\30% Design Plan\Amelia II_Site Plan.dwg LAYOUT: 202 SITE PLAN PLOTTED: 5/27/2020 2:50 PM BY: austin hamilton



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REVISIONS

REV	DESCRIPTION	DSN / DWN	CHK / APP	DATE
A	ISSUED FOR PERMIT	BMP / BMP	MDI / CGO	5/27/2020

ISSUED FOR PERMITTING

SCALE VERIFICATION

THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING

0 — 1"

IF IT'S NOT 1 INCH ON THIS SHEET ADJUST YOUR SCALES ACCORDINGLY

0 100 200 300

SCALE: 1" = 100' SCALE IN FEET

ORIGINAL DRAWING SIZE IS 22 x 34

SITE PLAN

AMELIA SOLAR II, LLC
GILES ROAD
AMELIA COUNTY, VIRGINIA

Holocene
CLEAN ENERGY

IFP DESIGN PLANS

PROJECT NO.	20203784.001A
ISSUE DATE	5/27/2020
CURRENT REVISION	A
DESIGNED BY	BMP
DRAWN BY	BMP
CHECKED BY	MDI
APPROVED BY	CGO

C-203

SHEET NUMBER

CAD FILE: Water\federalshares\RALEIGH-DATA\Working\Civil\Solar\Holocene\Amelia II\CAD\Plans\30% Design Plan\Amelia II_Site Plan.dwg LAYOUT: 203 SITE PLAN PLOTTED: 5/27/2020 1:16 PM BY: austin hamilton

APPENDIX III

Site Photographs

APPENDIX IV

Land Use

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 1111 East Main Street, Suite 1400, Richmond, VA 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

June 17, 2020

Mr. Davis Plunkett
Development Project Manager
Holocene Clean Energy
4325 Lake Boone Trail, Suite 220
Raleigh, NC 27607

RE: HCE Amelia Solar II, LLC
PBR 9VAC15-60-130 Authorization

Dear Mr. Plunkett:

Thank you for notifying the Department of Environmental Quality (DEQ) about the 5 MWac proposed project, HCE Amelia Solar II, LLC, (Amelia Solar II) located in Amelia Court House, Virginia. As described in the documents you provided (attached), the project will consist of 20,000 modules.

Pursuant to Part III of the DEQ's Small Renewable Energy Projects (Solar) Permit by Rule (PBR) Regulation, the owner or operator of a small solar energy project with rated capacity greater than 500 kilowatts and less than or equal to five megawatts shall notify the department and shall submit a certification by the governing body of the locality where the project will be located that the project complies with all applicable land use ordinances (9VAC15-60-130 B). Although projects with rated capacity of five megawatts and less do not have to fulfill the full requirements of the Solar PBR Regulation, DEQ deems such projects to be covered by the PBR.

This authorization for construction and operation shall not relieve Amelia Solar II of the responsibility to comply with all other applicable local, state and federal statutes and regulations, including but not limited to strict adherence to applicable state and local erosion and sediment control/storm water management laws.

Should you need further information or have any questions please contact Mary E. Major at 804-698-4423.

Sincerely,

Michael G. Dowd, Director
Air and Renewable Energy Division

Holocene
CLEAN ENERGY

(Notice of Intent for Solar Energy Project – "de minimis" Section 130 projects)

May 11, 2020

Ms. Mary E. Major
Department of Environmental Quality
P. O. Box 1105 Richmond, VA 23218
mary.major@deq.virginia.gov

Dear Ms. Major:

On behalf of HCE Amelia Solar II, LLC, I am providing notice to the Department of Environmental Quality of our intention to construct a small renewable energy project (solar) in Amelia Court House, Virginia, pursuant to Virginia Regulation 9VAC15-60-130.B. This project will be subject to provision 9VAC15-60-130.B because the rated capacity of the project will be 5 megawatts AC.

HCE Amelia Solar II is a 5 MWac solar photovoltaic facility located at off Giles Road approximately 2 miles west of the intersection of Royalton Road in Amelia Court House, VA. The electrical generation will come from approximately 20,000 solar photovoltaic modules. The project will cover approximately 30 acres of a 190 acre parcel and interconnect to Southside Electric Cooperative.

Attached to this letter, please find a certification by Amelia County that the project complies with all applicable land use ordinances.

If the Department has questions regarding this project, please contact Davis Plunkett at 919-999-2603 and davis.plunkett@holocene-energy.com

Sincerely yours,

Davis Plunkett
Development Project Manager

Address: 4325 Lake Boone Trail, Suite 220, Raleigh, NC 27607 ✪ Phone: 919-829-0037
Email: info@holocene-energy.com ✪ Website: www.holocene-energy.com

Virginia Department of Environmental Quality
Small Renewable Energy Projects (Solar)
Local Governing Body Certification Form

Facility Name and Location: HCE Amelia Solar II, located at the Royalton Road, Amelia Court House. Lat: 37.45°N, Long: -77.95° W	
Applicant's Name: HCE Amelia Solar II	
Applicant's Mailing Address: 4325 Lake Boone Trail, #220 Raleigh, NC 27607	Telephone Number and Email Address: 919-829-0037 info@holocene-energy.com

The applicant or his representative is submitting an application for a small renewable energy permit by rule from the Virginia Department of Environmental Quality. In accordance with § 10.1 - 1197.6 B 2 of the Code of Virginia, before such permit application can be considered complete, the applicant must obtain a certification from the governing body of the locality or localities in which the small renewable energy project will be located that the project complies with all applicable land use ordinances.

The undersigned requests that an authorized representative of the local governing body sign the certification statement below. In addition, by signing below, the applicant affirms that he has also submitted this form to other localities, if any, in which the proposed project will be located.

Applicant's signature: Dave Plumb	Date: 5/5/2020

The undersigned local government representative certifies *that the proposed small renewable energy project complies with all applicable land use ordinances, as follows:*

(Check one block)

- [x] The proposed facility **complies with** all applicable land use ordinances.
- [ ] The proposed facility **does not comply** with all applicable land use ordinances.

Signature of authorized local government representative: David R. Whitaker	Date: 5/7/2020
Type or print name: David R. Whitaker	Title: Community Development Director
County, City or Town: Amelia County	

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request 6/18/2020	
Name of Project Amelia Solar II		Federal Agency Involved USDA-RUS	
Proposed Land Use Solar Farm		County and State Amelia, Virginia	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS 6/19/2020	Person Completing Form: Louise Jacques
Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated 0.0	Average Farm Size 200 acres
Major Crop(s) corn	Farmable Land In Govt. Jurisdiction Acres: 90.8 % 200, 786	Amount of Farmland As Defined in FPPA Acres: 86.3 % 121, 857	
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System N/A	Date Land Evaluation Returned by NRCS 6/26/2020	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	42			
B. Total Acres To Be Converted Indirectly	-			
C. Total Acres In Site	42			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	24.3			
B. Total Acres Statewide Important or Local Important Farmland	12.5			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.0			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	61.3			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	51			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	15			
6. Distance To Urban Support Services	(15)	15			
7. Size Of Present Farm Unit Compared To Average	(10)	9			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	3			
10. On-Farm Investments	(20)	10			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	77	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	51	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	77	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	128	0	0	0

Site Selected: A	Date Of Selection 1-5-2021	Was A Local Site Assessment Used? YES ☐ NO ☐

Reason For Selection:

Digitally signed by JAMES WARNER
DN: c=US, o=U.S. Government, ou=Department of Agriculture, cn=JAMES WARNER, 0.9.2342.19200300.100.1.1=12001000125897
Date: 2021.01.05 08:06:54 -05'00'

Name of Federal agency representative completing this form: Jim Warner, State Enviro Coord. Date: 1-5-2021

(See Instructions on reverse side) **Form AD-1006 (03-02)**

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map**,** or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

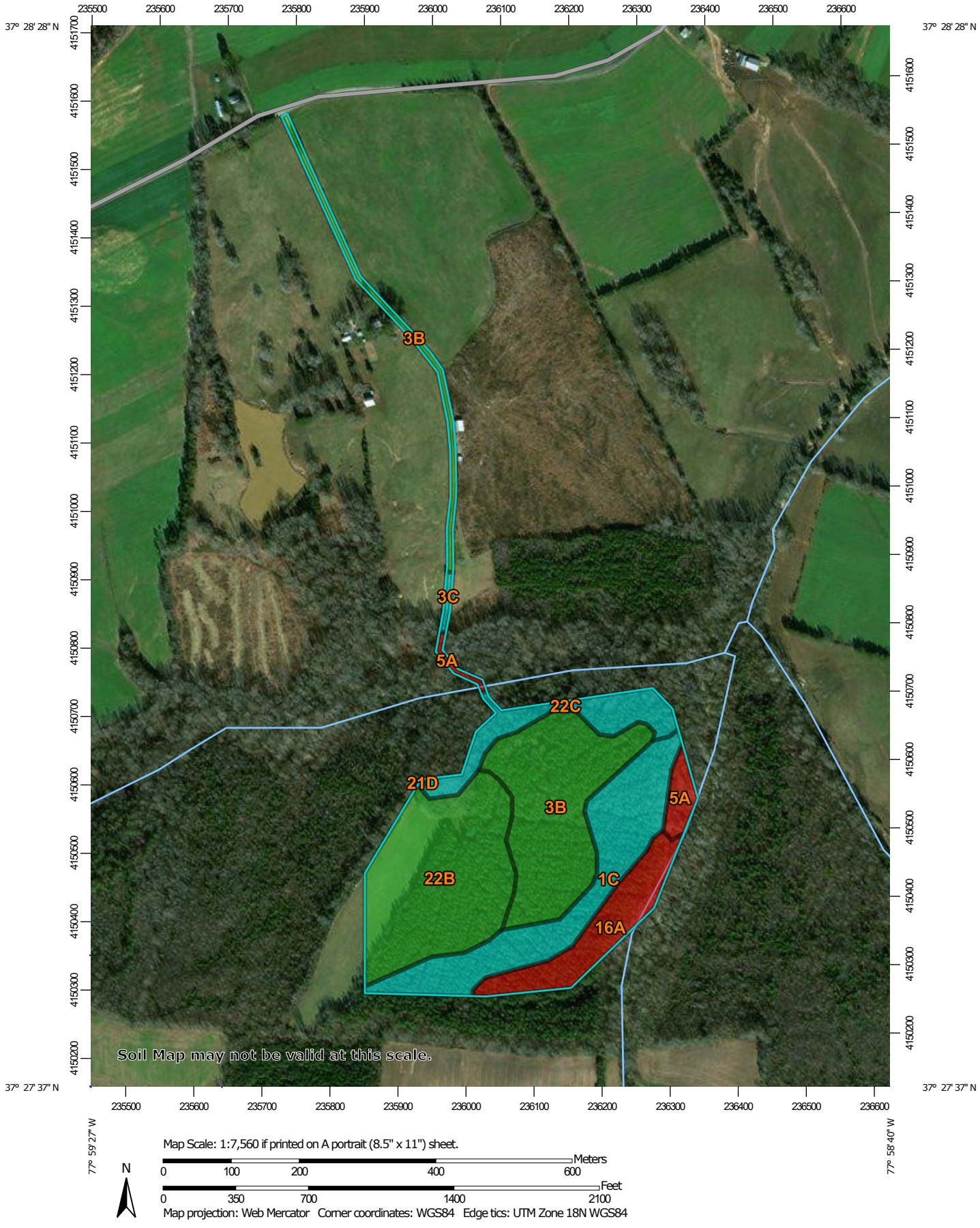
Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

Farmland Classification—Amelia County, Virginia
(Proposed Amelia Solar II)



Map Scale: 1:7,560 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 350 700 1400 2100

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

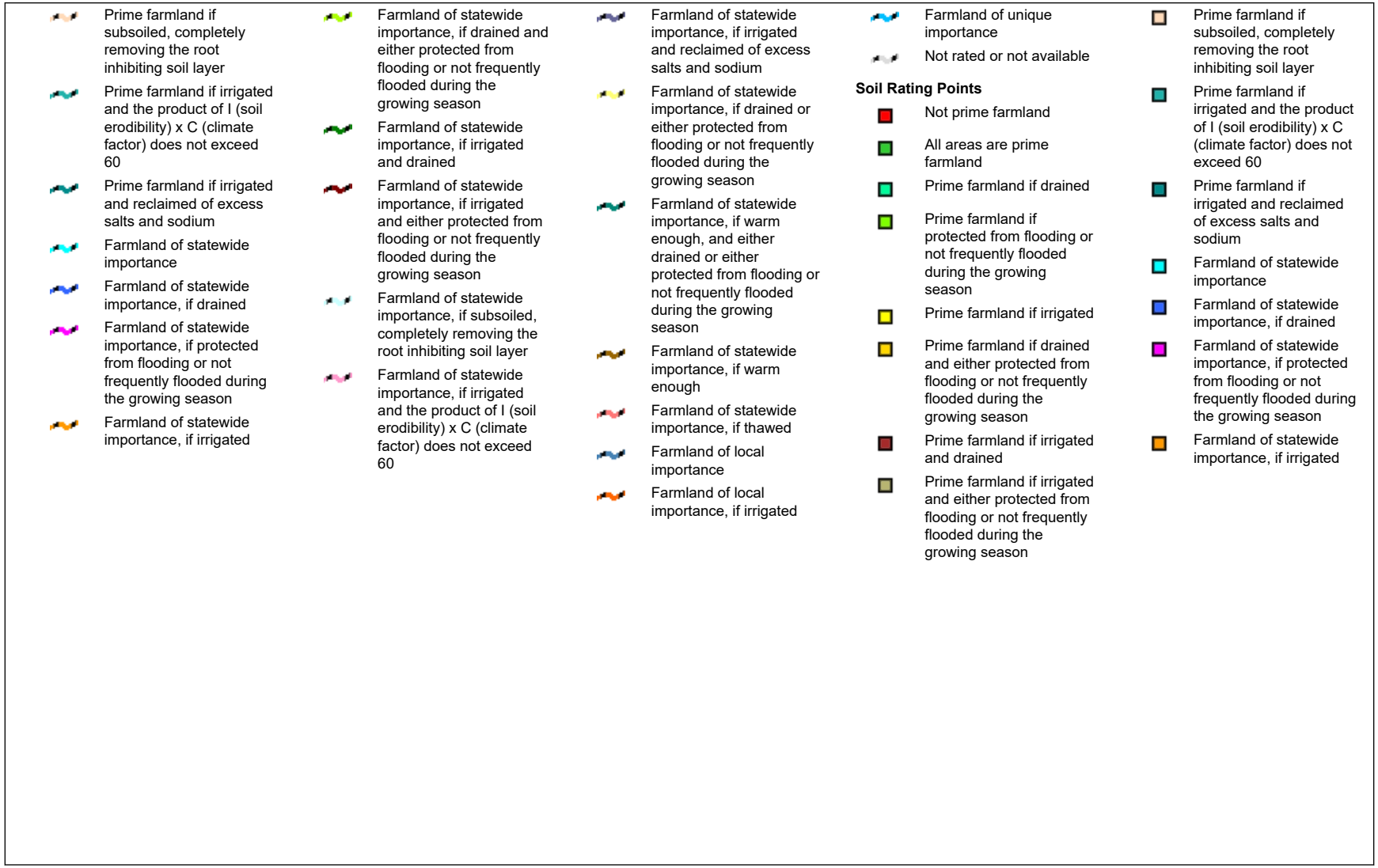
Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season


Prime farmland if subsoiled, completely removing the root inhibiting soil layer
Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
Prime farmland if irrigated and reclaimed of excess salts and sodium
Farmland of statewide importance
Farmland of statewide importance, if drained
Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if irrigated
Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if irrigated and drained
Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if warm enough
Farmland of statewide importance, if thawed
Farmland of local importance
Farmland of local importance, if irrigated
Farmland of unique importance
Not rated or not available
Soil Rating Points
Not prime farmland
All areas are prime farmland
Prime farmland if drained
Prime farmland if protected from flooding or not frequently flooded during the growing season
Prime farmland if irrigated
Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
Prime farmland if irrigated and drained
Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
Prime farmland if subsoiled, completely removing the root inhibiting soil layer
Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
Prime farmland if irrigated and reclaimed of excess salts and sodium
Farmland of statewide importance
Farmland of statewide importance, if drained
Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if irrigated

- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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: Amelia County, Virginia
Survey Area Data: Version 17, Jun 3, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 11, 2015—Nov 22, 2016

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.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1C	Appling fine sandy loam, 7 to 15 percent slopes	Farmland of statewide importance	8.7	20.7%
3B	Cecil fine sandy loam, 2 to 7 percent slopes	All areas are prime farmland	11.9	28.2%
3C	Cecil fine sandy loam, 7 to 15 percent slopes	Farmland of statewide importance	0.2	0.5%
5A	Chewacla silt loam, 0 to 2 percent slopes, frequently flooded	Not prime farmland	1.3	3.0%
16A	Partlow fine sandy loam, 0 to 2 percent slopes, rarely flooded	Not prime farmland	4.3	10.3%
21D	Wedowee-Poindexter complex, 15 to 25 percent slopes	Farmland of statewide importance	0.0	0.1%
22B	Winnsboro sandy loam, 2 to 7 percent slopes	All areas are prime farmland	12.1	28.7%
22C	Winnsboro sandy loam, 7 to 15 percent slopes	Farmland of statewide importance	3.6	8.5%
Totals for Area of Interest			**42.2**	**100.0%**

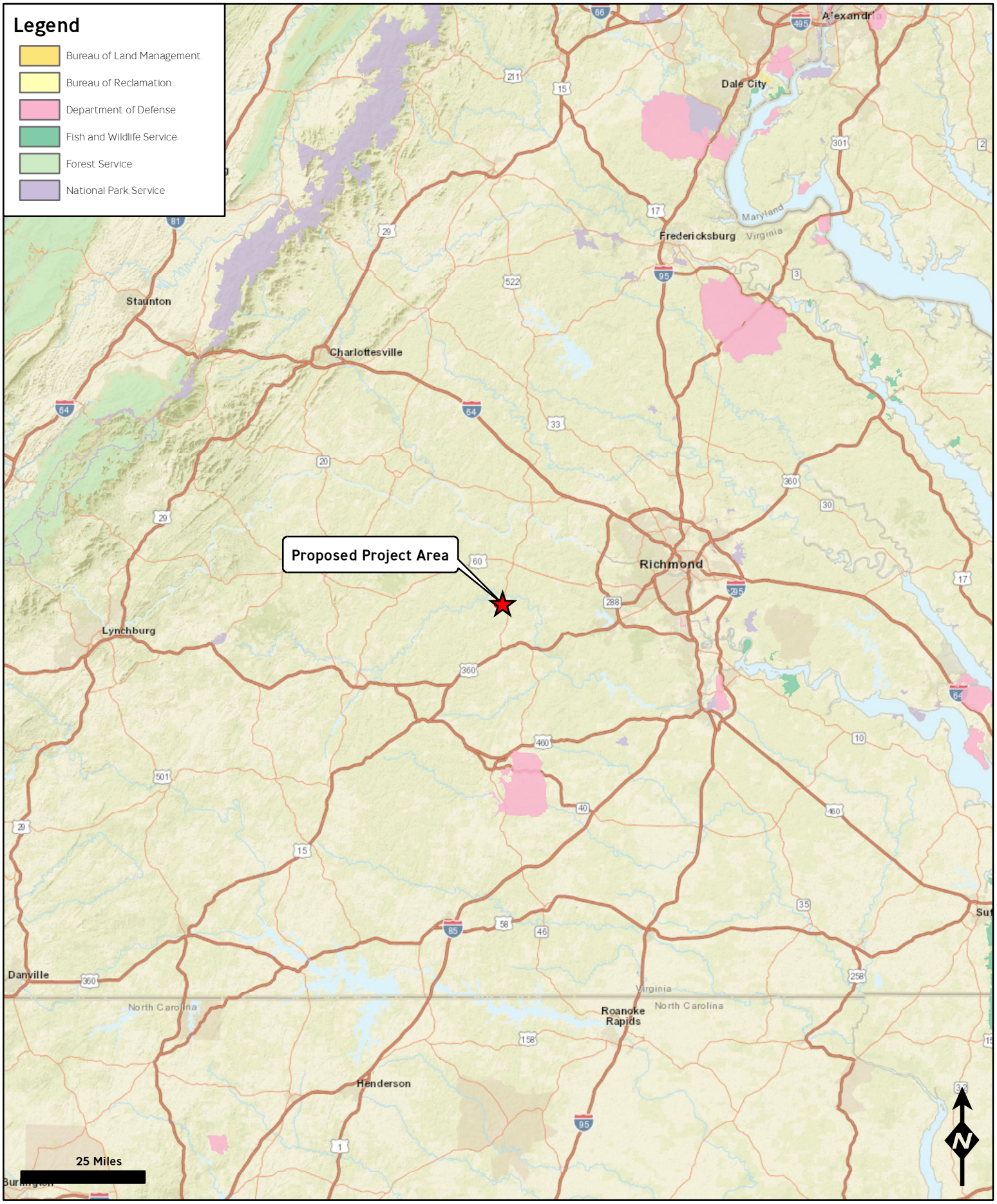
Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower



TRUE NORTH CONSULTANTS

Trusted Partner. Leading Environmental Solutions.

USA FEDERAL LANDS MAP

Proposed Amelia Solar II

Amelia Court House, Amelia County, Virginia

VIRGINIA

Virginia has approximately 49,350 miles of river, but no designated wild & scenic rivers.

+ View larger map

Virginia does not have any designated rivers.

EXPLORE DESIGNATED RIVERS

Choose A State Go

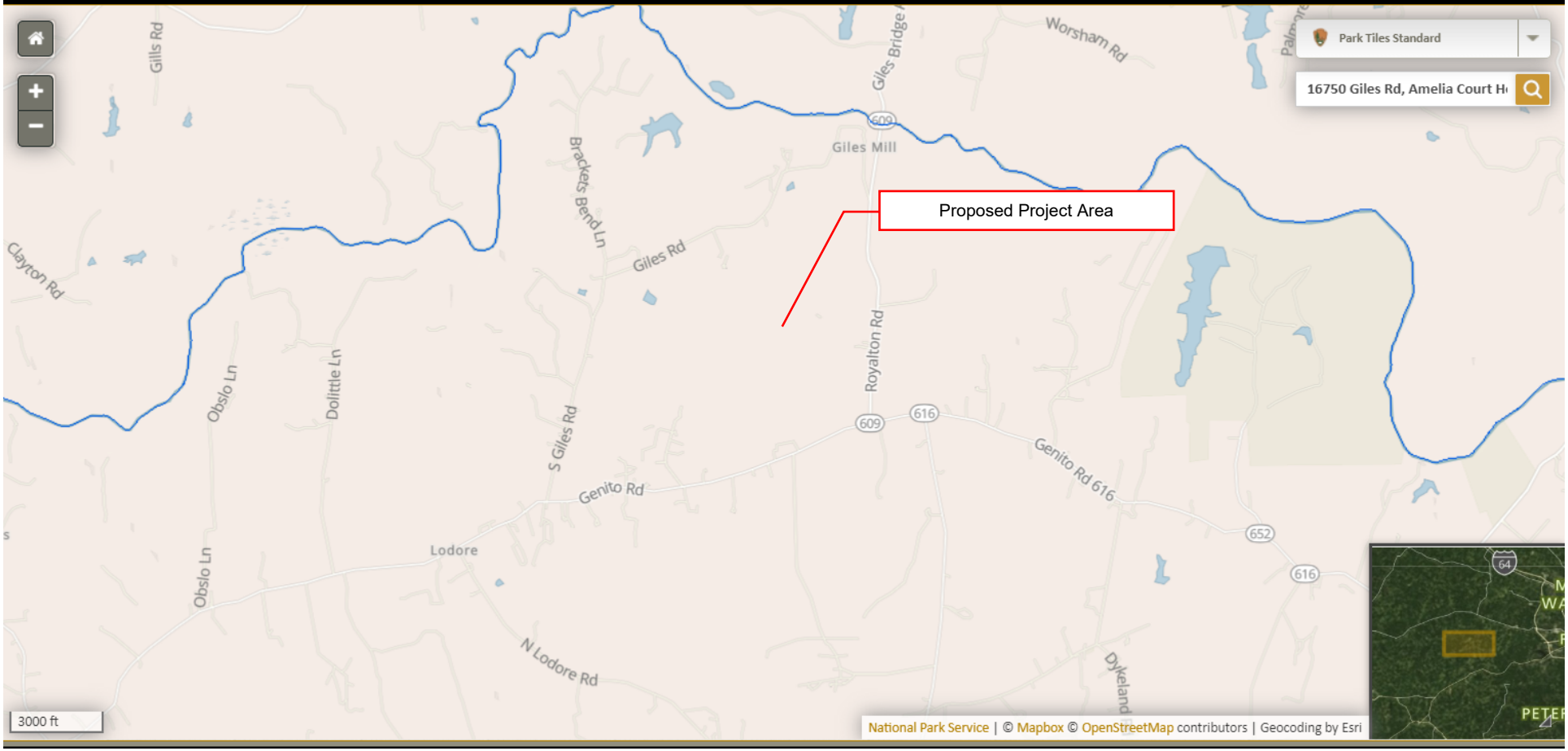
Choose A River Go

While progress should never come to a halt, there are many places it should never come to at all. — Paul Newman

Nationwide Rivers Inventory

This is a listing of more than 3,200 free-flowing river segments in the U.S. that are believed to possess one or more "outstandingly remarkable" values.

National Park Service
U.S. Department of the Interior



APPENDIX V

Floodplains

National Flood Hazard Layer FIRMette

FEMA

77°59'22"W 37°28'9"N

77°58'45"W 37°27'40"N

Feet 1:6,000

0 250 500 1,000 1,500 2,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/17/2021 at 6:57 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX VI

Wetlands

DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

May 8, 2020

PRELIMINARY JURISDICTIONAL DETERMINATION

Southern Virginia Regulatory Section
NAO-2020-02147 (Appomattox River)

Holocene Clean Energy
c/o Davis Plunkett
4325 Lake Boone Trail, #220
Raleigh, NC 27607

Dear Mr. Plunkett:

This letter is in regard to your request for a preliminary jurisdictional determination for waters of the U.S. (including wetlands) on property known as Amelia Solar II, located on a 77.85 acre parcel located off Giles Road in Amelia, Virginia (tax map parcel #5100700004444 (ID: 3-11)).

The map entitled "Amelia Solar II", by Timmons Group dated March 27, 2020 and Corps date stamped as received April 2, 2020 (*copy enclosed)* provides the location(s) of waters and/or wetlands on the property listed above. The basis for this delineation includes application of the Corps' 1987 Wetland Delineation Manual (*and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region*) and the positive indicators of wetland hydrology, hydric soils, and hydrophytic vegetation and the presence of an ordinary high water mark. This letter is not confirming the Cowardin classifications of these aquatic resources.

The Norfolk District has relied on the information and data provided by the applicant or agent. If such information and data subsequently prove to be materially false or materially incomplete, this verification may be suspended or revoked, in whole or in part, and/or the Government may institute appropriate legal proceedings.

Discharges of dredged or fill material, including those associated with mechanized landclearing, into waters and/or wetlands on this site may require a Department of the Army permit and authorization by state and local authorities including a Virginia Water Protection Permit from the Virginia Department of Environmental Quality (DEQ), a permit from the Virginia Marine Resources Commission (VMRC) and/or a permit from your local wetlands board. This letter is a confirmation of the Corps preliminary jurisdiction for the waters and/or wetlands on the subject property and does not authorize any work in these areas. Please obtain all required permits before starting work in the delineated waters/wetland areas.

This is a preliminary jurisdictional determination and is therefore not a legally binding determination regarding whether Corps jurisdiction applies to the waters or wetlands in

question. Accordingly, you may either consent to jurisdiction as set out in this preliminary jurisdictional determination and the attachments hereto if you agree with the determination, or you may request and obtain an approved jurisdictional determination.

Enclosed is a copy of the "Preliminary Jurisdictional Determination Form". Please review the document, sign, and return one copy to Nicole Woodward, of my staff, either via email (Nicole.L.Woodward @usace.army.mil) or via standard mail to US Army Corps of Engineers, Regulatory Office, and ATTN: Nicole Woodward, 803 Front Street Norfolk, Virginia 23510 within 30 days of receipt and keep one for your records. This delineation of waters and/or wetlands can be relied upon for no more than five years from the date of this letter. New information may warrant revision.

If you have any questions, please contact Nicole Woodward, of my staff, either via telephone at (757) 201-7122 or via email at Nicole.L.Woodward@usace.army.mil .

Sincerely,

Nicole L. Woodward Digitally signed by Nicole L. Woodward
Date: 2020.05.08 16:04:47 -04'00'

Nicole L. Woodward
Project Manager, Southern Virginia
Regulatory Section

Enclosure(s):
Appeals Form
Delineation Map
Preliminary Jurisdictional Determination Form

Cc: Agent
Virginia Department of Environmental Quality
Locality
Property owner

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Holocene Clean Energy	File Number: NAO-20-2147	Date: 5/8/2020
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
X	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Nicole Woodward
US Army Corps of Engineers - Norfolk District Regulatory Office
803 Front Street
Norfolk, Virginia 23510
Office: (757) 201-7122
Mobile: (757) 837-2648
Fax: (757) 201-7678

If you only have questions regarding the appeal process you may also contact:

Mr. James W. Haggerty
Regulatory Program Manager (CENAD-PD-OR)
U.S. Army Corps of Engineers
Fort Hamilton Military Community
301 General Lee Avenue
Brooklyn, New York 11252-6700
Telephone number: 347-370-4650

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

	Date:	Telephone number:
_____ Signature of appellant or agent.		

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 5/8/2020

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:
Holocene Clean Energy c/o Davis Plunkett, 4325 Lake Boone Trail, #220, Raleigh, NC 27607

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:
Holocene Clean Energy- Amelia Solar II (NAO-20-02147)

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: Virginia County/parish/borough: Amelia City:

Center coordinates of site (lat/long in degree decimal format): 37.463455, -77.984297

Lat.: xx.xxx° Long.: yy.yyy°

Universal Transverse Mercator:

Name of nearest waterbody: Appomattox River

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☑ Office (Desk) Determination. Date: 5/8/2020

☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
1	37.465959°	-77.985674°	1.93 acres	wetlands	404
2	37.462229°	-77.982212°	4,422 lf	waters	404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- [x] Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
  Map: "Amelia Solar II", by Timmons Group dated M[illegible].
- [x] Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - [x] Office concurs with data sheets/delineation report.
  - [ ] Office does not concur with data sheets/delineation report. Rationale: _____
- [ ] Data sheets prepared by the Corps: _____.
- [ ] Corps navigable waters' study: _____.
- [ ] U.S. Geological Survey Hydrologic Atlas: _____.
  - [ ] USGS NHD data.
  - [ ] USGS 8 and 12 digit HUC maps.
- [x] U.S. Geological Survey map(s). Cite scale & quad name: Chula 1:24,000.
- [x] Natural Resources Conservation Service Soil Survey. Citation: Corpsmap.
- [x] National wetlands inventory map(s). Cite name: Corpsmap.
- [ ] State/local wetland inventory map(s): _____.
- [ ] FEMA/FIRM maps: _____.
- [ ] 100-year Floodplain Elevation is: ____. (National Geodetic Vertical Datum of 1929)
- [x] Photographs: [x] Aerial (Name & Date): GoogleEarth, VBMP.
  or [x] Other (Name & Date): Lidar.
- [ ] Previous determination(s). File no. and date of response letter: _____.
- [ ] Other information (please specify): _____

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Nicole L. Woodward

Digitally signed by Nicole L. Woodward
Date: 2020.05.08 16:00:54 -04'00'

Signature and date of Regulatory staff member completing PJD

Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

May 8, 2020

Supplemental Preapplication Information

Project Number: NAO-2020-02147
Applicant: Holocene Clean Energy- Amelia Solar II
Project Location: a 77.85 acre parcel located off Giles Road in Amelia, Virginia

1. A search of the Virginia Department of Historic Resources data revealed the following:

   ☐ No known historic properties are located on the property.
   ☒ Tribal consultation may be required.
   ☐ American Battlefield Protection Program (ABPP) consultation may be required.
   ☐ The following known architectural resources are located on the property:
   ☐ The following known archaeological resources are located on the property:
   ☐ The following known historic resources are located in the vicinity of the property (potential for effects to these resources from future development):

NOTE:
1) The information above is for planning purposes only. In most cases, the property has not been surveyed for historic resources. Undiscovered historic resources may be located on the subject property or adjacent properties and this supplemental information is not intended to satisfy the Corps' requirements under Section 106 of the National Historic Preservation Act (NHPA).
2) Prospective permittees should be aware that Section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant.

2. A search of the data supplied by the U.S. Fish & Wildlife Service, the Virginia Department of Conservation and Recreation and the Virginia Department of Game and Inland Fisheries revealed the following:

   ☐ No known populations of threatened or endangered species are located on or within the vicinity of the subject property.

   ☒ The following federally-listed species may occur within the vicinity of the subject property: Northern Long-eared Bat (Myotis septentrionalis)
   ☐ The following state-listed (or other) species may occur within the vicinity of the subject property: n/a

Please note this information is being provided to you based on the preliminary data you submitted to the Corps relative to project boundaries and project plans. Consequently, these findings and recommendations are subject to change if the project scope changes or new information becomes available and the accuracy of the data.

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1001 Boulders Parkway
Suite 300
Richmond, VA 23225

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F 804.560.1016
www.timmons.com

May 11, 2020

Davis Plunkett
Holocene Clean Energy
4325 Lake Boone Trail, #220
Raleigh, North Carolina, 27607

Re: Wetlands Jurisdictional Determination
Amelia Solar II
Amelia County, Virginia

Dear Davis Plunkett:

I am pleased to inform you that the wetlands confirmation has been completed for the Amelia Solar II site. The U.S. Army Corps of Engineers (USACE) has confirmed the size and location of aquatic resources onsite, including both streams and wetlands, through their issuance of the attached Preliminary Jurisdictional Determination (JD) Letter. A Wetland Delineation Map showing the confirmed wetland and stream resources is also attached.

We would like to ensure that you are aware of the approvals and limitations that your JD provides. The JD's value to your project and the next steps that may be required to support project development include:

- The JD is a regulatory requirement and an important step in project development which identifies key environmental constraints for project planning.
- The JD provides the USACE's concurrence with the limits of the onsite wetland delineation and establishes that the confirmed streams and wetlands are federally protected.
- The JD is valid for a period of five years from the date of the attached JD letter.
- The JD does not authorize any work in the confirmed streams or wetlands. Disturbance, impacts, or discharges of materials, including those associated with land clearing, in these confirmed aquatic resource areas will require a federal and/or state permit.

Enclosed is a copy of the "Preliminary Jurisdictional Determination Form". Upon review and acceptance of these findings, this form must be returned to the USACE. You can either sign and return this form directly to the USACE or we would be happy to sign and return the form on your behalf, if requested.

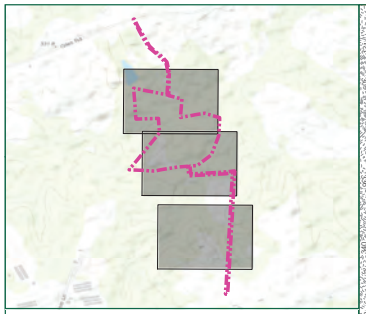
We appreciate the opportunity to complete the wetland delineation and confirmation in support of Amelia Solar II. We look forward to providing additional assistance during the design phase, and if necessary, permitting phase of your project. If you have any questions please do not hesitate to contact Project PM Julia Campus (804.200.6577 or julia.campus@timmons.com) or me, Alissa Bellios (804.200.6550 or alissa.bellios@timmons.com.

Respectfully,
Timmons Group

Alissa Bellios
Environmental Technician

Attachments:
Wetland Delineation Map (Confirmed and Final)
USACE Jurisdictional Determination (JD) Letter
Appeals Form
Preliminary Jurisdictional Determination Form
Supplemental Preapplication Information

Cc: Julia Campus, Timmons Group



Resource Identification	Confirmation								Resource Description Notes*
	PFO (sq ft)	PSS (sq ft)	PEM (sq ft)	POW (sq ft)	R3 (lf)	R4 (lf)	R6 (lf)	Ditch (lf)	
A	10,747								NTV
B	8,133								NTV
C	7,090								NTV
D					1,158				NTNV
F					1,443	343			NTNV
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Z	88								NTV
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B2	9								NTV
C2	64								NTV
Total	**84,265**	**0**	**0**	**0**	**2,824**	**1,598**	**0**	**0**	
Total Wetland Area =	**84,265 sq ft**				**1.93 ac**				
Total Stream Length =	**4,422 lf**								

* T=Tidal; NT=Non-tidal; V=Vegetated; NV=Non-Vegetated; PFO=Palustrine Forested Wetland; PSS=Palustrine Scrub-Shrub Wetland; PEM=Palustrine Emergent Wetland; POW= Palustrine Open Water; EIW= Estuarine Intertidal Wetlands; R3= Upper Perennial Streams; R4=Intermittent Streams; R6 = Ephemeral Streams

Legend

- Project Study Limits- 77.85 Acres
- Stream Identifier
- Wetland Identifier
- Wetland Flag
- Field Data Station
- Culvert
- Perennial Stream (R3)
- Intermittent Stream (R4)
- Palustrine Forested (PFO) Wetlands

Topographic Contours

- Major- 10 Foot
- Minor- 1 Foot

Sheet 2

Sheet 1

Sheet 3

Sheet 4

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Confirmation #:
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USACE-NLW
RCVD 4/2/2020

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www.timmons.com

PROJECT NAME & LOCATION

AMELIA SOLAR II
AMELIA COUNTY, VIRGINIA

DATE
03/27/2020

PROJECT NUMBER
44131.004

PROJECT NAME
AMELIA SOLAR II

DESIGNED BY / DRAWN BY
M.COOLEY

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5. Cowardin Stream Classifications are based solely on field observations. No formal Stream assessment methodology was completed to determine these Cowardin Classifications.

REVISIONS

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DRAWING DESCRIPTION:
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SCALE (FEET)
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PLANS PRINTED AS 11X17 ARE HALF SCALE

SCALE	SHEET NUMBER
H:1 " = 425 '	1 of 4

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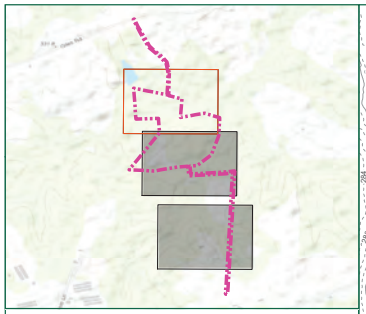

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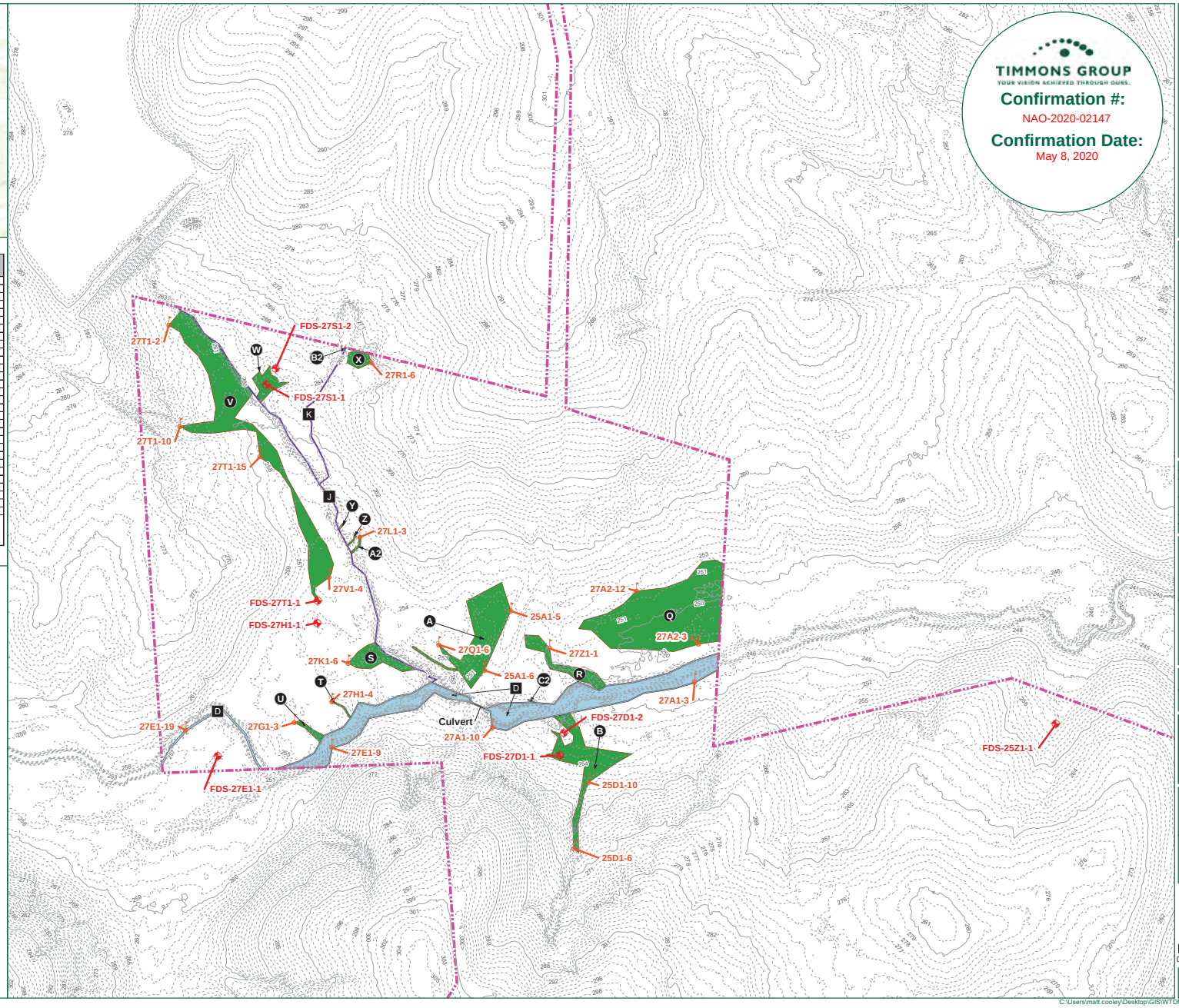

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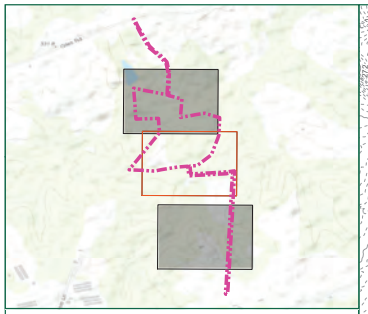

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FDS-29A1-3
29A1-29
FDS-29E1-2
FDS-29E1-1
29A1-21
29A1-14
27B2-2
F
G
C
I
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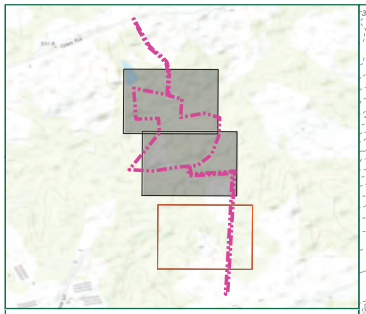

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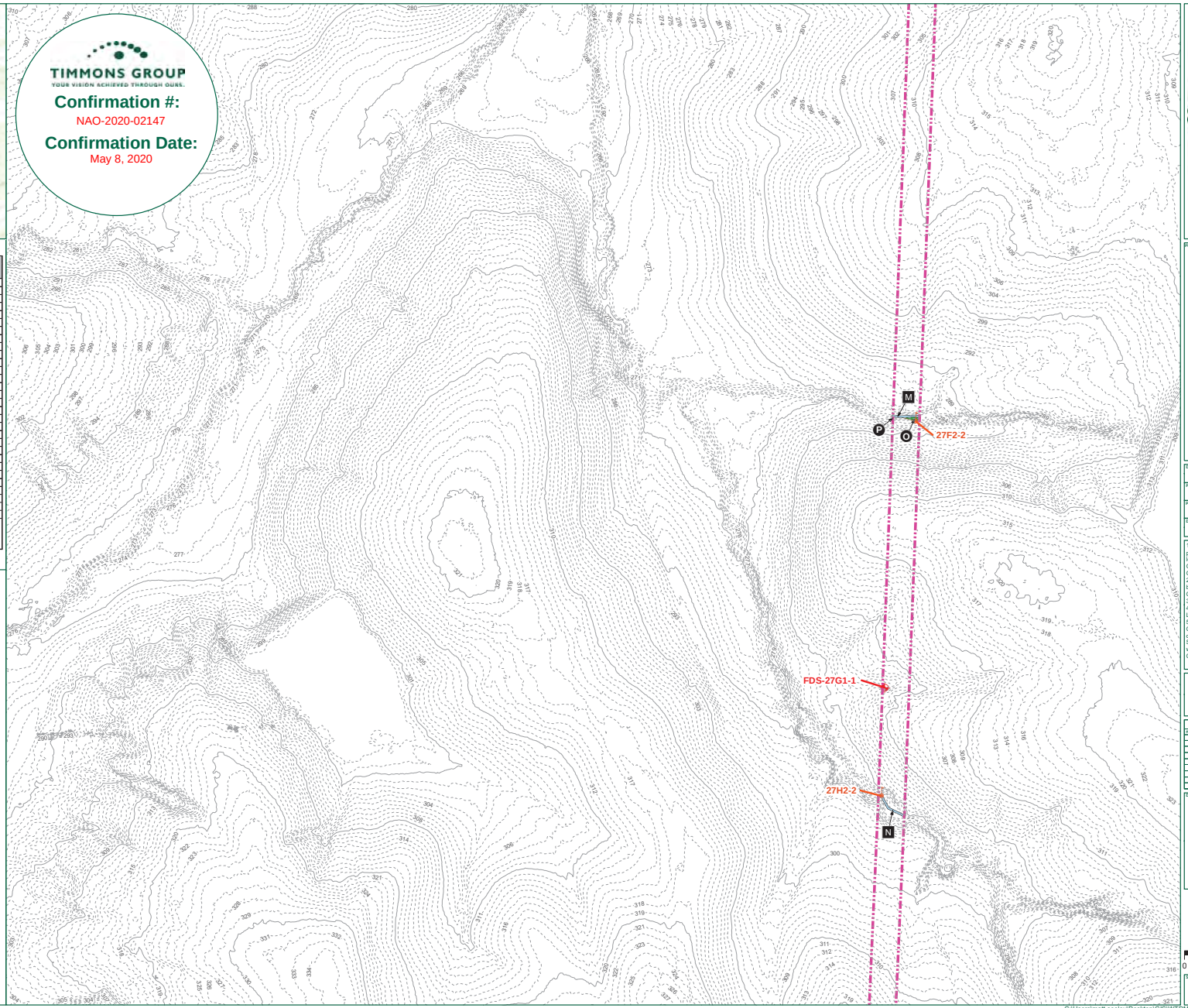

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PROJECT NAME
AMELIA SOLAR II

DESIGNED BY / DRAWN BY
M.COOLEY

1. Waters of the U.S. within the project study limits have been located using submeter, Bluetooth GPS antennas by Timmons Group.
2.Waters of the U.S. have not been confirmed by the U.S. Army Corps of Engineers until stamped.
3. Project limits are approximate.
4. Topography based on USGS LiDAR.
5. Cowardin Stream Classifications are based solely on field observations. No formal Stream assessment methodology was completed to determine these Cowardin Classifications.

REVISIONS

#	MM/DD/YY	DESCRIPTION

DRAWING DESCRIPTION:
FIGURE 4:
WETLANDS AND WATERS OF THE U.S. DELINEATION MAP

SCALE (FEET)
0 90 180
PLANS PRINTED AS 11X17 ARE HALF SCALE

SCALE: H:1 " = 90 '
SHEET NUMBER: 4 of 4

C:\Users\matt.cooley\Desktop\GIS\WTDM\44131.004-WTDM - COE.mxd

AMELIA II SOLAR – 8-STEP DECISION MAKING PROCESS
FOR ALTERNATIVE CONSIDERATIONS

STEP 1: DETERMINE IF THE PROPOSED ACTION AREA IS IN A WETLAND. As indicated in Section 3.4.1 of this EA, there are 1.93 acres of wetlands and 4,422 linear feet of waters located within the Proposed Project Area – this was confirmed by the ACOE in May of 2020.

STEP 2: PRELIMINARY PUBLIC NOTICE. Under the direction of the Agency, public notice will be done concurrently with the publication of the Notice of Availability (NOA) for this EA. The purpose of this notice will be to inform the public of this proposed effect and request comments concerning the Proposed Project, alternative sites or actions that would avoid these impacts, and methods that could be used to minimize these impacts.

STEP 3: SEARCH FOR PRACTICABLE ALTERNATIVES. Selection of a viable solar energy generation project site is based on several factors and during the preliminary planning stages of the Proposed Project, a comprehensive site selection process that considered multiple parameters at potential project locations including:

- Quality of terrain including existing topography (i.e., suitable surface slopes), presence of excessively rocky, sandy or uneven land and substrates, and the presence of significant waterbodies, watercourses, wetlands or flood zones.
- Local transmission capacity including proximity to 1) distribution lines, 2) electrical infrastructure including substations and 3) potential connection points to distribution lines capable of receiving new energy production.
- Potential conservation and environmental impacts including the presence or absence of sensitive or protected areas, protected species or known cultural or historic resources.
- Opportunities and limitations presented by local zoning and land use ordinances and the existing land uses at and proximate to a potential site. Parameters considered also included assessment of the existing ownership at potential sites and options for purchase or lease and an associated evaluation of potential rights of way or easements that could be required for site access or connections to distribution lines.
- The availability of land of sufficient area for a solar facility and the associated presence or absence of suitable existing access and roadways for project construction and operation.

The goal of this process was to select a location with the best solar energy potential including an optimal mix of the above. The Proposed Project Area was determined to be most preferable for a utility-scale solar development because of its close proximity to existing electrical distribution and transmission infrastructure, existing suitable topography, minimal impact to wetlands and streams, and the receptiveness of landowners to the Proposed Project.

STEP 4: INDENTIFY ADVERSE IMPACTS AND BENEFICAL VALUES/FUNCTIONS. Permanent impacts will be limited to 60 linear feet for one stream crossing which will consist of culvert installation and road construction which is below the ½-acre threshold that would require

a Nationwide Permit (NWP) from the ACOE. Short-term and minor adverse water quality impacts may occur during the construction of the Proposed Project. These impacts would be associated with soils from disturbed areas being washed by storm water into adjacent waters during rainstorm events.

STEP 5: MITIGATE ADVERSE IMPACTS. Portions of the existing access roads will be utilized when possible. In addition, the newly constructed access road will be constructed at the minimum allowable width, limiting the amount of stream impacts. Access roads will not be paved and will consist of gravel surfaces with appropriate stormwater management controls.

A stormwater management system will be incorporated into the Proposed Project design that will provide treatment to stormwater prior to potentially entering or impacting wetland areas. Stormwater treatment measures will comply with state and municipal regulations. Wherever possible existing drainage and grading patterns will be maintained in the proposed design.

An erosion and sedimentation control plan will be implemented before construction. The plan will include erosion control measures that will be incorporated into the construction and restoration phases of the Proposed Project to minimize potential adverse impacts. Construction practices that will be utilized by the Proposed Project to avoid and minimize potential impacts to wetlands and waterbodies will include the following protective measures (as determined to be necessary during construction): compost filter socks, conveyance channels, sediment basins, emergency basin spillways, silt fence, silt fence rock outlets and silt fencing around stockpiles will be used as temporary measures during construction to control the flow of water.

When disposing of excess, spoil, or other construction materials on public or private property, wetlands will not be filled in or otherwise converted.

Lastly, ground vegetation will be maintained throughout the operation life of the facility.

STEP 6: RE-EVALUATE ALTERNATIVES. As indicated above, it is the goal of the Proposed Project to avoid and minimize impacts on protected natural resources while meeting its energy production objectives. The Proposed Project, including the associated stream crossing, has been designed to present the least number of risks and impacts to the environment.

STEP 7: FINAL PUBLIC NOTICE. Under the direction of the Agency, the final public notice will be done concurrently with the publication of the notice of availability for the Finding of No Significant Impact (FONSI). The purpose of this notice will be to provide the public with a finding and explanation of the Agency's final decision that the wetland impact is the least damaging practicable alternative (Step 3) and there is a significant need for the Proposed Project.

STEP 8: IMPLEMENT PROPOSED ACTION WITH APPROPRIATE MITIGATION. Due to the nature of the Proposed Project and proposed impacts, the Proposed Project is not expected to result in a substantial change to the cumulative functions and values of wetlands within the Proposed Project; however, the mitigation measures outlined in Step 5 will be a requirement of

the letter of conditions.

PREPARED FOR:
HOLOCENE CLEAN ENERGY
4325 LAKE BOONE TRAIL, #220
RALEIGH, NC RALEIGH

AMELIA SOLAR II

JURISDICTIONAL WATERS OF THE U.S. DELINEATION PACKAGE

JANUARY 2020

PREPARED BY:
TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.
1001 BOULDERS PARKWAY, SUITE 300
RICHMOND, VIRGINIA 23225
PHONE: 804.200.6500
FAX: 804.560.1648
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TIMMONS GROUP PROJECT NO. 44131.004

EXECUTIVE SUMMARY

On behalf of Holocene Clean Energy, Timmons Group environmental scientists Ben Sagara and Parker Osterloh and environmental technicians Alissa Bellios and Sarah Kammer conducted a field delineation on January 7, 2020 to identify jurisdictional Waters of the U.S. (WOTUS) within the project study limits of the Amelia Solar II site (Site).

The Site encompasses approximately 54.7 acres and is located in Amelia County, Virginia. The Site is located off of Giles Road, approximately 0.9 miles east of the intersection of Giles Road and South Giles Road (see Figure 1: Vicinity Map). The property is located in the Appomattox (HUC 02080207) watershed (see Figure 2: Hydrologic Unit Code Map). The Site is bound by mixed pine and hardwood forests to the north, west, and east, and agricultural fields to the south. The majority of the Site consists of planted pine and mixed hardwood forests, an agricultural field, and a gravel access road (see Figure 3: Environmental Inventory Map).

The Site was delineated based upon the methodology outlined in the 1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual; the Regional Supplement to the USACE Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0) and subsequently issued USACE regulatory guidance regarding the identification of jurisdictional stream channels through the recognition of field indicators of an ordinary high water mark within drainage features. Using these methodologies, preliminary delineation mapping was produced and is included along with the attached Site description and discussion for your review. During our delineation, approximately 0.27 acres of palustrine forested (PFO) wetlands were identified on-site. In addition, 1,519 linear feet of perennial streams (R3) and 368 linear feet of intermittent streams (R4) were identified on-site.

JURISDICTIONAL WATERS OF THE U.S. DELINEATION PACKAGE AMELIA SOLAR II

TABLE OF CONTENTS

MAPS

APPENDICES

1.0 PROJECT INFORMATION SHEET

General

Project Name:	Amelia Solar II
State:	Virginia
County:	Amelia County
Latitude:	37.463455
Longitude:	-77.984297
Subject Property Size:	+/- 54.7 acres
HUC Code:	02080207 (Appomattox)
Waterbodies (TNW):	Unnamed Tributaries to Appomattox River

Corresponding Information

USGS Quad and NWI:	Chula, 2016
USDA Soils Map:	http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm Amelia County, VA

Owner/Applicant

Name:	Holocene Clean Energy
Address:	4325 Lake Boone Trail, #220 Raleigh, NC 27607
Contact:	Davis Plunkett
Telephone:	(919) 999-2603

Consultant

Name:	Timmons Group
Address:	1001 Boulders Parkway, Suite 300 Richmond, VA 23225
Telephone:	(804) 200-6500
Contacts:	Ben Sagara: (804) 200-6567; ben.sagara@timmons.com Alissa Bellios: (804) 200-6550; alissa.bellios@timmons.com

2.0 INTRODUCTION

On behalf of Holocene Clean Energy, Timmons Group environmental scientists Ben Sagara and Parker Osterloh and environmental technicians Alissa Bellios and Sarah Kammer conducted a field delineation on January 7, 2019 to identify jurisdictional Waters of the U.S. (WOTUS) within the project study limits of the Amelia Solar II site (Site).

3.0 SITE INFORMATION

3.1 Site Location

Amelia Solar II is located off of Giles Road in Amelia County, Virginia. The Site can be accessed from a farm road located approximately 0.9 miles east of the intersection of Giles Road and South Giles Road (see Figure 1: Vicinity Map). The property is within the Appomattox (HUC 02080207) watershed in the Piedmont physiographic region (see Figure 2: Hydrologic Unit Code Map).

3.2 Site Description

The Site encompasses approximately 54.7 acres and consists of planted pine and mixed hardwood forests, an agricultural field, and a gravel access road (see Figure 3: Environmental Inventory Map). The Site is bound by mixed pine and hardwood forests to the north, west and east, and agricultural fields to the south. The topography of the Site is relatively flat and is dominated by two topographic draws, one along the northern project boundary and the second along the eastern and southern boundary of the Site. Both draws are associated with unnamed tributaries to the Appomattox River. The topography generally slopes northeast towards the topographic draws, which drain east and northeast respectively and eventually into the Appomattox River.

4.0 METHODS OF DELINEATION

4.1 Preliminary Off-site Investigation/Data Review

A review of publicly available resources was performed prior to the on-site field investigation in order to determine if there is the potential for jurisdictional areas, and if present, the extent of these areas located within the project area. These mapping resources generally include but are not limited to the United States Geological Survey (USGS) topographic maps, USGS National Hydrography Dataset (NHD), the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) soils database, and the U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory (NWI) database.

4.2 Field Investigation

The Site was delineated based upon the methodology outlined in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual; the Regional Supplement to the USACE Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0); and subsequently issued USACE regulatory guidance regarding the identification of jurisdictional stream channels through the recognition of field indicators of an ordinary high water mark within drainage features.

The wetland boundary was flagged with consecutively numbered pink and black ribbon at approximately 50-foot intervals. Field data stations were established within close proximity to the flagged wetland boundary in order to document upland and wetland conditions existing along the jurisdictional boundary. Field data stations were labeled and marked with blue flagging in the field. Features identified in the field were GPS located within the study area. Photographs were taken of the field data stations to depict existing site conditions along the delineation boundary. Field data sheets are included in Appendix A. Site photographs collected during the field delineation are available upon request.

5.0 DELINEATION FINDINGS

5.1 Preliminary Off-site Investigation/Data Review Findings

USGS topographic mapping generally depicts the Amelia Solar II site as generally flat with two topographic draws, one running along the northern boundary and the second draw running along the southern and eastern boundary. The Site has a topographic high of approximately 311 feet above mean sea level (AMSL) associated with the a hill top in the western portion of the Site and transitions to lower elevations of approximately 252 feet AMSL in the topographic draws along the northern and eastern boundaries of the Site (see Figure 1: Vicinity Map).

USGS NHD has mapped stream channels along the southern and eastern boundary and just north of the project boundary. These stream channels flow northeast and east, respectively, and eventually flow to the Appomattox River. USFWS NWI has mapped palustrine forested wetlands associated with the NHD stream channels along the northern, eastern, and southern boundaries of the Site draining into the unnamed tributaries and eventually into the Appomattox River. The NRCS soils mapping identifies nine distinct soil series within the Site. Of the soils, one, Partlow fine sandy loam, is documented as being hydric in Amelia County. Partlow fine sandy loam is described as being poorly drained with shallow depths to water table. The upland soils are generally described as being well-drained to somewhat poorly drained and soil textures include loam, fine sandy loam, sandy loam, silty loam (see Figure 3: Environmental Inventory Map).

5.2 On-site Determination/Findings

5.2.1 Jurisdictional Area Summary

The on-site delineation verified the presence of wetlands and streams within the project study area. A summary of the jurisdictional areas identified on-site is provided below in Table 1: Jurisdictional Areas Summary. The location and size of jurisdictional areas delineated on-site are shown on Figure 4: Wetlands and Waters of the U.S. Delineation Map.

Table 1: Jurisdictional Area Summary

Area Description	Area Size (acres)	PFO (acres)	PSS (acres)	PEM (acres)	POW (acres)	R3 Streams (L.F.)	R4 Streams (L.F.)	R6 Streams (L.F.)
Amelia Solar II	54.7	0.27	0	0	0	1,519	368	0

Notes:
1) PFO = palustrine forested wetlands, PSS = palustrine scrub-shrub wetlands, PEM = palustrine emergent wetlands, R3 = upper perennial streams, R4 = intermittent streams, R6 = ephemeral streams, and L.F. = linear feet.
2) Jurisdictional area acreages are preliminary based on field delineation and have not been confirmed or surveyed.

5.2.1.1 Jurisdictional Area Vegetation

The dominant vegetation within the tree and sapling strata of the wetlands on-site consists primarily of American sycamore (*Platanus occidentalis*), sweet-gum (*Liquidambar styraciflua*) and loblolly pine (*Pinus taeda*). The dominant shrub vegetation found within jurisdictional areas includes American sycamore and red maple (*Acer rubrum*). The herbaceous layer within the wetland areas is generally dominated by smartweed (*Persicaria pensylvanica*) and soft rush (*Juncus effusus*).

5.2.1.2 Jurisdictional Area Hydrology

Surface water (0.5 inches; A1), a water table reaching the ground surface (A2), and soil saturation to the ground surface (A3) were noted within on-site jurisdictional areas. The secondary hydrology indicators observed include drainage patterns (B10), geomorphic position (D2), and the FAC-Neutral Test (D5).

5.2.1.3 Jurisdictional Area Soils

Soils within the wetland areas on-site exhibit low chroma matrix colors and concentrations that are characteristic of reducing anaerobic conditions associated with the formation of hydric soils. Wetland soils typically have a dark yellowish brown (10YR 3/4) A horizon within the upper three inches. Jurisdictional soils are generally underlain by light brownish gray (2.5Y 6/2) B horizon down to 18 inches and below. Redox concentrations greater than or equal to 5% were observed within the B horizon and are typically yellowish brown (10YR 5/6). The soils within jurisdictional areas meet the F3 Depleted Matrix hydric soil indicator. Textures within the jurisdictional areas include loam and silty clay loam. Field data sheets are included in Appendix A and provide additional detail regarding the representative soils within wetlands.

5.3.1 Upland Area Summary

During the field investigation of the subject property, approximately 54.43 acres of upland or non-jurisdictional areas were identified on-site. The majority of the upland areas located within the subject property are characterized by open pasture and planted pine or mid-

successional mixed hardwood forest. Upland soils typically have a dark brown (7.5YR 3/3) or brown (7.5YR 4/4) A horizon, underlain by brown (7.5YR 4/4) or strong brown (7.5YR 4/6) B horizon. Soil textures include loam, clay loam, sandy loam, fine sandy loam, and sandy clay loam. The majority of upland soils contain chroma values greater than 2 and exhibit little to no redoximorphic features within the upper 18 inches of soil. The mapped soils present within the Site are depicted on Figure 3: Environmental Inventory Map. No primary indicators of wetland hydrology were observed within the upland areas. The location and size of upland areas delineated on-site are shown on Figure 4: Wetlands and Waters of the U.S. Delineation Map.

6.0 REFERENCES

United States Army Corps of Engineers. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0). ERDC/EL TR-10-09. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. *Classification of wetlands and deepwater habitats of the United States*. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

National List of Hydric Soils 2010, United States Department of Agriculture Natural Resource Conservation Service, http://soils.usda.gov/use/hydric/

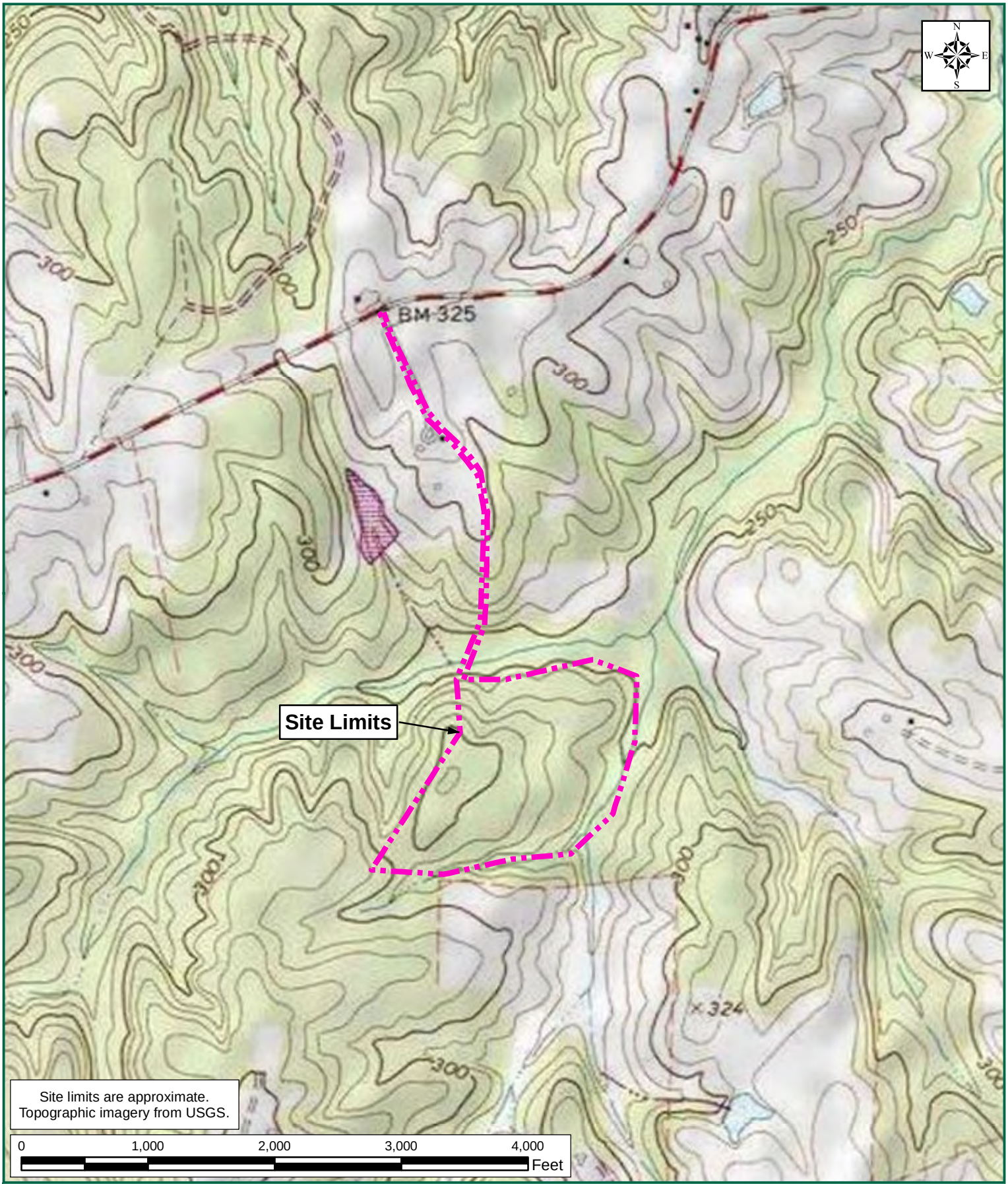
United States Department of Agriculture. Natural Resources Conservation Service http://websoilsurvey.nrcs.usda.gov/app/

United States Fish and Wildlife Service. National Wetlands Inventory http://www.fws.gov/nwi/

Wetland Training Institute. 1995. Field Guide for Wetland Delineation: 1987 Corps of Engineers Manual, Wetland Training Institute, Glenwood, NM, USA.

MAPS

Path: Y:\804\99999-Holocene\44131.004-Amelia_Solar_II\GIS\44131.004-VIC.mxd

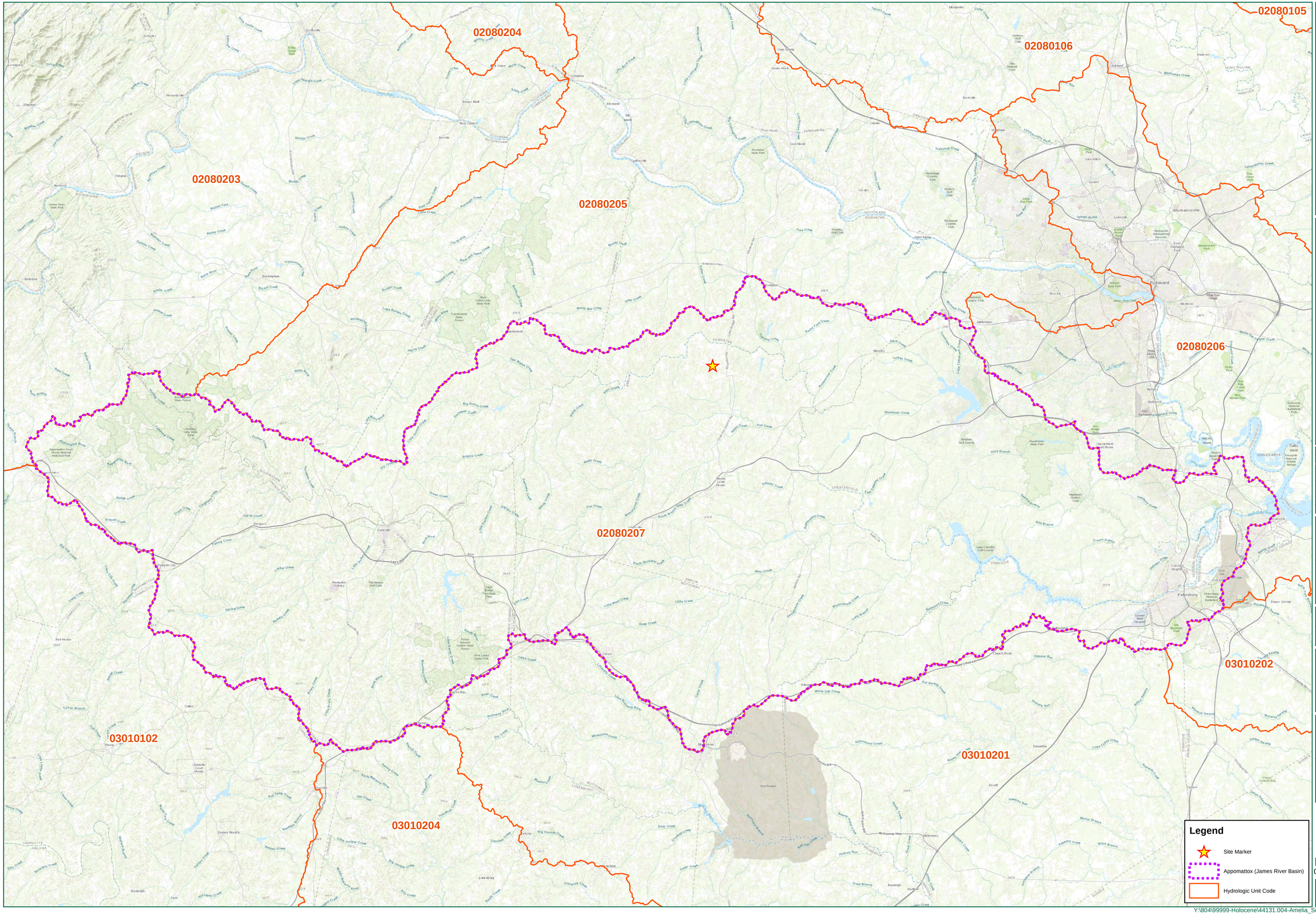


AMELIA SOLAR II
AMELIA COUNTY, VIRGINIA
FIGURE 1: VICINITY MAP

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP JOB NUMBER:*44131.004*
PROJECT STUDY LIMITS:*54.7 ACRES*
LATITUDE:*37.463455*
LONGITUDE:*-77.984297*

U.S.G.S. QUADRANGLE(S):*CHULA*
DATE(S):*2016*
WATERSHED(S):*APPOMATTOX (JAMES RIVER BASIN)*
HYDROLOGIC UNIT CODE(S):*02080207*



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TEL 804.200.6500
www.timmons.com

PROJECT NAME & LOCATION

AMELIA SOLAR II

AMELIA COUNTY,
VIRGINIA

DATE	01/06/2020
PROJECT NUMBER	44131.004
PROJECT NAME	AMELIA SOLAR II
DESIGNED BY / DRAWN BY	A. MEHFOUD

NOTES:
Site marker is approximate.
HUC from USGS.
Topographic basemap from Esri Online.

REVISIONS

#	MM/DD/YY:	DESCRIPTION

DRAWING DESCRIPTION

FIGURE 2:
HYDROLOGIC
UNIT CODE MAP

Miles
0 3 6

PLANS PRINTED AS 11X17 ARE HALF SCALE

SCALE	SHEET NUMBER
H: 1 " = 3 Miles	1

Y:\804\99999-Holocene\44131.004-Amelia_Solar_II\GIS\44131.004-HUC.mxd

Amelia County Soils	
Mapunit Symbol	**Mapunit Name**
16A	Partlow fine sandy loam, 0 to 2 percent slopes, rarely flooded
1B	Appling fine sandy loam, 2 to 7 percent slopes
1C	Appling fine sandy loam, 7 to 15 percent slopes
21C	Wedowee-Poindexter complex, 7 to 15 percent slopes
21D	Wedowee-Poindexter complex, 15 to 25 percent slopes
22B	Winnsboro sandy loam, 2 to 7 percent slopes
22C	Winnsboro sandy loam, 7 to 15 percent slopes
3B	Cecil fine sandy loam, 2 to 7 percent slopes
3C	Cecil fine sandy loam, 7 to 15 percent slopes
5A	Chewacla silt loam, 0 to 2 percent slopes, frequently flooded
W	Water

Giles Rd

Legend

- Project Study Limits - 54.7 Acres
- National Hydrography Dataset
- National Wetlands Inventory

Hydric Soil Classification

- Hydric
- Non Hydric

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PROJECT NUMBER 44131.004

PROJECT NAME AMELIA SOLAR II

DESIGNED BY / DRAWN BY A. MEHFOUD

NOTES:
Project Limits are approximate.
NWI from US Fish and Wildlife Service.
Soils data from SSURGO.
National Hydrography Dataset from USGS.
Aerial imagery from VGIN.

REVISIONS

#	MM/DD/YY	DESCRIPTION

DRAWING DESCRIPTION

FIGURE 3: ENVIRONMENTAL INVENTORY MAP

SCALE (FEET)

0 250 500

PLANS PRINTED AS 11X7 ARE HALF SCALE

SCALE	SHEET NUMBER
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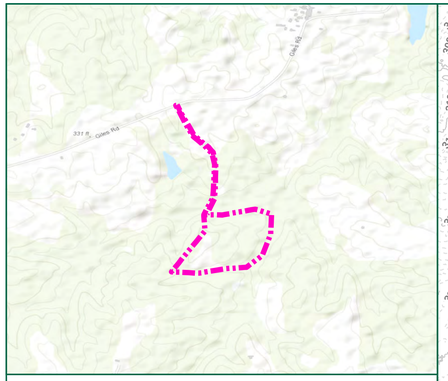

Resource Identification	Confirmation								Resource Description Notes*
	PFO (sq ft)	PSS (sq ft)	PEM (sq ft)	POW (sq ft)	R3 (lf)	R4 (lf)	R6 (lf)	Ditch (lf)	
A	1,839								NT/V
B	2,952								NT/V
C	7,090								NT/V
D					51				NT/NV
F					1,411	343			NT/NV
G					57				NT/NV
I						25			NT/NV
Total	**11,881**	**0**	**0**	**0**	**1,519**	**368**	**0**	**0**	
Total Wetland Area =	**11,881 sq ft**				**0.27 ac**				
Total Stream Length =	**1,887 lf**								

* T=Tidal; NT=Non-tidal; V=Vegetated; NV=Non-Vegetated; PFO=Palustrine Forested Wetland; PSS=Palustrine Scrub-Shrub Wetland; PEM=Palustrine Emergent Wetland; POW= Palustrine Open Water; EIW= Estuarine Intertidal Wetlands; R3= Upper Perennial Streams; R4=Intermittent Streams; R6 = Ephemeral Streams

Legend

- Project Study Limits - 54.7 Acres
- Stream Identifier
- Wetland Identifier
- Wetland Flag
- Field Data Station
- Culvert
- Perennial Stream (R3)
- Intermittent Stream (R4)
- Palustrine Forested (PFO) Wetlands

Topographic Contours

- Major - 10 Feet
- Minor - 1 Foot

Giles Rd

Sheet 2

25A1-5
A
D
Culvert
FDS-25Z1-1
25D1-10
B
25D1-6
FDS-25Z1-2
F
FDS-29E1-1
FDS-29E1-2
C
29A1-21
29A1-14
F
I

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DATE: 01/13/2020

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DESIGNED BY / DRAWN BY: A. MEHFOUD

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0 250 500

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H:1 " = 250 '	1

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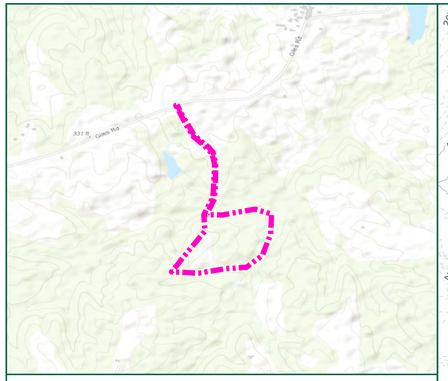

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- Project Study Limits - 54.7 Acres
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- Minor - 1 Foot

25A1-5
A
D
Culvert
B
25D1-10
25D1-6
FDS-25Z1-1
FDS-29A1-3
FDS-25Z1-2
29A1-29
FDS-29E1-2
FDS-29E1-1
G
C
29A1-21
F
29A1-14
F
I

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3. Project limits are approximate.
4. Topography based on USGS LiDAR.
5. Cowardin Stream Classifications are based solely on field observations. No formal Stream assessment methodology was completed to determine these Cowardin Classifications.

REVISIONS

#	MM/DD/YY	DESCRIPTION

DRAWING DESCRIPTION

FIGURE 4:
WETLANDS AND WATERS OF THE U.S. DELINEATION MAP

SCALE (FEET)
0 90 180

PLANS PRINTED AS 11X17 ARE HALF SCALE

SCALE	SHEET NUMBER
H:1 " = 90 '	2

Y:\804\99999-Holocene\44131.004-Amelia_Solar_II\GIS\WTDM\44131.004-WTDM - COE.mxd

APPENDIX A
FIELD DATA SHEETS

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Amelia Solar II City/County: Amelia County Sampling Date: 01/07/2020
Applicant/Owner: Holocene Clean Energy State: VA Sampling Point: FDS-25Z1-1
Investigator(s): B.T. Sagara, A. Bellios Section, Township, Range: N/A
Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 2-3
Subregion (LRR or MLRA): MLRA136 Lat: 37.465550° Long: -77.981897° Datum: NAD83
Soil Map Unit Name: Winnsboro sandy loam NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes [✔] No [ ] (If no, explain in Remarks.)
Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]
Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? N (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [ ]	No [✔]	**Is the Sampled Area within a Wetland?** Yes [ ] No [✔]
Hydric Soil Present?	Yes [ ]	No [✔]	
Wetland Hydrology Present?	Yes [ ]	No [✔]	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] True Aquatic Plants (B14)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [✔] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches): >15
Water Table Present?	Yes [ ]	No [✔]	Depth (inches): >15
Saturation Present? (includes capillary fringe)	Yes [ ]	No [✔]	Depth (inches): N/A

Wetland Hydrology Present? Yes [ ] No [✔]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: FDS-25Z1-1

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus taeda	40	Y	FAC
2. Liriodendron tulipifera	25	Y	FACU
3. Liquidambar styraciflua	20	Y	FAC
4. Pinus virginiana	5	N	UPL
5.			
6.			
	90	= Total Cover	
50% of total cover: 45	20% of total cover: 18		

Sapling Stratum (Plot size: 30 ft)			
1. Liquidambar styraciflua	15	Y	FAC
2. Liriodendron tulipifera	10	Y	FACU
3. Acer rubrum	5	N	FAC
4.			
5.			
6.			
	30	= Total Cover	
50% of total cover: 15	20% of total cover: 6		

Shrub Stratum (Plot size: 30 ft)			
1. Ulmus rubra	5	Y	FAC
2. Liquidambar styraciflua	5	Y	FAC
3.			
4.			
5.			
6.			
	10	= Total Cover	
50% of total cover: 5	20% of total cover: 2		

Herb Stratum (Plot size: 30 ft)			
1. Polystichum acrostichoides	10	Y	FACU
2. Stellaria media	5	Y	UPL
3. Lonicera japonica	5	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20	= Total Cover	
50% of total cover: 10	20% of total cover: 4		

Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
50% of total cover: 0	20% of total cover: 0		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	90	x 3 =	270
FACU species	50	x 4 =	200
UPL species	10	x 5 =	50
Column Totals:	150 (A)		520 (B)

Prevalence Index = B/A = 3.47

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FDS-25Z1-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	7.5YR 3/3	100					SCL	
3-18	7.5YR 4/6	100					SCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) **(LRR N)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ☐ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ☐ Umbric Surface (F13) **(MLRA 136, 122)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ☐ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(MLRA 147)**
- ☐ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☑

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Amelia Solar II City/County: Amelia County Sampling Date: 01/07/2020
Applicant/Owner: Holocene Clean Energy State: VA Sampling Point: FDS-25Z1-2
Investigator(s): B.T.Sagara, A. Bellios Section, Township, Range: N/A
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Flat Slope (%): <1
Subregion (LRR or MLRA): MLRA136 Lat: 37.463599° Long: -77.981379° Datum: NAD83
Soil Map Unit Name: Partlow fine sandy loam NWI classification: PFO1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes [✔] No [ ] (If no, explain in Remarks.)
Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? N Are "Normal Circumstances" present? Yes [✔] No [ ]
Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? N (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [✔]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [ ] No [✔]
Hydric Soil Present?	Yes [ ]	No [✔]	
Wetland Hydrology Present?	Yes [ ]	No [✔]	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] True Aquatic Plants (B14)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [✔] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches): >15
Water Table Present?	Yes [ ]	No [✔]	Depth (inches): >15
Saturation Present? (includes capillary fringe)	Yes [ ]	No [✔]	Depth (inches): N/A

Wetland Hydrology Present? Yes [ ] No [✔]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: FDS-25Z1-2

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liriodendron tulipifera	60	Y	FACU
2. Acer rubrum	20	Y	FAC
3. Liquidambar styraciflua	10	N	FAC
4.			
5.			
6.			
	90	= Total Cover	

50% of total cover: 45 20% of total cover: 18

Sapling Stratum (Plot size: 30 ft)			
1. Platanus occidentalis	5	Y	FACW
2. Liquidambar styraciflua	5	Y	FAC
3. Ulmus rubra	3	Y	FAC
4.			
5.			
6.			
	13	= Total Cover	

50% of total cover: 7.5 20% of total cover: 2.6

Shrub Stratum (Plot size: 30 ft)			
1. Lindera benzoin	20	Y	FAC
2.			
3.			
4.			
5.			
6.			
	20	= Total Cover	

50% of total cover: 10 20% of total cover: 4

Herb Stratum (Plot size: 30 ft)			
1. Stellaria media	20	Y	UPL
2. Microstegium vimineum	15	Y	FAC
3. Allium vineale	10	Y	FACU
4. Polystichum acrostichoides	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	50	= Total Cover	

50% of total cover: 25 20% of total cover: 10

Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

50% of total cover: 0 20% of total cover: 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FDS-25Z1-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	7.5YR 3/1	100					CL	
3-18	7.5YR 4/4	100					SCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) **(LRR N)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ☐ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ☐ Umbric Surface (F13) **(MLRA 136, 122)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ☐ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(MLRA 147)**
- ☐ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☑

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Amelia Solar II City/County: Amelia County Sampling Date: 01/07/2020
Applicant/Owner: Holocene Clean Energy State: VA Sampling Point: FDS-29A1-3
Investigator(s): P. Osterloh, S. Kammer Section, Township, Range: N/A
Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 3
Subregion (LRR or MLRA): MLRA136 Lat: 37.463721° Long: -77.981908° Datum: NAD83
Soil Map Unit Name: Appling fine sandy loam NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes [✔] No [ ] (If no, explain in Remarks.)
Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? N Are "Normal Circumstances" present? Yes [✔] No [ ]
Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? N (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [ ]	No [✔]	**Is the Sampled Area within a Wetland?** Yes [ ] No [✔]
Hydric Soil Present?	Yes [ ]	No [✔]	
Wetland Hydrology Present?	Yes [ ]	No [✔]	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] True Aquatic Plants (B14)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [✔] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches): >15
Water Table Present?	Yes [ ]	No [✔]	Depth (inches): >15
Saturation Present? (includes capillary fringe)	Yes [ ]	No [✔]	Depth (inches): N/A

Wetland Hydrology Present? Yes [ ] No [✔]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: FDS-29A1-3

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus taeda	30	Y	FAC
2. Liriodendron tulipifera	15	Y	FACU
3. Acer rubrum	8	N	FAC
4.			
5.			
6.			
	53	= Total Cover	
50% of total cover: 26.5	20% of total cover: 10.6		
Sapling Stratum (Plot size: 30 ft)			
1. Liriodendron tulipifera	8	Y	FACU
2. Acer rubrum	8	Y	FAC
3. Ilex opaca	6	Y	FACU
4. Liquidambar styraciflua	3	N	FAC
5. Juniperus virginiana	2	N	FACU
6.			
	27	= Total Cover	
50% of total cover: 13.5	20% of total cover: 5.4		
Shrub Stratum (Plot size: 30 ft)			
1. Ilex opaca	25	Y	FACU
2. Acer rubrum	7	Y	FAC
3.			
4.			
5.			
6.			
	32	= Total Cover	
50% of total cover: 16	20% of total cover: 6.4		
Herb Stratum (Plot size: 30 ft)			
1. Polystichum acrostichoides	30	Y	FACU
2. Ligustrum sinense	2	N	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	32	= Total Cover	
50% of total cover: 16	20% of total cover: 6.4		
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
50% of total cover: 0	20% of total cover: 0		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 38% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	56	x 3 =	168
FACU species	88	x 4 =	352
UPL species	0	x 5 =	0
Column Totals:	144 (A)		520 (B)

Prevalence Index = B/A = 3.61

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FDS-29A1-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	7.5YR 4/3	100					SL	
5-15	7.5YR 4/6	80	7.5YR 4/3	20	D	M	SL	Gravelly

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) **(LRR N)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ☐ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ☐ Umbric Surface (F13) **(MLRA 136, 122)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ☐ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(MLRA 147)**
- ☐ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☑

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Amelia Solar II City/County: Amelia County Sampling Date: 01/07/2020
Applicant/Owner: Holocene Clean Energy State: VA Sampling Point: FDS-29E1-1
Investigator(s): P. Osterloh, S. Kammer Section, Township, Range: N/A
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): <1
Subregion (LRR or MLRA): MLRA136 Lat: 37.461803° Long: -77.982825° Datum: NAD83
Soil Map Unit Name: Partlow fine sandy loam NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes [✔] No [ ] (If no, explain in Remarks.)
Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? N Are "Normal Circumstances" present? Yes [✔] No [ ]
Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? N (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [✔]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [✔] No [ ]
Hydric Soil Present?	Yes [✔]	No [ ]	
Wetland Hydrology Present?	Yes [✔]	No [ ]	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] True Aquatic Plants (B14)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [✔] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [✔] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [✔] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [ ] No [✔] Depth (inches): >15
Water Table Present? Yes [ ] No [✔] Depth (inches): >15
Saturation Present? (includes capillary fringe) Yes [ ] No [✔] Depth (inches): N/A

Wetland Hydrology Present? Yes [✔] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: FDS-29E1-1

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Platanus occidentalis	12	Y	FACW
2. Pinus taeda	8	Y	FAC
3. Liquidambar styraciflua	6	Y	FAC
4. Fraxinus pennsylvanica	2	N	FACW
5.			
6.			
	28 = Total Cover		
50% of total cover: 14	20% of total cover: 5.6		
Sapling Stratum (Plot size: 30 ft)			
1. Liquidambar styraciflua	3	Y	FAC
2. Acer rubrum	2	Y	FAC
3.			
4.			
5.			
6.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Shrub Stratum (Plot size: 30 ft)			
1. Acer rubrum	2	Y	FAC
2. Platanus occidentalis	2	Y	FACW
3.			
4.			
5.			
6.			
	4 = Total Cover		
50% of total cover: 2	20% of total cover: 0.8		
Herb Stratum (Plot size: 30 ft)			
1. Persicaria pensylvanica	60	Y	FACW
2. Juncus effusus	15	N	FACW
3. Stellaria media	10	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FDS-29E1-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/4	100					L	
3-18	2.5Y 6/2	60	10YR 4/3	30	C	M	SiCL	
			10YR 5/6	10	C	PL	SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) **(LRR N)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ☐ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ☐ Umbric Surface (F13) **(MLRA 136, 122)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ☐ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(MLRA 147)**
- ☐ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☑ **No** ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Amelia Solar II City/County: Amelia County Sampling Date: 01/07/2020
Applicant/Owner: Holocene Clean Energy State: VA Sampling Point: FDS-29E1-2
Investigator(s): P. Osterloh, S. Kammer Section, Township, Range: N/A
Landform (hillslope, terrace, etc.): Sideslope Local relief (concave, convex, none): Flat Slope (%): 3
Subregion (LRR or MLRA): MLRA136 Lat: 37.461876° Long: -77.982887° Datum: NAD83
Soil Map Unit Name: Partlow fine sandy loam NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes [✔] No [ ] (If no, explain in Remarks.)
Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? N Are "Normal Circumstances" present? Yes [✔] No [ ]
Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? N (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [✔]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [ ] No [✔]
Hydric Soil Present?	Yes [ ]	No [✔]	
Wetland Hydrology Present?	Yes [ ]	No [✔]	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] True Aquatic Plants (B14)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches): >15
Water Table Present?	Yes [ ]	No [✔]	Depth (inches): >15
Saturation Present? (includes capillary fringe)	Yes [ ]	No [✔]	Depth (inches): N/A

Wetland Hydrology Present? Yes [ ] No [✔]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: FDS-29E1-2

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus taeda	70	Y	FAC
2. Juniperus virginiana	8	N	FACU
3.			
4.			
5.			
6.			
	78 = Total Cover		
50% of total cover: 39	20% of total cover: 15.6		
Sapling Stratum (Plot size: 30 ft)			
1. Liquidambar styraciflua	40	Y	FAC
2. Acer rubrum	20	Y	FAC
3.			
4.			
5.			
6.			
	60 = Total Cover		
50% of total cover: 30	20% of total cover: 12		
Shrub Stratum (Plot size: 30 ft)			
1. Acer rubrum	8	Y	FAC
2. Ilex opaca	4	Y	FACU
3.			
4.			
5.			
6.			
	12 = Total Cover		
50% of total cover: 6	20% of total cover: 2.4		
Herb Stratum (Plot size: 30 ft)			
1. Polystichum acrostichoides	40	Y	FACU
2. Lonicera japonica	10	N	FACU
3. Mitchella repens	10	N	FACU
4. Smilax rotundifolia	5	N	FAC
5. Ilex opaca	3	N	FACU
6.			
7.			
8.			
9.			
10.			
11.			
	68 = Total Cover		
50% of total cover: 34	20% of total cover: 13.6		
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FDS-29E1-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	7.5YR 4/4	100					L	
3-18	7.5YR 4/4	50	5YR 4/6	50	C	M	FSL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) **(LRR N)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ☐ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ☐ Umbric Surface (F13) **(MLRA 136, 122)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ☐ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(MLRA 147)**
- ☐ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☑

Remarks:

APPENDIX B
USACE JD REQUEST FORM

NORFOLK DISTRICT REGULATORY OFFICE
PRE-APPLICATION AND/OR JURISDICTIONAL WATERS DETERMINATION REQUEST FORM

This form is used when you want to determine if areas on your property fall under regulatory requirements of the U.S. Army Corps of Engineers (USACE). Please supply the following information and supporting documents described below. This form can be filled out online and/or printed and then mailed, faxed, or e-mailed to the Norfolk District. Submitting this request authorizes the US Army Corps of Engineers to field inspect the property site, if necessary, to help in the determination process. **THIS FORM MUST BE SIGNED BY THE PROPERTY OWNER TO BE CONSIDERED A FORMAL REQUEST.**

The printed form and supporting documents should be mailed to:

U.S. Army Corps of Engineers, Norfolk District
Regulatory Office
803 Front Street
Norfolk, Virginia 23510-1096

Or faxed to (757) 201-7678

Or sent via e-mail to: CENAO.REG_ROD@usace.army.mil

Additional information on the Regulatory Program is available on our website at:
http://www.nao.usace.army.mil/
Please contact us at 757-201-7652 if you need any assistance with filling out this form.

Location and Information about Property to be subject to a Jurisdictional Determination:

1. Date of Request:
2. Project Name: Amelia Solar II
3. City or County where property located: Amelia County
4. Address of property and directions (attach a map of the property location and a copy of the property plat): South of Giles Road (Route 637)
5. Coordinates of property (if known): 37.463455, -77.984297
6. Size of property in acres: 54.7
7. Tax Parcel Number / GPIN (if available): 5100700004444 (ID: 3-11)
8. Name of Nearest Waterway: Jones Lake

7. Brief Description of Proposed Activity, Reason for Preapplication Request, and/or Reason for Jurisdictional Waters Determination Request:
   Preliminary Site Investigation

8. Has a wetland delineation/determination been completed by a consultant or the Corps on the property previously? ☐ YES ☐ NO ☒ UNKNOWN

   If yes, please provide the name of the consultant and/or Corps staff and Corps permit number, if available:

Property Owner Contact Information:

Property Owner Name:
Mailing Address:
City: State: Zip:
Daytime Telephone:
E-mail Address:

If the person requesting the Jurisdictional Determination is **NOT** the Property Owner, please also supply the Requestor's contact information here:

Requestor Name:	Timmons Group c/o Ben Sagara
Mailing Address:	1001 Boulders Parkway, Suite 300
City: State: Zip:	Richmond, Virginia 23225
Daytime Telephone:	804 200-6567
E-mail Address:	ben.sagara@timmons.com

Additionally, if you have any of the following information, please include it with your request: wetland delineation map, other relevant maps, drain tile survey, topographic survey, and/or site photographs.

CERTIFICATION: I am hereby requesting a preapplication consultation or jurisdictional waters and/or wetlands determination from the U.S. Army Corps of Engineers, for the property(ies) I have described herein. I agree to allow the duly authorized representatives of the Norfolk District Corps of Engineers and other regulatory or advisory agencies to enter upon the premises of the project site at reasonable times to evaluate inspect and photograph site conditions. This consent to enter the property is superior to, takes precedence over, and waives any communication to the contrary. For example, if the property is posted as "no trespassing" this consent specifically supercedes and waives that prohibition and grants permission to enter the property despite such posting. I hereby certify that the information contained in the Request for a Jurisdictional Determination is accurate and complete:

_____ _____

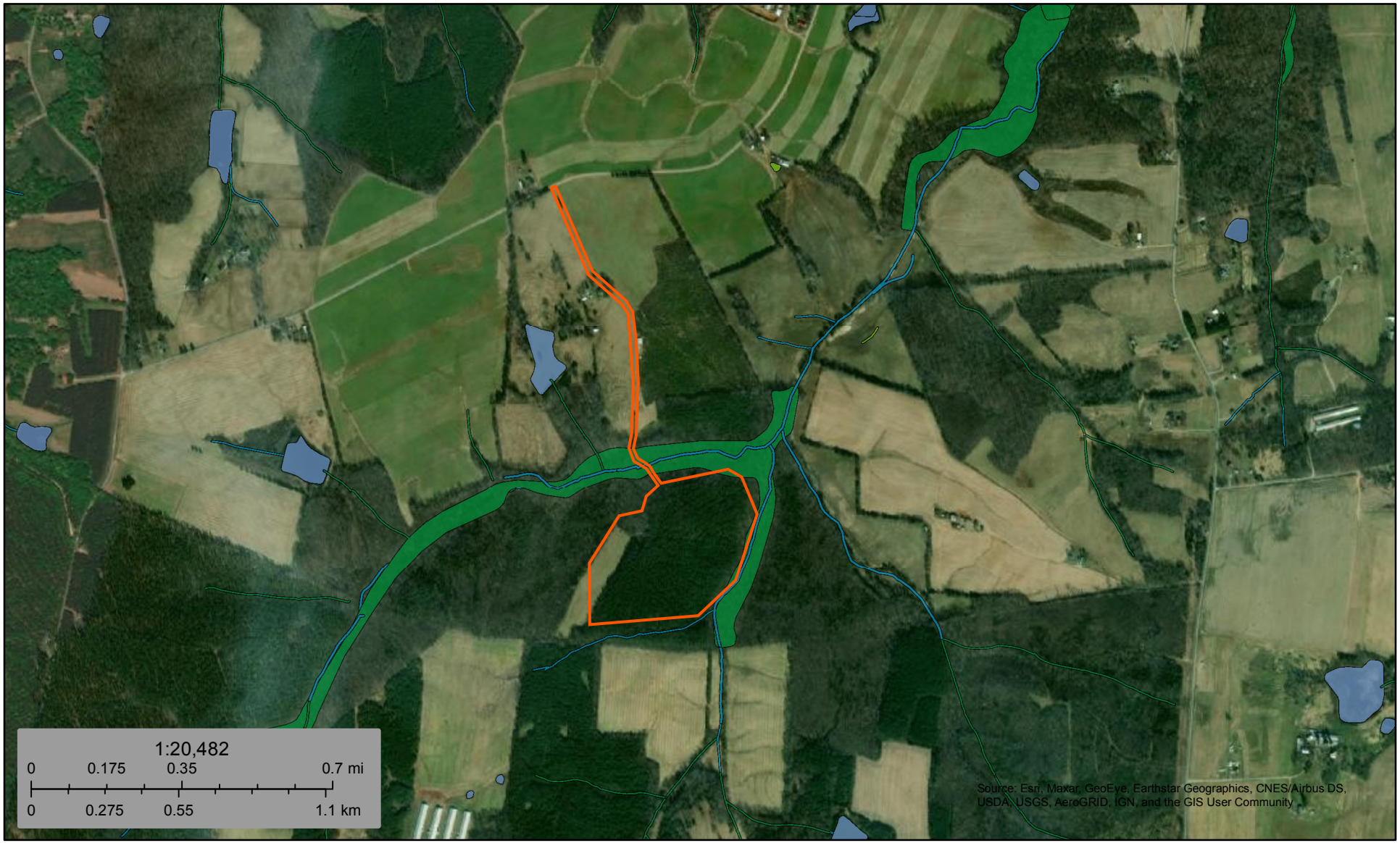
Property Owner's Signature Date

U.S. Fish and Wildlife Service

National Wetlands Inventory

Amelia Solar II

Proposed Project Area

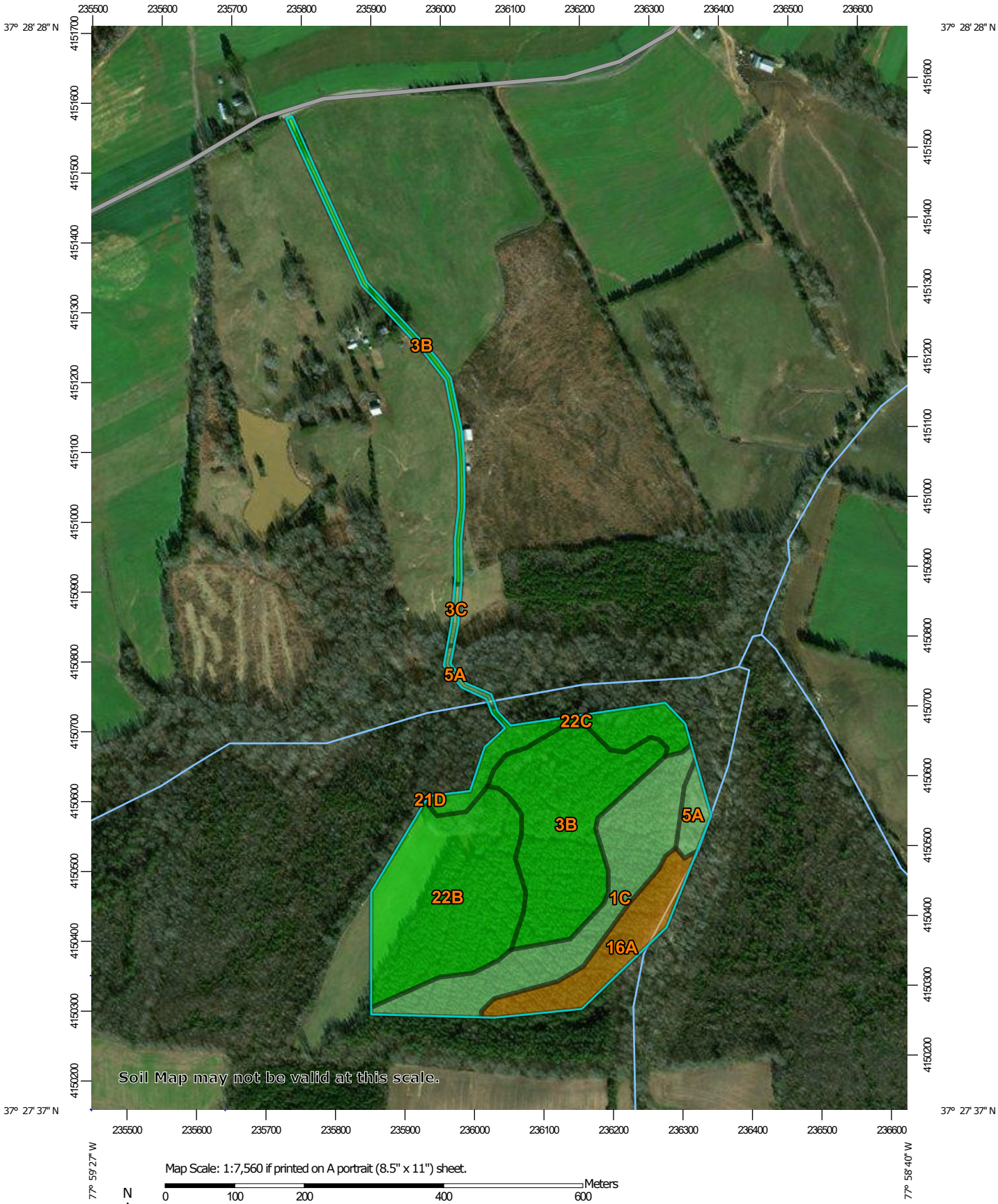


March 17, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Hydric Rating by Map Unit—Amelia County, Virginia
(Proposed Amelia Solar II)



Map Scale: 1:7,560 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 350 700 1400 2100

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
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- 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 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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: Amelia County, Virginia
Survey Area Data: Version 17, Jun 3, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 11, 2015—Nov 22, 2016

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.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1C	Appling fine sandy loam, 7 to 15 percent slopes	5	8.7	20.7%
3B	Cecil fine sandy loam, 2 to 7 percent slopes	0	11.9	28.2%
3C	Cecil fine sandy loam, 7 to 15 percent slopes	3	0.2	0.5%
5A	Chewacla silt loam, 0 to 2 percent slopes, frequently flooded	5	1.3	3.0%
16A	Partlow fine sandy loam, 0 to 2 percent slopes, rarely flooded	90	4.3	10.3%
21D	Wedowee-Poindexter complex, 15 to 25 percent slopes	3	0.0	0.1%
22B	Winnsboro sandy loam, 2 to 7 percent slopes	0	12.1	28.7%
22C	Winnsboro sandy loam, 7 to 15 percent slopes	0	3.6	8.5%
Totals for Area of Interest			**42.2**	**100.0%**

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

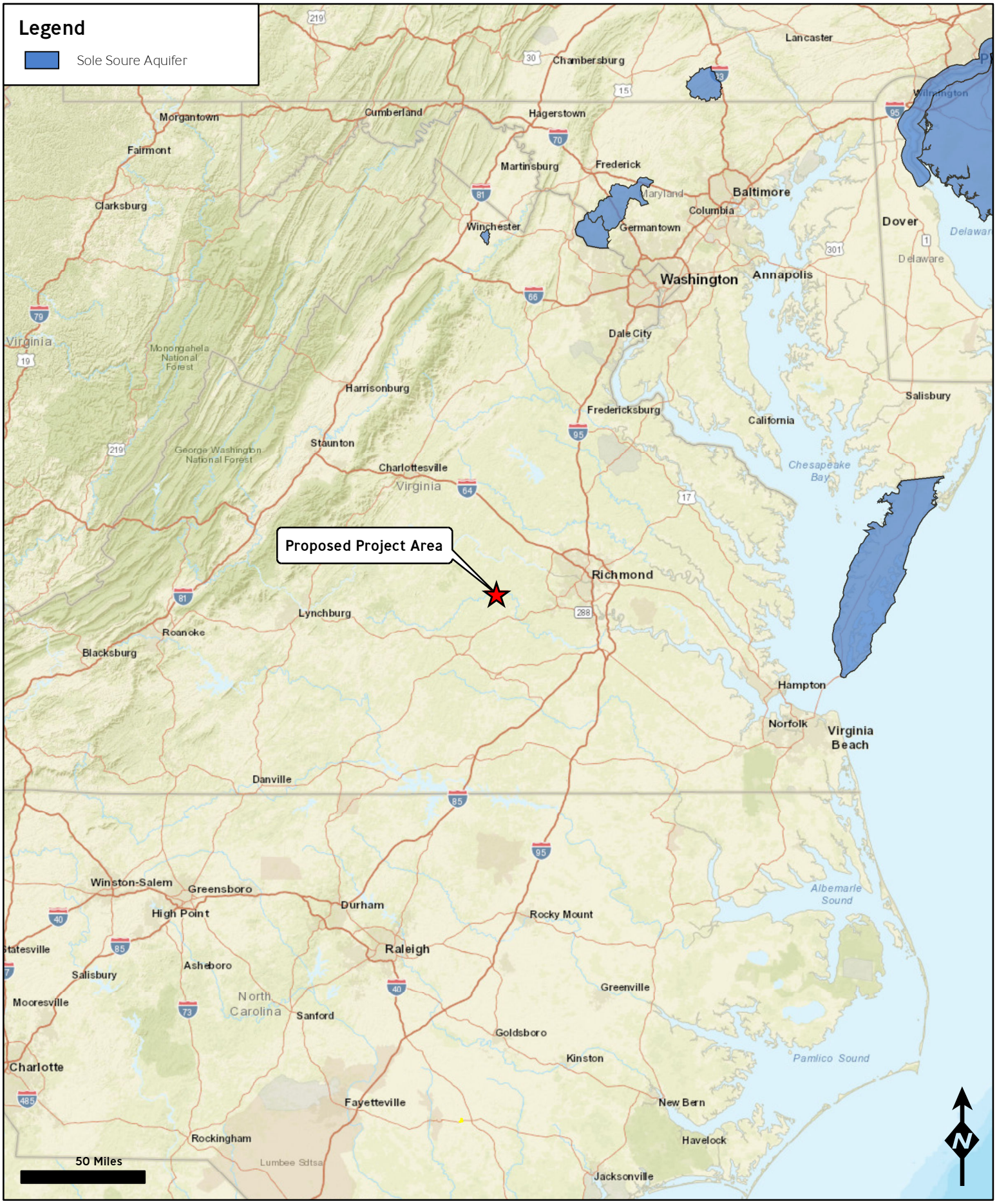
Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

APPENDIX VII

Water Resources



TRUE NORTH CONSULTANTS

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SOLE SOURCE AQUIFER MAP

Proposed Amelia Solar II

Amelia Court House, Amelia County, Virginia

APPENDIX VIII

Biological Resources

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Date: 4/9/21

Self-Certification Letter

Project Name:

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Virginia Ecological Services online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA conclusions. These conclusions resulted in:

- "no effect" determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR § 17.40(o) [as determined through the Information, Planning, and Consultation System (IPaC) northern long-eared bat assisted determination key]; and/or
- "may affect, not likely to adversely affect" determinations for proposed/listed species and/or proposed/designated critical habitat.

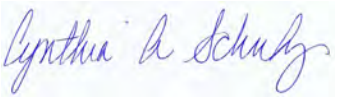
We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the determinations described above for proposed and listed species and proposed and designated critical habitat. Additional coordination with this office is not needed.

Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species.

Should project plans change or if additional information on the distribution of proposed or listed species, proposed or designated critical habitat becomes available, this determination may be reconsidered. This certification letter is valid for 1 year.

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Virginia is available at our website http://www.fws.gov/northeast/virginiafield/endspecies/project_reviews.html. If you have any questions, please contact Troy Andersen of this office at (804) 824-2428.

Sincerely,



Cindy Schulz
Field Supervisor
Virginia Ecological Services

Enclosures - project review package

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
http://www.fws.gov/northeast/virginiafield/

In Reply Refer To: April 12, 2021
Consultation code: 05E2VA00-2021-TA-2688
Event Code: 05E2VA00-2021-E-08975
Project Name: Amelia Solar II Project

Subject: Verification letter for the 'Amelia Solar II Project' project under the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

Dear Leslie Schroeder:

The U.S. Fish and Wildlife Service (Service) received on April 12, 2021 your effects determination for the 'Amelia Solar II Project' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"[1] prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Amelia Solar II Project

2. Description

The following description was provided for the project 'Amelia Solar II Project':

> Construction of a 5-MW solar facility near the town of Amelia Court House, Virginia.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.4674767,-77.9850866256436,14z

Determination Key Result

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may

affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   Yes

2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")

   No

3. Will your activity purposefully **Take** northern long-eared bats?

   No

4. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered
   No

5. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

   Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

   Yes

6. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

   No

7. Will the action involve Tree Removal?

   Yes

8. Will the action only remove hazardous trees for the protection of human life or property?

   No

9. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

   No

10. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

    No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

2

2. If known, estimated acres of forest conversion from April 1 to October 31

2

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

Species Summary Table

Project name used in IPaC: **PROPOSED AMELIA SOLAR II** Date: **3/19/2021**

Your name: **MARINA JAWAD**

Step 2 Listed or candidate species that are likely present according to the Official Species List from IPaC? "No Species" or IPaC species list Bald eagle nests from Step 4.	Step 2 Is your action area in critical habitat (only for Canada lynx or Atlantic salmon)? Yes or No	Step 3A Is suitable habitat for listed or candidate species present in your action area? "suitable habitat present" "suitable habitat not present" "Don't know"	Step 3B Does the species occur in your action area? "Species present" "Species not present" "Don't know"	Step 4 Is your project likely to take or disturb eagles and require an Eagle Act permit? "Will not disturb" "May disturb" "Don't know"	Step 5 Determinations for the Endangered Species Act – **only Federal agencies complete this column** "No effect" "May effect"	Notes and Documentation (provide additional information if needed)
Northern Long-eared Bat	No	Suitable Habitat Not Present	Species Not Present	Choose an item.	Choose an item.	Received verification letter from IPaC's programmatic biological opinion on Final 4(d) Rule for NLEB and Self-Certification letter through the USFWS' Virginia Field Office Online Project Review.

Notes:

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
http://www.fws.gov/northeast/virginiafield/

In Reply Refer To:
Consultation Code: 05E2VA00-2021-SLI-2688
Event Code: 05E2VA00-2021-E-07793
Project Name: Amelia Solar II Project

March 18, 2021

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

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

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 Consultation Tracking Number 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

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

Consultation Code: 05E2VA00-2021-SLI-2688
Event Code: 05E2VA00-2021-E-07793
Project Name: Amelia Solar II Project
Project Type: POWER GENERATION
Project Description: Construction of a 5-MW solar facility near the town of Amelia Court House, Virginia.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.4674767,-77.9850866256436,14z

Counties: Amelia County, Virginia

Endangered Species Act Species

There is a total of 1 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*	Threatened

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

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.

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
http://www.fws.gov/northeast/virginiafield/

In Reply Refer To: July 01, 2020
Consultation Code: 05E2VA00-2020-SLI-4672
Event Code: 05E2VA00-2020-E-13019
Project Name: Proposed Amelia Solar II

Subject: List of threatened and endangered species that may occur in your proposed project location, and/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

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

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 Consultation Tracking Number 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

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

Consultation Code: 05E2VA00-2020-SLI-4672

Event Code: 05E2VA00-2020-E-13019

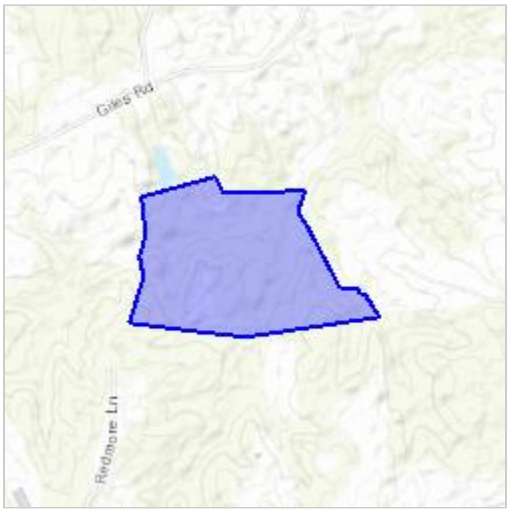
Project Name: Proposed Amelia Solar II

Project Type: POWER GENERATION

Project Description: VA

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/37.46466129567612N77.98418348585207W



Counties: Amelia, VA

Endangered Species Act Species

There is a total of 1 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

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.

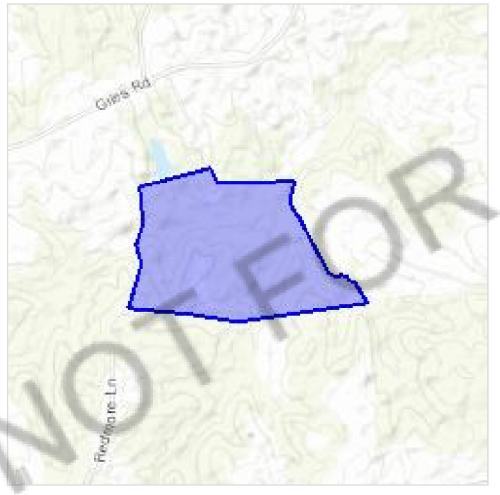
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Amelia County, Virginia



Local office

Virginia Ecological Services Field Office

(804) 693-6694
(804) 693-9032

6669 Short Lane
Gloucester, VA 23061-4410

http://www.fws.gov/northeast/virginiafield/

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. 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.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Northern Long-eared Bat Myotis septentrionalis Threatened

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

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

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.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

THERE ARE NO MIGRATORY BIRDS OF CONSERVATION CONCERN EXPECTED TO OCCUR AT THIS LOCATION.

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 and/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 migratory birds potentially occurring 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 AKN Phenology 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, migrating or present year-round in my project 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 refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. 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.

Facilities

National Wildlife Refuge lands

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 AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A
- PFO1C

FRESHWATER POND

- PUBHh

RIVERINE

- R2UBH
- R3UBH
- R4SBC
- R3UBHx
- R5UBH

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Site Location

37,28,23.9 -77,59,16.1
is **the Search Point**

Show Position Rings
Yes No
1/2 mile and 1/8 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
BW Aerial Photography

Map Overlay Choices
Current List: 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

2 mile radius Search Area

Bald Eagle Concentration Areas and Roosts

Bald Eagle nests 660 and 330 foot management zones

Data Observation Site

back | Refresh Browser Page | Help

Map Click: Pan

Map Scale: In Zoom Out

Screen Size: Small Size Big

N

500 0 500 1000 1500 2000 Meters
2000 0 2000 4000 6000 8000 Feet

Point of Search 37,28,23.9 -77,59,16.1
Map Location 37,28,01.8 -77,59,04.2

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: Black & White USGS Aerial Photography (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 232053 and top 4154883. Pixel size is 8 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 1000 columns by 1000 rows for a total of 1000000 pixles. The map display represents 8000 meters east to west by 8000 meters north to south for a total of 64.0 square kilometers. The map display represents 26251 feet east to west by 26251 feet north to south for a total of 24.7 square miles.

A UTM Zone change occurs within the image.The left-hand side of the image is a pseudo projection from UTM Zone 17 into UTM Zone 18 resulting in reduced spatial accuracy within the portion of the image occurring in UTM Zone 17.

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 2020-01-16 16:34:17 (qa/qc March 21, 2016 12:20 - tn=1011517.0 dist=3218 I)
$poi=37.4733300 -77.9878099

VaFWIS Initial Project Assessment Report Compiled on 1/16/2020, 4:33:45 PM

Help

Known or likely to occur within a **2 mile buffer around polygon; center 37.4733300 -77.9878099** in **007 Amelia County, 145 Powhatan County, VA**

View Map of Site Location

443 Known or Likely Species ordered by Status Concern for Conservation (displaying first 23) (23 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
060017	FESE	Ia	Spinymussel, James	Parvaspina collina		BOVA
060003	FESE	Ia	Wedgemussel, dwarf	Alasmidonta heterodon		BOVA
050022	FTST	Ia	Bat, northern long-eared	Myotis septentrionalis		BOVA
060029	FT	IIa	Lance, yellow	Elliptio lanceolata		BOVA
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050034	SE	Ia	Bat, Rafinesque's eastern big-eared	Corynorhinus rafinesquii macrotis		BOVA
050027	SE	Ia	Bat, tri-colored	Perimyotis subflavus		BOVA
060006	SE	Ib	Floater, brook	Alasmidonta varicosa		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus	Yes	BOVA,SppObs
040379	ST	Ia	Sparrow, Henslow's	Centronyx henslowii		BOVA
060173	FPST	Ia	Pigtoe, Atlantic	Fusconaia masoni		BOVA
060081	ST	IIa	Floater, green	Lasmigona subviridis		BOVA
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
030063	CC	IIIa	Turtle, spotted	Clemmys guttata		BOVA
010077		Ia	Shiner, bridle	Notropis bifrenatus		BOVA
060084		Ib	Pigtoe, Virginia	Lexingtonia subplana		BOVA
040213		Ic	Owl, northern saw-whet	Aegolius acadicus		BOVA
040052		IIa	Duck, American black	Anas rubripes		BOVA
040029		IIa	Heron, little blue	Egretta caerulea caerulea		BOVA
040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA
040140		IIa	Woodcock, American	Scolopax minor		BOVA
040203		IIb	Cuckoo, black-billed	Coccyzus erythropthalmus		BOVA
040105		IIb	Rail, king	Rallus elegans		BOVA

To view **All 443 species** View 443

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need

Virginia Widlife Action Plan Conservation Opportunity Ranking:

a - On the ground management strategies/actions exist and can be feasibly implemented.;

b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.;

c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

Bat Colonies or Hibernacula: **Not Known**

Anadromous Fish Use Streams

N/A

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters

N/A

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Habitat Predicted for Aquatic WAP Tier I & II Species

N/A

Habitat Predicted for Terrestrial WAP Tier I & II Species

N/A

Public Holdings:

N/A

Compiled on 1/16/2020, 4:33:45 PM I1011517.0 report=IPA searchType= P dist= 3218 poi= 37.4733300 -77.9878099 siteDD= 37.4733324 -77.9878133;37.4727706 -77.9875579;37.4717545 -77.9869488;37.4711692 -77.9866139;37.4708167 -77.9862460;37.4705196 -77.9858542;37.4702620 -77.9855398;37.4698804 -77.9851985;37.4689929 -77.9850172;37.4671918 -77.9850630;37.4665402 -77.9851112;37.4653651 -77.9856908;37.4653631 -77.9845298;37.4657802 -77.9821786;37.4654197 -77.9809782;37.4639923 -77.9810444;37.4624327 -77.9816505;37.4615728 -77.9828028;37.4614660 -77.9843840;37.4611438 -77.9862595;37.4612489 -77.9882291;37.4642178 -77.9857911;37.4653726 -77.9858842;37.4666288 -77.9852240;37.4672532 -77.9851915;37.4689941 -77.9851054;37.4697962 -77.9852800;37.4704404 -77.9859156;37.4710105 -77.9866329;37.4717522 -77.9870926;37.4732850 -77.9879031;37.4733324 -77.9878133;

PixelSize=64; Anadromous=0.027359; BECAR=0.02366; Bats=0.023969; Buffer=0.126862; County=0.109539; Impediments=0.025498; Init=0.204352; PublicLands=0.039006; SppObs=0.247635; TEWaters=0.030754; TierReaches=0.031367; TierTerrestrial=0.056378; Total=1.055067; Tracking_BOVA=0.166514; Trout=0.031273

1 Species Observations where Shrike, loggerhead (040293) observed

37,28,23.9 -77,59,16.1 is **the Search Point**

Show Position Rings
(•) Yes ( ) No
1/2 mile and 1/8 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
BW Aerial Photography

Map Overlay Choices
Current List: Position, Search, SppObs

Map Overlay Legend

Position Rings 1/2 mile and 1/8 mile at the Search Point

2 mile radius Search Area

Data Observation Site

back | Refresh Browser Page

Map Click: Pan

Map Scale: In Zoom Out

Screen Size: Small Size Big

Help

Point of Search 37,28,23.9 -77,59,16.1
Map Location 37,28,01.8 -77,59,04.2

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: Black & White USGS Aerial Photography (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 232053 and top 4154883. Pixel size is 8 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 1000 columns by 1000 rows for a total of 1000000 pixles. The map display represents 8000 meters east to west by 8000 meters north to south for a total of 64.0 square kilometers. The map display represents 26251 feet east to west by 26251 feet north to south for a total of 24.7 square miles.

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http://www.national.geographic.com/topo
All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2020-01-16 16:40:02 (qa/qc March 21, 2016 12:20 - tn=1011517.1 dist=3218
I)
$poi=37.4733300 -77.9878099

Virginia Department of Game and Inland Fisheries

1/16/2020 4:39:12 PM

Fish and Wildlife Information Service

VaFWIS Search Report Compiled on 1/16/2020, 4:39:12 PM

Help

Known or likely to occur within a **2 mile buffer around polygon; center 37.4733300 -77.9878099**
in **007 Amelia County, 145 Powhatan County, VA**
where (040293) **Shrike, loggerhead** observed.

View Map of Site Location

Species Observations where Shrike, loggerhead (040293) observed

(1 records , 1 Observation with Threatened or Endangered species)

View Map of All Query Results
Species Observations where Shrike, loggerhead (040293) observed

obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE*	Highest Tier**	
5895	SppObs	May 25 1992	S. Capel, VDGIF	1	ST	I	Yes

Displayed 1 Species Observations where Shrike, loggerhead (040293) observed

*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;
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Virginia Widlife Action Plan Conservation Opportunity Ranking:
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Compiled on 1/16/2020, 4:39:12 PM I1011517.1 report=BOVA searchType= P dist= 3218 poi= 37.4733300 -77.9878099

audit no. 1011517 1/16/2020 4:39:12 PM Virginia Fish and Wildlife Information Service

DCR
Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL & RECREATIONAL RESOURCES

Web Project ID: WEB0000012202

Client Project Number: 99999

PROJECT INFORMATION

TITLE: Amelia II

DESCRIPTION: Amelia II is a proposed solar facility that is in the due diligence phase. If pursued as a solar facility, wetlands and streams that may exist on the site would be avoided to the extent practicable. Tree clearing may total approximately 45 acres.

EXISTING SITE CONDITIONS: Silviculture

QUADRANGLES: Chula

COUNTIES: Amelia

Latitude/Longitude (DMS): 37° 27' 49.845" N / 77° 59' 3.508" W

Acreage: 55 acres

Comments:

REQUESTOR INFORMATION

Priority: N

Tier Level: Tier I

Contact Name: Julia Campus

Company Name: Timmons Group

Address: 1001 Boulders Pkwy Ste 300

City: Richmond

State: VA

Zip: 23225

Phone: 8042006577

Fax:

Email: julia.campus@timmons.com

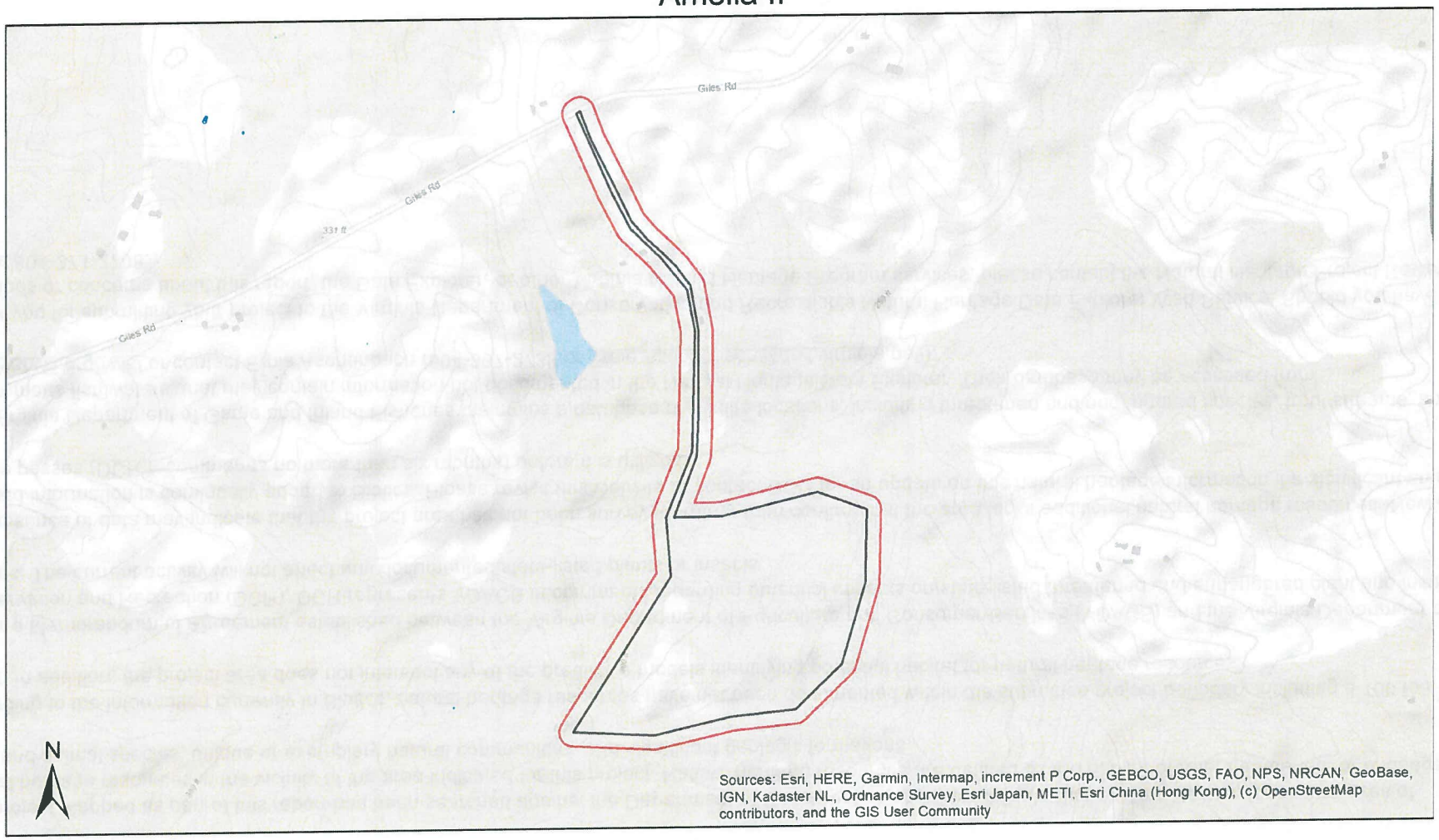
Conservation Site	Site Type	Brank	Acreage	Listed Species Presence

Natural Heritage Screening Features Intersecting Project Boundary

Intersecting Predictive Models

Predictive Model Results

Amelia II



Project Boundary

Buffered Project Boundary

1:11,025

0 0.075 0.15 0.3 mi

0 0.15 0.3 0.6 km

Quads: Chula

Counties: Amelia

Company: Timmons Group

Lat/Long: 372749 / -775903

Matthew J. Strickler
Secretary of Natural Resources

Clyde E. Cristman
Director

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

The project mapped as part of this report has been searched against the Department of Conservation and Recreation's Biotics Data System for occurrences of natural heritage resources in the vicinity of the area indicated for this project. 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 Biotics, natural heritage resources have not been documented within the submitted project boundary including a 100 foot buffer. In addition, the project area does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (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.

Any absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks additional natural heritage resources. New and updated information is continually added to Biotics. Please revisit this website or contact DCR for an update on this natural heritage information if a significant amount of time passes (DCR recommends no more than six months) before it is utilized.

The Virginia Department of Game and Inland Fisheries maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters, that may contain information not documented in the Natural Heritage Data Explorer. Their database may be accessed from http://vafwis.org/fwis/ or contact Ernie Aschenbach (804-367-2733 or Ernie.Aschenbach@dgif.virginia.gov).

Thank you for submitting your project to the Virginia Department of Conservation and Recreation's Natural Heritage Data Explorer Web Service. Should you have any questions or concerns about this report, the Data Explorer, or other Virginia Natural Heritage Program services, please contact the Natural Heritage Project Review Unit at 804-371-2708.

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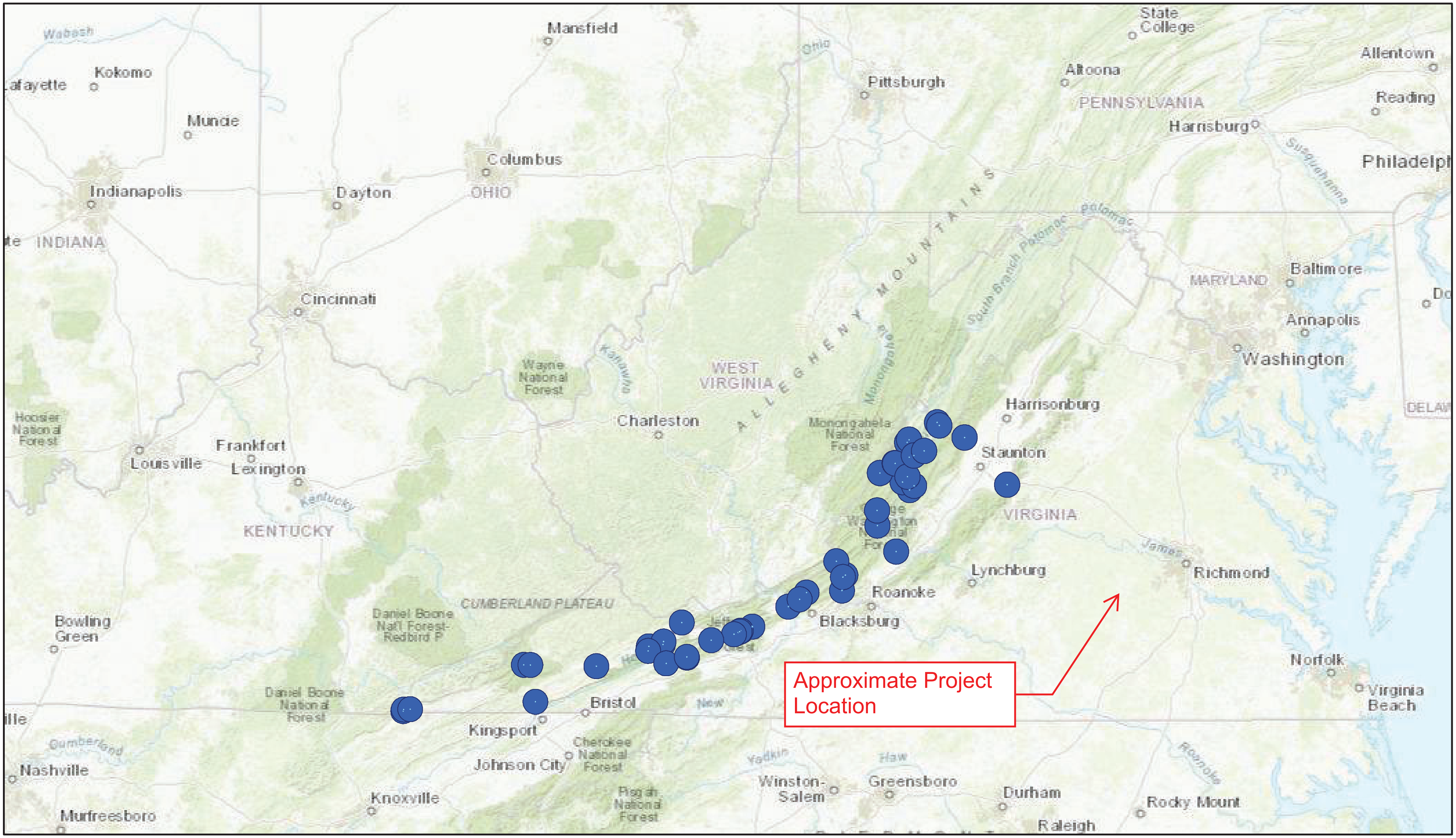

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7UL FRORUHG DQG /LWWOH %URZQ +LEHUQDFXOXP PLOH %XIIHU

CCB Mapping Portal

Layers: VA Eagle Nest Locator, Eagle Roosts, Eagle Roost Polygons, Eagle Roost Buffers, VA Eagle Nest Buffers

Map Center [longitude, latitude]: [-77.86148071289062, 37.35323862707864]

Map Link:
https://www.ccbbirds.org/maps/#layer=VA+Eagle+Nest+Locator&layer=Eagle+Roosts&layer=Eagle+Roost+Polygons&layer=Eagle+Roost+Buffers&layer=VA+Eagle+Nest+Buffers&zoom=10&lat=37.35323862707864&lng=-77.86148071289062&legend=legend_tab_4ca7337c-c07d-11e5-93bc-0ecfd53eb7d3&base=Street+Map+%28OSM%2FCarto%29

Report Generated On: 01/14/2020

Virginia Invasive Plant Species List 2014			Region			Light Requirements			Soil Moiture Requirements		
Scientific Name	**Common Name**	**VA Invasiveness Rank**	**Mountain**	**Piedmont**	**Coastal**	**Full**	**Partial**	**Shade**	**Hydric**	**Mesic**	**Xeric**
Ailanthus altissima	Tree-of-heaven	High	•	•	•	•	•			•	
Alliaria petiolata	Garlic Mustard	High	•	•	•	•	•	•		•	
Ampelopsis brevipedunculata	Porcelain-berry	High		•	•	•	•	•		•	
Celastrus orbiculatus	Oriental Bittersweet	High	•	•	•	•	•	•		•	
Centaurea stoebe ssp. micranthos	Spotted Knapweed	High	•	•	•	•	•				•
Cirsium arvense	Canada Thistle	High	•	•	•	•				•	
Dioscorea polystachya	Cinnamon Vine	High	•	•	•		•	•		•	
Elaeagnus umbellata	Autumn Olive	High	•	•	•	•	•			•	
Euonymus alatus	Winged Euonymus	High	•	•			•	•		•	
Ficaria verna	Lesser Celandine	High		•	•		•	•		•	
Hydrilla verticillata	Hydrilla	High	•	•	•	•	•		•		
Iris pseudacorus	Yellow Flag	High	•	•	•	•	•		•		
Lespedeza cuneata	Sericea Lespedeza	High	•	•	•	•				•	
Ligustrum sinense	Chinese Privet	High	•	•	•		•	•	•	•	
Lonicera japonica	Japanese Honeysuckle	High	•	•	•	•	•	•		•	
Lonicera maackii	Amur Honeysuckle	High	•	•	•		•			•	
Lonicera morrowii	Morrow's Honeysuckle	High	•	•		•	•	•		•	
*Ludwigia grandiflora ssp. hexapetala**	Large flower primrose willow	High	•	•	•	•			•		
Lythrum salicaria	Purple Loosestrife	High	•	•	•	•			•	•	
Microstegium vimineum	Japanese Stiltgrass	High	•	•	•	•	•	•	•	•	
Murdannia keisak	Marsh dewflower	High	•	•	•	•	•		•		
Myriophyllum aquaticum	Parrot Feather	High	•	•	•	•			•		
Myriophyllum spicatum	Eurasian Water-milfoil	High	•	•	•	•			•		
*Oplismenus hirtellus ssp. undulatifolius**	Wavyleaf Grass	High	•	•				•		•	
Persicaria perfoliata	Mile-a-minute	High	•	•	•	•	•	•	•	•	
Phragmites australis ssp. australis	Common Reed	High	•	•	•	•	•		•	•	
Pueraria montana var. lobata	Kudzu	High	•	•	•	•	•	•		•	
Reynoutria japonica	Japanese knotweed	High	•	•	•	•	•			•	
Rosa multiflora	Multiflora Rose	High	•	•	•	•	•			•	
Rubus phoenicolasius	Wineberry	High	•	•	•		•	•		•	
Sorghum halepense	Johnson Grass	High	•	•	•	•	•			•	
Urtica dioica	European Stinging Nettle	High	•	•	•		•	•	•	•	
Acer platanoides	Norway Maple	Medium	•	•	•	•	•			•	

Agrostis capillaris	Colonial bent-grass	Medium	•	•	•	•	•			•	
Akebia quinata	Five-leaf Akebia	Medium		•	•	•	•	•		•	
Albizia julibrissin	Mimosa	Medium	•	•	•	•	•			•	
Arthraxon hispidus var. hispidus	Joint Head Grass	Medium	•	•	•	•	•		•	•	
Berberis thunbergii	Japanese Barberry	Medium	•	•	•	•	•	•		•	
Cirsium vulgare	Bull Thistle	Medium	•	•	•	•				•	
Dipsacus fullonum	Wild Teasel	Medium	•	•	•	•			•	•	
Egeria densa	Brazilian Waterweed	Medium	•	•	•	•	•		•		
Euonymus fortunei	Winter Creeper	Medium	•	•	•		•	•	•	•	
Glechoma hederacea	Gill-over-the-ground	Medium	•	•	•		•	•		•	
Hedera helix	English ivy	Medium		•	•	•	•	•		•	
*Heracleum mantegazzianum**	Giant Hogweed	Medium	•	•		•	•		•	•	
Holcus lanatus	Common Velvet Grass	Medium	•	•	•	•	•		•	•	
Humulus japonicus	Japanese Hops	Medium	•	•	•	•	•	•	•	•	
*Ipomoea aquatica**	Water spinach	Medium	•	•	•	•			•		
Ligustrum obtusifolium var. obtusifolium	Border privet	Medium	•	•	•			•		•	
Lonicera tatarica	Tartarian Honeysuckle	Medium	•	•		•	•			•	
Lysimachia nummularia	Moneywort	Medium	•	•	•	•	•	•	•	•	
Miscanthus sinensis	Chinese Silvergrass	Medium	•	•	•	•	•			•	
Najas minor	Brittle Naiad	Medium	•	•	•	•			•		
Paulownia tomentosa	Royal Paulowina	Medium	•	•	•	•	•			•	
Persicaria longiseta	Long-bristled Smartweed	Medium	•	•	•	•	•	•	•	•	
Phyllostachys aurea	Golden Bamboo	Medium	•	•	•	•	•			•	
Poa compressa	Flat-stemmed Bluegrass	Medium	•	•	•	•	•	•		•	
Poa trivialis	Rough Bluegrass	Medium	•	•	•	•	•	•	•	•	
Pyrus calleryana	Callery Pear	Medium	•	•	•	•	•			•	
Rhodotypos scandens	Jetbead	Medium	•	•	•	•	•	•	•	•	
Rumex acetosella	Sheep sorrel	Medium	•	•	•	•	•			•	
*Salvinia molesta**	Giant Salvinia	Medium	•	•	•	•			•		
*Solanum viarum**	Tropical Soda Apple	Medium		•	•	•	•		•	•	
Spiraea japonica	Japanese Spiraea	Medium	•	•			•	•	•	•	
Stellaria media	Common Chickweed	Medium	•	•	•	•	•	•		•	
Veronica hederifolia	Ivy-leaved Speedwell	Medium	•	•	•	•	•			•	
Viburnum dilatatum	Linden arrow-wood	Medium		•		•	•			•	
Wisteria sinensis	Chinese Wisteria	Medium	•	•	•		•	•		•	

Commelina communis	Asiatic Dayflower	Low	•	•	•	•	•			•	
Elaeagnus pungens	Thorny Olive	Low	•	•	•	•	•			•	
Lespedeza bicolor	Shrubby Bushclover	Low	•	•	•	•	•			•	
Lonicera fragrantissima	Winter Honeysuckle	Low	•	•	•	•	•			•	
Melia azedarach	Chinaberry	Low		•	•	•	•			•	
Morus alba	White Mulberry	Low	•	•	•	•	•			•	
Perilla frutescens	Beefsteak Plant	Low	•	•	•		•	•		•	
Phleum pratense	Timothy	Low	•	•	•	•	•			•	
Populus alba	Silver Poplar	Low	•	•	•	•	•			•	
Rumex crispus ssp. crispus	Curly dock	Low	•	•	•	•				•	•
Securigera varia	Crown-vetch	Low	•	•	•	•				•	•
Ulmus pumila	Siberian Elm	Low	•	•		•	•			•	
Vinca major	Greater Periwinkle	Low	•	•	•	•	•	•		•	
Vinca minor	Periwinkle	Low	•	•	•	•	•	•		•	
Wisteria floribunda	Japanese Wisteria	Low		•	•		•	•		•	

*Early detection species not yet established in Virginia.

Citation: Heffernan, K., E. Engle, C. Richardson. 2014. Virginia Invasive Plant Species List. Virginia Department of Conservation and Recreation, Division of Natural Heritage. Natural Heritage Techincal Document 14-XX. Richmond.

APPENDIX IX

Historic and Cultural Resources

Section 106 Conclusion Memo

To: File

Copy: Barbara Britton

From: Michael Geiger

4/16/2021

RE: Finding of No Historic Properties Affected
Holocene – Amelia II
Giles Road, Amelia Courthouse, Amelia County Virginia

Under the Consolidated Farm, and/or Rural Development Act, the Rural Utilities Service (RUS),] is considering funding an application from Holocene to construct a 5-megawatt (MW) ground-mounted photovoltaic (PV) system on the south side of Giles Road near the town of Amelia Court House, Virginia. The PV system and associated components will be situated on approximately 41.3 acres of a larger, 189-acre parent parcel (Site) – this parcel is identified by Amelia County Assessor as: 3 10. The Proposed Project's infrastructure would include installing PV solar panels; inverters (to allow for the transmission to the utility grid); connections to the existing powerlines and necessary safety features including access roads, perimeter roads and fencing. The estimated duration of construction is approximately 4 months and is anticipated that the Project will operate for a minimum of 35 years. When the Project has reached its operation end, the Site can be returned to its pre-construction state.

RUS has determined that this Project is an undertaking subject to review under Section 106 of the National Historic Preservation Act, 54 U.S.C. § 300101 et seq., and its implementing regulations, 36 CFR Part 800 (Section 106 review).

In accordance with 36 CFR § 800.2(c)(4), and 7 CFR § 1970.5(b)(2) of the regulations, "Environmental Policies and Procedures" (7 CFR Part 1970), RUS has issued a blanket delegation for its applicants to initiate and proceed through Section 106 review. Under this delegation, RUS may conclude Section 106 review on the basis of an agreement reached between Holocene, Virginia State Historic Preservation Office, and other consulting parties on the recommended finding of effect.

The Virginia Cultural Resource Information Services (VCRIS) database did not identify any resources within the Proposed Project Area but did list one architectural resource and one archaeological resource adjacent to the Proposed Project Area. Pursuant to Section 106 of the NHPA, the Proposed Project was submitted to the VDHR's Electronic Project Information Exchange (ePIX) system on June 14, 2020. In a response dated July 14, 2020, the Virginia State

Historic Preservation Office concluded that it is their opinion that no historic properties will be affected by the Proposed Project.

Holocene notified Delaware Nation and the Nansemond Indian Nation of the project on June 12, 2020 providing notification of intent to initiate the Section 106 review process. A response from the Nansemond Indian Nation was received on June 17, 2020 which stated that they have no objections or pending issues regarding this matter. The Delaware Nation provided acceptance of invitation for consultation on June 29, 2020 and in a response dated July 9, 2020, they concluded that the location of the Proposed Project does not endanger cultural, or religious sites of interest. The Delaware Nation instructed the Proposed Project to continue as planned but asked that if any archaeological site or artifacts inadvertently be uncovered, all construction and ground disturbing activities be immediately halted until they, and the appropriate state agencies, are notified.

Based on review of the project documentation provided by the Virginia State Historic Preservation Office, the Delaware Nation, and the Nansemond Indian Nation, RUS has determined that a finding of no historic properties affected in accordance with 36 CFR § 800.4(d)(1) is appropriate for this undertaking. This finding will conclude Section 106 review process as it agrees with the recommendations of Holocene, VAHDR July 14, 2020, as well as that of the Delaware Nation July 9, 2020 and the Nansemond Indian Nation June 17, 2020.

There are no additional conditions to which the Applicant and SHPO have agreed to, to support this finding. The commitment on the part of the Agency to their implementation is ongoing provided project scope remains within parameters detailed in the report.

RUS will include an inadvertent discovery provision, developed in accordance with 36 CFR § 800.13(b) and (c), as a condition of obligation in order to address any historic properties which might be inadvertently discovered or affected during project construction.

Should you have any questions, please contact: Michael Geiger USDA,RD, RUS michael.geiger@usda.gov 202.819.0076

Michael Geiger

Digitally signed by Michael Geiger
Date: 2021.04.16 11:22:24 -04'00'

Leslie Schroeder

From: Jennifer Bellville-marrion <Jennifer.Bellville-Marrion@dhr.virginia.gov>
Sent: Tuesday, July 14, 2020 2:26 PM
To: Leslie Schroeder
Subject: Amelia Solar II (DHR File No. 2020-3862) | e-Mail #03926

Dear Ms. Schroeder,

Thank you for requesting comments from the Department of Historic Resources on the referenced project. Based upon the documentation provided, it is our opinion that no historic properties will be affected by the proposed undertaking.

Implementation of the undertaking in accordance with the finding of **No Historic Properties Affected** as documented fulfills the Federal agency's responsibilities under Section 106 of the National Historic Preservation Act. If for any reason the undertaking is not or cannot be conducted as proposed in the finding, consultation under Section 106 must be reopened.

If you have any questions or if we may provide any further assistance at this time, please do not hesitate to contact me.

Sincerely,

Jenny Bellville-Marrion, Archaeologist
Office of Review and Compliance
Division of Resource Services and Review
Phone: (804) 482-8091
Jennifer.Bellville-Marrion@dhr.virginia.gov

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.
1001 Boulders Parkway, Suite 300
Richmond, VA 23225
TEL 804.200.6500
www.timmons.com

PROJECT NAME & LOCATION

AMELIA SOLAR II
AMELIA COUNTY - VIRGINIA

DATE	01/07/2020
PROJECT NUMBER	99999
PROJECT NAME	AMELIA SOLAR II
DESIGNED BY / DRAWN BY	M. COOLEY

NOTES:
Project Limits are approximate.
Aerial Imagery from VGIN.
Cultural Resources are from DHR.

REVISIONS

#	MM/DD/YY	DESCRIPTION

DRAWING DESCRIPTION
CULTURAL RESOURCES MAP

SCALE (FEET)
0 500 1,000
PLANS PRINTED AS 11X17 ARE HALF SCALE

SCALE	SHEET NUMBER
H:1 " = 500 '	1

Y:\851\99999-Amelia_II_Holocene\GIS\99999-VCRIS.mxd

The Delaware Nation
Historic Preservation /106 Department
31064 State Highway 281
Anadarko, OK 73005
Phone (405)247-2448

July 9, 2020

To Whom It May Concern:

The Delaware Nation Historic Preservation Department received correspondence regarding the following referenced project(s).

Project: Proposed Amelia Solar II Project
Amelia Court House, Amelia County, Virginia

Our office is committed to protecting tribal heritage, culture and religion with particular concern for archaeological sites potentially containing burials and associated funerary objects.

The Lenape people occupied the area indicated in your letter during prior to European contact until their eventual removal to our present locations. According to our files, the location of the proposed project does not endanger cultural, or religious sites of interest to the Delaware Nation. **Please continue with the project as planned** keeping in mind during construction should an archaeological site or artifacts inadvertently be uncovered, all construction and ground disturbing activities should immediately be halted until the appropriate state agencies, as well as this office, are notified (within 24 hours), and a proper archaeological assessment can be made.

Please note the Delaware Nation, the Delaware Tribe of Indians, and the Stockbridge Munsee Band of Mohican Indians are the only Federally Recognized Delaware/Lenape entities in the United States and consultation must be made only with designated staff of these three tribes. We appreciate your cooperation in contacting the Delaware Nation Cultural Preservation Office to conduct proper Section 106 consultation. Should you have any questions, feel free to contact our offices at 405-247-2448.

Erin N. Paden

Erin Paden
Director of Historic Preservation
Delaware Nation
31064 State Highway 281
Anadarko, OK 73005
Ph. 405-247-2448 ext. 1403
epaden@delawarenation-nsn.gov

The Delaware Nation
Historic Preservation Department
31064 State Highway 281
Anadarko, OK 73005
Phone (405)247-2448

June 29, 2020

To Whom It May Concern:

The Delaware Nation Historic Preservation Department received correspondence regarding the following referenced project(s).

Project(s): Proposed Amelia Solar II Project
Amelia Court House, Amelia County, Virginia

Our office is committed to protecting tribal heritage, culture and religion with particular concern for archaeological sites potentially containing burials and associated funerary objects.

The Lenape people occupied the area indicated in your letter during and prior to European contact until their eventual removal to our present locations. According to our files, the location of the proposed project does not endanger any known cultural, or religious sites of interest to the Delaware Nation. However, there is still the potential for the discovery of unknown resources. We would like to accept your invitation for consultation.

Please note the Delaware Nation, the Delaware Tribe of Indians, and the Stockbridge Munsee Band of Mohican Indians are the only Federally Recognized Delaware/Lenape entities in the United States and consultation must be made only with designated staff of these three tribes. We appreciate your cooperation in contacting the Delaware Nation Cultural Preservation Office to conduct proper Section 106 consultation. Should you have any questions, feel free to contact our offices at 405-247-2448 ext. 1403.

Erin N. Paden

Erin Paden
Director of Historic Preservation
Delaware Nation
31064 State Highway 281
Anadarko, OK 73005
Ph. 405-247-2448 ext. 1403
epaden@delawarenation-nsn.gov

Leslie Schroeder

From: Megan Bass <administrator@nansemond.org>
Sent: Wednesday, June 17, 2020 8:56 PM
To: Leslie Schroeder
Cc: samflyingeagle48
Subject: Section 106 Initiation: Amelia Solar II

Good evening Leslie,

I hope you are doing well. My name is Megan Bass and I am the administrator for the Nansemond Indian Nation. On behalf of Chief Sam Bass, the Nansemond Indian Nation is satisfied with efforts conducted to be sure that no Nansemond historic properties or other cultural resources will likely be adversely affected. The Nansemond Indian Nation is not currently aware of any specific Nansemond cultural or historic sites in the project area referenced. We, therefore, offer no objections to the proposed project.

The Nansemond Indian Nation only wishes to be informed if ancestral or cultural artifacts are discovered. Thank you for your time and for including our Nation in the 106 process.

Sincerely,

--

Megan L. Bass, J.D.
Administrator
Nansemond Indian Nation
(757) 777-4647

TRUENORTH CONSULTANTS

1000 East Warrenville Road, Suite 140
Naperville, Illinois 60563

P : 630 717 2880
F : 630 689 5881

mail@consulttruenorth.com

June 12, 2020

Nansemond Indian Nation
1001 Pembroke Lane
Suffolk, Virginia 23434

RE: United States Department of Agriculture (USDA) – Rural Development (RD)
Rural Utilities Service (RUS)
Applicant THPO Section 106 Initiation
Proposed Amelia Solar II Project
Amelia Court House, Amelia County, Virginia

To Whom it May Concern:

HCE Amelia Solar II (Applicant) is seeking financial assistance from the United States Department of Agriculture's (USDA) Rural Development (RD), Rural Utilities Service (RUS) for the proposed Amelia Solar II Project, as shown on the enclosed maps.

The Proposed Project will consist of the installation of a 5-megawatt (MW) ground-mounted photovoltaic (PV) system on the south side of Giles Road near the town of Amelia Court House. The PV system and associated components will be situated on approximately 41.3 acres of a larger, 189-acre parent parcel (Site) – this parcel is identified by Amelia County Assessor as: 3 10. The Proposed Project's infrastructure would include installing PV solar panels; inverters (to allow for the transmission to the utility grid); connections to the existing powerlines and necessary safety features including access roads, perimeter roads and fencing. The estimated duration of construction is approximately 4 months and is anticipated that the Proposed Project will operate for a minimum of 35 years. When the Proposed Project has reached its operation end, the Site can be returned to its pre-construction state.

The Site is bound on the north by a residence, agricultural fields, and Giles Road, on the east by agricultural fields followed by forested land and a residence and on the south and west by agricultural fields and forested land. Currently, the Site undeveloped woodlands, an open field and a gravel road that provides access to the Site from Giles Road. Overhead electric power lines also run along the gravel road on the north portion of the Site. The Site has historically consisted of woodlands and a small area of undeveloped, cleared land. The surrounding properties have historically consisted of woodlands, agricultural fields and rural residences.

Within the Site, there will be no demolition of existing structures. The two main sources of ground disturbance are the racking system installation and the measures for erosion control

and stormwater. Ditches will be located around the Site with an approximate total distance of 3000' with a depth of 2-4', to direct runoff into stormwater basins. This Site's five basins will have a maximum depth of 15' and an average area of 125'x200'. The dirt removed for the construction of the stormwater measures will be graded out across the Site and will be replanted with a grass seed mix. Additional earthwork is required to accommodate the racking on this Site but will be designed to have minimal impacts. Approximately 1050 steel piles will be driven into the ground with an approximate average depth of 10'. The access road to the project will be approximately 3900' and will consist of 6" of compacted gravel over 12" of compacted native soil.

Utilizing the RUS loan guarantee process will allow the lender to extend credit to the Proposed Project and in turn, the borrower will be able to build a renewable energy system. Traditional generation technologies utilize large amounts of water and typically have high levels of greenhouse gas emissions (coal-fired and combined cycle natural gas facilities). The Proposed Project will provide long-term, emission free electricity to the local utility and will also help meet national and state goals to expand the use of renewable energy. The Proposed Project will also provide positive economic impacts by increasing the tax base for the county.

If RUS elects to fund the Project, it will become an undertaking subject to review under Section 106 of the National Historic Preservation Act, 54 U.S.C. 306108, and its implementing regulations, 36 CFR Part 800. Pursuant to 36 CFR § 800.2(c)(4), and 7 CFR § 1970.5(b)(2) of the regulations, "Environmental Policies and Procedures" (7 CFR Part 1970), RUS has issued a blanket delegation for its applicants to initiate and proceed through Section 106 review. In accordance with this blanket delegation, HCE Amelia Solar II is initiating Section 106 review on behalf of RUS. In delegating this authority, RUS is advocating for the direct interaction between its borrowers and the Tribal Historic Preservation Office (THPO) or other Tribal cultural representative. RUS believes this interaction, prior to direct agency involvement, will support and encourage the consideration of impacts to historic properties earlier in project planning.

HCE Amelia Solar II proposes that the area of potential effects (APE) for the referenced project are limited to the boundaries of the approximate 41.3-acre portion of the larger parent parcel group as shown on the enclosed map. The APE does not include any tribal lands as defined pursuant to 36 CFR § 800.16(x). The geographic scope of the APE will not be final until a determination is made by RUS pursuant to 36 CFR § 800.4(a)(1).

HCE Amelia Solar II is notifying you about the referenced project because of the possible interest of the Nansemond Indian Nation in Amelia County, Virginia. Should the Nansemond Indian Nation elect to participate in Section 106 review for the referenced project, please notify me at the following address – Brian Mihelich, True North Consultants, 1000 East Warrenville Road, Suite 140, Naperville, Illinois 60563, or bmihelich@consulttruenorth.com.

Please include with your affirmative response, a description of any specific historic properties or important tribal resources in the APE and your recommendations about the level of effort needed to identify additional historic properties which might be affected by the referenced project. HCE Amelia Solar II will respect the confidentiality of the information which you provide to the fullest extent possible.

If at any time you wish to share your interests, recommendations and concerns directly with the USDA-Rural Development as the agency responsible for conducting Section 106 review, or to request that USDA-Rural Development participate directly in Section 106 review, please notify me at once; however, you may also contact the Agency directly. If you wish to do so, please submit your request to Steven Polacek, USDA-Rural Development, 1400 Independence Avenue, SW, Washington DC 20250-1510, or steve.polacek@usda.gov.

Please submit your response **electronically** within thirty (30) days. The RUS will proceed to the next step in Section 106 review if you fail to provide a timely response. Should you have any questions or require additional information, you may contact me at 224-387-6125 or bmihelich@consulttruenorth.com.

Sincerely,

TRUE NORTH CONSULTANTS, INC.

Brian S. Mihelich
Executive Vice President

Leslie Schroeder
Staff Consultant

cc: Steven Polacek (via email)
Environmental Protection Specialist
United States Department of Agriculture
Environmental & Engineering Staff, Rural Development
steve.polacek@usda.gov

TRUENORTH CONSULTANTS

1000 East Warrenville Road, Suite 140
Naperville, Illinois 60563

P : 630 717 2880
F : 630 689 5881

mail@consulttruenorth.com

June 12, 2020

Erin Paden
Historic Preservation Director
Delaware Nation of Oklahoma
P.O. Box 825
Anadarko, Oklahoma 73005

RE: United States Department of Agriculture (USDA) – Rural Development (RD)
Rural Utilities Service (RUS)
Applicant THPO Section 106 Initiation
Proposed Amelia Solar II Project
Amelia Court House, Amelia County, Virginia

Dear Ms. Paden:

HCE Amelia Solar II (Applicant) is seeking financial assistance from the United States Department of Agriculture's (USDA) Rural Development (RD), Rural Utilities Service (RUS) for the proposed Amelia Solar II Project, as shown on the enclosed maps.

The Proposed Project will consist of the installation of a 5-megawatt (MW) ground-mounted photovoltaic (PV) system on the south side of Giles Road near the town of Amelia Court House. The PV system and associated components will be situated on approximately 41.3 acres of a larger, 189-acre parent parcel (Site) – this parcel is identified by Amelia County Assessor as: 3 10. The Proposed Project's infrastructure would include installing PV solar panels; inverters (to allow for the transmission to the utility grid); connections to the existing powerlines and necessary safety features including access roads, perimeter roads and fencing. The estimated duration of construction is approximately 4 months and is anticipated that the Proposed Project will operate for a minimum of 35 years. When the Proposed Project has reached its operation end, the Site can be returned to its pre-construction state.

The Site is bound on the north by a residence, agricultural fields, and Giles Road, on the east by agricultural fields followed by forested land and a residence and on the south and west by agricultural fields and forested land. Currently, the Site undeveloped woodlands, an open field and a gravel road that provides access to the Site from Giles Road. Overhead electric power lines also run along the gravel road on the north portion of the Site. The Site has historically consisted of woodlands and a small area of undeveloped, cleared land. The surrounding properties have historically consisted of woodlands, agricultural fields and rural residences.

Within the Site, there will be no demolition of existing structures. The two main sources of

ground disturbance are the racking system installation and the measures for erosion control and stormwater. Ditches will be located around the Site with an approximate total distance of 3000' with a depth of 2-4', to direct runoff into stormwater basins. This Site's five basins will have a maximum depth of 15' and an average area of 125'x200'. The dirt removed for the construction of the stormwater measures will be graded out across the Site and will be replanted with a grass seed mix. Additional earthwork is required to accommodate the racking on this Site but will be designed to have minimal impacts. Approximately 1050 steel piles will be driven into the ground with an approximate average depth of 10'. The access road to the project will be approximately 3900' and will consist of 6" of compacted gravel over 12" of compacted native soil.

Utilizing the RUS loan guarantee process will allow the lender to extend credit to the Proposed Project and in turn, the borrower will be able to build a renewable energy system. Traditional generation technologies utilize large amounts of water and typically have high levels of greenhouse gas emissions (coal-fired and combined cycle natural gas facilities). The Proposed Project will provide long-term, emission free electricity to the local utility and will also help meet national and state goals to expand the use of renewable energy. The Proposed Project will also provide positive economic impacts by increasing the tax base for the county.

If RUS elects to fund the Project, it will become an undertaking subject to review under Section 106 of the National Historic Preservation Act, 54 U.S.C. 306108, and its implementing regulations, 36 CFR Part 800. Pursuant to 36 CFR § 800.2(c)(4), and 7 CFR § 1970.5(b)(2) of the regulations, "Environmental Policies and Procedures" (7 CFR Part 1970), RUS has issued a blanket delegation for its applicants to initiate and proceed through Section 106 review. In accordance with this blanket delegation, HCE Amelia Solar II is initiating Section 106 review on behalf of RUS. In delegating this authority, RUS is advocating for the direct interaction between its borrowers and the Tribal Historic Preservation Office (THPO) or other Tribal cultural representative. RUS believes this interaction, prior to direct agency involvement, will support and encourage the consideration of impacts to historic properties earlier in project planning.

HCE Amelia Solar II proposes that the area of potential effects (APE) for the referenced project are limited to the boundaries of the approximate 41.3-acre portion of the larger parent parcel group as shown on the enclosed map. The APE does not include any tribal lands as defined pursuant to 36 CFR § 800.16(x). The geographic scope of the APE will not be final until a determination is made by RUS pursuant to 36 CFR § 800.4(a)(1).

HCE Amelia Solar II is notifying you about the referenced project because of the possible interest of the Delaware Nation of Oklahoma in Amelia County, Virginia. Should the Delaware Nation of Oklahoma elect to participate in Section 106 review for the referenced project, please notify me at the following address – Brian Mihelich, True North Consultants, 1000 East Warrenville Road, Suite 140, Naperville, Illinois 60563, or bmihelich@consulttruenorth.com.

Please include with your affirmative response, a description of any specific historic properties or important tribal resources in the APE and your recommendations about the level of effort needed to identify additional historic properties which might be affected by the referenced project. HCE Amelia Solar II will respect the confidentiality of the information which you

provide to the fullest extent possible.

If at any time you wish to share your interests, recommendations and concerns directly with the USDA-Rural Development as the agency responsible for conducting Section 106 review, or to request that USDA-Rural Development participate directly in Section 106 review, please notify me at once; however, you may also contact the Agency directly. If you wish to do so, please submit your request to Steven Polacek, USDA-Rural Development, 1400 Independence Avenue, SW, Washington DC 20250-1510, or steve.polacek@usda.gov.

Please submit your response **electronically** within thirty (30) days. The RUS will proceed to the next step in Section 106 review if you fail to provide a timely response. Should you have any questions or require additional information, you may contact me at 224-387-6125 or bmihelich@consulttruenorth.com.

Sincerely,

TRUE NORTH CONSULTANTS, INC.

Brian S. Mihelich
Executive Vice President

Leslie Schroeder
Staff Consultant

cc: Steven Polacek (via email)
Environmental Protection Specialist
United States Department of Agriculture
Environmental & Engineering Staff, Rural Development
steve.polacek@usda.gov

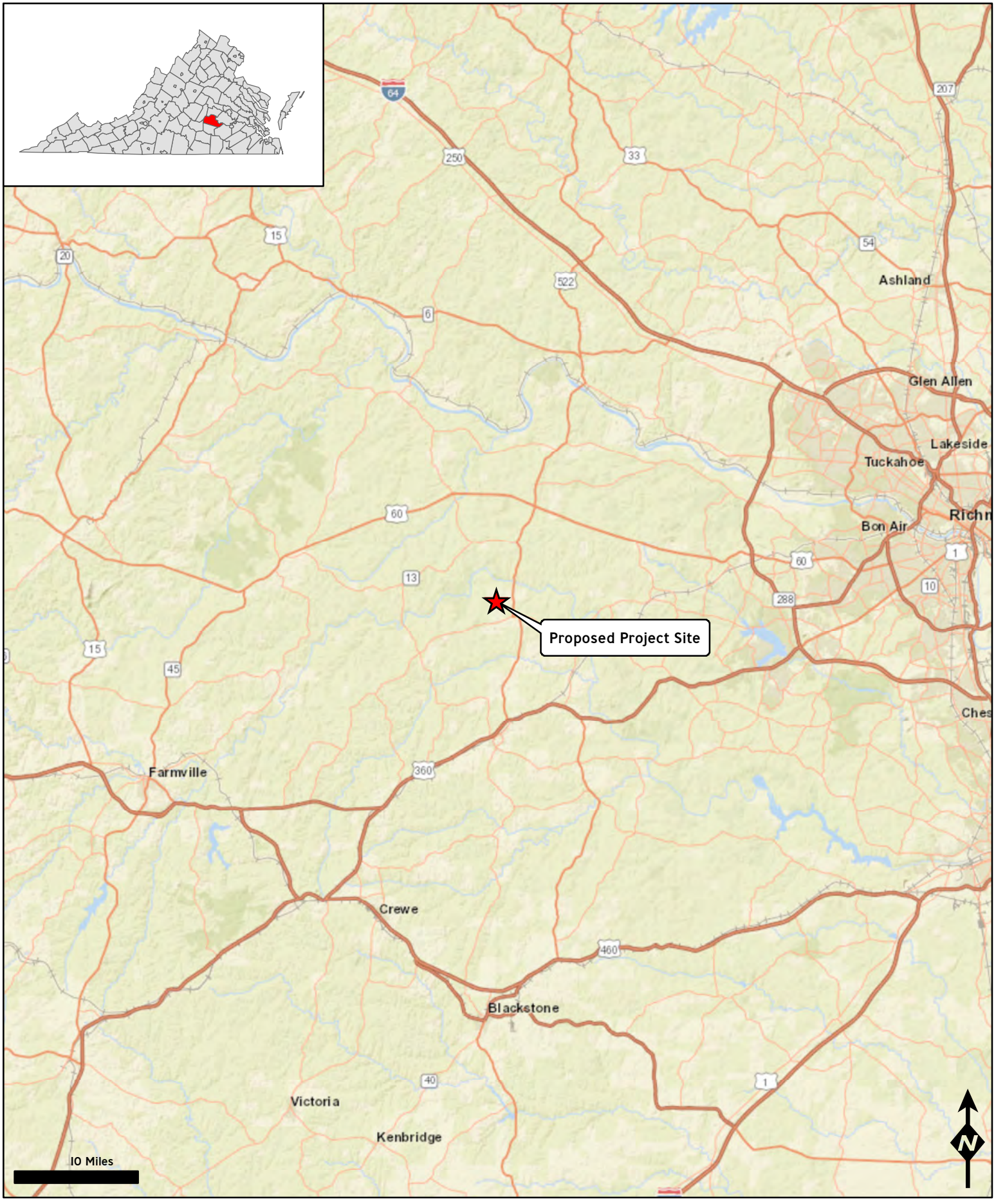

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FIGURE I
Regional Map
Proposed Amelia Solar II
Amelia Court House, Amelia County, Virginia

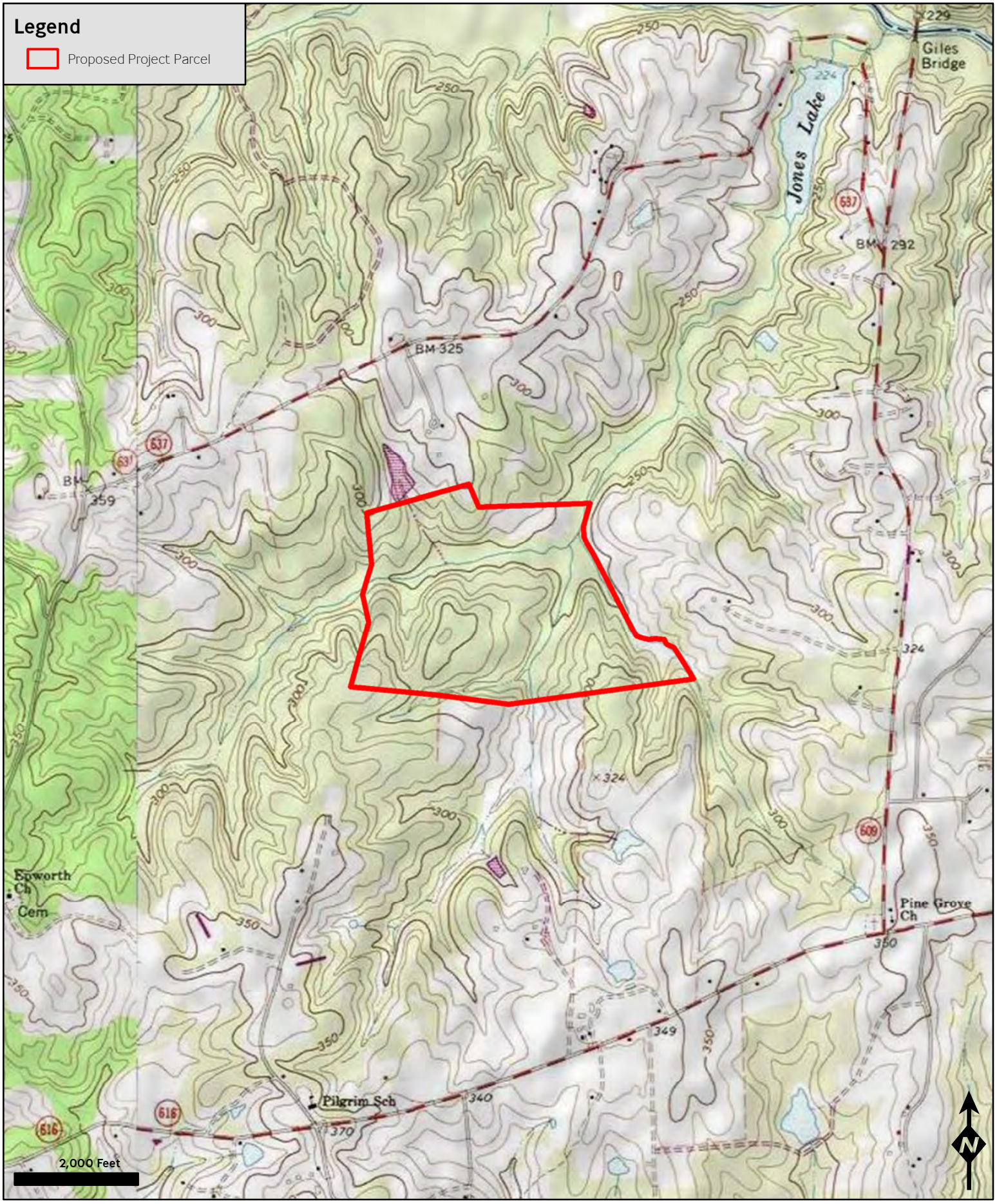

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FIGURE 2
Topographic Map
Proposed Amelia Solar II
Amelia Court House, Amelia County, Virginia

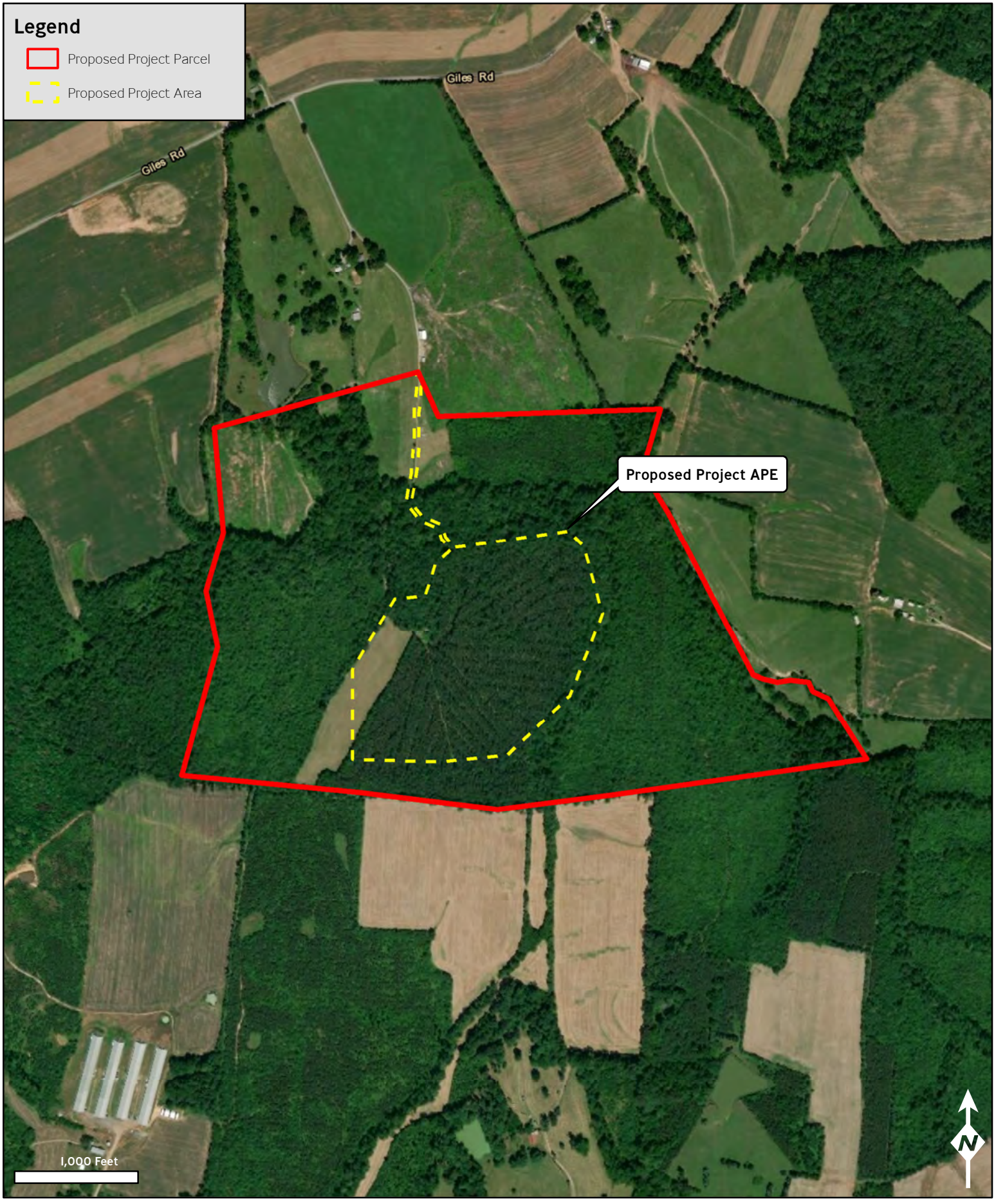

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FIGURE 3
Area Map
Proposed Amelia Solar II
Amelia Court House, Amelia County, Virginia

Tribal Directory Assessment Information

Contact Information for Tribes with Interests in Amelia County, Virginia

	Tribal Name	County Name
✚	Delaware Nation, Oklahoma	Amelia

1 - 1 of 1 results « ‹ 1 › » 10

APPENDIX X

Air Quality

Virginia Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Data is current as of November 30, 2020

Listed by County, NAAQS, Area. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

* The 1997 Primary Annual PM-2.5 NAAQS (level of 15 μg/m^3) is revoked in attainment and maintenance areas for that NAAQS. For additional information see the PM-2.5 NAAQS SIP Requirements Final Rule, effective October 24, 2016. (81 FR 58009)

Change the State: VIRGINIA GO

Important Notes

Download National Dataset: dbf | xls | Data dictionary (PDF)

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Cla
VIRGINIA					
Alexandria city	1-Hour Ozone (1979)-NAAQS revoked	Washington, DC-MD-VA	92 93 94 95 96 97 98 99 00 01 02 03 04	/ /	S
Alexandria city	8-Hour Ozone (1997)-NAAQS revoked	Washington, DC-MD-VA	04 05 06 07 08 09 10 11 12 13 14	/ /	N
Alexandria city	8-Hour Ozone (2008)	Washington, DC-MD-VA	12 13 14 15 16 17 18	05/15/2019	I
Alexandria city	8-Hour Ozone (2015)	Washington, DC-MD-VA	18 19 20	/ /	I
Alexandria city	Carbon Monoxide (1971)	Washington, DC-MD-VA	92 93 94 95	03/15/1996	M
Alexandria city	PM-2.5 (1997)-NAAQS revoked	Washington, DC-MD-VA	05 06 07 08 09 10 11 12 13	11/05/2014 *	N
Arlington County	1-Hour Ozone (1979)-NAAQS revoked	Washington, DC-MD-VA	92 93 94 95 96 97 98 99 00 01 02 03 04	/ /	S
Arlington County	8-Hour Ozone (1997)-NAAQS revoked	Washington, DC-MD-VA	04 05 06 07 08 09 10 11 12 13 14	/ /	N
Arlington County	8-Hour Ozone (2008)	Washington, DC-MD-VA	12 13 14 15 16 17 18	05/15/2019	I
Arlington County	8-Hour Ozone (2015)	Washington, DC-MD-VA	18 19 20	/ /	I
Arlington County	Carbon Monoxide (1971)	Washington, DC-MD-VA	92 93 94 95	03/15/1996	M
Arlington County	PM-2.5 (1997)-NAAQS revoked	Washington, DC-MD-VA	05 06 07 08 09 10 11 12 13	11/05/2014 *	N
Charles City County	1-Hour Ozone (1979)-NAAQS revoked	Richmond, VA	92 93 94 95 96	12/17/1997	N
Charles City County	8-Hour Ozone (1997)-NAAQS revoked	Richmond-Petersburg, VA	04 05 06	06/18/2007	I

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Cla
Chesapeake city	1-Hour Ozone (1979)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	92 93 94 95 96	07/28/1997	I
Chesapeake city	8-Hour Ozone (1997)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	04 05 06	06/01/2007	I
Chesterfield County	1-Hour Ozone (1979)-NAAQS revoked	Richmond, VA	92 93 94 95 96	12/17/1997	M
Chesterfield County	8-Hour Ozone (1997)-NAAQS revoked	Richmond-Petersburg, VA	04 05 06	06/18/2007	I
Colonial Heights city	1-Hour Ozone (1979)-NAAQS revoked	Richmond, VA	92 93 94 95 96	12/17/1997	M
Colonial Heights city	8-Hour Ozone (1997)-NAAQS revoked	Richmond-Petersburg, VA	04 05 06	06/18/2007	I
Fairfax County	1-Hour Ozone (1979)-NAAQS revoked	Washington, DC-MD-VA	92 93 94 95 96 97 98 99 00 01 02 03 04	/ /	S
Fairfax County	8-Hour Ozone (1997)-NAAQS revoked	Washington, DC-MD-VA	04 05 06 07 08 09 10 11 12 13 14	/ /	M
Fairfax County	8-Hour Ozone (2008)	Washington, DC-MD-VA	12 13 14 15 16 17 18	05/15/2019	I
Fairfax County	8-Hour Ozone (2015)	Washington, DC-MD-VA	18 19 20	/ /	I
Fairfax County	PM-2.5 (1997)-NAAQS revoked	Washington, DC-MD-VA	05 06 07 08 09 10 11 12 13	11/05/2014 *	M
Fairfax city	1-Hour Ozone (1979)-NAAQS revoked	Washington, DC-MD-VA	92 93 94 95 96 97 98 99 00 01 02 03 04	/ /	S
Fairfax city	8-Hour Ozone (1997)-NAAQS revoked	Washington, DC-MD-VA	04 05 06 07 08 09 10 11 12 13 14	/ /	M
Fairfax city	8-Hour Ozone (2008)	Washington, DC-MD-VA	12 13 14 15 16 17 18	05/15/2019	I
Fairfax city	8-Hour Ozone (2015)	Washington, DC-MD-VA	18 19 20	/ /	I
Fairfax city	PM-2.5 (1997)-NAAQS revoked	Washington, DC-MD-VA	05 06 07 08 09 10 11 12 13	11/05/2014 *	M
Falls Church city	1-Hour Ozone (1979)-NAAQS revoked	Washington, DC-MD-VA	92 93 94 95 96 97 98 99 00 01 02 03 04	/ /	S
Falls Church city	8-Hour Ozone (1997)-NAAQS revoked	Washington, DC-MD-VA	04 05 06 07 08 09 10 11 12 13 14	/ /	M
Falls Church city	8-Hour Ozone (2008)	Washington, DC-MD-VA	12 13 14 15 16 17 18	05/15/2019	I

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Cla
Falls Church city	8-Hour Ozone (2015)	Washington, DC-MD-VA	18 19 20	/ /	
Falls Church city	PM-2.5 (1997)-NAAQS revoked	Washington, DC-MD-VA	05 06 07 08 09 10 11 12 13	11/05/2014 *	
Fredericksburg city	8-Hour Ozone (1997)-NAAQS revoked	Fredericksburg, VA	04 05	01/23/2006	
Gloucester County	8-Hour Ozone (1997)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	04 05 06	06/01/2007	
Hampton city	1-Hour Ozone (1979)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	92 93 94 95 96	07/28/1997	
Hampton city	8-Hour Ozone (1997)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	04 05 06	06/01/2007	
Hanover County	1-Hour Ozone (1979)-NAAQS revoked	Richmond, VA	92 93 94 95 96	12/17/1997	
Hanover County	8-Hour Ozone (1997)-NAAQS revoked	Richmond-Petersburg, VA	04 05 06	06/18/2007	
Henrico County	1-Hour Ozone (1979)-NAAQS revoked	Richmond, VA	92 93 94 95 96	12/17/1997	
Henrico County	8-Hour Ozone (1997)-NAAQS revoked	Richmond-Petersburg, VA	04 05 06	06/18/2007	
Hopewell city	1-Hour Ozone (1979)-NAAQS revoked	Richmond, VA	92 93 94 95 96	12/17/1997	
Hopewell city	8-Hour Ozone (1997)-NAAQS revoked	Richmond-Petersburg, VA	04 05 06	06/18/2007	
Isle of Wight County	8-Hour Ozone (1997)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	04 05 06	06/01/2007	
James City County	1-Hour Ozone (1979)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	92 93 94 95 96	07/28/1997	
James City County	8-Hour Ozone (1997)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	04 05 06	06/01/2007	
Loudoun County	1-Hour Ozone (1979)-NAAQS revoked	Washington, DC-MD-VA	92 93 94 95 96 97 98 99 00 01 02 03 04	/ /	S

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Cla
Loudoun County	8-Hour Ozone (1997)-NAAQS revoked	Washington, DC-MD-VA	04 05 06 07 08 09 10 11 12 13 14	/ /	N
Loudoun County	8-Hour Ozone (2008)	Washington, DC-MD-VA	12 13 14 15 16 17 18	05/15/2019	I
Loudoun County	8-Hour Ozone (2015)	Washington, DC-MD-VA	18 19 20	/ /	I
Loudoun County	PM-2.5 (1997)-NAAQS revoked	Washington, DC-MD-VA	05 06 07 08 09 10 11 12 13	11/05/2014 *	N
Madison County	8-Hour Ozone (1997)-NAAQS revoked	Madison and Page Cos (Shenandoah NP), VA	04 05	02/02/2006	S
Manassas Park city	1-Hour Ozone (1979)-NAAQS revoked	Washington, DC-MD-VA	92 93 94 95 96 97 98 99 00 01 02 03 04	/ /	S
Manassas Park city	8-Hour Ozone (1997)-NAAQS revoked	Washington, DC-MD-VA	04 05 06 07 08 09 10 11 12 13 14	/ /	N
Manassas Park city	8-Hour Ozone (2008)	Washington, DC-MD-VA	12 13 14 15 16 17 18	05/15/2019	I
Manassas Park city	8-Hour Ozone (2015)	Washington, DC-MD-VA	18 19 20	/ /	I
Manassas Park city	PM-2.5 (1997)-NAAQS revoked	Washington, DC-MD-VA	05 06 07 08 09 10 11 12 13	11/05/2014 *	N
Manassas city	1-Hour Ozone (1979)-NAAQS revoked	Washington, DC-MD-VA	92 93 94 95 96 97 98 99 00 01 02 03 04	/ /	S
Manassas city	8-Hour Ozone (1997)-NAAQS revoked	Washington, DC-MD-VA	04 05 06 07 08 09 10 11 12 13 14	/ /	N
Manassas city	8-Hour Ozone (2008)	Washington, DC-MD-VA	12 13 14 15 16 17 18	05/15/2019	I
Manassas city	8-Hour Ozone (2015)	Washington, DC-MD-VA	18 19 20	/ /	I
Manassas city	PM-2.5 (1997)-NAAQS revoked	Washington, DC-MD-VA	05 06 07 08 09 10 11 12 13	11/05/2014 *	N
Newport News city	1-Hour Ozone (1979)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	92 93 94 95 96	07/28/1997	I
Newport News city	8-Hour Ozone (1997)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	04 05 06	06/01/2007	I
Norfolk city	1-Hour Ozone (1979)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	92 93 94 95 96	07/28/1997	I
Norfolk city	8-Hour Ozone (1997)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	04 05 06	06/01/2007	I

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Cla
Page County	8-Hour Ozone (1997)-NAAQS revoked	Madison and Page Cos (Shenandoah NP), VA	04 05	02/02/2006	S
Petersburg city	8-Hour Ozone (1997)-NAAQS revoked	Richmond-Petersburg, VA	04 05 06	06/18/2007	I
Poquoson city	1-Hour Ozone (1979)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	92 93 94 95 96	07/28/1997	I
Poquoson city	8-Hour Ozone (1997)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	04 05 06	06/01/2007	I
Portsmouth city	1-Hour Ozone (1979)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	92 93 94 95 96	07/28/1997	I
Portsmouth city	8-Hour Ozone (1997)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	04 05 06	06/01/2007	I
Prince George County	8-Hour Ozone (1997)-NAAQS revoked	Richmond-Petersburg, VA	04 05 06	06/18/2007	I
Prince William County	1-Hour Ozone (1979)-NAAQS revoked	Washington, DC-MD-VA	92 93 94 95 96 97 98 99 00 01 02 03 04	/ /	S
Prince William County	8-Hour Ozone (1997)-NAAQS revoked	Washington, DC-MD-VA	04 05 06 07 08 09 10 11 12 13 14	/ /	N
Prince William County	8-Hour Ozone (2008)	Washington, DC-MD-VA	12 13 14 15 16 17 18	05/15/2019	I
Prince William County	8-Hour Ozone (2015)	Washington, DC-MD-VA	18 19 20	/ /	I
Prince William County	PM-2.5 (1997)-NAAQS revoked	Washington, DC-MD-VA	05 06 07 08 09 10 11 12 13	11/05/2014 *	N
Richmond city	1-Hour Ozone (1979)-NAAQS revoked	Richmond, VA	92 93 94 95 96	12/17/1997	N
Richmond city	8-Hour Ozone (1997)-NAAQS revoked	Richmond-Petersburg, VA	04 05 06	06/18/2007	I
Smyth County	1-Hour Ozone (1979)-NAAQS revoked	Smyth Co, VA (White Top Mtn)	92 93 94 95 96 97 98 99 00 01 02 03 04	/ /	T (I
Spotsylvania County	8-Hour Ozone (1997)-NAAQS revoked	Fredericksburg, VA	04 05	01/23/2006	N
Stafford County	1-Hour Ozone (1979)-NAAQS revoked	Washington, DC-MD-VA	92 93 94 95 96 97 98 99 00 01 02 03 04	/ /	S

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Cla
Stafford County	8-Hour Ozone (1997)-NAAQS revoked	Fredericksburg, VA	04 05	01/23/2006	N
Suffolk city	1-Hour Ozone (1979)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	92 93 94 95 96	07/28/1997	I
Suffolk city	8-Hour Ozone (1997)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	04 05 06	06/01/2007	I
Virginia Beach city	1-Hour Ozone (1979)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	92 93 94 95 96	07/28/1997	I
Virginia Beach city	8-Hour Ozone (1997)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	04 05 06	06/01/2007	I
Williamsburg city	1-Hour Ozone (1979)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	92 93 94 95 96	07/28/1997	I
Williamsburg city	8-Hour Ozone (1997)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	04 05 06	06/01/2007	I
York County	1-Hour Ozone (1979)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	92 93 94 95 96	07/28/1997	I
York County	8-Hour Ozone (1997)-NAAQS revoked	Norfolk-Virginia Beach-Newport News (Hampton Roads), VA	04 05 06	06/01/2007	I

Important Notes

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2020-11-30

APPENDIX XI

Socioeconomic and Environmental Justice

EJSCREEN ACS Summary Report

Location: User-specified point center at 37.464305, -77.983455
Ring (buffer): 10-miles radius
Description: Proposed Amelia II Solar Farm

Summary of ACS Estimates	2013 - 2017
Population	20,466
Population Density (per sq. mile)	71
Minority Population	3,266
% Minority	16%
Households	7,556
Housing Units	8,369
Housing Units Built Before 1950	559
Per Capita Income	30,993
Land Area (sq. miles) (Source: SF1)	287.94
% Land Area	99%
Water Area (sq. miles) (Source: SF1)	1.93
% Water Area	1%

	2013 - 2017 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	20,466	100%	409
Population Reporting One Race	20,072	98%	882
White	17,464	85%	417
Black	2,465	12%	264
American Indian	51	0%	60
Asian	34	0%	51
Pacific Islander	13	0%	33
Some Other Race	45	0%	57
Population Reporting Two or More Races	394	2%	204
Total Hispanic Population	293	1%	176
Total Non-Hispanic Population	20,173		
White Alone	17,200	84%	416
Black Alone	2,454	12%	264
American Indian Alone	51	0%	60
Non-Hispanic Asian Alone	34	0%	51
Pacific Islander Alone	13	0%	33
Other Race Alone	27	0%	57
Two or More Races Alone	394	2%	204
Population by Sex			
Male	10,093	49%	287
Female	10,373	51%	330
Population by Age			
Age 0-4	1,018	5%	137
Age 0-17	4,402	22%	316
Age 18+	16,064	78%	537
Age 65+	3,523	17%	239

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.
N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2013 - 2017 .

EJSCREEN ACS Summary Report

Location: User-specified point center at 37.464305, -77.983455
Ring (buffer): 10-miles radius
Description: Proposed Amelia II Solar Farm

	2013 - 2017 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	14,548	100%	305
Less than 9th Grade	713	5%	145
9th - 12th Grade, No Diploma	1,019	7%	176
High School Graduate	4,770	33%	295
Some College, No Degree	4,700	32%	310
Associate Degree	1,166	8%	148
Bachelor's Degree or more	3,346	23%	295
Population Age 5+ Years by Ability to Speak English			
Total	19,448	100%	381
Speak only English	19,100	98%	434
Non-English at Home[1+2+3+4]	348	2%	118
[1]Speak English "very well"	241	1%	108
[2]Speak English "well"	91	0%	86
[3]Speak English "not well"	4	0%	31
[4]Speak English "not at all"	12	0%	30
[3+4]Speak English "less than well"	16	0%	31
[2+3+4]Speak English "less than very well"	108	1%	86
Linguistically Isolated Households*			
Total	9	100%	29
Speak Spanish	0	0%	17
Speak Other Indo-European Languages	9	100%	24
Speak Asian-Pacific Island Languages	0	0%	17
Speak Other Languages	0	0%	17
Households by Household Income			
Household Income Base	7,556	100%	210
< $15,000	444	6%	129
$15,000 - $25,000	479	6%	146
$25,000 - $50,000	1,425	19%	198
$50,000 - $75,000	1,581	21%	185
$75,000 +	3,627	48%	288
Occupied Housing Units by Tenure			
Total	7,556	100%	210
Owner Occupied	6,655	88%	216
Renter Occupied	901	12%	191
Employed Population Age 16+ Years			
Total	16,681	100%	358
In Labor Force	10,300	62%	342
Civilian Unemployed in Labor Force	383	2%	112
Not In Labor Force	6,382	38%	310

Data Note: Datail may not sum to totals due to rounding. Hispanic population can be of anyrace.
N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)
*Households in which no one 14 and over speaks English "very well" or speaks English only.

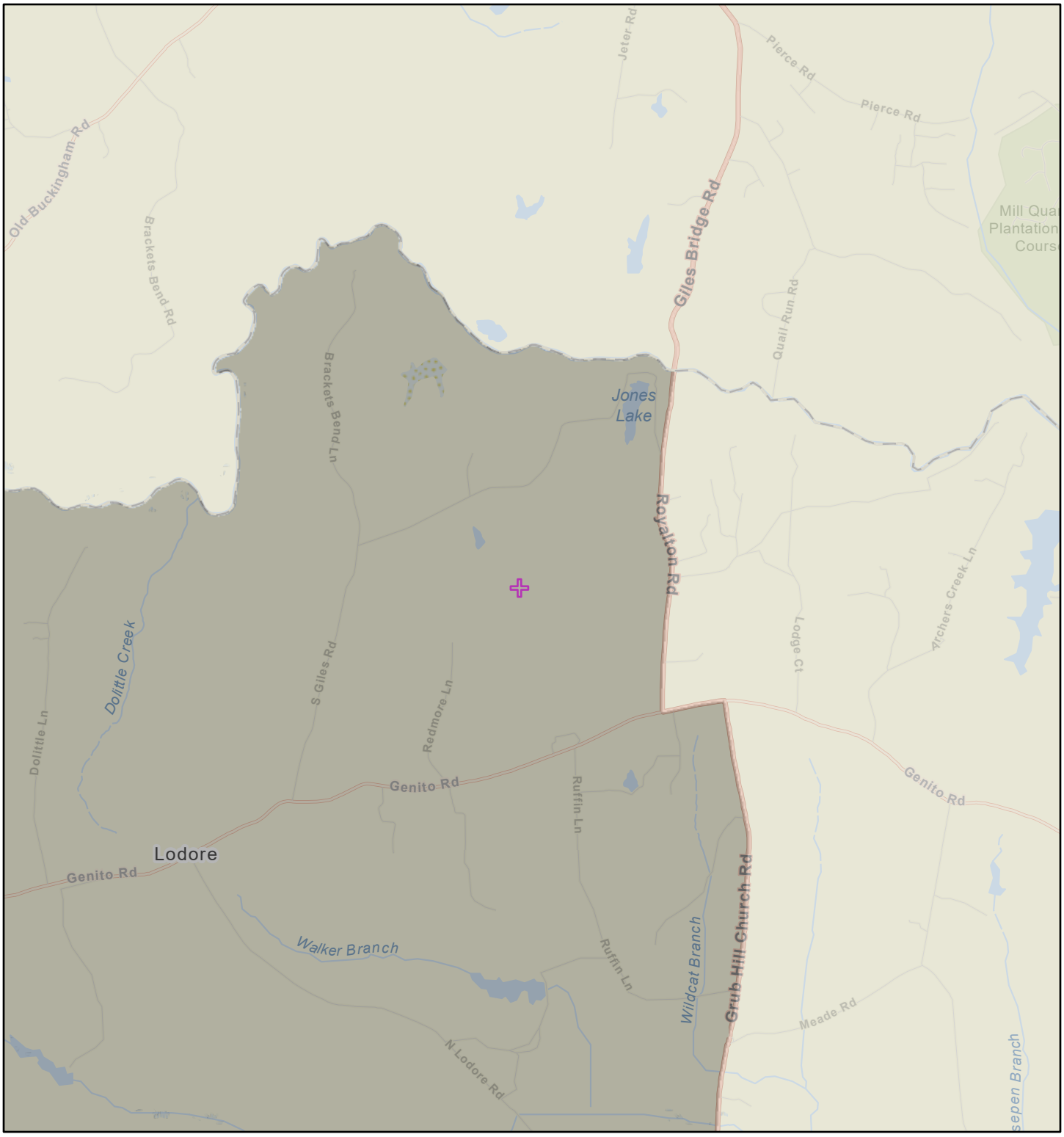
EJSCREEN ACS Summary Report

Location: User-specified point center at 37.464305, -77.983455
Ring (buffer): 10-miles radius
Description: Proposed Amelia II Solar Farm

	2013 - 2017 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	19,448	100%	381
English	19,100	98%	400
Spanish	96	0%	60
French	38	0%	17
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	75	0%	61
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	18	0%	37
Chinese	33	0%	56
Japanese	N/A	N/A	N/A
Korean	0	0%	17
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	0	0%	17
Other Asian	16	0%	38
Tagalog	9	0%	22
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	4	0%	17
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	0	0%	17
Total Non-English	348	2%	552

Data Note: Detail may not sum to totals due to rounding. Hispanic popultion can be of any race.
N/A meansnot available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2013 - 2017.
*Population by Language Spoken at Home is available at the census tract summary level and up.

Proposed Amelia II Solar Farm: Low Income Populations Map



June 26, 2020

1:72,224

0 0.5 1 2 mi

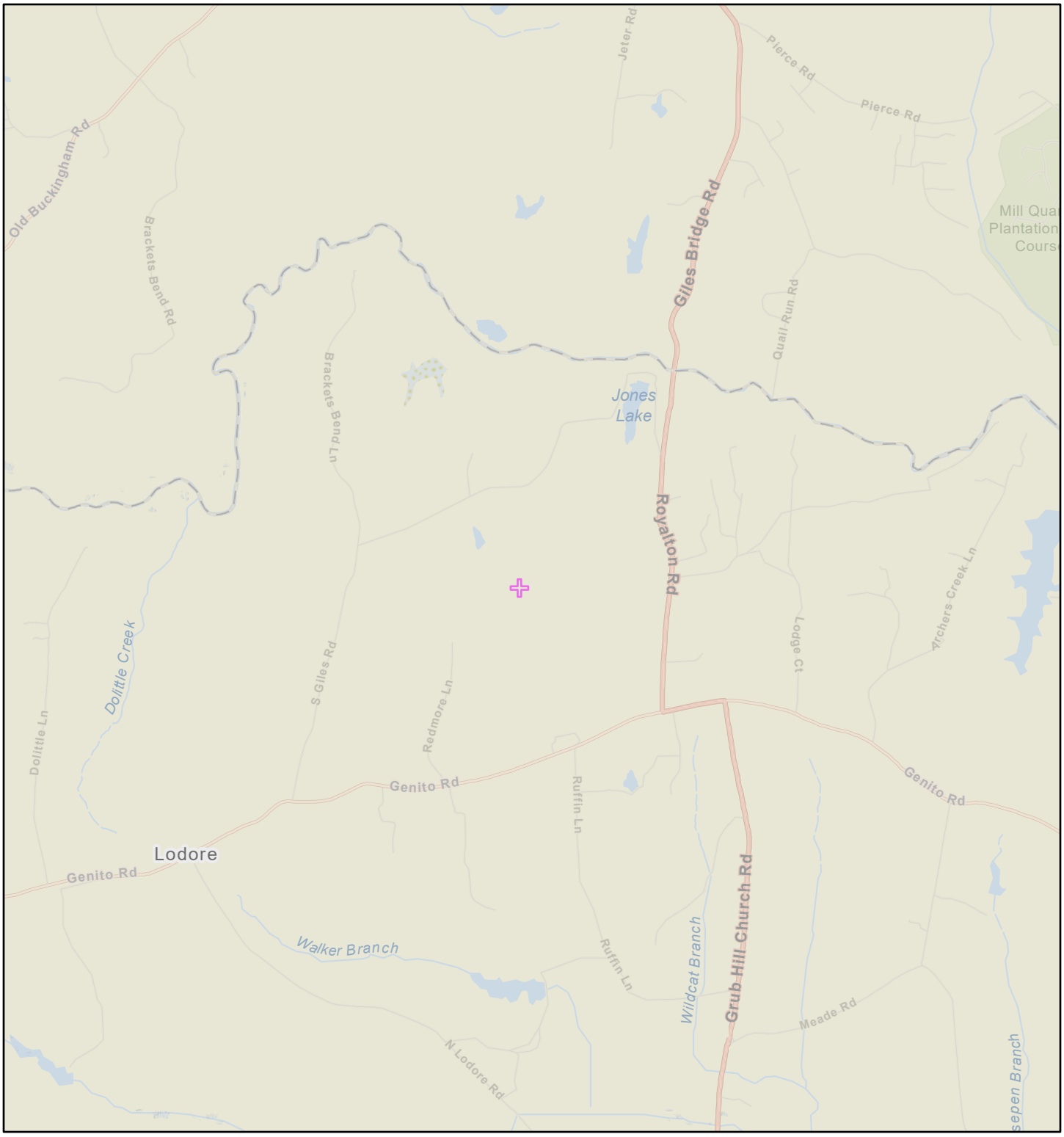
0 0.75 1.5 3 km

Low Income Population (National Percentiles)

- Data not available
- Less than 50 percentile
- 50 -60 percentile
- 60 -70 percentile
- 70 -80 percentile
- 80 - 90 percentile
- 90 - 95 percentile
- 95 - 100 percentile
- Search Result (point)

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Proposed Amelia II Solar Farm: Minority Populations Map



June 26, 2020

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

Minority Population
(National Percentiles)

- Data not available
- Less than 50 percentile
- 50 -60 percentile
- 60 -70 percentile
- 70 -80 percentile
- 80 - 90 percentile
- 90 - 95 percentile
- 95 - 100 percentile
- Search Result (point)

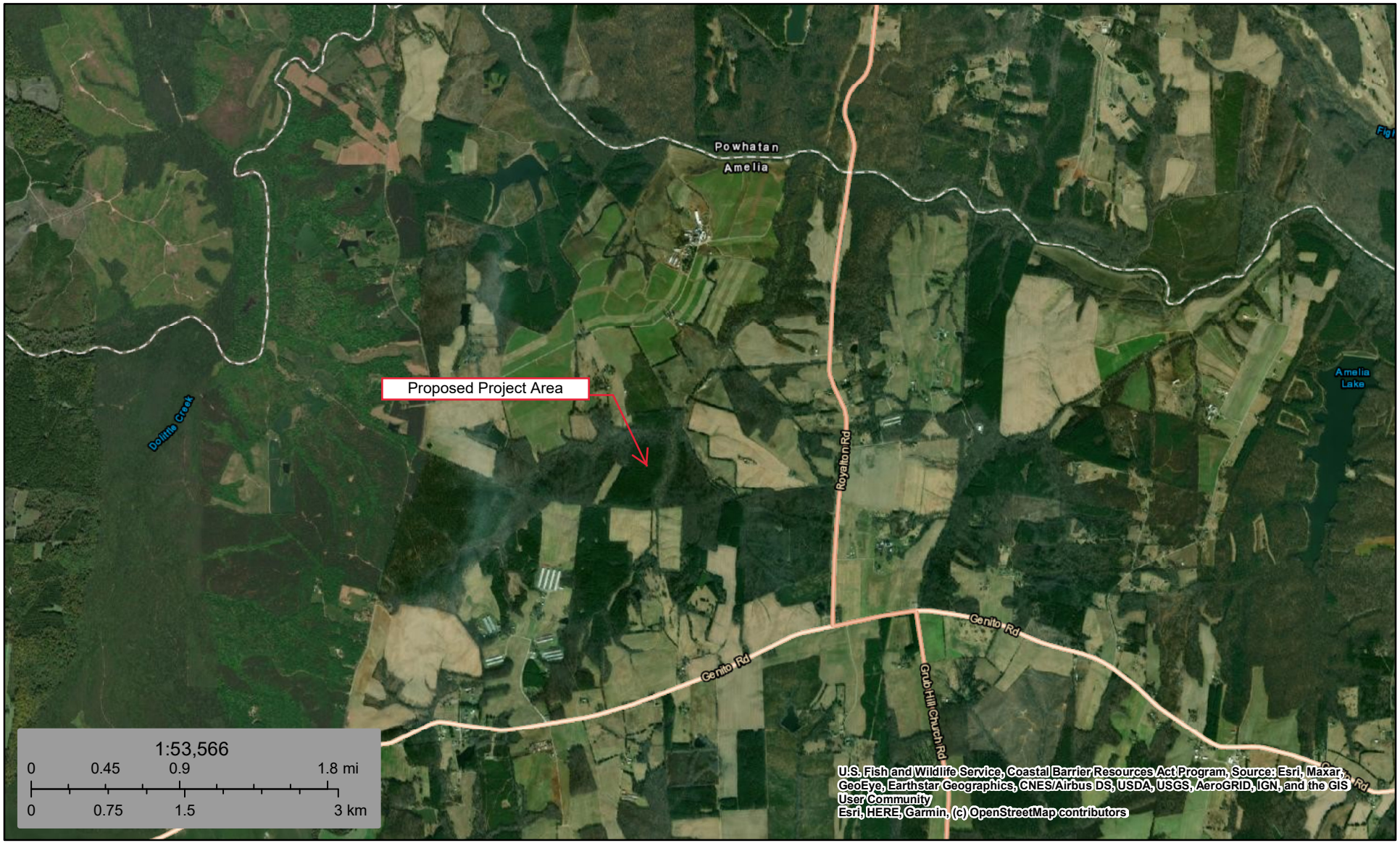
Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

APPENDIX XII

Coastal Resources

U.S. Fish and Wildlife Service
Coastal Barrier Resources System

Amelia Solar II Project



March 18, 2021

CBRS Buffer Zone

System Unit

CBRS Units

Otherwise Protected Area

This map is for general reference only. The Coastal Barrier Resources System (CBRS) boundaries depicted on this map are representations of the controlling CBRS boundaries, which are shown on the official maps, accessible at https://www.fws.gov/cbra/maps/index.html. All CBRS related data should be used in accordance with the layer metadata found on the CBRS Mapper website.

The CBRS Buffer Zone represents the area immediately adjacent to the CBRS boundary where users are advised to contact the Service for an official determination (http://www.fws.gov/cbra/Determinations.html) as to whether the property or project site is located "in" or "out" of the CBRS.

CBRS Units normally extend seaward out to the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS mapper.


Proposed Project Area
Virginia's Coastal Zone
Fairfax
Falls Church
Arlington
Fairfax
Alexandria
Prince William
Stafford
Potomac
Fredericksburg
King George
Spotsylvania
Caroline
Hanover
Henrico
City of Richmond
Chesterfield
New Kent
King William
King and Queen
Essex
Westmoreland
Richmond
Northumberland
Lancaster
Middlesex
Gloucester
Mathews
James City
Williamsburg
York
Poquoson
Hampton
Newport News
Prince George
Petersburg
Colonial Heights
Hopewell
Surry
Isle of Wight
Suffolk
Norfolk
Portsmouth
Virginia Beach
Chesapeake
Great Dismal Swamp
Currioman Bay
Nomini Bay
Potomac River
Rappahannock River
Piankatank River
Mattaponi River
Pamunkey River
Dragon Run
York River
James River
Chickahominy River
Appomattox River
Blackwater River
Nansemond River
Elizabeth River
Lynnhaven River
North Landing River
Northwest River
Back Bay
Three-Mile Territorial Sea
Atlantic Ocean
Chesapeake Bay
Tangier Island
Smith Point
Great Wicomico River
Wicomico River
Wrights Cove/ Coan River
Pocomoke Sound
Chincoteague Bay
Boundary
Islands
Accomack
Northampton
Hog Island Bay
Cobb Island Bay
South Bay
Barrier

APPENDIX XIII

DEQ Scoping Letters

Commonwealth of Virginia

Environmental Impact Review, rr <eir@deq.virginia.gov>

General Project Review Request: Amelia II Solar Project

1 message

Leslie Schroeder <lschroeder@consulttruenorth.com> Tue, Jan 26, 2021 at 4:23 PM
To: "EIR@DEQ.Virginia.gov" <EIR@deq.virginia.gov>
Cc: Marina Jawad <mjawad@consulttruenorth.com>

Good Afternoon

On behalf of my client, Amelia II Solar, LLC, I am requesting a general project review for the proposed Amelia II Solar Project. Amelia II Solar, LLC will be requesting financial assistance from the USDA Rural Development and is therefore required to prepare a NEPA Environmental Assessment. We are specifically looking for comments from your office regarding erosion and sediment control, stormwater management, air quality, wetlands and stream impacts, hazardous and solid waste management, herbicide and pesticide management, and pollution control.

The Amelia Solar II project will be a small-scale utility solar project located south of Giles Road near the intersection of Giles Road and South Giles Road in the town of Amelia Court House, Virginia. The Proposed Project will disturb approximately 41.3 acres of a larger, 189-acre parent parcel identified as 3 10 by the Amelia County assessor (Proposed Project Area). The Proposed Project Area has recently been timbered and contains a transmission line alongside a gravel road. Land use in the vicinity includes agricultural lands, forestland, and scattered residences.

The Proposed Project will generate a total of 5 megawatts alternating current (MW ac) of clean, reliable solar energy when complete. The Proposed Project would utilize solar modules, mounted on a steel racking system which will be anchored into the ground using driven steel piers, to convert the sun's energy to usable power. The estimated duration of construction is 4 months, and it is anticipated that the Proposed Project will operate for a minimum of 35 years. The Proposed Project Area can be returned to its pre-construction state once the Proposed Project has reached the end of its useful life. The Proposed Project would be accessed from Giles Road. An interior road would be constructed inside the perimeter and is anticipated to be flat and will match existing grades to minimize earth work. The Proposed Project Area will be secured by a security fence with standard gates for emergency and maintenance vehicles.

Amelia II Solar Plans.pdf

Amelia II Solar Maps.pdf

Please review the above information and links to documents. Let me know if there if anything else you will need to complete your review. Thank you for your assistance.

Leslie Schroeder

Staff Consultant

TRUENORTH CONSULTANTS

Trusted Partner. Leading Environmental Solutions.

1000 East Warrenville Road | Suite 140 | Naperville, IL 60563

o 630.717.2880 x109 | m 630.303.3006 | f 630.689.5881

COVID-19 Services

ConsultTrueNorth.com

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

January 29, 2021

Leslie Schroeder
True North Consultants
1000 East Warrenville Road, Suite 140
Naperville, Illinois 60563

RE: Reams Solar I Project, Dinwiddie County
Powhatan Solar I Project, Powhatan County
Amelia I Solar Project, Amelia County
Amelia II Solar Project, Amelia County

Dear Ms. Schroeder:

This letter is in response to the scoping request for the above-referenced projects.

As you may know, the Department of Environmental Quality, through its Office of Environmental Impact Review (DEQ-OEIR), is responsible for coordinating Virginia's review of federal environmental documents prepared pursuant to the National Environmental Policy Act (NEPA) and responding to appropriate federal officials on behalf of the Commonwealth.

DOCUMENT SUBMISSIONS

In order to ensure an effective coordinated review of the NEPA document, notification of the NEPA document documentation should be sent directly to OEIR. We request that you submit one electronic to eir@deq.virginia.gov (25 MB maximum) or make the documents available for download at a website, file transfer protocol (ftp) site or the VITA LFT file share system (Requires an "invitation" for access. An invitation request should be sent to eir@deq.virginia.gov.).

The NEPA document should include U.S. Geological Survey topographic. We strongly encourage you to issue shape files with the NEPA document. In addition, project details should be adequately described for the benefit of the reviewers.

ENVIRONMENTAL REVIEW UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT: PROJECT SCOPING AND AGENCY INVOLVEMENT

As you may know, NEPA (PL 91-190, 1969) and its implementing regulations (Title 40, *Code of Federal Regulations*, Parts 1500-1508) requires a draft and final Environmental Impact Statement (EIS) for federal activities or undertakings that are federally licensed or federally funded which will or may give rise to significant impacts upon the human environment. An EIS carries more stringent public

participation requirements than an Environmental Assessment (EA) and provides more time and detail for comments and public decision-making. The possibility that an EIS may be required for the proposed project should not be overlooked in your planning for this project. Accordingly, we refer to "NEPA document" in the remainder of this letter.

While this Office does not participate in scoping efforts beyond the advice given herein, other agencies are free to provide scoping comments concerning the preparation of the NEPA document. Accordingly, we are providing notice of your scoping request to several state agencies and those localities and Planning District Commissions, including but not limited to:

Department of Environmental Quality:
- DEQ Regional Office
- Air Division
- Office of Wetlands and Stream Protection
- Office of Local Government Programs
- Division of Land Protection and Revitalization
- Office of Stormwater Management

Department of Conservation and Recreation
Department of Health
Department of Agriculture and Consumer Services
Department of Wildlife Resources
Virginia Marine Resources Commission
Department of Historic Resources
Department of Mines, Minerals, and Energy
Department of Forestry
Department of Transportation

DATA BASE ASSISTANCE

Below is a list of databases that may assist you in the preparation of a NEPA document:

- DEQ Online Database: Virginia Environmental Geographic Information Systems

  Information on Permitted Solid Waste Management Facilities, Impaired Waters, Petroleum Releases, Registered Petroleum Facilities, Permitted Discharge (Virginia Pollution Discharge Elimination System Permits) Facilities, Resource Conservation and Recovery Act (RCRA) Sites, Water Monitoring Stations, National Wetlands Inventory:
  - www.deq.virginia.gov/ConnectWithDEQ/VEGIS.aspx

- DEQ Virginia Coastal Geospatial and Educational Mapping System (GEMS)

  Virginia's coastal resource data and maps; coastal laws and policies; facts on coastal resource values; and direct links to collaborating agencies responsible for current data:
  - http://128.172.160.131/gems2/

- MARCO Mid-Atlantic Ocean Data Portal

  The Mid-Atlantic Ocean Data Portal is a publicly available online toolkit and resource center that consolidates available data and enables users to visualize and analyze ocean resources and human

use information such as fishing grounds, recreational areas, shipping lanes, habitat areas, and energy sites, among others.

http://portal.midatlanticocean.org/visualize/#x=-73.24&y=38.93&z=7&logo=true&controls=true&basemap=Ocean&tab=data&legends=false&layers=true

- DHR Data Sharing System

  Survey records in the DHR inventory:
  - www.dhr.virginia.gov/archives/data_sharing_sys.htm

- DCR Natural Heritage Search

  Produces lists of resources that occur in specific counties, watersheds or physiographic regions:
  - www.dcr.virginia.gov/natural_heritage/dbsearchtool.shtml

- DWR Fish and Wildlife Information Service

  Information about Virginia's Wildlife resources:
  - http://vafwis.org/fwis/

- Total Maximum Daily Loads Approved Reports
  - https://www.deq.virginia.gov/programs/water/waterqualityinformationtmdls/tmdl/tmdldevelopment/approvedtmdlreports.aspx

- Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Database: Superfund Information Systems

  Information on hazardous waste sites, potentially hazardous waste sites and remedial activities across the nation, including sites that are on the National Priorities List (NPL) or being considered for the NPL:
  - www.epa.gov/superfund/sites/cursites/index.htm

- EPA RCRAInfo Search

  Information on hazardous waste facilities:
  - www.epa.gov/enviro/facts/rcrainfo/search.html

- EPA Envirofacts Database

  EPA Environmental Information, including EPA-Regulated Facilities and Toxics Release Inventory Reports:
  - www.epa.gov/enviro/index.html

- EPA NEPAssist Database

  Facilitates the environmental review process and project planning:
  http://nepaassisttool.epa.gov/nepaassist/entry.aspx

If you have questions about the environmental review process, please feel free to contact me (telephone (804) 698-4204 or e-mail bettina.rayfield@deq.virginia.gov).

I hope this information is helpful to you.

Sincerely,

Bettina Rayfield, Program Manager
Environmental Impact Review and
Long-Range Priorities

From: ImpactReview
To: Fulcher, Valerie; Leslie Schroeder
Cc: eir@deq.virginia.gov
Subject: RE: NEW SCOPING 4 SOLAR PROJECTS
Date: Wednesday, February 3, 2021 2:04:00 PM

Ms. Schroeder,

The Virginia Outdoors Foundation has reviewed the project referenced above. As of 3 February 2021, there are not any existing nor proposed VOF open-space easements in the immediate vicinity of the four projects:

- Amelia I Solar
- Amelia II Solar
- Powhatan Solar I
- Reams Solar I

Please contact VOF again for further review if the project areas change or if a project does not begin within 24 months. Thank you for considering conservation easements.

Thanks,
Mike

Mike Hallock-Solomon, AICP
Virginia Outdoors Foundation

From: Fulcher, Valerie <valerie.fulcher@deq.virginia.gov>
Sent: Friday, January 29, 2021 2:14 PM
Cc: lschroeder@consulttruenorth.com
Subject: NEW SCOPING 4 SOLAR PROJECTS

Alert: This email originated from outside VOF

Good afternoon—attached is a request for scoping comments on the following:

Reams Solar I Project, Dinwiddie County
Powhatan Solar I Project, Powhatan County
Amelia I Solar Project, Amelia County
Amelia II Solar Project, Amelia County

If you choose to make comments, please send them directly to the project sponsor (lschroeder@consulttruenorth.com) and copy the DEQ Office of Environmental Impact Review: eir@deq.virginia.gov. We will coordinate a review when the environmental document is completed.

DEQ-OEIR's scoping response is also attached.

If you have any questions regarding this request, please email our office at eir@deq.virginia.gov.

Valerie

--

Valerie A. Fulcher, CAP, OM, Admin/Data Coordinator Senior

Department of Environmental Quality

Environmental Enhancement - Office of Environmental Impact Review

1111 East Main Street

Richmond, VA 23219

804/698-4330

Email: Valerie.Fulcher@deq.virginia.gov

https://www.deq.virginia.gov/permits-regulations/environmental-impact-review

OUR ENFORCEABLE POLICIES HAVE BEEN UPDATED FOR 2020: https://www.deq.virginia.gov/permits-regulations/environmental-impact-review/federal-consistency

For program updates and public notices please subscribe to Constant Contact: https://lp.constantcontact.com/su/MVcCump/EIR

From: Smallwood, Desmond
To: Leslie Schroeder
Cc: McAdory, Liz; rr Environmental Impact Review
Subject: Re: NEW SCOPING 4 SOLAR PROJECTS
Date: Tuesday, February 23, 2021 2:11:15 PM

Good Afternoon,

After an extensive review in coordination with both the Chesterfield and Petersburg residencies, the Richmond district planning department does not have any impeding comments and approves the plans for each site. Please let me know if any additional information is required.

Best,
Desmond A. Smallwood

Desmond A. Smallwood
Richmond District Planning Specialist
Virginia Department of Transportation
804-774-1624
Desmond.Smallwood@VDOT.Virginia.gov

On Sun, Feb 14, 2021 at 9:40 AM Paul F Hinson, P.E. <paul.hinson@vdot.virginia.gov> wrote:

> Reams road solar is in Prince George County and construction is complete and facility operational.
>
> On Sun, Feb 14, 2021, 9:38 AM Paul F Hinson, P.E. <paul.hinson@vdot.virginia.gov> wrote:
>
> > Desmond,
> >
> > As Adam said, Petersburg Residency was involved in zoning (special use) and provided comments to the county. We have been successful in the Petersburg Residency in getting localities to have applicants proffer a "construction traffic management plan". The plan requires pre-construction survey of all roads used to access site starting at a primary highway and applicant is responsible for maintenance of identified secondary roads during construction. Construction traffic is biggest issue with solar farms.
> >
> > On Sat, Feb 13, 2021, 8:28 PM Smallwood, Desmond <desmond.smallwood@vdot.virginia.gov> wrote:
> >
> > > Adam,
> > >
> > > Received, thank you very much.
> > >
> > > Best,
> > > Desmond A. Smallwood
> > >
> > > **Desmond A. Smallwood**
> > > *Richmond District Planning Specialist*
> > > Virginia Department of Transportation
> > > 804-774-1624

Desmond.Smallwood@VDOT.Virginia.gov

On Fri, Feb 12, 2021 at 1:57 PM Wilkerson, Adam <adam.wilkerson@vdot.virginia.gov> wrote:

> Desmond,
>
> I have reviewed the information provided for Powhatan Solar I, Amelia Solar I, and Amelia Solar II. The Chesterfield Residency Land Use Office reviewed and commented on the zoning cases for all three sites and have provided comments to the respective counties regarding construction access and permanent access to these sites. Site plans for these three projects were routed to our office for review, and we recommended approval for each plan. We are satisfied with each site and have no further comments.
>
> The fourth site named Reams Solar I, LLC appears to be located on Old Vaughan Road in Dinwiddie, VA. I checked Landtrack and it appears Paul Hison reviewed the site plan for this project. Please let me know if you need any further information regarding these projects.

Adam Wilkerson, P.E.
Area Land Use Engineer / Chesterfield Residency
Virginia Department of Transportation
804-674-2384
Adam.Wilkerson@VDOT.Virginia.gov

On Tue, Feb 9, 2021 at 8:49 AM Smallwood, Desmond <desmond.smallwood@vdot.virginia.gov> wrote:

> Ok, thanks.

Desmond A. Smallwood
Richmond District Planning Specialist
Virginia Department of Transportation
804-774-1624
Desmond.Smallwood@VDOT.Virginia.gov

On Mon, Feb 8, 2021 at 8:19 AM Cage, Todd <todd.cage@vdot.virginia.gov> wrote:

> Desmond,
>
> All of these are in Adam's area.

C. Todd Cage
Land Development Engineer
Richmond District
South Hill & Petersburg Residencies
Virginia Department of Transportation
Cell 434-774-9053

South Hill Res. Office 434-774-2310
Petersburg Res. Office 804-863-4005
todd.cage@VDOT.Virginia.gov

On Fri, Feb 5, 2021 at 9:05 AM Smallwood, Desmond <desmond.smallwood@vdot.virginia.gov> wrote:

> Good Morning Gentlemen,
>
> Please see the attached documents pertain to 4 new solar projects in Amelia, Powhatan, & Chesterfield County. Please review the attached project materials for impacts to existing and proposed transportation facilities and let me know if you have any comments or concerns.
>
> Best,
> Desmond A. Smallwood

Desmond A. Smallwood
Richmond District Planning Specialist
Virginia Department of Transportation
804-774-1624
Desmond.Smallwood@VDOT.Virginia.gov

On Fri, Jan 29, 2021 at 5:51 PM EIR Coordination, rr <eir.coordination@vdot.virginia.gov> wrote:

> DATE: January 29, 2021
> TO: District Transportation Planning
> PROJECT: Four Solar Projects
> DEQ PROJECT: N/A
> LOCATION: Dinwiddie County, Powhatan County, Amelia County
> SUBJECT: Scoping Comment Request
>
> Please review the attached project materials for impacts to existing and proposed transportation facilities, and send any comments you might have to the project sponsor (lschroeder@consulttruenorth.com) copying the DEQ Office of Environmental Impact Review (eir@deq.virginia.gov) and the VDOT EIR Coordination email (eir.coordination@vdot.virginia.gov).
>
> Thank you,
> Kirk Millikan
>
> ---
> Kirk Millikan, P.E.
> Environmental Division
> VDOT Central Office
>
> ---------- Forwarded message ---------

From: **Fulcher, Valerie** <valerie.fulcher@deq.virginia.gov>
Date: Fri, Jan 29, 2021 at 2:14 PM
Subject: NEW SCOPING 4 SOLAR PROJECTS
To: rr dgif-ESS Projects <essprojects@dgif.virginia.gov>, Keith Tignor <keith.tignor@vdacs.virginia.gov>, Roberta Rhur <robbie.rhur@dcr.virginia.gov>, odwreview (VDH) <odwreview@vdh.virginia.gov>, Carlos Martinez <carlos.martinez@deq.virginia.gov>, Tom Ballou <thomas.ballou@deq.virginia.gov>, Lawrence Gavan <larry.gavan@deq.virginia.gov>, Holly Sepety <holly.sepety@deq.virginia.gov>, West, Kelley <kelley.west@deq.virginia.gov>, Roger Kirchen <roger.kirchen@dhr.virginia.gov>, Michelle Henicheck <michelle.henicheck@deq.virginia.gov>, Scott Kudlas <scott.kudlas@deq.virginia.gov>, <jruffa@craterpdc.org>, <mfoster@virginiasheartland.org>, <sstewart@planrva.org>, Terrance Lasher <terry.lasher@dof.virginia.gov>, <taylor.harvie@ameliacova.com>, <kmassengill@dinwiddieva.us>, <administration@powhatanva.gov>, rr EIR Coordination <eir.coordination@vdot.virginia.gov>, ImpactReview <impactreview@vofonline.org>
Cc: <lschroeder@consulttruenorth.com>

Good afternoon—attached is a request for scoping comments on the following:

Reams Solar I Project, Dinwiddie County
Powhatan Solar I Project, Powhatan County
Amelia I Solar Project, Amelia County
Amelia II Solar Project, Amelia County

If you choose to make comments, please send them directly to the project sponsor (lschroeder@consulttruenorth.com) and copy the DEQ Office of Environmental Impact Review: eir@deq.virginia.gov. We will coordinate a review when the environmental document is completed.

DEQ-OEIR's scoping response is also attached.

If you have any questions regarding this request, please email our office at eir@deq.virginia.gov.

Valerie

--

Valerie A. Fulcher, CAP, OM, Admin/Data Coordinator Senior

Department of Environmental Quality

Environmental Enhancement - Office of Environmental Impact Review

1111 East Main Street

Richmond, VA 23219

804/698-4330

Email: Valerie.Fulcher@deq.virginia.gov

https://www.deq.virginia.gov/permits-regulations/environmental-impact-review

OUR ENFORCEABLE POLICIES HAVE BEEN UPDATED FOR 2020: https://www.deq.virginia.gov/permits-regulations/environmental-impact-review/federal-consistency

For program updates and public notices please subscribe to Constant Contact: https://lp.constantcontact.com/su/MVcCump/EIR