



REPORT

Florida Renewable Partners Columbia County Solar
National Environmental Policy Act Environmental Assessment

Submitted to:

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LIST OF ABBREVIATIONS AND ACRONYMS

-C-

CEQ Council on Environmental Quality
CZMA Coastal Zone Management Act

-D-

DHR Division of Historical Resources

-E-

ESA Endangered Species Act

-F-

FDEP Florida Department of Environmental Protection
FDOT Florida Department of Transportation
FEMA Federal Emergency Management Agency
FWC Florida Fish and Wildlife Conservation Commission
FLUCFCS Florida Land Use, Cover and Forms Classification System
FNAI Florida Natural Areas Inventory
FRP Florida Renewable Partners

-G-

Golder Golder Associates Inc.

-N-

NEPA National Environmental Policy Act
NHPA National Historical Preservation Act
NPS National Park Service
NRHP National Register of Historic Places

-R-

RUS US Department of Agriculture Rural Utilities Service
REC Recognized Environmental Conditions

-S-

SFETSR State of Florida Endangered and Threatened Species Rule

-T-

TDAT Tribal Directory Assessment Tool
THPO Tribal Historic Preservation Officer

-U-

USACE US Army Corps of Engineers
USDA US Department of Agriculture
USEPA US Environmental Protection Agency
USFWS US Fish and Wildlife Service

EXECUTIVE SUMMARY

Florida Renewable Partners (FRP) is proposing to construct the FRP Columbia County Solar (Project), a new 74.5 megawatt (MW) solar photovoltaic energy facility located within a 579.4-acre site (Site) comprised predominantly of silvicultural lands located on the west side of County Road 47 in Columbia County Florida, approximately 2.3 miles southwest of its intersection with U.S. Highway 27 (Figure 1). The facility will consist of solar photovoltaic panels with inverters, transformers, a collector yard, at-grade access paths, collector lines, gen-tie line, and security fencing.

The Project has been designed to minimize ground disturbance by installing solar arrays without requiring fill material to the greatest extent practicable and construction of at-grade access roads. No wetland impacts are proposed. Prior to construction, erosion and sediment controls will be installed to avoid discharge of erosional materials outside of the work area.

This Environmental Assessment is being prepared in accordance with the requirements of 7 Code of Federal Regulations (CFR) part 1970 - NEPA Environmental Assessments, the US Department of Agriculture (USDA), the National Environmental Policy Act (NEPA), and Council on Environmental Quality (CEQ) requirements for implementing the Procedural Provisions of NEPA (40CFR Parts 1500 through 1508). The Project's net electrical output will be sold to and delivered to Seminole Electric Cooperative, Inc. (SECI) under a 20-year Power Purchase Agreement (PPA). SECI has been an active RUS Electric Program borrower since 1975. Therefore, FRP is eligible to become an RUS Electric Program borrower and apply for Project Financing Assistance under the RUS Electric Program. Since SECI is regulated under the RUS, a NEPA review will be conducted by the RUS as the lead agency, with a favorable RUS NEPA determination resulting in the RUS's funding approval for the Project.

This Environmental Assessment has been written in accordance with the CEQ regulations and follows the format specified by the RUS to assess whether the 579.4-acre (ac) development footprint of the Project will have a significant environmental impact on the Site and surrounding area. The Project as proposed will have no significant impact on existing land use, the surrounding community, archaeological and historic resources, threatened and endangered species, wetlands, floodplains, or water quality. There will be no permanent impacts to wetlands and only temporary impacts to one state-listed wildlife species, the gopher tortoise (*Gopherus polyphemus*). Prior to construction, FRP will prepare and submit a permit application to the Florida Fish and Wildlife Conservation Commission (FWC) to excavate unavoidable gopher tortoise burrows and safely relocate any captured individuals to an FWC-approved recipient site.

1.0 PURPOSE & NEED

Florida Renewable Partners (FRP) is proposing to construct the FRP Columbia County Solar project (Project), a new 74.5 megawatt (MW) solar photovoltaic energy facility located within a 579.4-acre site (Site) owned by FRP and comprised predominantly of silvicultural lands located on the west side of County Road 47 in Columbia County Florida, approximately 2.3 miles southwest of its intersection with U.S. Highway 27 (Appendix 1.1, Figure 1). The facility will consist of solar photovoltaic panels with inverters, transformers, a collector yard, at-grade access paths, gen-tie line, and security fencing. The Project has been designed to minimize ground disturbance by installing solar arrays without requiring fill material to the greatest extent practicable and construction of at-grade access roads. No wetland impacts are proposed. Prior to construction, erosion and sediment controls will be installed to avoid discharge of erosional materials outside of the work area.

100% of the Project's net electrical output will be sold to and delivered to Seminole Electric Cooperative, Inc. (SECI) under a 20-year power purchase agreement (PPA). SECI has been an active RUS Electric Program Borrower since

1975. Therefore, FRP is eligible to become an RUS Electric Program borrower and apply for Project Financing Assistance under the RUS Electric Program. SECI is regulated under the US Department of Agriculture (USDA), Rural Utilities Service (RUS). Projects which will use RUS funds or require approval from RUS are subject to National Environmental Policy Act (NEPA) and Council on Environmental Quality (CEQ) guidelines. NEPA is the national charter for the protection of the environment. NEPA establishes policies, sets goals and provides a means for carrying out environmental policy through a systematic, interdisciplinary decision-making process. Projects that require an environmental assessment, as listed in 7 CFR part 1970, must prepare an Environmental Assessment (EA) to support the RUS' Environmental Assessment of the Project. The EA, prepared in compliance with 7 CFR part 1970, NEPA, and CEQ requirements for implementing the Procedural Provisions of NEPA (40 CFR Parts 1500 through 1508), will ultimately be used for approval for funding by RUS, who would serve as the lead agency.

The EA must include an evaluation of alternative means of addressing the purpose and need for the action and a discussion of the potential environmental impacts of the proposed action. This EA has been prepared in accordance with the CEQ regulations and follows the format specified to assess whether the proposed Federal action will have a significant environmental impact to the Site and surrounding area.

1.1 PROJECT DESCRIPTION

The Project consists of construction of a new 74.5 MW solar photovoltaic energy facility, including solar photovoltaic panels with inverters, transformers, a collector yard, at-grade access paths, 1-mile gen-tie line, and security fencing. Appendix 1.1, Figure 2 depicts the proposed areas of development for the solar facility upon aerial imagery. The Site contains three isolated state jurisdictional wetland systems as well as federally jurisdictional floodplain wetlands adjacent to the Santa Fe River. The Project has been designed to avoid all wetland impacts. The Project's stormwater management system is designed such that no adverse impact to water quantity or quality to the receiving waters will occur, and no wetland impacts are proposed. The pre-development hydraulics and drainage divides of the Site are maintained in the post-development condition; the total proposed impervious area coverage is only 14.08 acres (2.43% impervious).

1.1.1 Facilities Overview

The Project is located within a 579.4-acre Site. The Project will consist of solar photovoltaic panels with inverters, transformers, a collector yard, at-grade access paths, gen-tie line connection to an off-site substation, and security fencing.

1.1.1.1 Modules

The photovoltaic (PV) panels or modules convert sunlight to direct current (DC) electrical energy. The PV technology will be comprised of either crystalline silicon (cSi) or thin film (CIS or CdTe). The modules will be arranged in series to increase output voltage and then chained together to create strings.

1.1.1.2 Array Mounting System

The solar photovoltaic modules will be mounted on either fixed (i.e., immobile) or tracking systems. A fixed-tilt system positions the modules at a fixed tilt and orientation, while solar tracker systems automatically adjust the positions of the PV array so that the PV modules consistently track the sun throughout the day.

1.1.1.3 Power Inverter Stations

The power inverter stations will be positioned throughout the solar array. The inverters will collect DC power in a central location, convert the DC power to AC power and convert low-voltage AC power to medium voltage AC power. Each inverter station consists of DC collection equipment (e.g., junction boxes and overcurrent protective devices, etc.), utility-scale inverters, and a low-to-medium-voltage transformer. The output power from the inverter stations is then fed to the AC collection system, which is typically a network of medium-voltage conductors and collection switchgear.

1.1.1.4 Collection System

The AC collection system is a network of cables that will transfer energy from the inverters to the main collection switchgear and substation. The cables have been sized to effectively collect and transfer energy and minimize energy lost and will be either buried or overhead.

1.1.1.5 Project Collector Yard and Gen-Tie Line

The approximately 1-acre collector yard will be located in the southeast corner of the Project (Appendix 1.1, Figure 2). The collector yard will increase the voltage from the collector system to match the voltage of the connecting gen-tie line. The collector yard will be enclosed within a separate security fence and access gate. An approximately 1-mile 230kV monopole gen-tie line will connect the collector yard with the existing Duke Energy Santa Fe Substation, located to the southwest of the Project on the east side of County Road 47 (Appendix 1.1, Figure 2) Two Duke transmission lines traverse the Project, the Fort White to Ginnie 230kV line in the northern portion and the Fort White to Newberry 230kV line in the southern portion. The Fort White to Ginnie line also connects to the Santa Fe Substation.

1.1.1.6 Access Pathways & Fencing

An approximately 6-foot tall chain link fence with a 1-foot section of barbed wire will be installed around the perimeter of the Project. The collector yard will have a separate gate and fence. At total of 14.56 acres (29,788 linear feet) of access pathways will be constructed at-grade to provide access between the solar arrays. Access to the Site will be from Wilson Springs Road and Hollingworth Boulevard off County Road 47.

1.1.1.7 Lighting

The Site entry gate and collector yard will have light fixtures to provide minimal lighting and on-demand (timer) lighting as needed or required which will be designed to minimize spill over into neighboring properties. Operable lighting may be installed at each conversion station but will only be used during maintenance activities.

1.1.1.8 Connected Actions

A collector yard and 1-mile gen-tie line will be built to connect to the Duke Energy Santa Fe Substation. The collector yard is included as part of the Project as authorized in the Project's Environmental Resource Permit issued by the Florida Department of Environmental Protection (see Appendix 1.1). The gen-tie line will be constructed within uplands in accordance with 403.813(1)(a), F.S.

1.1.2 Project Construction

Construction is anticipated to require approximately 9-11 months. Examples of construction-related activities include the vehicular traffic associated with accessing the Site; construction of access pathways, inverter pads, and the collector yard; and installation of solar array rack supports, solar photovoltaic panels, gen-tie line, and security fencing.

1.1.2.1 Site Preparation & Construction Action

Site preparations include surveying, staking, clearing and grubbing of trees and shrubs within the construction area, installation of a security fence and area lighting, preparation of construction laydown areas as well as establishment of a construction management area, trailers, equipment, utility connections, and equipment laydown. Temporary areas will be established during construction of the Project to include trailers, portable toilets, a first aid station, worker parking, truck loading and unloading areas, and areas for Project assembly tasks.

1.1.2.2 Stormwater & Erosion Control

A Storm Water Pollution Prevention Plan (SWPPP) incorporating best management practices for erosion control will be prepared prior to the start of construction. Prior to construction, erosion and sediment controls will be installed to avoid discharge of erosional materials outside of the work area and to ensure debris associated with the construction activities does not leave the development footprint. Additionally, a water truck may be used as needed to control dust.

1.1.2.3 Grading

The project has been designed to minimize grading to the greatest extent practicable. The solar array and pathways will be installed at the existing grade.

1.1.2.4 Project Installation

Project construction activities involve installation of array foundations, conversion stations, cables, batteries, and collector yard high voltage equipment. Tracker pilings and inverter station pilings will be driven into the ground approximately 6 to 10 feet below grade as dictated by the soils and the array structural design. The module tracking assembly will then be connected to the pilings. The modules will then be fastened to the tracking assembly and electrically connected in series strings or DC harnesses. The strings or harnesses will be routed to DC combiners or load break disconnects and subsequently routed to the inverters. Depending on final design, inverter stations could be mounted pilings or could be placed on concrete pads.

1.1.2.5 Potentially Hazardous Materials

No potentially hazardous waste is anticipated during the construction of the project. Hazardous materials required for running construction equipment such as hydraulic oil, diesel fuel, grease, lubricants, solvents, adhesives, paints, and other petroleum-based products will be used in compliance with regulations and standard manufacturers' protocols for storage, transportation, usage and disposal to ensure safety in accordance with Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200).

1.1.2.6 Fugitive Dust Control

Construction activities such as clearing, grading, excavating, and moving heavy equipment will create fugitive dust. Dust resulting from construction activities is expected to be short-term and limited to the early construction period for activities such as clearing and grading. Water trucks will be used to control the dust and limit the amount of dust. Once operational, the Project is expected to emit none to minimal amounts of fugitive dust, only from periodic light traffic.

1.1.2.7 Construction Water Requirements

Use of water during construction will be limited to fugitive dust control and soil conditioning/temporary irrigation of stabilizing vegetation. Potable water for drinking and domestic needs will be brought to the Site.

1.1.2.8 Construction Workers, Hours, and Equipment

Construction workers will include laborers, electricians, supervisory personnel, support personnel, and construction management personnel. It is expected that most workers will commute to the Project from nearby towns.

Construction work will generally be conducted Monday through Saturday, mainly during daylight hours. The construction period of the Project is expected to last approximately 9 to 11 months. Construction equipment may include water trucks, graders, bulldozers, 10-ton roller, small backhoe, small sheepsfoot, trenchers, skid steer, 4x4 forklift, small crane, ATV vehicles, pick-up trucks, pile drivers, dump trucks, boom truck with bucket, utility line service truck, and delivery trucks.

1.1.2.9 Testing, Commissioning, and Acceptance

Testing of the PV facility will be conducted during construction and operation. The electrical components of each block will be tested as a subsystem at the functional level and once all blocks are completed, each block will be commissioned again to test performance.

1.1.2.10 Cleanup

Cleanup and recycling of the materials will be ongoing throughout the construction phase. Industrial trash receptacles will be emptied or interchanged throughout the construction phase. Once construction is completed, any remaining debris or materials will be recycled or disposed of appropriately.

1.1.3 Project Operations, Maintenance, and Decommissioning

The Project will be operated and monitored remotely with occasional visits for security, maintenance, services, and system monitoring. Maintenance is expected to occur on a monthly to quarterly basis and will be scheduled to avoid peak power demand periods. Some unplanned maintenance is expected to occur on an as-needed basis.

1.1.3.1 Module Cleaning

Routine washing of the modules will likely not be necessary due to the amount of precipitation in the region.

1.1.3.2 Potentially Hazardous Material During Project Operations

Project operations may require use of limited hazardous materials such as the oil in the step-up transformers. A Spill Prevention, Control, and Countermeasure (SPCC) Plan will be in place to ensure implementation of appropriate spill response measures. In the unlikely event that a Power Conditioning Unit (PCU) oil-based transform breach, a small amount of oil would leak near the PCU. SPCC protocols would be implemented immediately, and any contaminated soils would be cleaned up and treated or disposed of at a hazardous waste disposal facility. There are dry-type transformers that may be used at the PCUs which eliminate oil storage. Secondary containment, capable of accommodating the maximum possible spillage, will be used for the main step-up transformer.

PV panels containing a small amount (less than 0.1 percent by weight) of environmentally-stable solid state cadmium telluride (CDTe) may be used for the Project. CDTe within the panels is sealed within glass sheets and laminate material and will not present an environmental risk during standard operations.

1.1.3.3 Project Decommissioning

The technology within the PV solar facility is expected to last at least 30 years. When the technology is either no longer functioning or outdated the PV facility can either be refurbished to continue operation or decommissioned and removed. In the event that the solar facility is decommissioned, the majority of materials (e.g., steel, aluminium,

copper, and glass) will be recycled at appropriate facilities and any materials that cannot be recycled and those materials containing oil or lubricants would be disposed of in accordance with local, state and federal standards.

1.2 Purpose and Need

1.2.1 Columbia County Solar Purpose & Need

The purpose of the Project is to construct, operate, and maintain 74.5 MW of solar PV generation to provide clean, cost-effective, renewable energy in accordance with a 20-year PPA with SECI and Interconnection Agreement with Duke Energy, which are fully executed. The expected Commercial Operation Date (COD) is December 1, 2024, and construction is expected to commence in December 2023. FRP's goal is to minimize environmental impacts by constructing the Project upon previously disturbed land that is close to an existing interconnection point, thereby reducing environmental, social, and financial impacts associated with a lengthy interconnection corridor.

1.2.2 USDA Purpose & Need

The USDA's purpose and need is to either approve or deny Columbia County Solar's application for financing. The USDA's RUS administers programs that provide infrastructure improvements to rural communities. Specifically, the RUS Electric Program, provides loans and loan guarantees to finance the construction or improvement of electric distribution, transmission, and generation facilities in rural areas (USDA 2018b). Financial assistance can include direct loans, guaranteed loans, and grants in order to accomplish program objectives.

FRP requested a \$57.22 million loan with a length of 20 years to match the term of the Project's PPA with SECI. The Project and borrower meet the eligibility requirements to receive the loan through RUS, as established by the Rural Electrification Act of 1936 and pursuant to 7 CFR Chapter XVIII.

2.0 ALTERNATIVES EVALUATED INCLUDING THE PROPOSED ACTION

This section compares the alternatives considered for the Project: the proposed action and alternatives to the preferred action, including construction of the Project at another site and the no-action alternative.

2.1 Proposed Action

The proposed action is construction of the FRP Columbia County Solar project, a new 74.5 MW solar photovoltaic energy facility located within a 579.4-acre Site comprised predominantly of silvicultural lands located on the west side of County Road 47 in Columbia County Florida (Appendix 1.1, Figure 1). The facility will consist of solar photovoltaic panels with inverters, transformers, a collector yard, at-grade access pathways, gen-tie line, and security fencing. The Project has been designed to avoid all wetland impacts and impacts to native plant communities by utilizing upland areas of pine plantation.

2.2 Other Alternatives Evaluated

Alternative locations for the Project need to satisfy the logistics, engineering, and cost constraints while minimizing impacts to natural resources. Practicable alternatives are those that are available and capable of being completed after taking into consideration cost, existing technology, and logistics in light of the overall project purpose. The following criteria for site selection were developed as guidelines for locating solar photovoltaic generation facilities and were evaluated as part of the site selection process for the Project:

Land constraints:

- Approximately 600 buildable acres of land required to fulfill generation capacity of 74.5 MW, including the solar PV fields, ancillary facilities, and areas required during construction for equipment laydown and staging
- Land must be available for purchase or long-term lease

Geographic Constraints:

- Land required to be located within SECI service territory

Co-location Constraints:

- Sites must be located in proximity to existing transmission lines to minimize cost and potential impacts associated with interconnection of new solar generation into the existing grid

Environmental and Cultural Resource Constraints:

- Avoid/minimize impacts to jurisdictional wetland areas
- Avoid/minimize impacts to threatened and/or endangered species and critical habitats
- Avoid/minimize impacts to conservation areas
- Avoid/minimize impacts to cultural resource sites eligible for listing on National Register of Historic Places (NRHP)

In addition to the proposed alternative, two alternative sites were evaluated for location of the Project (Appendix 2.2, Figure 1). A summary of the alternative sites relative to the site selection criteria is provided below:

Criteria	Proposed Site	Alternative Site 1	Alternative Site 2
Total Acreage	579.4	563.4	358.2
Wetland Acreage	19.85	65.8	34.2
Available for Purchase/Lease	Yes	No	Yes
County	Columbia	Columbia	Columbia
Distance to Point of Transmission Interconnection	1 mile	On-site	2 miles
Listed Species	One state-listed observed	One state-listed likely	One state-listed likely
Proximity to Conservation Areas	Two within 1 mile	Three within 1 mile	Three within 1 mile
Cultural Resources	No NRHP-eligible sites	No NRHP-eligible sites	No NRHP-eligible sites

Alternative Site 1 was eliminated because the landowner was not interested in selling. Due to the larger percentage of wetlands, construction of the Project at Alternative Site 1 would also likely result in unavoidable wetland impacts. Alternative Site 2 does not meet the minimum of 400 buildable acres and contains a greater percentage of wetlands when compared to the proposed Site. The FRP Columbia County Solar Site was determined to best fulfill the criteria regarding the geographic, co-location, land, and environmental constraints, including minimization of impacts to wetlands, listed species, and floodplains when compared to alternative sites. The Project has been located and designed to avoid and/or minimize impacts to natural resources to the greatest extent practicable, while fulfilling the overall purpose to provide 74.5 MW of renewable solar energy.

2.3 No Action Alternative

In accordance with 7 CFR §§ 1970.13(a) and 1970.102(a)(3) the USDA is required to evaluate the environmental effects of the No Action Alternative. The No Action Alternative establishes an environmental baseline that allows USDA RUS decision-makers to compare the environmental impacts that could result if the agency takes the requested action with the environmental impacts that would occur if the agency does not take the requested action.

The no action alternative is not constructing the proposed Project. The Site would likely continue to be used for silviculture practices. Further, not constructing the project would result in a failed opportunity to meet the increasing demand for electricity within the service area with reliable and low-cost renewable energy.

3.0 AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

This section describes the physical, biological, cultural resources, and social factors most likely to be affected by the Proposed Action.

3.1 Land Use/Land Ownership

3.1.1 General Land Use

The Project is located entirely within the FRP-owned 579.4-acre Site historically maintained as a pine plantation (Appendix 3.1, Figure 1). Adjacent land uses include roadways, herbaceous (dry prairie), upland hardwood forests, mixed rangeland, improved pastures, pine plantations, low density housing, upland mixed hardwood-coniferous forest, and the Santa Fe River and adjacent forested floodplain wetlands. Land use and land cover within the Site and vicinity was classified using the Florida Land Use, Cover and Forms Classification System (FLUCFCS) (FDOT 1999) (Appendix 3.1, Figure 2).

3.1.1.1 Affected Environment

The Site has been historically used for timber production; current land use is dominated by coniferous plantation and forest regeneration areas (Appendix 3.1, Figure 2). The following sections describe the Project's compliance with the Columbia County Comprehensive Plan and Land Development Code, as well as provide a description of existing and proposed vegetative land cover.

Land use and land cover data from the Southwest Florida Water Management District (SWFWMD) using the Florida Land Use, Cover and Forms Classification System (FLUCFCS) (FDOT 1999) were updated based on the field observations and wetland delineation completed by Golder (Appendix 3.1, Figure 2). The Site is dominated by coniferous plantation and forest regeneration areas (FLUCFCS 441 & 443). Three isolated areas of mixed wetland forest (FLUCFCS 630) are located within the northern portion of the Site and two of these wetlands are bordered by upland hardwood forests (FLUCFCS 420). Mixed wetland floodplain forest is located along the Santa Fe River; a portion of the floodplain forest extends into the western edge of the Site, grading into upland hardwood – coniferous mixed forest (FLUCFCS 434). Two existing Duke Energy transmission line corridors bisect the property (Appendix 3.1, Figure 2). The acreage of each land use/land cover type within the Site is provided below (Table 1). No existing structures are located within the Site.

Table 1: Existing Land Use/Land Cover

FLUCFCS Code	Land Use/Land Cover	Acreage
320	Shrub and Brushland	3.00
420	Upland Hardwood Forests	2.86
434	Hardwood - Coniferous Mixed	9.94
441	Coniferous Plantations	421.10
443	Forest Regeneration Areas	95.25
630	Wetland Forested Mixed	19.85
814	Roads and Highways	2.51
832	Electric Power Transmission Lines	24.94
TOTAL		579.45

3.1.1.2 Environmental Consequences

Construction of the Project will result in conversion of coniferous plantation and forest regeneration areas to renewable energy facilities (Appendix 1.1, Figure 2). The solar array will be constructed with minimal ground disturbance and grading, resulting in only approximately 2.43% impervious area associated with the inverter pads, switchyard, and access paths. Table 2 below provides the proposed land use/land cover acreage within the Site.

Table 2: Proposed Land Use

FLUCFCS Code	Land Use/Land Cover	Acreage
190	Open Land	55.81
320	Shrub and Brushland	2.93
420	Upland Hardwood Forests	2.14
434	Hardwood - Coniferous Mixed	9.94
441	Coniferous Plantations	8.47
630	Wetland Forested Mixed	19.85
831	Electric Power Facilities - Solar Arrays	443.56
831	Electric Power Facilities – Inverters, Switchyard, and Access Paths	14.08
832	Electric Power Transmission Lines	22.67
TOTAL		579.45

When the Project is decommissioned, the solar panels and equipment can be removed, and the land can be returned to silviculture production or other land uses.

3.1.1.3 Mitigation

No mitigation is proposed for the conversion of coniferous plantation to renewable energy facilities. Once the Project is decommissioned the land can be converted back to pine plantation if desired.

3.1.2 Important Farmland

Although the land has been used for timber production the Site has not been identified as Important Farmland or Prime Forestland (Appendix 3.1)

3.1.2.1 Affected Environment

The Site is primarily coniferous plantation and forest regeneration areas, planted with loblolly pine (*Pinus taeda*) and/or slash pine (*Pinus elliottii*). Pine plantations are common throughout the state of Florida and are not identified as Prime Forestland.

3.1.2.2 Environmental Consequences

No loss of Important Farmland or Prime Forestland will result from construction of the Project. Once the Project is decommissioned the land can be converted back to pine plantation if desired.

3.1.2.3 Mitigation

No Important Farmland or Prime Forestland is located within the Project and no mitigation is required for the conversion of coniferous plantation to renewable energy facilities.

3.1.3 Formally Classified Lands

3.1.3.1 Affected Environment

The Santa Fe River is located adjacent to the Site along the western boundary. The Santa Fe River is listed on the National Park Service (NPS) National Rivers Inventory List.

3.1.3.2 Environmental Consequences

No Loss of Formally Classified lands will result from construction of the Project. No construction is proposed within the vicinity of the Santa Fe River or its floodplain. No impacts to the river, associated floodplain wetlands, or the upland forest adjacent to the floodplain of the Santa Fe River are proposed. The NPS was consulted and indicated that they had no comments regarding the Project because the Project does not involve construction within the banks or floodplain of the Santa Fe River (Appendix 3.6).

3.1.3.3 Mitigation

Construction areas will be isolated from the Santa Fe River and adjacent floodplain wetlands through installation of staked turbidity screen and/or silt fence along the perimeter, in accordance with best management practices (BMPs) to minimize any erosion or sedimentation outside of the construction area. Stormwater management is designed such that no adverse water quantity or quality to the receiving waters will occur.

3.1.4 Columbia County Comprehensive Plan

The Community Planning Act was approved on June 2, 2011 (Chapter 163, F.S., as amended). The Community Planning Act provides long-range policy guidance for the orderly social, economic, and physical development within the State. The Community Planning Act does not create regulatory authority that is not otherwise authorized by State law (FLSCPA, 2015). The Community Planning Act re-designated the Local Governmental Comprehensive Planning and Land Development Regulations Act of 1985 (commonly referred to as the Florida's Growth Management Act) and maintained the requirement that each county and municipality in Florida adopt a local comprehensive plan. Comprehensive plans that were adopted prior to June 2, 2011 remain valid. Counties and municipalities must also meet the minimum criteria rule for local government comprehensive plans (Chapter 9J-5, F.A.C., as amended).

In accordance with state law (Chapter 73C-49, F.A.C.), at least every seven years local governments are required to review their plan to determine if revisions are necessary to reflect applicable changes. In addition, as a county's vision changes and as the county grows, so too will the plan grow through a series of amendments. The most recent amendments to the Columbia County Comprehensive Plan became effective September 30, 2019.

According to the Columbia County Future Land Use Map, which is part of the County's Comprehensive Plan, the Site is located within Agriculture-3 and Environmentally Sensitive Areas-1 future land use designations. The area surrounding the Site is within Agriculture-3, Environmentally Sensitive Areas-1 and Fort White future land use designations (Appendix 3.1, Figure 3). As defined in the Future Land Use Element of the Plan, the Agriculture-3 future land use category allows for *various activities related to agricultural, silviculture, and the processing, storage and sale of agricultural, livestock and associated equipment and machinery. In addition, various recreational activities such as racetracks, speedways, sports clubs, parks or campgrounds, camps, drive-in theaters, commercial kennels, veterinary clinics and animal shelters, cemeteries and crematories, airplane landing fields, small engine and automotive repair, home occupations, bottled water plants, flea markets, explosives (manufacturing or storage), biomedical waste storage or treatment facilities, as well as "other similar uses compatible with agriculture uses".* The phrase "other similar uses compatible with agriculture uses" refers to land uses that can co-exist in relative proximity to other uses and can remain stable; not causing a negative impact, either directly or indirectly, by its use

upon neighboring uses. The Environmentally Sensitive Areas-1 future land use category may be used for agriculture, except intensive agriculture (the term intensive agriculture means those agricultural uses requiring an industrial waste permit from the Florida Department of Environmental Protection), silviculture conducted in accordance with the silviculture policy contained within the conservation element of this comprehensive plan and dwelling units.

The Columbia County Comprehensive Plan does not specifically mention electrical generating facilities, but within Future Land Use Element, specifically, OBJECTIVE I.17, electrical substations are permitted within any land use category: “The location of electrical substations shall be permitted in any land use category, except the conservation future land use category and any historic preservation overlay district as depicted on the future land use plan map.” *In accordance with the Plan, uses that are not listed for each of the future land use classification then the County provides for the consideration of a use through the special exception use, through the land development regulations.*

3.1.5 Columbia County Land Development Regulations

The County’s Zoning map identifies the Site as within the Agricultural (A-3) zoning district and in the most western portion of the Site, bordering the Santa Fe River, within the Environmental Sensitive Area (ESA-2) zoning district (Appendix 3.1, Figure 4). Solar power generation plants are identified as a use allowed by Special Exception Use approval within both the A-3 and the ESA-2 zoning districts (Sections and 4.4.5 and 4.5.7 of the County’s Land Development Regulations). On September 29, 2020, FRP received approval from Columbia County’s Board of Adjustment for a Special Exception to allow for a solar power generation plant in accordance with Section 12.2 of the LDRs (Resolution BA SE 0620). Documentation of the approval is provided in Appendix 3.1.

3.2 Floodplains

3.2.1 Affected Environment

As illustrated on the Federal Emergency Management Agency (FEMA) floodplain map (Appendix 3.2, Figure 1), the majority of the Site, including all areas of proposed construction, is located in Zone X. The most western portion of the Site, outside of the construction area, is within the base floodplain (Flood Zone AE) of the Santa Fe River.

3.2.2 Environmental Consequences

There are no anticipated impacts to floodplains as a result of the Project. No fill is proposed to be placed within the floodplain and no loss of floodplain storage is proposed.

3.2.3 Mitigation

There are no anticipated impacts to floodplains as a result of the Project, therefore mitigation is not required.

3.3 Wetlands

3.3.1 Affected Environment

A formal state and federal jurisdictional wetland delineation within the Site was conducted by Golder in June 2019, resulting in 13.07 ac of forested floodplain adjacent to the Santa Fe River which are considered federally jurisdictional wetlands and 6.78 ac acres of historically excavated mining areas that are considered isolated state jurisdictional wetlands (Appendix 3.3, Figure 1).

An Environmental Resource Permit application was submitted on September 23, 2020 to the Florida Department of Environmental Protection (FDEP) and authorization was issued on November 6, 2020 (ERP Permit No. 12-0208670-001-EI). A request for jurisdictional determination and no permit required letter was submitted to the US Army Corps of Engineers (USACE) on October 10, 2020; the approved jurisdictional determination and confirmation that no Section 404 permit would be required was received on November 9, 2020 [SAJ-2020-04284 (NPR-TLO)]. The FDEP permit is provided in Appendix 1.1 and USACE correspondence is provided in Appendix 3.3.

3.3.2 Environmental Consequences

The Project has been designed to avoid all wetland impacts. Prior to construction, erosion and sediment controls will be installed to avoid discharge of erosional materials outside of the work area. Stormwater management is designed such that no adverse water quantity or quality to the receiving waters will occur.

3.3.3 Mitigation

The Project has been designed to avoid all wetland impacts and no wetland mitigation or monitoring is required.

3.4 Cultural Resources

Section 106 of the National Historic Preservation Act requires that cultural resource assessments be conducted on all projects involving federal funding and/or permitting. The guidelines for fulfilling the provisions of Section 106 are contained in the implementing regulations of the Code of Federal Regulations (CFR), Title 36, Chapter VIII, Part 800 (36 CFR 800).

In order for a site to be considered a significant resource, it must meet one or more of four specific criteria established in 36 CFR Part 60, National Register of Historic Places, nominations by state and federal agencies, and 36 CFR Part 800, Advisory Council on Historic Preservation, Protection of Historic Properties. The evaluation of a prehistoric or historic cultural resource for inclusion on the National Register of Historic Places (NRHP) rests largely on its research potential, that is, its ability to contribute important information through preservation and/or additional study. The NRHP criteria for evaluation are stated as follows:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and;

- Criterion A: Properties associated with events that have made a significant contribution to broad patterns of our history;
- Criterion B: Properties associated with lives of persons significant in our past;
- Criterion C: Properties that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; and
- Criterion D: Properties that have yielded, or may be likely to yield, important information in prehistory or history.

While many archaeological sites are recommended as eligible to the NRHP under Criterion D, the potential to "yield information important in prehistory and history," this criterion is rather ill-defined. In order to clarify the issue of site importance, the following attribute evaluations add a measure of specificity that can be used in assessing site significance and NRHP eligibility:

- a). Site Integrity - Does the site contain intact cultural deposits or is it disturbed?

- b). Preservation - Does the site contain material suited to in-depth analysis and/or absolute dating such as preserved features, botanical material, faunal remains, or human skeletal remains?
- c). Uniqueness - Is the information contained in the site redundant in comparison to that available from similar sites, or do the remains provide a unique or insightful perspective on research concerns of regional importance?
- d). Relevance to Current and Future Research - Would additional work at this site contribute to our knowledge of the past? Would preservation of the site protect valuable information for future studies?

3.4.1 Affected Environment

This section evaluates the potential for historic properties to be present within the proposed Area of Potential Effects (APE) identified for the Project and the potential to adversely affect such resources. The APE defined for the Columbia County Solar Project includes the geographic area within which the undertaking (“the Project area”) may directly or indirectly cause changes in the character or use of historic properties if any such properties exist. The APE for this Project is defined as the surfaces and depths that would be disturbed by excavation within the Project area, including the gen-tie line. Construction activities for the solar project would consist of grading and trenching within the Project area. Because the Project area is surrounded by active silviculture, agriculture, and pasture and since any existing vegetation buffers along the outer boundaries of the Project area will be left in-place and maintained, the proximity effects APE (“visual APE”) has been confined to boundary of the Project area.

Environmental Services, Inc. (ESI) conducted a Cultural Resource Assessment Survey (CRAS) of the Project area in July and August 2019 and prepared a report in order to fulfill federal and state guidelines, and in accordance with the Florida Division of Historical Resources (FDHR, 2003). The term “cultural resources” as used herein is meant to refer to sites or objects that are archaeological, architectural, and/or historical in nature. “Significant” cultural resources are those meeting the criteria of eligibility for inclusion in the NRHP, as defined in 36 CFR 60.4 and in consultation with the State Historic Preservation Officer (SHPO).

3.4.1.1 Desktop Review

Prior to initiating fieldwork, ESI conducted a background search for previously known cultural resources and previous cultural resource assessment surveys within and around the project vicinity. As a result of the search, no known resources have been recorded within the current study tract. Expanding the search to include the general vicinity revealed that one previously recorded archaeological site was recorded within the general vicinity of the project area. In addition, two archaeological surveys have been conducted within a mile of the property.

3.4.1.2 Cultural Resource Assessment Survey

The fieldwork strategies included a pedestrian inspection with subsurface testing. The pedestrian survey included visual inspection of all areas of surface exposure and disturbance. Subsurface testing included shovel tests (n=413) that were dug at 25, 50, and 100-meter intervals throughout the tract. All tests were dug to a depth of one meter whenever possible and measured 50 cm in diameter.

As a result of the survey, two archaeological sites were recorded. However both sites were recommended by ESI to be ineligible for listing on the NRHP (ESI Report No 1812).

The CRAS was submitted to the Florida DHR; the DHR concurred with the recommendation that neither site was NRHP eligible.

3.4.1.3 Native American Consultation

Section 106 of the NHPA requires federal agencies to consult with the relevant Tribal Historic Preservation Officer (THPO) or official Tribal designees on historic properties of religious or cultural significance that may be affected by the Proposed Action. The Project does not include Tribal lands as defined in 36 CFR § 800.16 (x). FRP utilized an internal database partially based on the Tribal Directory Assessment Tool (TDAT) results, supplemented with direct feedback from the Tribes themselves concerning their ancestral areas of interest. The following tribes were contacted on January 12, 2021 and provided information regarding the Project and CRAS results: Coushatta Tribe of Louisiana, Miccosukee Tribe of Indians, Muscogee (Creek) Nation, Thlopthlocco Tribal Town, and the Seminole Tribe of Florida. The Seminole Tribe of Florida and Muscogee (Creek) Nation responded indicating no objections. No other tribes responded to the request for Project Feedback. The Choctaw Nation of Oklahoma, although listed in the TDAT results, is not interested in providing feedback for projects within Columbia County based on their reviewer feedback and own material from the THPO cultural site.

3.4.2 Environmental Consequences

As a result of the CRAS survey completed by ESI, two archaeological sites were recorded. However, neither site is considered to be eligible for NRHP listing. Therefore, no historic properties will be affected as a result of the Proposed Action.

3.4.3 Mitigation

The Proposed Action will not adversely impact cultural resources eligible for NRHP listing; therefore, mitigation is not required. The Cultural Resources Discovery Mitigation Plan, provided in Appendix 3.4, will be kept onsite and adhered to during construction in the event of discovery of any artifacts, foundations, or other indications of past human occupation of the area are uncovered.

3.5 Biological Resources

3.5.1 General Fish, Wildlife and Vegetation

3.5.1.1 Affected Environment

Vegetation

Vegetative habitats within the Site were classified during field surveys in accordance with the Florida Land Use, Cover and Forms Classification System (FLUCFCS) (FDOT 1999) (Appendix 3.1, Figure 2 and Table 1).

Upland habitats within the Site are dominated by pine plantation (coniferous plantations and forest regeneration areas), with subdominant habitats including shrub and brushland, upland hardwood forests, and hardwood-coniferous mixed forest. Wetland habitats within the Site consist of three small, isolated historic mining pits and the forested floodplain of the Santa Fe River on the western edge of the property. Each of these areas supports a similar mixed wetland forest vegetative community. A brief description of upland and wetland vegetative community composition is provided below; representative photographs are provided in Appendix 3.5.

Hardwood-Coniferous Mixed Forest (FLUCFCS 434): Approximately 9.94 acres of hardwood-coniferous mixed forest occurs within the Site, primarily adjacent to the Santa Fe River floodplain wetlands in the most western portion of the property. This area will be avoided during construction of the Project. Typical canopy and shrub species include live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), Carolina basswood (*Tilia americana*), pignut hickory (*Carya glabra*), sweetgum (*Liquidambar styraciflua*), red bay (*Persea borbonia*), American hornbeam

(*Carpinus caroliniana*), Southern magnolia (*Magnolia grandiflora*), black cherry (*Prunus serotina*), beauty berry (*Callicarpa americana*), and American holly (*Ilex opaca* var. *opaca*).

Shrub and Brushland (FLUCFCS 320): Shrub and brushland areas occur on the outer edges of pine plantations, comprising a total of approximately 3 acres. Typical vegetation within these areas includes blackberry (*Rubus cuneifolius*), gallberry (*Ilex glabra*), wax myrtle (*Morella cerifera*), and grasses such as bluestem (*Andropogon* sp.).

Upland Hardwood Forests (FLUCFCS 420): Approximately 2.86 acres of upland hardwood forests border the historical mine pit areas. These areas are dominated by laurel oak, sweetgum, American holly, and beauty berry, as well as dense green briar (*Smilax laurifolia*) and muscadine grape (*Vitis rotundifolia*).

Coniferous Plantations (FLUCFCS 441): Coniferous plantation areas consist of rows of mature loblolly and/or slash pine, comprising approximately 421.10 acres of the Site. Pine straw harvesting within the planted pine rows has removed the majority of shrub and understory plants but there are some species including saw palmetto and beauty berry as well as various grasses present.

Forest Regeneration Areas (FLUCFCS 443): Approximately 95.25 acres of forest regeneration areas have been planted with rows of pine seedlings. Common vegetation growing between the rows includes blackberry, gallberry, dogfennel (*Eupatorium capillifolium*) and various grasses including bluestem.

Mixed Wetland Forest (FLUCFCS 630): The forested floodplain system adjacent to the Santa Fe River comprises approximately 13.07 acres of the Site and is dominated by a canopy of bald cypress (*Taxodium distichum*), American hornbeam (*Carpinus caroliniana*), American elm (*Ulmus americana*), red maple (*Acer rubrum*), laurel oak, sweetgum, sweet bay (*Persea palustris*), and pop ash (*Fraxinus caroliniana*). Ground cover consists of species such as slender wood oats (*Chasmanthium laxum*), dwarf palmetto (*Sabal minor*), swamp smartweed (*Persicaria hydropiperoides*), sour paspalum (*Paspalum conjugatum*), Carolina ponyfoot (*Dichondra carolinensis*), poison ivy (*Toxicodendron radicans*), blackberry (*Rubus* sp.) and catbrier (*Smilax* sp.).

Approximately 6.78 acres of historically excavated mining areas occur on the Site and support a variety of canopy species such as laurel oak, sweetgum, box elder (*Acer negundo*), swamp dogwood (*Cornus foemina*), and American holly. Groundcover consists of species such as sour paspalum, beauty berry, netted chain fern (*Woodwardia areolata*), widespread maiden fern (*Thelypteris kunthii*), royal fern (*Osmunda regalis*), poison ivy, muscadine grape, and catbrier.

Non-Listed Wildlife Species

A variety of non-listed wildlife species were observed through direct or indirect observations (such as calls, burrows, or scat) within and adjacent to the Site during field efforts, including black vulture (*Coragyps atratus*), turkey vulture (*Cathartes aura*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), red shoulder hawk (*Buteo lineatus*), meadowlark (*Sturnella neglecta*), pileated woodpecker (*Dryocopus pileatus*), wild turkey (*Meleagris gallopavo*), bobcat (*Lynx rufus*), deer (*Odocoileus virginianus*), skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), gray fox (*Urocyon cinereoargenteus*), coyote (*Canis latrans*), mole (*Scalopus aquaticus*), opossum (*Didelphis virginiana*), nine banded armadillo (*Dasypus novemcinctus*), gray squirrel (*Sciurus carolinensis*), pocket gopher (*Geomys pinetis*), coachwhip (*Coluber flagellum*), and black racer (*Coluber constrictor*). No significant impacts to non-listed wildlife species are anticipated, as they are common within the region and suitable habitat will remain following construction of the Project.

3.5.1.2 Environmental Consequences

Construction of the Project will convert areas of pine plantation to support the solar energy facility. No wetland impacts or impacts to native upland forest along the floodplain of the Santa Fe River are proposed. Although habitat for non-listed species will be permanently altered by construction of the Project, habitat which can be utilized by these species will remain during operation of the Project.

3.5.1.3 Mitigation

No mitigation is required for the removal of pine plantation habitat.

3.5.2 Listed Threatened & Endangered Species

3.5.2.1 Affected Environment

Plant and animal species listed as endangered, threatened, or of special concern (listed species) that are known to occur or likely to occur within the Site were evaluated based upon Geographical Information System (GIS) databases of known occurrences of listed species, desktop determination of potential suitable habitats, and field survey. Listed plant species are those plants that are listed by the USFWS or the Florida Department of Agriculture and Consumer Services (FDACS) as endangered, threatened, of special concern, or commercially exploited. Listed animal species are those animals that are listed as endangered, threatened, or of special concern by the USFWS or the Florida Fish and Wildlife Conservation Commission (FWC).

The Florida Natural Areas Inventory (FNAI), the USFWS Information for Planning and Conservation (IPaC), and a site reconnaissance was used to evaluate the potential for wildlife utilization of the upland and wetland communities, and to conduct a preliminary survey for direct or indirect (i.e. scat, tracks, burrows) observations of listed wildlife species. The FNAI Biodiversity Matrix Query Results, IPaC official species list and correspondence from USFWS regarding the Site are provided in Appendix 3.5.

A total of 8 threatened, endangered or candidate species were identified within the IPaC Official List for the Site and are listed in Table 3. These species are discussed further in the sections below.

Table 3: USFWS IPaC Official List

Scientific Name	Common Name	Federal Status
<i>Drymarchon couperi</i>	Eastern Indigo Snake	Threatened
<i>Gopherus polyphemus</i>	Gopher Tortoise	Candidate
<i>Macrochelys suwanniensis</i>	Suwannee Alligator Snapping Turtle	Proposed Threatened
<i>Mycteria americana</i>	Wood Stork	Threatened
<i>Laterallus jamaicensis ssp. jamaicensis</i>	Eastern Black Rail	Threatened
<i>Acipenser oxyrinchus desotoi</i>	Gulf Sturgeon	Threatened
<i>Medionidus walkeri</i>	Suwannee Moccasinshell	Threatened
<i>Danaus plexippus</i>	Monarch Butterfly	Candidate

The Project is not located within US Fish and Wildlife Service (USFWS) consultation areas for any federally protected wildlife species. The Project is located outside of the core foraging areas of any wood stork colonies, and no wetland impacts are proposed, therefore no adverse impact to the wood stork is anticipated. The Florida According to the FNAI database, no state or federally listed wildlife species have been documented within 1-mile of the Site; however, one state species of special concern, the Suwannee alligator snapping turtle (*Macrochelys suwanniensis*), has been documented within the Santa Fe River located adjacent to the Site (Appendix 3.3, Figure 1). Additionally, one state-listed threatened species, the gopher tortoise (*Gopherus polyphemus*), was observed

within the Site during field surveys (Appendix 3.5, Figure 2). Table 4 identifies state and federally listed wildlife species known to occur in Columbia County and their likelihood of occurrence within the Site. Species observed during field surveys or with a moderate probability of occurrence are described in detail below.

Wildlife surveys were conducted in June 2019. One state-threatened species was observed on the Site, the gopher tortoise (*Gopherus polyphemus*) (Appendix 3.5, Figure 2). A total of 645 gopher tortoise burrows were identified during surveys comprising 43% of the area of suitable gopher tortoise habitat. Prior to construction, a 100% burrow survey will be conducted to support the submittal of an FWC gopher tortoise Conservation Relocation permit application. All burrows within 25' of the construction footprint will be excavated under the direction of an FWC-permitted gopher tortoise authorized agent and captured tortoises will be relocated to an agency-approved recipient site to avoid impact.

Table 4: Listed wildlife species known to occur within Columbia County and probability of occurrence within the Site

Scientific Name	Common Name	Federal Status	State Status	Probability of Occurrence within Site	Habitat Preference
REPTILES					
<i>Drymarchon couperi</i>	Eastern Indigo Snake	T	T	Moderate	Xeric scrub, pine flatwoods, hardwood forests, agricultural sites
<i>Gopherus polyphemus</i>	Gopher Tortoise	C	T	Observed	Well drained sandy areas with low growing vegetation
<i>Lampropeltis extenuata</i>	Short-tailed Snake	N	T	Low	Dry upland habitats, principally sandhill, xeric hammock, and sand pine scrub
<i>Laterallus jamaicensis ssp. jamaicensis</i>	Eastern Black Rail	T	T	None	Tidal marshes and grassy inland marshes dominated by dense stands of grasses, rushes and sedges with shallow water.
<i>Macrochelys suwanniensis</i>	Suwannee Alligator Snapping Turtle	PT	T	Moderate	Within Suwannee River system and all major tributaries
<i>Pituophis melanoleucus</i>	Pine Snake	N	T	Moderate	Dry upland habitats, including sandhills, scrub, xeric oak hammock, and dry pine flatwoods; also pastures, old fields
BIRDS					
<i>Dryobates borealis</i>	Red-cockaded Woodpecker	E	E	Low	Mature, open pine woodlands
<i>Egretta caerulea</i>	Little Blue Heron	N	T	Low	Shallow freshwater, brackish, and saltwater habitats
<i>Falco sparverius paulus</i>	Southeastern American Kestrel	N	T	Moderate	Open pine habitats, woodland edges, prairies, and pastures; nests in dead trees and/or wooden utility poles
<i>Mycteria americana</i>	Wood Stork	T	T	Moderate	Nests in cypress swamps and mixed forested wetlands; forages mainly in shallow freshwater habitats
MAMMALS					
<i>Trichechus manatus</i>	West Indian Manatee	T	T	None	Coastal waters, bays, rivers
FISH					
<i>Acipenser oxyrinchus desotoi</i>	Gulf Sturgeon	T	T	None	Forages in Gulf of Mexico and associated estuaries; spawns in most major coastal rivers in areas with limestone outcrops

Scientific Name	Common Name	Federal Status	State Status	Probability of Occurrence within Site	Habitat Preference
CLAMS					
<i>Medionidus walker</i>	Suwannee Moccasinshell	T	T	None	Inhabits larger streams, including the Santa Fe River, where it is found in substrates composed of muddy sand or sand with some gravel, and in areas with slow to moderate current
INSECTS					
<i>Danaus plexippus</i>	Monarch Butterfly	C	N	Low	Meadows and marshes where milkweed (<i>Asclepias spp.</i>) plants grow

Notes: C – Candidate for federal listing, E – Endangered, N – Not Listed, T – Threatened, PT – Proposed Threatened

Southeastern American Kestrel

Kestrels are a small, non-migratory falcon which feeds primarily on insects, small reptiles, and amphibians. It is typically found in sandhill and pine savannah habitats which undergo periodic, natural fire regimes. The species nests in natural cavities in tall dead trees, utility poles or artificial nest boxes, and routinely utilizes perches for hunting purposes. They are found throughout Florida year-round, but northern migrants are also present in the winter. The subspecies that breeds in Florida (southeastern American kestrel) is listed as threatened by the FWC, but the northern migrants are not listed. Northern migrants generally arrive in September and leave by March, but there are some records outside of these dates. In Florida, the southeastern American kestrel typically nests from March to June (Collopy, 1996) The southeastern American kestrel is afforded protection under the State of Florida Endangered and Threatened Species Rule (SFETSR).

No adverse impacts to the southeastern American kestrel are anticipated as a result of construction and operation of the Project. Although pine plantation is not considered preferred habitat for the kestrel, areas of suitable habitat such as cavities within utility poles or tall dead hardwoods may occur within the Site. If active nest cavities are encountered during pre-clearing kestrel surveys, the FWC recommends avoiding construction activities within 150 meters of the nest tree during the breeding season (mid-March to mid-June). If kestrels are discovered nesting within or directly adjacent to the construction footprint following commencement of construction activities or if maintaining the recommended 150-meter buffer surrounding the active nest tree is not possible, FRP will coordinate with FWC staff to discuss potential permitting needs.

Wood Stork

The wood stork is a large wading bird that forages primarily on amphibians, reptiles, and freshwater crustaceans and has a large, de-curved bill. It is dependent on aquatic habitats to support its foraging and nesting needs, specifically freshwater marshes and forested wetlands that experience slight and periodic shifts in water depth. The wood stork can be found throughout most of peninsular Florida.

The wood stork is listed as threatened by the FWC and the USFWS. It is afforded state protection under the SFETSR and federal protection under the Endangered Species Act (ESA). According to the FNAI database, wood storks have not been documented within 1-mile of the Site. Additionally, no individuals or signs of their presence were observed within or directly adjacent to the Site during the field surveys and the Site is not located within the core foraging areas of any known colonies. There is moderate potential for wood storks to occur in the forested wetlands along the Santa Fe River however, no impacts to these wetlands are proposed.

Gopher Tortoise

The gopher tortoise is a large terrestrial turtle that primarily forages on herbs and forbs. It excavates burrows for shelter in well-drained, sandy soils typically associated with upland habitats such as palmetto prairies, pine flatwoods, and xeric scrub throughout peninsular Florida. It is considered a keystone species as hundreds of commensal species have been documented to utilize their burrows for their own survival needs. In Florida the species is listed as threatened by the FWC, but it is not listed federally. It is afforded protection under the SFETSR. Suitable habitat for the species exists within and adjacent to the Site.

Gopher tortoise surveys were conducted in June 2019 (Appendix 3.5, Figure 2). A total of 645 burrows were identified during the survey that encompassed 43% of the suitable gopher tortoise habitat on the Site. Prior to construction, a 100% burrow survey will be conducted to support the submittal of an FWC gopher tortoise Conservation Relocation permit application. All burrows within 25' of the construction footprint will be excavated under the direction of an FWC-permitted gopher tortoise authorized agent and captured tortoises will be relocated to an agency-approved recipient site.

Short-tailed Snake

The short-tailed snake is a small, non-venomous snake which is endemic to Florida. The species is cryptic and fossorial in nature. A secretive burrower only rarely seen above ground or under cover objects. It can be found mainly from the north central to central portion of peninsular Florida. It prefers xeric habitats such as longleaf pine flatwoods, turkey oak sandhills, and scrubby oak communities.

The short-tailed snake is classified as threatened by the FWC but is not listed federally by the USFWS. No individuals or signs of their presence were observed during field efforts. The upland forests within the Site may provide suitable habitat for the species, but the likelihood of its presence is low due to the extensive alteration of this habitat from agricultural operations.

To mitigate for potential impacts to the species, if any individuals are observed during the construction activities, these activities will cease, and the individual will be allowed to leave the construction area on its own accord. Any sightings of the species within the Site during construction of the project will be reported to the FWC to contribute to their research efforts on the species.

Florida Pine Snake

The Florida pine snake is a large, non-venomous snake which can be found throughout most of the panhandle and peninsular Florida. It has a brown back with dark blotches, white belly, ridged scales, small head, and pointed snout (FNAI, 2001). It prefers open xeric habitats with well-drained, sandy soils such as longleaf pine-turkey oak sandhill, sand pine scrub, and scrubby flatwoods. Similar to the eastern indigo snake, they are known commensal species of gopher tortoise burrows.

The Florida pine snake is classified as threatened by the FWC, but is not listed federally by the USFWS. Therefore, it is afforded protection only under the SFETSR. The FNAI database review indicated no reported occurrences of the species within 1-mile of the Site.

Pine plantation within the Site may provide suitable habitat for the species, but the likelihood of its presence is low due to the extensive alteration of this habitat from agricultural operations. Although no individuals were observed during the field efforts, potential refugia in the form of gopher tortoise burrows were observed within the Site and adjacent areas to the north of the Site may provide suitable habitat for the species.

To mitigate for potential impacts to the species, if any individuals are observed during the construction activities, these activities will cease, and the individual will be allowed to leave the construction area on its own accord. Any sightings of the species within the Site during construction of the Project be reported to the FWC to contribute to their research efforts on the species.

Eastern Indigo Snake

The eastern indigo snake is one of the largest non-venomous snakes in the United States. It typically preys upon a variety of wildlife such as small mammals, amphibians, birds, and other reptiles. It can be found throughout peninsular Florida and is a known commensal species of the gopher tortoise.

The eastern indigo snake is listed as threatened by the FWC and the USFWS. It is afforded state protection under the SFETSR and federal protection under the ESA. The species was not documented by the FNAI database as being present within 1-mile of the Site. Additionally, no individuals or signs of their presence were observed during field efforts. However, the Site lies within the known range of the species and since it is known to utilize gopher tortoise burrows as refugia and tortoise burrows were observed within the Site, standard protection measures for the eastern indigo snake will be enforced during construction activities to ensure eastern indigo snakes are not harmed if encountered. These protection measures include, but are not limited to, training contractors in the proper identification of eastern indigo snakes; posting signs on the construction site to aid in the proper identification and procedures if an eastern indigo snake is encountered; and if an eastern indigo snake is encountered, work in the area will be stopped and will not recommence until the eastern indigo snake has safely evacuated the area on its own.

Suwannee Alligator Snapping Turtle

The Suwannee alligator snapping turtle is a large freshwater turtle species listed as a species of special concern by the FWC. This species is endemic to the Suwannee River system and occurs from the river's mouth on the Gulf of Mexico upstream into all major tributaries and can be found in streams, lakes, and backwater swamps. No Suwannee alligator snapping turtles were observed onsite during the field assessment, although suitable habitat exists along the Santa Fe River. As such, there is a moderate potential that this species could occur within the Site however no wetlands impacts will occur as a result of the Project.

State and Federally Listed Flora

According to the FNAI database, no state or federally listed plant species have been documented within 1-mile of the Site. Table 5 identifies listed plant species known to occur in Columbia County and probability of occurrence within the Site. No state or federally listed plant species was observed during field surveys. Vegetative communities within the Site have been significantly altered due to long-term silvicultural activities, greatly reducing the potential for listed plant species occurrence.

Table 5: Listed plant species known to occur in Columbia County and probability of occurrence within the Site

Scientific Name	Common Name	Federal Status	State Status	Probability of Occurrence within Site	Habitat Preference
<i>Agrimonia incisa</i>	Incised Groove-bur	N	T	Low	Sandhills and other upland pine communities
<i>Carex chapmannii</i>	Chapman's Sedge	N	T	Low	Hydric hammock and bottomland forest; usually on wooded stream banks and in river floodplains

Scientific Name	Common Name	Federal Status	State Status	Probability of Occurrence within Site	Habitat Preference
<i>Cleistes divaricata</i>	Large Rosebud Orchid	N	E	Low	Moist, open, boggy pinelands, woodlands and marshes
<i>Corallorhiza odontorhiza</i>	Autumn Coralroot	N	E	None	Dry hardwood forests
<i>Ctenium floridanum</i>	Florida Toothache Grass	N	E	Low	Sandhills and other dry pinelands
<i>Litsea aestivalis</i>	Pondspice	N	E	Low	On peaty soils in edges of baygalls, flatwoods ponds, and cypress domes. May form thickets around edges of ponds.
<i>Matelea floridana</i>	Florida Spiny-pod	N	E	Low	Sandhills, woodlands and other open habitats
<i>Najas filifolia</i>	Narrowleaf Naiad	N	T	Low	Floating annual plant that prefers dark water less than 2 meters deep. This species has mostly been recorded from lakes and ponds, but has also been recorded in the Blackwater River.
<i>Pteroglossaspis ecristata</i>	Giant Orchid	N	T	Low	Sandhill, scrub, pine flatwoods, pine rocklands, and occasionally in old fields
<i>Salix floridana</i>	Florida Willow	N	E	Low	Wet, mucky soils in bottomland forests, floodplains, hydric hammocks, swamps, edges of spring-runs, and streams

Notes: E – Endangered, N – Not Listed, T – Threatened

3.5.2.2 Environmental Consequences

No impacts to federally listed wildlife species are anticipated, as the USFWS eastern indigo snake protection measures will be followed during construction activities. The conversion of pine plantation to solar energy production is not anticipated to adversely affect avian species protected under the USFWS Migratory Bird Treaty Act or identified as Birds of Conservation Concern. State-listed wildlife species which may be impacted by the work activities include the gopher tortoise, southeastern American kestrel, short-tailed snake, and Florida pine snake.

A formal 100% gopher tortoise burrow survey based on the survey protocols outlined in the FWC Gopher Tortoise Permitting Guidelines will be completed prior to construction to identify all gopher tortoises within the construction limits. A conservation permit will be obtained from FWC to excavate all unavoidable burrows and relocate captured individuals to an FWC-approved recipient site.

If a southeastern American kestrel is discovered nesting within or directly adjacent to the Site during pre-clearing surveys, a 150-meter buffer surrounding the active nest tree will be maintained. If the buffer is not feasible during construction, FRP will coordinate with FWC staff to discuss potential permitting requirements and mitigation options.

If any short-tailed snake or Florida pine snake individuals are observed during construction, activities will cease, and the individual will be allowed to leave the construction area on its own accord. Any sightings of these species within the Site during construction of the Project will be reported to the FWC (including photographs and/or GPS coordinates if possible) to contribute to their research efforts.

3.5.2.3 Mitigation

Burrows of the state-threatened gopher tortoise were identified within the Site during a formal gopher tortoise burrow survey. Any impacts to their burrows or the 25-ft protective buffer surrounding a burrow must be permitted by the FWC. Prior to construction, a Conservation Relocation permit application will be submitted to the FWC for authorization to excavate unavoidable burrows and relocate any captured individuals to an approved recipient site.

Standard protection measures for the eastern indigo snake will be enforced during construction activities to ensure eastern indigo snakes are not harmed if encountered. These protection measures include, but are not limited to, training contractors in the proper identification of eastern indigo snakes; posting signs on the construction site to aid in the proper identification and procedures if an indigo snake is encountered; and if an eastern indigo snake is encountered, work in the area will be stopped and will not recommence until the eastern indigo snake has safely evacuated the area on its own.

If any short-tailed snakes or Florida pine snakes are observed during construction, activities will cease, and the individuals will be allowed to leave the construction area on their own accord. Any sightings of these species during construction of the Project will be reported to the FWC (including photographs and/or GPS coordinates if possible).

If southeastern American kestrels are discovered nesting within or directly adjacent to the construction footprint following commencement of construction activities or if maintaining the recommended 150-meter buffer surrounding the active nest tree is not possible, FRP will coordinate with FWC staff to discuss impact avoidance and mitigation measures.

3.5.3 Migratory Bird Treaty Act

Most migratory birds are protected under the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-711) which prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when authorized by the USFWS.

3.5.3.1 Affected Environment

Florida is within the Atlantic Flyway migratory bird path and it is likely that migratory birds occasionally use the habitat within the Site. However, pine plantations are common in the area and removal of the silvicultural habitat is unlikely to adversely affect migratory birds.

3.5.3.2 Environmental Consequences

There is no indication that the Project would result in long-term disturbance or displacements of migratory birds. Although some researchers have hypothesized a potential “lake effect” of solar photovoltaic (PV) facilities resulting in avian mortality as water-dependent species attempt to land upon what they perceive is a waterbody (Leroy et al. 2015; Kagan et al. 2014; Smith and Dwyer 2016; McCrary et al. 1986), several authors, including a 2015 study conducted for the U.S. Department of Energy, concluded there was no consistent pattern of avian mortality by taxonomic groups among solar energy facilities to support or refute the lake effect hypothesis and it is too speculative to make any conclusions about the influence of the lake effect on fatalities of water-dependent birds (ANL and NREL, 2015, BirdLife Europe 2011, Oteyza et al. 2017, Walston et al. 2015). The Project will utilize dark PV cells with treated glass which reduce glare and further minimize the potential for migratory birds to perceive the solar arrays as a waterbody.

3.5.3.3 Mitigation

Adverse impacts to migratory birds, are expected to be negligible; thus, no mitigation is proposed.

3.5.4 Bald and Golden Eagle Protection Act

Although the bald eagle (*Haliaeetus leucocephalus*) is not currently classified by the USFWS or the FWC as threatened or endangered, it is still protected on the federal level under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act, as well as on the state level under the FWC Bald Eagle Management Plan. Development activities are regulated within 660 ft of any active or alternate bald eagle nest.

3.5.4.1 Affected Environment

The FWC maintains a bald eagle nest database, which documents the known locations of nests throughout the state. The closest known nest, GI002, is located approximately 2.5 miles to the west of the Site and no undocumented bald eagle nests were observed within the Site during wildlife surveys.

3.5.4.2 Environmental Consequences

No adverse impacts to the bald eagle are anticipated as a result of construction and operation of the Project.

3.5.4.3 Mitigation

No adverse impacts to the bald eagle are anticipated as a result of construction and operation of the Project and no mitigation is proposed.

3.5.5 Invasive Species

Invasive exotic plants within Florida are categorized by Florida Exotic Pest Plant Council (FLEPPC). Category I invasive plants are the most destructive and can displace native species and change community structures.

3.5.5.1 Affected Environment

The majority of the Site has been historically managed as pine plantation which limits the density of invasive species occurrence. Category I invasive plants that are common in north Florida and may occur within the Site include Caesar's weed (*Urena lobata*) cogon grass (*Imperata cylindrica*), Chinese privet (*Ligustrum sinense*), Peruvian primrose willow (*Ludwigia peruviana*), Japanese climbing fern (*Lygodium japonicum*), sword fern (*Nephrolepis cordifolia*), and tropical soda apple (*Solanum viarum*). Non-native animals that may occur within the Project area include wild hogs (*Sus scrofa*) and feral domestic cats.

3.5.5.2 Environmental Consequences

Minimal coverage of invasive exotic vegetation occurs at the Site; construction and operation of the Project is not anticipated to have any adverse impacts associated with invasive species.

3.5.5.3 Mitigation

No adverse impacts associated with invasive species are anticipated; therefore, no mitigation is proposed.

3.6 Water Resources

Hydrology and water resources include watersheds, surface water such as lakes, rivers, streams, and wetlands and groundwater resources such as the aquifer or water table. Waters of the U.S. and navigable waters include all surface water resources that are subject to jurisdiction under Section 404 of the Clean Water Act (33 U.S. Code § 1344) and Section 10 of the Rivers and Harbor Act, respectively.

3.6.1 Water Quantity

3.6.1.1 Affected Environment

The Project is located within the Santa Fe River basin (HUC 03110206). The Santa Fe River is located adjacent to the Site and is listed on the NPS National Rivers Inventory list (Appendix 3.3, Figure 1); no construction is proposed within the vicinity of the river or its floodplain. Wetlands within the Site consist of three small, isolated historic mining pits and the forested floodplain of the Santa Fe River on the western edge of the property.

3.6.1.2 Environmental Consequences

No adverse impacts to surface waters are anticipated. The FDEP permit issued on November 6, 2020 also constitutes a water quality certification under Section 401 of the Clean Water Act, 33 U.S.C. 1341. Federal consistency with the Coastal Zone Management Act (CZMA) was provided by the Florida State Clearinghouse (Appendix 3.6), which coordinates the state's review of federal activities for consistency with state laws and policies and provides comments to federal agencies and applicants in accordance with the CZMA. The NPS was consulted and indicated that they had no comments regarding the Project because no construction is proposed within the banks or floodplain of the Santa Fe River (Appendix 3.6).

Construction areas will be isolated from adjacent wetlands through installation of staked turbidity screen and/or silt fence along the perimeter, in accordance with best management practices (BMPs) to minimize any erosion or sedimentation outside of the construction area. Stormwater management is designed such that no adverse water quantity or quality to the receiving waters will occur. The nearest named water body, the Santa Fe River, is located adjacent to the Project (Appendix 3.3, Figure 1); no construction is proposed within the vicinity of the river or its floodplain.

3.6.1.3 Mitigation

Mitigation will not be required because no adverse impact to water quantity will occur, and no wetland impacts are proposed.

3.6.2 Water Quality

3.6.2.1 Affected Environment

3.6.2.1.1 Surface Water

The Project is located within the Santa Fe River basin (HUC 03110206). The Santa Fe River is located adjacent to the Site (Appendix 3.3, Figure 1); no construction is proposed within the vicinity of the river or its floodplain. Wetlands within the Site consist of three small, isolated historic mining pits and the forested floodplain of the Santa Fe River on the western edge of the property.

3.6.2.1.2 Groundwater

The Floridan aquifer, the principal source of ground water in the area, consists of the Lake City Limestone, Avon Park Limestone, and the Ocala Group, all of Eocene Age; the Suwannee Limestone of Oligocene Age; and an unnamed sandstone and limestone unit of Miocene Age. The water in the aquifer in Columbia County is replenished by underflow from the north and northeast and by infiltration from the land surface. The water moves westward and southward, discharging into the Suwannee, Ichetucknee, and Santa Fe rivers (Meyer, 1962).

3.6.2.2 Environmental Consequences

3.6.2.2.1 Effects on Surface Water

Construction areas will be isolated from adjacent wetlands through installation of staked turbidity screen and/or silt fence along the perimeter, in accordance with best management practices (BMPs) to minimize any erosion or sedimentation outside of the construction area. Stormwater management is designed such that no adverse water quantity or quality to the receiving waters will occur. The nearest named water body, the Santa Fe River, is located adjacent to the Project (Appendix 3.3, Figure 1); no construction is proposed within the vicinity of the river or its floodplain.

3.6.2.2.2 Effects on Groundwater

The solar array will be constructed with minimal ground disturbance and grading, resulting in only approximately 2.43% impervious area associated with the inverter pads, switchyard, and access paths. The Project's stormwater management system is designed such that no adverse impact to water quantity or quality to the receiving waters will occur.

3.6.2.3 Mitigation

Mitigation will not be required because the Project's stormwater management system is designed such that no adverse impact to water quality to the receiving waters will occur.

3.7 Coastal Resources

According to Florida's Coastal Barrier Resource System Units maps, the Site and all of Columbia County are not located within areas identified as a "Coastal Barrier Resources System Unit." The Project will not impact the activities designated for coastal zone areas within the state of Florida.

3.8 Socioeconomics and Environmental Justice

3.8.1 Affected Environment

The Site is located within unincorporated Columbia County, approximately two miles from the city of Fort White. There are no commercial areas, high density residential areas, public facilities, or key transportation facilities near the Project. The populations of Columbia County and the State of Florida for both 2010 and 2019 are provided in Table 6, based on available U.S. Census data. These jurisdictions showed population growth over the past ten years, with Florida's population growing by 14.24% and Columbia County's population growing by 6.15%. The EPA EJSCREEN Report is included in Appendix 3.8.

Table 6: Population Data

Jurisdiction	U.S. Census 2010 Population	U.S. Census 2019 Population Estimates	Percent Population Change
State of Florida	18,801,310	21,477,737	+ 14.24%
Columbia County, Florida	67,531	71,686	+ 6.15%

According to the University of Florida Bureau of Economic Business Research (UF/BEER, 2020), the median population projections for Columbia County indicate continued growth, with an estimated population of approximately 81,200 by 2045, a 13.27% increase from the 2019 estimates.

Executive Order 12898, “*Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations*” directs federal agencies “to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.”

Utilizing U.S. Census data, the demographics of the tract within which the Project is proposed (Census Tract 1109.03), the entire County, and State of Florida were characterized by racial categories as well as identified by Hispanic and Latino origin, which is an ethnicity rather than a racial characteristic. In accordance with the CEQ guidance (USEPA 1998), minority populations are identified when either:

- The population of a minority race exceeds 50 percent of the population; or
- The population of a minority race is meaningfully greater than, or 1.5 times, the minority population percentage in the general population or other appropriate unit of geographical analysis.

A minority community or a minority population is one that is identified or recognized by the U.S. Census Bureau as Hispanic or Latino, African American or Black, Asian and Pacific Islanders or American Indian. Therefore, any community with a racial or ethnic minority population that is equal to or greater than 50 percent or when the minority population is 1.5 times greater than the minority population percentage in the total population, then the area is a potential environmental justice area.

Table 7 presents the demographic characteristics of Census Tract 1109.03, all of Columbia County, as well as the state of Florida. From the data reviewed, there were no indicators of an environmental justice population based on minority populations or race. Therefore, no locations would be identified as potential environmental justice-related influences based on the racial or ethnic characteristics reviewed. Due to the absence of minority and low-income populations within the county, no extra outreach measures are required to provide opportunities to participate in the NEPA process.

Table 7: 2019 Population Demographics for Census Tract 1109.03, Columbia County, and State of Florida

Race/Ethnicity	Census Tract 1109.03, Columbia County	Columbia County Total	State of Florida Total
Total Population	3,966	69,968	21,477,737
White	90.3%	76.7%	74.5%
Black or African American	7.0%	18.1%	16.0%
American Indian and Alaska Native	0.0%	0.3%	0.3%
Asian	0.0%	1.1%	2.8%
Native Hawaiian and Other Pacific Islander	0.0%	0.0%	0.1%
Some other Race	1.2%	1.2%	3.4%

Race/Ethnicity	Census Tract 1109.03, Columbia County	Columbia County Total	State of Florida Total
Two or more Races	1.5%	2.7%	2.9%
Hispanic or Latino (of any race)	5.7%	6.3%	26.4%
Total Minority Population	12.7%	25.8%	45.6%

Utilizing U.S. Census data, the median household income, average/household size, and population of those living below the poverty line within Census Tract 1109.03, all of Columbia County, and the state of Florida were identified and reviewed.

The Census Bureau does not have an official or standard definition of “low-income”. According to the Bureau guidelines, when a household’s total income is less than the official poverty threshold for a household of similar size and composition, then the household is considered to be “living below the poverty line” (U.S. Department of Health & Human Services 2019). The threshold is determined based on the reported household total income by the median household income for a designated area as well as the size of the household. Based on these guidelines, the weighted average poverty threshold (in 2019 \$) has been identified as \$12,490 for a household of one, \$16,910 for a household of two, \$21,330 for a household of three, and \$25,750 for a household of four.

In addition, there are several other socioeconomic characteristics (such as education attainment, baseline health status and health insurance coverage, and participation in or eligibility for public assistance programs) that could be useful in identifying and characterizing low-income populations.

The median household income within Census Tract 1109.03, based on the US Census 2019 data, was reported at \$34,776, with a median family income reported at \$39,732. Within the Census Tract, the average household size was 2.53 (with the average family size being 3.38). An estimated 47.2% of all people with related children of the householder under 18 years of age were reported as having “income in the past 12 months below the poverty level”.

The median household income within Columbia County, based on the US Census 2019 data, was reported at \$46,494, with a median family income reported at \$60,910. Within the County, the average household size was 2.59 (with the average family size being 3.26). An estimated 21.7% of all people with related children of the householder under 18 years of age reported as having “income in the past 12 months below the poverty level”.

The median household income within the state of FL, based on the US Census 2019 data, was reported at \$59,227, with a median family income reported at \$71,348. Within the state, the average household size was 2.66 (with the average family size being 3.29). An estimated 17.4% of all people with related children of the householder under 18 years of age were reported as having “income in the past 12 months below the poverty level.”

When compared to the reported estimates of Columbia County and the State of Florida, the median household income reported within Census Tract 1109.03 is lower and the poverty levels are higher. However, the income levels are higher than the Federal designated weighted average poverty threshold per household size (\$21,330 for a household of three and \$25,750 for a household of four), therefore Census Tract 1109.03 may not identify as a location where potential environmental justice-related influences could occur.

3.8.2 Environmental Consequences

The Proposed Action is expected to have a positive regional effect and positively benefit communities directly affected by the Project, specifically through employment, economic benefit, and tax revenue. Population numbers are unlikely to change in magnitude or distribution because of the Proposed Action. No individual businesses or business districts will be affected by the Project. The Proposed Action would not be expected to cause adverse or disproportionately high impacts to minority or low-income communities. Therefore, there would be no significant impact regarding environmental justice resulting from the Proposed Action.

3.8.3 Mitigation

No mitigation will be required because the Project will not have a negative impact on the people within the surrounding community.

3.9 Air Quality

3.9.1 Affected Environment

The area surrounding the Project is rural and mainly used for agricultural purposes resulting in limited sources of air pollution. No US Environmental Protection Agency (USEPA) designated nonattainment or maintenance areas have been recorded within Columbia County (USEPA 2020).

3.9.2 Environmental Consequences

Potential impacts to air quality associated with the Project are anticipated to be minimal, resulting from emissions associated with vehicular traffic during construction. In addition, fugitive dust emissions from vehicles and vegetation clearing and grading activities will be minimal as best management practices, including stabilization and water trucks, will be employed during construction activities to minimize these emissions. The Project will not be a source of odors.

Electricity generation from a PV system does not generate emissions that would adversely affect air quality. Increasing reliance on renewable energy sources such as solar rather than burning fossil fuels will result in a decrease in air pollution. No air quality permits are required for solar facilities.

3.9.3 Mitigation

The Project will not result in adverse impacts to air quality; therefore, mitigation is not required.

3.10 Noise

3.10.1 Affected Environment

Sources that contribute to the ambient noise in the vicinity of the Project include manmade noise such as vehicular traffic, noise from agricultural practices, Highway 47, and smaller roadways. The area surrounding the Project is predominantly agricultural. There are no sensitive noise receptors including schools, libraries, religious institutions, hospitals and nursing homes, daycare centers, and other businesses within the vicinity of the Project. There are a few residences near the project but there is a forested buffer between the homes and the Project.

3.10.2 Environmental Consequences

Potential noise impacts from the Project are anticipated to be minimal. Temporary noise impacts during construction will be during the day and associated with construction trucks, equipment, construction-related activities, and construction workers. Construction activities would generally occur between dawn and dusk, Monday through Saturday, 7AM to 7PM. Temporary and short-term noise generated during construction is not expected to adversely affect the surrounding area.

Operation of the Project will not impact ambient noise; the primary source of noise associated with operation of the Project would be from light vehicular traffic during regular security and/or maintenance activities. Maintenance, repair, and other operational activities would occur exclusively during daylight hours. Inverters, which will be distributed throughout the Project, are a potential source of noise during the daytime hours, when PV panels are producing electricity. The typical uncontrolled inverter noise is expected to be up to 75 dB, A-scale which can be detected approximately 3 to 5 feet away from the inverters. Thus, changes in ambient noise levels associated with operations are not expected to adversely impact the surrounding area.

3.10.3 Mitigation

Due to the short-term temporary nature of changes in ambient noise levels during the construction phase of the Project and negligible changes during the operation phase of the Project when compared with pre-development conditions, no mitigation is required.

3.11 Transportation

3.11.1 Affected Environment

The Site is located immediately to the west of County Road 47 and accessed by Wilson Springs Road and Hollingworth Boulevard. County Road 47 is a two-lane, paved County maintained roadway while Wilson Springs Road and Hollingworth Boulevard are both unpaved. The most direct route to the site from I-75 is along US-41S/US-441 (5.4 miles) to County Rd 18 (6.6 miles) and then access the site off Wilson Springs Rd from FL-47 (2.4 miles). The closest private-use airport is the Fox Field Stolport, which is located approximately 3 miles west of the Project. The closest public-use airport is Gainesville Regional Airport, which is greater than 30 miles to the southwest.

3.11.2 Environmental Consequences

The Project is expected to result in some increased use of the local transportation network. Specifically, an increase in vehicular traffic traveling on US-41/US-441, County Rd 18 and FL-47 is expected during the construction phase of the Project from presence of workers, material/equipment deliveries, access/egress of heavy machinery or trucks accessing the Project. Access to the Project during construction will be from FL-47. The increased traffic may affect congestion, noise and dust around the Project site but impacts to road traffic conditions will be limited to the construction phase; thus, short-term and temporary.

When the Project is completed, vehicular traffic would have direct access to the Project from FL-47. Traffic associated with operation of the Project is expected from security and/or maintenance activities. However, traffic volume would be similar to current existing conditions and would not result in noticeable impacts.

3.11.3 Mitigation

Safety precautions and work-zone recommended practices in accordance with applicable state and federal regulations will be implemented to maintain safe access/egress of personnel and equipment from the Project while

minimizing disruptions to local road conditions. If damages to roadways inadvertently occur Project related use, repairs would be performed as needed.

3.12 Aesthetics

This section discusses the potential for adverse impacts to the existing visual character or quality of the land surrounding the Project through changes in the existing landscape. Potential effects are evaluated relative to important visual features (e.g., scenic highways, scenic features) and the existing visual landscape and its users.

3.12.1 Affected Environment

The Site is currently used for silviculture, while the surrounding area is rural land mainly used for agriculture and low-density residential. The Santa Fe River is adjacent to the western boundary of the Project and is on the NPS National Rivers Inventory list.

Although the County has several conservation and preserve areas and there are several state, county, and private land holdings that serve the purpose of environmental conservation, education, and protection, none of these areas are in close proximity to the Project and none of these areas would be disrupted or impacted (directly or indirectly) by the construction or operation of the Project.

3.12.2 Environmental Consequences

The project will not be visible from the Santa Fe River due to the approximately 630-850 ft of forested wetlands and uplands that will remain between the river and the Project. The NPS indicated no comments regarding the Project because no construction is proposed within the banks or floodplain of the Santa Fe River (Appendix 3.6).

Portions of the Project will likely be visible from Highway 47 which borders portions of the Site to the east. While the Project and associated infrastructure have potential to introduce visual contrast, no significant adverse visual impacts are expected to occur due to the rural nature of the Project.

3.12.3 Mitigation

The Project is not expected to result in significant adverse visual impacts; therefore, mitigation is not required.

3.13 Human Health & Safety

The Project is located on land previously used for silviculture; the Site is private and public access is restricted. There are no current known health and safety issues within the Site. The generation of clean, renewable solar energy will not cause adverse effects to public health and safety.

3.13.1 Electromagnetic Fields and Interference

3.13.1.1 Affected Environment

The Project is located on land previously used for agriculture. There are two existing transmission lines that cross the Site.

3.13.1.2 Environmental Consequences

PV systems generate non-ionizing electromagnetic fields (EMF) 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. The inverters and the wires delivering this power to the grid are the only components of the Project that will produce EMF. The EMF generated from inverters is normally oscillating with a frequency of 60 Hz. This frequency is at the low-energy end of the electromagnetic spectrum and has less energy than other commonly encountered types of non-ionizing radiation like radio waves, infrared radiation, and visible light (Cleveland, 2017). The EMF emitted from the Project will be non-ionizing and of low frequency which is generally perceived as harmless to humans. Because of this, it was not necessary to incorporate design parameters to limit EMF. There are no State-specific design or siting requirements that exist regarding EMF for solar projects.

The Federal Aviation Administration (FAA) has indicated that electromagnetic interference (EMI) from PV installations is low risk. PV system equipment such as step-up transformers and electrical cables are not sources of EMI because of their low-frequency of operation and PV panels themselves do not emit EMI. The only component of a PV array that may be capable of emitting EMI is the inverter. Inverters, however, produce extremely low frequency EMI similar to electrical appliances and at a distance of 150 feet from the inverters the electromagnetic field is at or below background levels (NREL, 2017).

3.13.1.3 Mitigation

No mitigation is required because the EMF generated and EMI emitted from the Project will be very low and do not pose a risk to human health and safety.

3.13.2 Environmental Risk Management

3.13.2.1 Affected Environment

A Phase I Environmental Site Assessment (ESA) was completed for the Project in November 2016. The Phase I ESA identified no current Recognized Environmental Conditions (REC) or conditions indicative of environmental impairment of the property and/or adjoining parcels. There have been no major changes to the site since the Phase I ESA was completed. The Site historically has been maintained as a pine plantation. There are currently not any hazards associated with the property that would be an environmental risk.

3.13.2.2 Environmental Consequences

With the exemption of construction-related materials such as fuels, lubricants, adhesives, and solvents, construction or operation of the Project will not require generation, use, or storage of significant quantities of hazardous substances. The PV panels for the Project are environmentally sealed collections of PV cells that require no chemicals and produce no waste materials. The Project will not generate lead-based paint, radon, asbestos or mold.

3.13.2.3 Mitigation

Compliance with regulations and standard manufacturers' protocols for storage, transportation, and usage of any hazardous construction-related materials will be followed to ensure safety in accordance with OSHA Hazard Communication Standard (29 CFR 1910.1200).

3.13.3 Occupational Health and Safety

3.13.3.1 Affected Environment

Contractors working at the Site may be exposed to short-term safety risks associated with construction, operation, maintenance and decommissioning of the Project.

3.13.3.2 Environmental Consequences

Contractors working on the Project may be exposed to short-term risks associated with construction activities and the Project would involve operation and maintenance activities that may expose on-site personnel to health and safety risks.

3.13.3.3 Mitigation

To mitigate occupational health hazards, contractors would be required to establish and maintain a safety plan for installation and construction activities in compliance with OSHA requirements. The contractor would be expected to ensure that construction activities comply with OSHA standards and other applicable engineering and construction standards and codes, such as the National Electrical Safety Code. The contractor is expected to plan for potential site-specific risks and potential risks specific to solar array panel installation. Construction workers are expected to receive appropriate safety training, hold the proper certifications, and be knowledgeable in solar panel installation and its applicable hazards and precautions.

Typical best practices for site safety would serve to minimize any potential safety risks in this regard. Examples of these practices include (1) implementing procedures to ensure that equipment guards, housekeeping, and personal protective equipment are in place; (2) establishing programs and procedures for lockout, right-to-know, confined space, hearing conservation, forklift operations, etc.; (3) conducting employee safety orientations; (4) performing regular safety inspections; and (5) developing a plan of action for any identified hazards. Safety and security measures will include fencing around the entirety of the project, locked entrances, and signage to prevent unauthorized entrance onto the site, and to protect against danger of electric shock.

Health and safety risks are expected to be minimal and temporary, and the contractor is expected to effectively manage these risks with measures such as developing a worker health and safety plan, providing PPE for workers, implementing protocols during operations, and installing secure fencing. Therefore, the potential health and safety impacts resulting from construction, operation and maintenance, and dismantling of the Project are expected to be minimal and insignificant.

4.0 CUMULATIVE EFFECTS

The cumulative effects assessment considers the effects of the proposal in light of the effects of past, present, and reasonably foreseeable future actions occurring in the area affected by the proposal. Fundamental to the analysis is assessing if the proposal's potential effects, when combined with other actions (similar actions in the same geographic area or other activities in the area with similar effects), will cause a significant impact to the human environment.

The Project is located to the northwest of an existing solar facility, the Duke Energy Santa Fe Solar Power Plant, and will connect to the Santa Fe Substation. The existing solar facility was constructed upon property historically utilized for timber production, similar to the Columbia County Solar Site. No significant cumulative effects are anticipated as a result of additional conversion of pine plantation to renewable energy production. Pine plantations are common throughout the state of Florida and are not identified as Prime Forestland.

According to the Columbia County Land Development Regulation Administration, three solar power generation plants have been approved within 5 miles of the Project. According to the County, there are no other known projects, either submitted or planned, within 5-miles of the Project. Correspondence from Columbia County is included in Appendix 4.0.

According to the Suwannee River Water Management District landuse/landcover data, Columbia County contains approximately 150,766 acres of pine plantation and forest regeneration areas. The Project will convert approximately 506 acres of pine plantation and forest regeneration areas to renewable energy production, representing 0.6% of the total acreage of silvicultural lands in the County. The Project will not contribute to cumulative loss of wetland resources within the region, as the Project has been designed to avoid all wetland impacts.

5.0 SUMMARY OF MITIGATION

5.1 WETLANDS

The Project has been designed to avoid all wetland impacts. Prior to construction, erosion and sediment controls will be installed to avoid discharge of erosional materials outside of the work area. Stormwater management is designed such that no adverse water quantity or quality to the receiving waters will occur. No wetland mitigation or monitoring is required.

5.2 LISTED SPECIES

Burrows of the state-threatened gopher tortoise were identified within the Site during a formal gopher tortoise burrow survey. Any impacts to their burrows or the 25-ft protective buffer surrounding a burrow must be permitted by the FWC. Prior to construction, a Conservation Relocation permit application will be submitted to the FWC for authorization to excavate unavoidable burrows and relocate any captured individuals to an approved recipient site.

Standard protection measures for the eastern indigo snake will be enforced during construction activities to ensure eastern indigo snakes are not harmed if encountered. These protection measures include, but are not limited to, training contractors in the proper identification of eastern indigo snakes; posting signs on the construction site to aid in the proper identification and procedures if an indigo snake is encountered; and if an eastern indigo snake is encountered, work in the area will be stopped and will not recommence until the eastern indigo snake has safely evacuated the area on its own.

If any short-tailed snakes or Florida pine snakes are observed during construction, activities will cease, and the individuals will be allowed to leave the construction area on their own accord. Any sightings of these species during construction of the Project will be reported to the FWC (including photographs and/or GPS coordinates if possible).

If southeastern American kestrels are discovered nesting within or directly adjacent to the construction footprint following commencement of construction activities or if maintaining the recommended 150-meter buffer surrounding the active nest tree is not possible, FRP will coordinate with FWC staff to discuss impact avoidance and mitigation measures.

6.0 COORDINATION, CONSULTATION, AND CORRESPONDENCE

FRP has coordinated with the following agencies:

- US Army Corps of Engineers
- Florida Department of Environmental Protection
- Columbia County
- Florida Fish and Wildlife Conservation Commission
- Florida Division of Historical Resources
- US Fish and Wildlife Service
- Tribal Historic Preservation Officers - Coushatta Tribe of Louisiana, Miccosukee Tribe of Indians, Muscogee (Creek) Nation, Thlopthlocco Tribal Town, and the Seminole Tribe of Florida
- US National Park Service

7.0 REFERENCES

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8.0 LIST OF PREPARERS

The following table lists the individuals who contributed to the development of this EA.

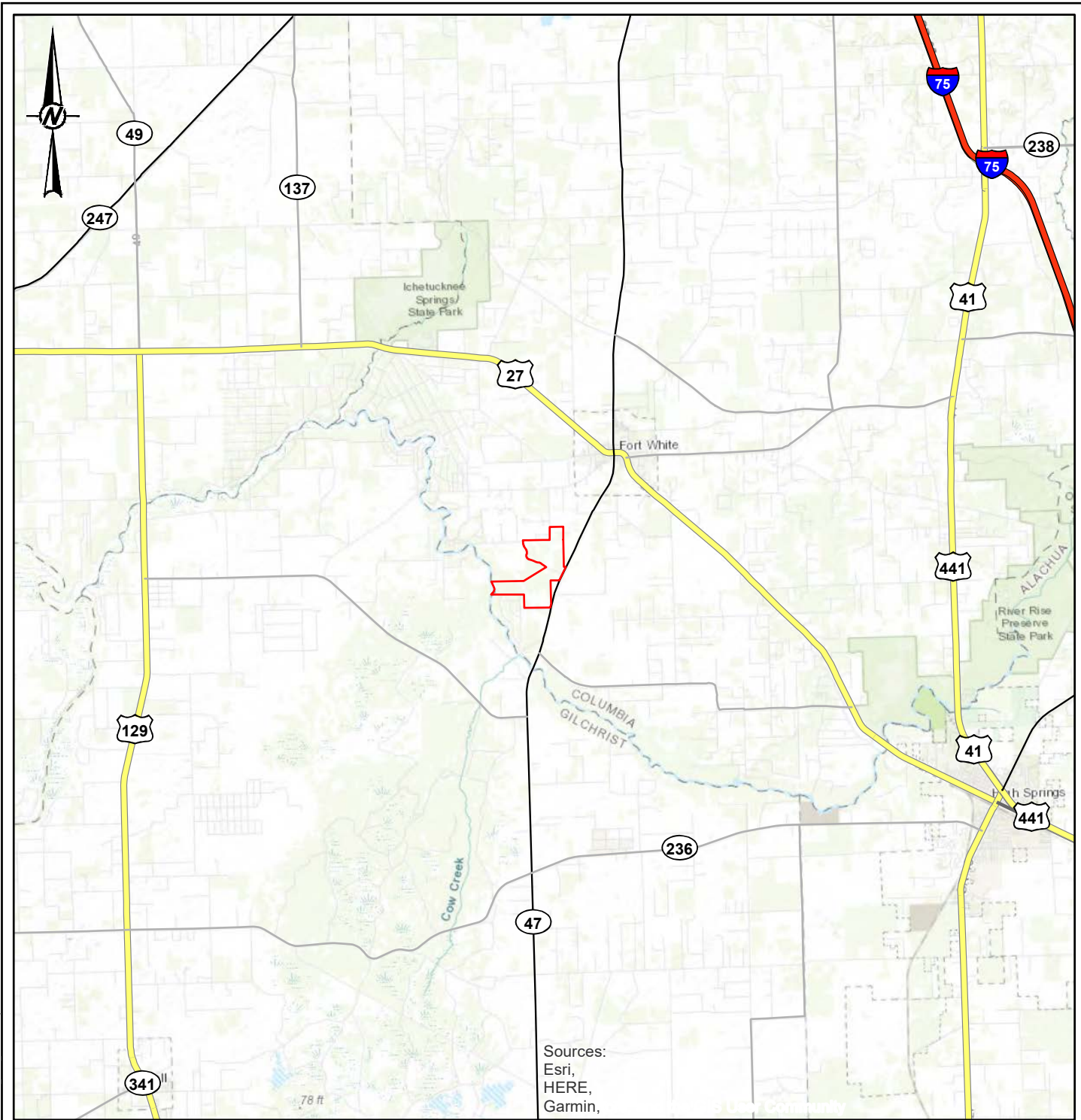
Name	Title / Role for this EA	Organization
Karl Bullock	Project Director, Environmental Permitting	Golder Associates
Gina Zarnstorff	Staff Scientist	Golder Associates

APPENDIX 1.1

Project Description

Figure 1 – Project Location Map
Figure 2 – Solar Layout Map

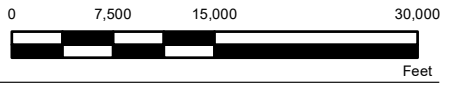
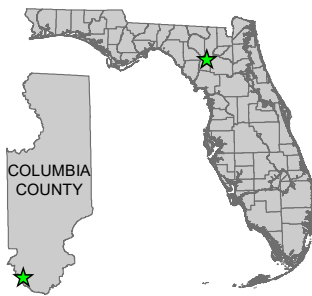
FDEP ERP Permit



Sources:
Esri,
HERE,
Garmin,

LEGEND

- ★ Project Location
- Project Boundary



REFERENCE(S)

1. PROPERTY BOUNDARY: LONCALA SOLAR, LLC 2019
2. PROPERTY LOCATION: GOLDR ASSOCIATES INC 2019

COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA NORTH FIPS 0903 FEET
PROJECTION: LAMBERT CONFORMAL CONIC
DATUM: NORTH AMERICAN 1983

CLIENT

FLORIDA RENEWABLE PARTNERS

PROJECT

COLUMBIA COUNTY SOLAR

TITLE

SITE LOCATION MAP

CONSULTANT



YYYY-MM-DD 2021-01-21

DESIGNED JGW

PREPARED JGW

REVIEWED KB

APPROVED KB

PROJECT NO.
19125540

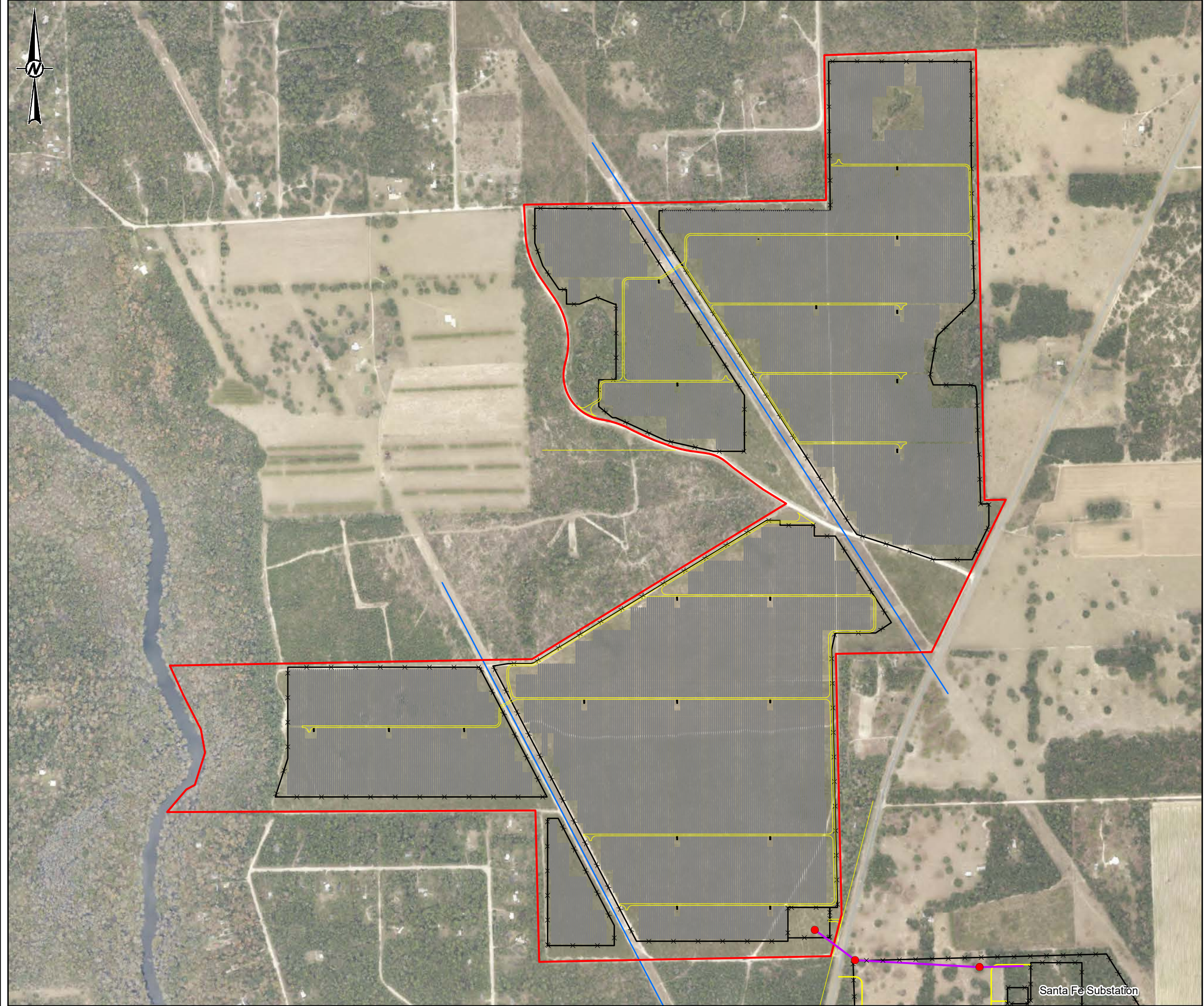
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- LEGEND**
- Proposed Transmission Line Structures
 - Proposed Transmission Line
 - ▭ Project Boundary (±579.45 Acres)
 - Security Fence
 - Roads
 - Inverters
 - Transmission Lines
 - Solar Arrays




- REFERENCE(S)**
1. PROPERTY BOUNDARY: LONCALA SOLAR, LLC 2019
 2. GOPHER TORTOISE BURROWS: GOLDR ASSOCIATES INC. 2019

COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA NORTH FIPS 0903 FEET
 PROJECTION: LAMBERT CONFORMAL CONIC
 DATUM: NORTH AMERICAN 1983
 SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRI, IGN, AND THE GIS USER COMMUNITY

CLIENT
FLORIDA RENEWABLE PARTNERS

PROJECT
COLUMBIA COUNTY SOLAR

TITLE
SITE LAYOUT

CONSULTANT	YYYY-MM-DD	2021-04-30
 GOLDER	DESIGNED	JGW
	PREPARED	JGW
	REVIEWED	KB
	APPROVED	KB

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FLORIDA DEPARTMENT OF Environmental Protection

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Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

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FRP Columbia County Solar

Environmental Resource Permit

State-owned Submerged Lands Authorization – Not Applicable
U.S. Army Corps of Engineers Authorization – Not Included

Columbia County

Permit No.: 12-0208670-001-EI

Permit Issuance Date: November 6, 2020

Permit Construction Phase Expiration Date: November 6, 2025

Environmental Resource Permit

Permittee: FRP Columbia County Solar, LLC
Permit No: 12-0208670-001-EI

PROJECT LOCATION

The activities authorized by this permit are located approximately 2.3 miles southwest of the intersection with U.S. Highway 27 along the west side of County Road 47, Parcel IDs 05-7S-16-04140-000, 08-7S-16-04158-001, 17-7S-16-04234-000 and 07-7S-16-04157-000 in Columbia County, Florida, Sections 5, 7, 8, 17, 18, Township 07S, Range 16 E, at latitude 29° 53' 25.31" N/ longitude 82° 44' 6.86" W.

PROJECT DESCRIPTION

The permittee is authorized to construct a stormwater management system associated with the development of a 74.5-megawatt solar photovoltaic energy facility upon approximately 579 acres of existing silvicultural lands. The facility consists of solar photovoltaic panels, inverters, transformers, collector lines, a solar collector yard, and access paths. The total impervious and semi-impervious areas are 14.08 acres, which include 11.57 acres of access path, 2.15 acres of solar collector yard, and 0.36 acre of inverter pads.

The proposed stormwater management system consists of eight (8) water quality swales with varies widths, depth, and length throughout the site; a solar collector yard swale with a control structure; conveyance swales that are 5-ft wide at the bottom, 0.5-ft deep in Basins 2, 3, 8, 11, and 19; and berms with top elevations of 59.00 feet NAVD 88 in Basin 1 and 12, and 54.00 feet NAVD 88 in Basin 4 along property boundaries. The permittee is also authorized to cut and fill limited onsite areas including six man-made excavation test pits but required to maintain existing drainage directions. The proposed system combined with sixteen (16) existing onsite depressional storages will provide stormwater collection; treatment for 2 inches of runoff over the new impervious and semi-impervious areas (except Basin No. 13 for runoff from 1.5 inches of rainfall over the entire basin due to its close proximity to the Santa Fe River); and attenuation up to 100-year storm event with 1-, 2-, 4-, 8-, 24-hour, and 3-, 7-, and 10-day durations for the entire site. Authorized activities are depicted on the attached exhibits.

AUTHORIZATIONS

FRP Columbia County Solar

Environmental Resource Permit

The Department has determined that the activity qualifies for an Environmental Resource Permit. Therefore, the Environmental Resource Permit is hereby granted, pursuant to Part IV of Chapter 373, Florida Statutes (F.S.), and Chapter 62-330, Florida Administrative Code (F.A.C.).

Sovereignty Submerged Lands Authorization

As staff to the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), the Department has determined the activity is not on submerged lands owned by the State of Florida. Therefore, your project is not subject to the requirements of Chapter 253, F.S., or Rule 18-21, F.A.C.

Federal Authorization

This permit does not include federal authorization or imply the presence or limits of Waters of the United States (WOTUS) on the subject property. Activities that may impact WOTUS shall require a separate permit from the Corps. It is recommended that you contact your local Corps office to determine whether your project site contains WOTUS and/or if a Department of the Army permit is needed. A map of local Corps offices and the federal application form (ENG 4345) are available online at the Jacksonville District Regulatory Division website.

Water Quality Certification

This permit also constitutes a water quality certification under Section 401 of the Clean Water Act, 33 U.S.C. 1341.

Other Authorizations

You are advised that authorizations or permits for this activity may be required by other federal, state, regional, or local entities including but not limited to local governments or municipalities. This permit does not relieve you from the requirements to obtain all other required permits or authorizations.

The activity described may be conducted only in accordance with the terms, conditions and attachments contained in this document. Issuance and granting of the permit and authorizations herein do not infer, nor guarantee, nor imply that future permits, authorizations, or modifications will be granted by the Department.

PERMIT CONDITIONS

The activities described must be conducted in accordance with:

- **The Specific Conditions**
- **The General Conditions**
- **The limits, conditions and locations of work shown in the attached drawings**
- **The term limits of this authorization**

You are advised to read and understand these conditions and drawings prior to beginning the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings herein. If you are using a contractor, the contractor also should read and understand these conditions and drawings prior to beginning any activity. Failure to comply with these conditions, including any mitigation requirements, shall be grounds for the Department to revoke the permit and authorization and to take appropriate enforcement action. Operation of the facility is not authorized except when determined to be in conformance with all applicable rules and this permit, as described.

SPECIFIC CONDITIONS - PRIOR TO ANY CONSTRUCTION

1. The permittee shall consult Division of Historical Resource at CompliancePermits@DOS.MyFlorida.com if a professional cultural resources assessment survey shall be conducted. If yes, the survey report shall be approved by the Division of Historical Resources prior to commencement of work authorized by this permit.

2. Prior to commencement of work authorized by this permit, the permittee shall provide written notification of the date of the commencement and proposed schedule of construction to the Department of Environmental Protection, Northeast District, 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256.

SPECIFIC CONDITIONS – CONSTRUCTION ACTIVITIES

3. This permit does not authorize any dredging, filling, stockpiling of tools, equipment and materials, or other construction activity, including the removal of any vegetation, tree stumps and/or vegetative root masses within any wetland.

4. If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, stone tools, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section (DHR), at (850)245-6333, as well as the appropriate permitting agency office. Project activities shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and the proper authorities notified in accordance with section 872.05, F.S. For project activities subject to prior consultation with the DHR and as an alternative to the above requirements, the permittee may follow procedures for unanticipated discoveries as set forth within a cultural resource assessment survey determined complete and sufficient by DHR and included as a specific permit condition herein.

SPECIFIC CONDITIONS - OTHER LISTED SPECIES

5. Please be advised that the liability to not adversely impact or cause “take” of listed species and other regulated species of fish and wildlife is the responsibility of the owner or applicant associated with this project. Please refer to Chapter 68A-27 of the Florida Administrative Code for definitions of “take” and a list of fish and wildlife species. If listed species are observed onsite, FWC staff are available to provide decision support information or assist in obtaining the appropriate FWC permits. Requests for further information or review can be sent to FWCConservationPlanningServices@MyFWC.com.

SPECIFIC CONDITIONS - CONSTRUCTION COMPLETION

6. Upon completion of construction, the permittee shall submit to the Department of Form 62-330.310(1) “As-Built Certification and Request for Conversion to Operation Phase”. The form shall be certified by a registered professional and serve to notify the Department that the project, or independent portion of the project, is completed and ready for inspection by the Department. The person completing Form 62-330.310(1) shall inform the Department if there are substantial deviations from the plans approved as part of the permit and include as-built drawings with the form.

7. The plans must be clearly labeled as “as-built” or “record” drawings and shall consist of the permitted drawings that clearly highlight (such as through “red lines” or “clouds”) any substantial deviations made during construction. The permittee shall be responsible for correcting the deviations [as verified by a new certification using Form 62-330.310(1)]. If such deviations require a modification of the permit under Rule 62-330.315, F.A.C., the permittee shall separately request a modification to the permit, which must be issued by the Department prior to the Department approving the request to convert.

8. When projects authorized by the permit are to be constructed in phases, each phase or independent portion of the permitted project must be completed and the permittee must have submitted Form 62-330.310(1) “As-Built Certification and Request for Conversion to Operation Phase,” in accordance with subparagraph 62-330.350(1)(f)2., F.A.C., certifying as to such completion prior to the use of that phase or independent portion of the project. The request for conversion to the operating phase for any phase or independent portion of the permitted project shall occur before construction of any future work that may rely on that infrastructure for conveyance and water quality treatment and attenuation. Phased construction can include a partial certification.

SPECIFIC CONDITIONS – OPERATION AND MAINTENANCE ACTIVITIES

9. In accordance with Section 373.416(2), F.S., unless revoked or abandoned, all stormwater management systems, dams, impoundments, reservoirs, appurtenant works, or works permitted under Part IV of Chapter 373, F.S., must be operated and maintained in perpetuity. The operation and maintenance shall be in accordance with the designs, plans, calculations, and other specifications that are submitted with an application, approved by the Department, and incorporated as a condition into any permit issued.

10. A registered professional shall perform inspections every three years after conversion of the permit to the operation and maintenance phase to identify if there are any deficiencies in structural integrity, degradation due to insufficient maintenance, or improper operation that may endanger public health, safety, or welfare, or the water resources, and to insure that systems are functioning as designed and permitted. Within 30 days of the inspection, a report shall be submitted electronically or in writing to the Department using Form 62-330.311(1), “Operation and Maintenance Inspection Certification”.

11. The permittee shall conduct periodic inspections in addition to the above professional inspections, especially after heavy rain. The permittee shall maintain a record of each inspection, including the date of inspection, the name and contact information of the inspector, whether the system was functioning as designed and permitted, and make such record available upon request of the Department. Within 30 days of any failure of any system or deviation from the permit, a report shall be submitted electronically or in writing to the Department using Form 62-330.311(1), “Operation and Maintenance Inspection Certification,” describing the remedial actions taken to resolve the failure or deviation.

12. The following operational maintenance activities shall be performed on all permitted systems on a regular basis or as needed:

- a. Inspection of swales, berms, and structure for damage and blockage
- b. Removal of trash, debris and sediments from swales

- c. Mowing and removal of clippings
- d. Stabilization and restoration of eroded areas and slopes
- e. Maintenance of overland flow areas to prevent channelization
- f. Check for any indication of sinkhole development and repair of any sinkhole or solution pipe that develops in the system

GENERAL CONDITIONS FOR INDIVIDUAL PERMITS

The following general conditions are binding on all individual permits issued under this chapter, except where the conditions are not applicable to the authorized activity, or where the conditions must be modified to accommodate project-specific conditions.

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under chapter 373, F.S.
2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.
3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation, June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in subparagraph 62-330.050(9)(b)5., F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.
4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice," (October 1, 2013), (<http://www.flrules.org/Gateway/reference.asp?No=Ref-02505>), incorporated by reference herein, indicating the expected start and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5), F.A.C., and shall be submitted electronically or by mail to the Agency. However, for activities involving more than one acre of construction that also require a NPDES stormwater construction general permit, submittal of the Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, DEP Form 62-621.300(4)(b), shall also serve as notice of commencement of construction under this chapter and, in such a case, submittal of Form 62-330.350(1) is not required.
5. Unless the permit is transferred under rule 62-330.340, F.A.C., or transferred to an operating entity under rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms, and conditions of the permit for the life of the project or activity.

6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
 - a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex – “Construction Completion and Inspection Certification for Activities Associated with a Private Single-Family Dwelling Unit” [Form 62-330.310(3)]; or
 - b. For all other activities – “As-Built Certification and Request for Conversion to Operation Phase” [Form 62-330.310(1)].
 - c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:
 - a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as-built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.4 of Volume I) as filed with the Florida Department of State, Division of Corporations, and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.
 - b. Within 30 days of submittal of the as-built certification, the permittee shall submit “Request for Transfer of Environmental Resource Permit to the Perpetual Operation and Maintenance Entity” [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:
 - a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in chapter 62-330, F.A.C.;
 - b. Convey to the permittee or create in the permittee any interest in real property;
 - c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
 - d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the Agency in writing:
 - a. Immediately if any previously submitted information is discovered to be inaccurate; and
 - b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, stone tools, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section (DHR), at (850)245-6333, as well as the appropriate permitting agency office. Project activities shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and the proper authorities notified in accordance with section 872.05, F.S. For project activities subject to prior consultation with the DHR and as an alternative to the above requirements, the permittee may follow procedures for unanticipated discoveries as set forth within a cultural resources assessment survey determined complete and sufficient by DHR and included as a specific permit condition herein.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under rule 62-330.201, F.A.C., provides otherwise.

16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with subsection 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

19. In addition to those general conditions in subsection (1), above, the Agency shall impose any additional project-specific special conditions necessary to assure the permitted activities will not be harmful to the water resources, as set forth in rules 62-330.301 and 62-330.302, F.A.C., Volumes I and II, as applicable, and the rules incorporated by reference in this chapter.

NOTICE OF RIGHTS

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even denial of the application.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant and persons entitled to written notice under Section 120.60(3), F.S., must be filed within 21 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 21 days of publication of the notice or within 21 days of receipt of the written notice, whichever occurs first. You cannot justifiably rely on the finality of this decision unless notice of this decision and

the right of substantially affected persons to challenge this decision has been duly published or otherwise provided to all persons substantially affected by the decision. While you are not required to publish notice of this action, you may elect to do so pursuant Rule 62-110.106(10)(a).

The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C. If you do not publish notice of this action, this waiver will not apply to persons who have not received written notice of this action.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us, before the deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

Mediation is not available in this proceeding.

FLAWAC Review

The applicant, or any party within the meaning of Section 373.114(1)(a) or 373.4275, F.S., may also seek appellate review of this order before the Land and Water Adjudicatory Commission under Section 373.114(1) or 373.4275, F.S. Requests for review before the Land and Water Adjudicatory Commission must be filed with the Secretary of the Commission and served on the Department within 20 days from the date when this order is filed with the Clerk of the Department.

Judicial Review

Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department in the Office of General Counsel (Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000) and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days from the date this action is filed with the Clerk of the Department.

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Thomas G. Kallemeyn
Permitting Program Administrator

TGK:kp:js:cc

Attachments:

Project Drawings and Design Specs., 20 pages
Construction Commencement Notice/Form 62-330.350(1)
As-built Certification and Request for Conversion to Operational Phase / Form 62-330.310(1)
Operation and Maintenance Inspection Certification / Form 62-330.311(1)

Copies furnished to:

Thomas Kallemeyn, FDEP NED
Michelle Neeley, FDEP NED
Junhong Shi, P.E., FDEP NED
Kim Pearce, FDEP NED

CERTIFICATE OF SERVICE

The undersigned hereby certifies that this permit, including all copies, were mailed before the close of business on November 6, 2020, to the above listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, under 120.52(7) of the
Florida Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged.



Clerk

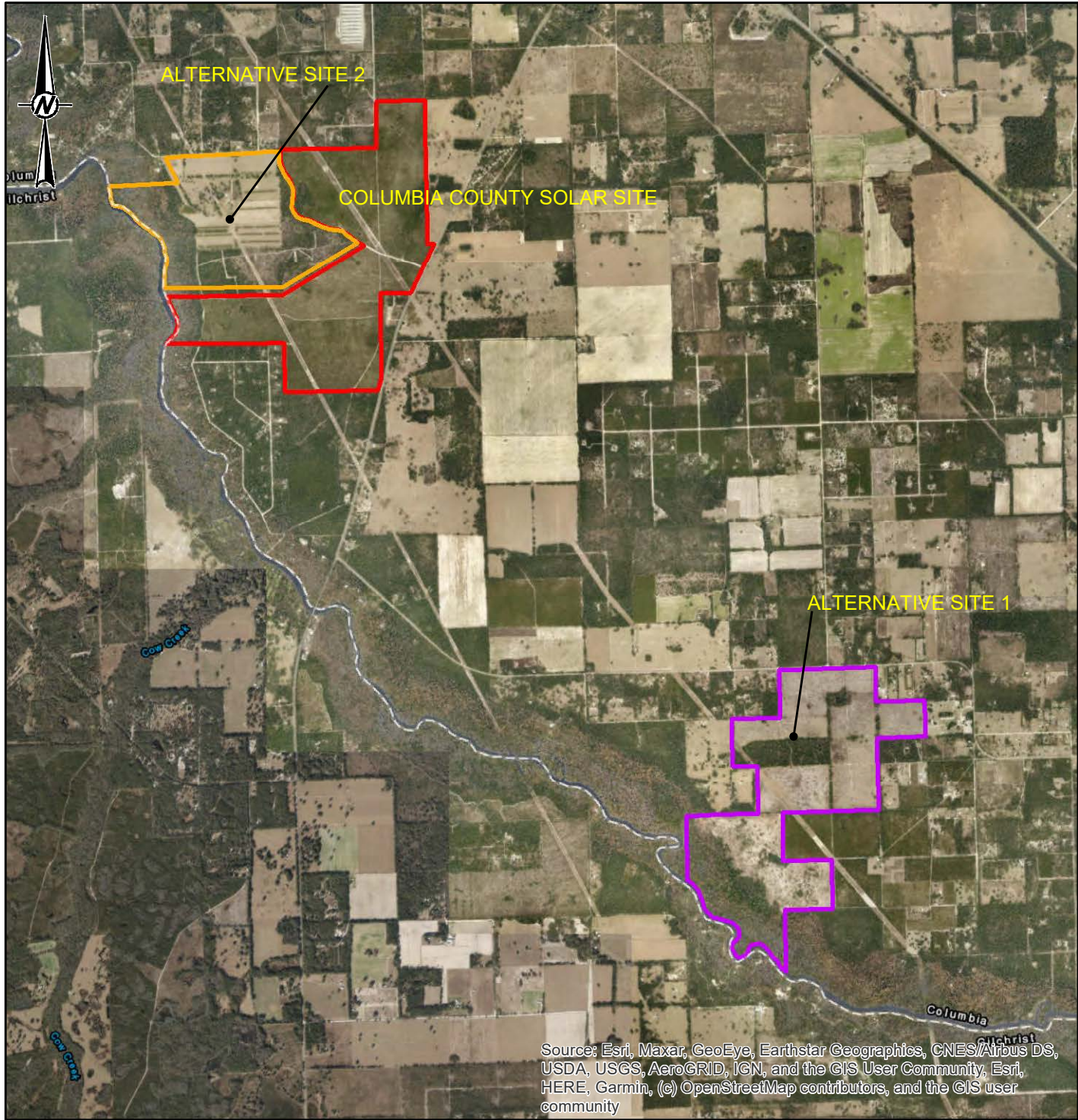
November 6, 2020

Date

APPENDIX 2.2

Other Alternatives Evaluated

Figure 1 – Alternative Sites Map



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

LEGEND

- ★ Project Location
- ▭ Columbia County Solar Site
- ▭ Alternative Site 1
- ▭ Alternative Site 2



REFERENCE(S)

1. PROPERTY BOUNDARY: LONCALA SOLAR, LLC 2019
 2. PROPERTY LOCATION: GOLDER ASSOCIATES INC 2019
 COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA NORTH FIPS 0903 FEET
 PROJECTION: LAMBERT CONFORMAL CONIC
 DATUM: NORTH AMERICAN 1983

CLIENT
FLORIDA RENEWABLE PARTNERS

PROJECT
COLUMBIA COUNTY SOLAR

TITLE
ALTERNATIVE SITES LOCATION MAP

CONSULTANT



YYYY-MM-DD	2020-12-15
DESIGNED	JGW
PREPARED	GZ
REVIEWED	KB
APPROVED	KB

PROJECT NO. 19125540	CONTROL B017	REV. 0	FIGURE 1
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APPENDIX 3.1

Land Use/Land Ownership

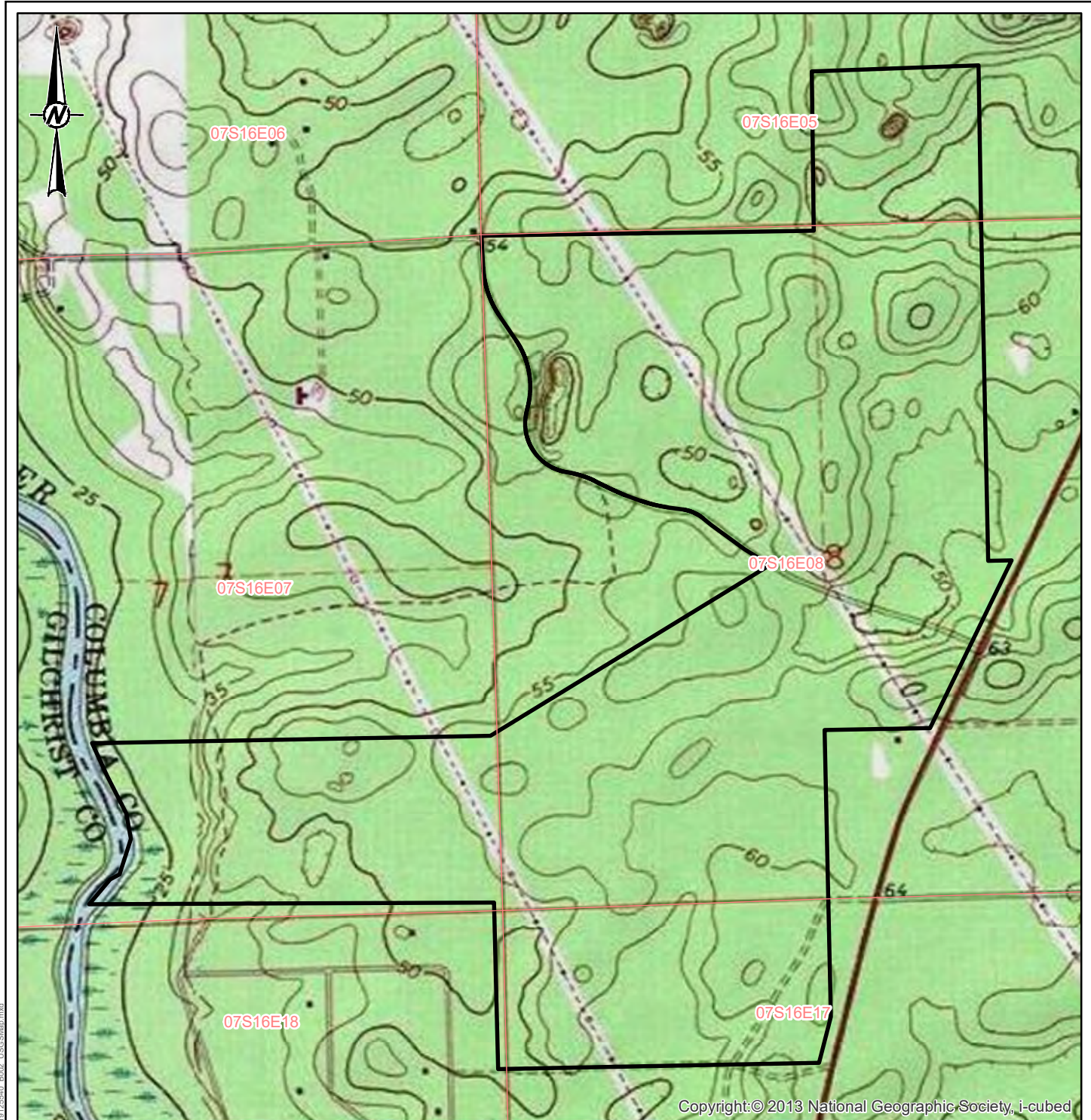
Figure 1 – USGS Map

Figure 2 – Land Use Map

Figure 3 – Future Land Use Map




Figure 4 – Zoning Map

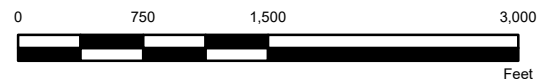
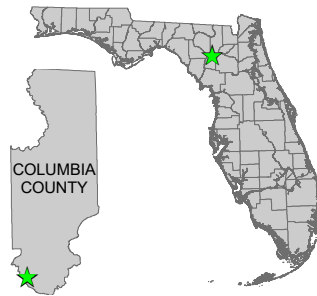
NRCS Important Farmlands Report
Columbia County Special Exception Approval



Copyright: © 2013 National Geographic Society, i-cubed

LEGEND

-  Project Location
-  Project Boundary
-  PLSS



REFERENCE(S)

1. PROPERTY BOUNDARY: LONCALA SOLAR, LLC 2019
2. PROPERTY LOCATION: GOLDER ASSOCIATES INC 2019

COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA NORTH FIPS 0903 FEET
 PROJECTION: LAMBERT CONFORMAL CONIC
 DATUM: NORTH AMERICAN 1983

CLIENT

FLORIDA RENEWABLE PARTNERS

PROJECT

COLUMBIA COUNTY SOLAR

TITLE

USGS MAP

CONSULTANT



YYYY-MM-DD 2020-09-09

DESIGNED JGW

PREPARED JGW

REVIEWED KB

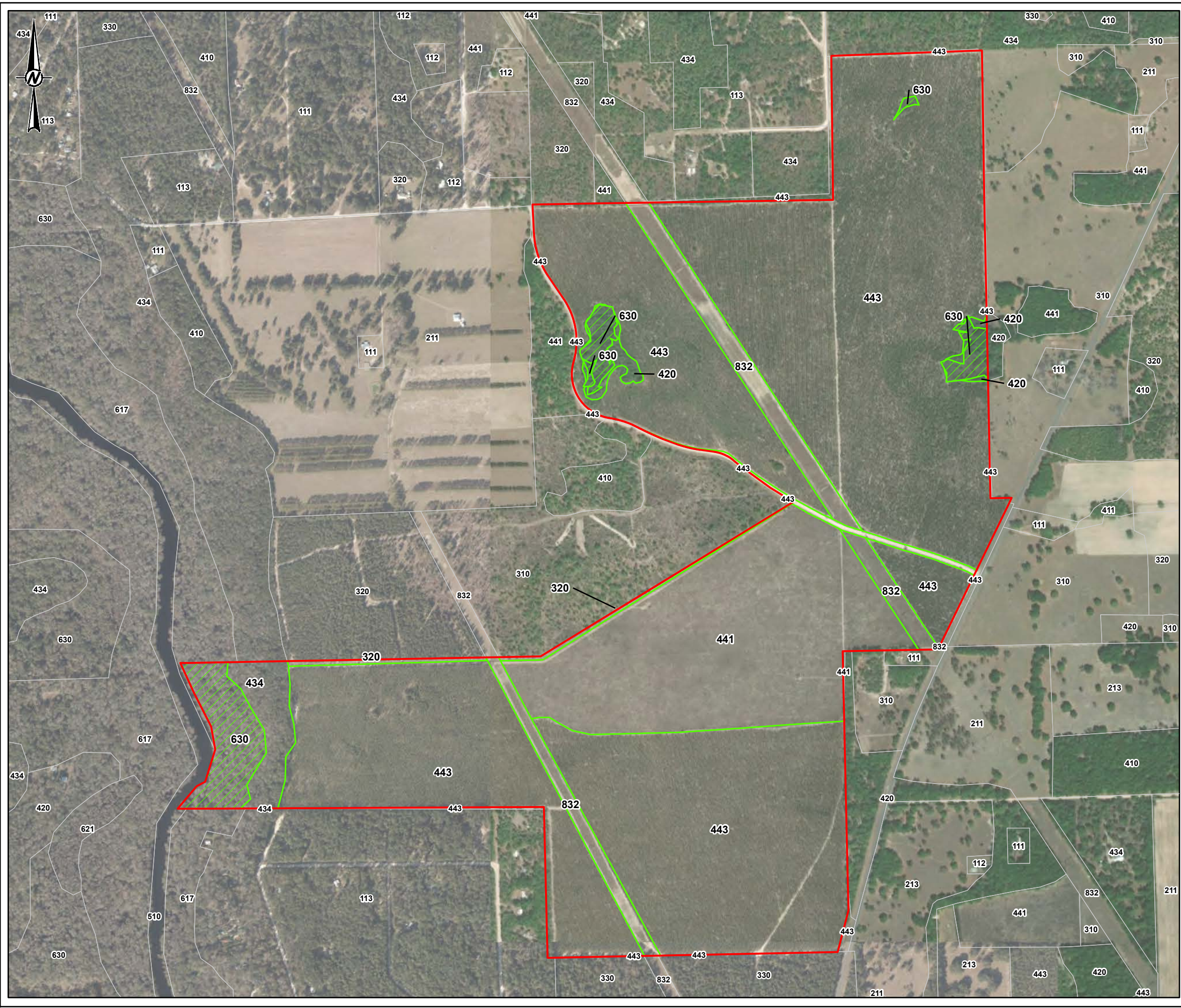
APPROVED KB

PROJECT NO.
19125540

CONTROL
B002

REV.
0

FIGURE
1



LEGEND

- Project Boundary
- Wetlands
- Land Use

- 320: Shrub and Brushland
- 420: Upland Hardwood Forests
- 434: Hardwood - Coniferous Mixed
- 441: Coniferous Plantations
- 443: Forest Regeneration Areas
- 630: Wetland Forested Mixed
- 832: Electric Power Transmission Lines

- Land Use SRWMD
- 111: Fixed Single Family Units
- 112: Mobile Home Units
- 113: Mixed Units <Fixed And Mobile Home Units>
- 211: Improved Pastures
- 213: Woodland Pastures
- 310: Herbaceous (Dry Prairie)
- 320: Shrub And Brushland
- 330: Mixed Rangeland
- 410: Upland Coniferous Forests
- 411: Pine Flatwoods
- 420: Upland Hardwood Forests
- 434: Hardwood-Coniferous Mixed
- 441: Coniferous Plantations
- 443: Forest Regeneration Areas
- 510: Streams And Waterways
- 617: Mixed Wetland Hardwoods
- 621: Cypress
- 630: Wetland Forested Mixed
- 832: Electrical Power Transmission Lines

0 425 850 1,700
Feet

REFERENCE(S)

1. PROPERTY BOUNDARY: LONGCALA SOLAR, LLC 2019
2. LAND USE, WETLANDS: GOLDER ASSOCIATES INC. 2019
3. LAND USE SRWMD: SRWMD 2011

COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA NORTH FIPS 0903 FEET
 PROJECTION: LAMBERT CONFORMAL CONIC
 DATUM: NORTH AMERICAN 1983
 SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AERGRID, IGN, AND THE GIS USER COMMUNITY

CLIENT
FLORIDA RENEWABLE PARTNERS

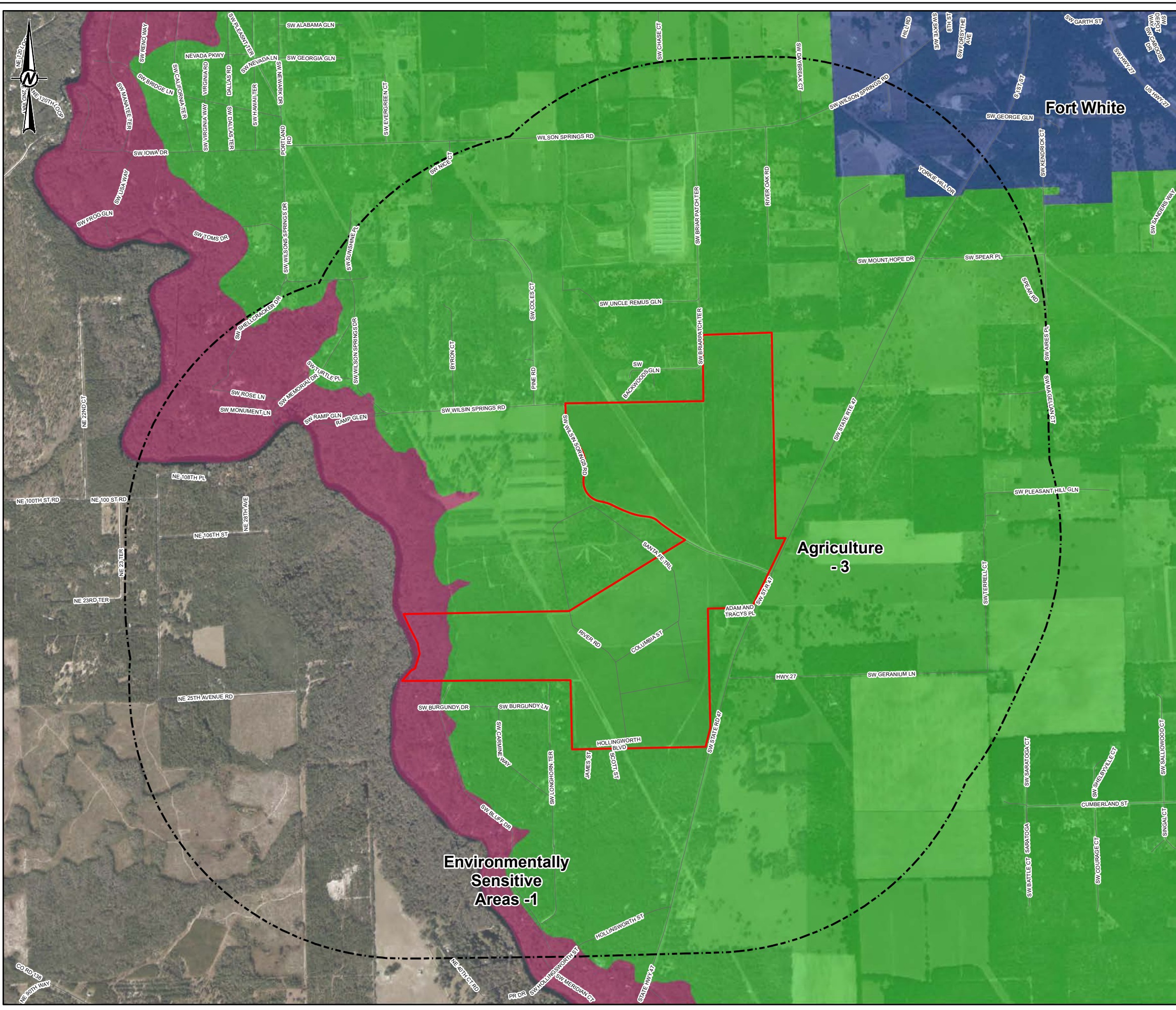
PROJECT
COLUMBIA COUNTY SOLAR

TITLE
LAND USE

CONSULTANT		YYYY-MM-DD	2020-10-12
	DESIGNED	JGW	
	PREPARED	JGW	
	REVIEWED	KB	
	APPROVED	KB	
PROJECT NO.	CONTROL	REV.	FIGURE
19125540	B004	0	2

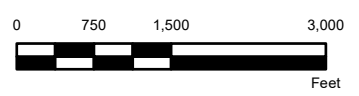
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LEGEND

- Project Boundary
- 1 Mile Buffer
- Future Land Use**
- Agriculture - 3
- Environmentally Sensitive Areas -1
- Fort White



REFERENCE(S)

1. PROPERTY BOUNDARY: FLORIDA RENEWABLE PARTNERS (FRP) 2019
2. FLU: COLUMBIA COUNTY 2018

COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA NORTH FIPS 0903 FEET
 PROJECTION: LAMBERT CONFORMAL CONIC
 DATUM: NORTH AMERICAN 1983
 SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRI, IGN, AND THE GIS USER COMMUNITY

CLIENT
FLORIDA RENEWABLE PARTNERS

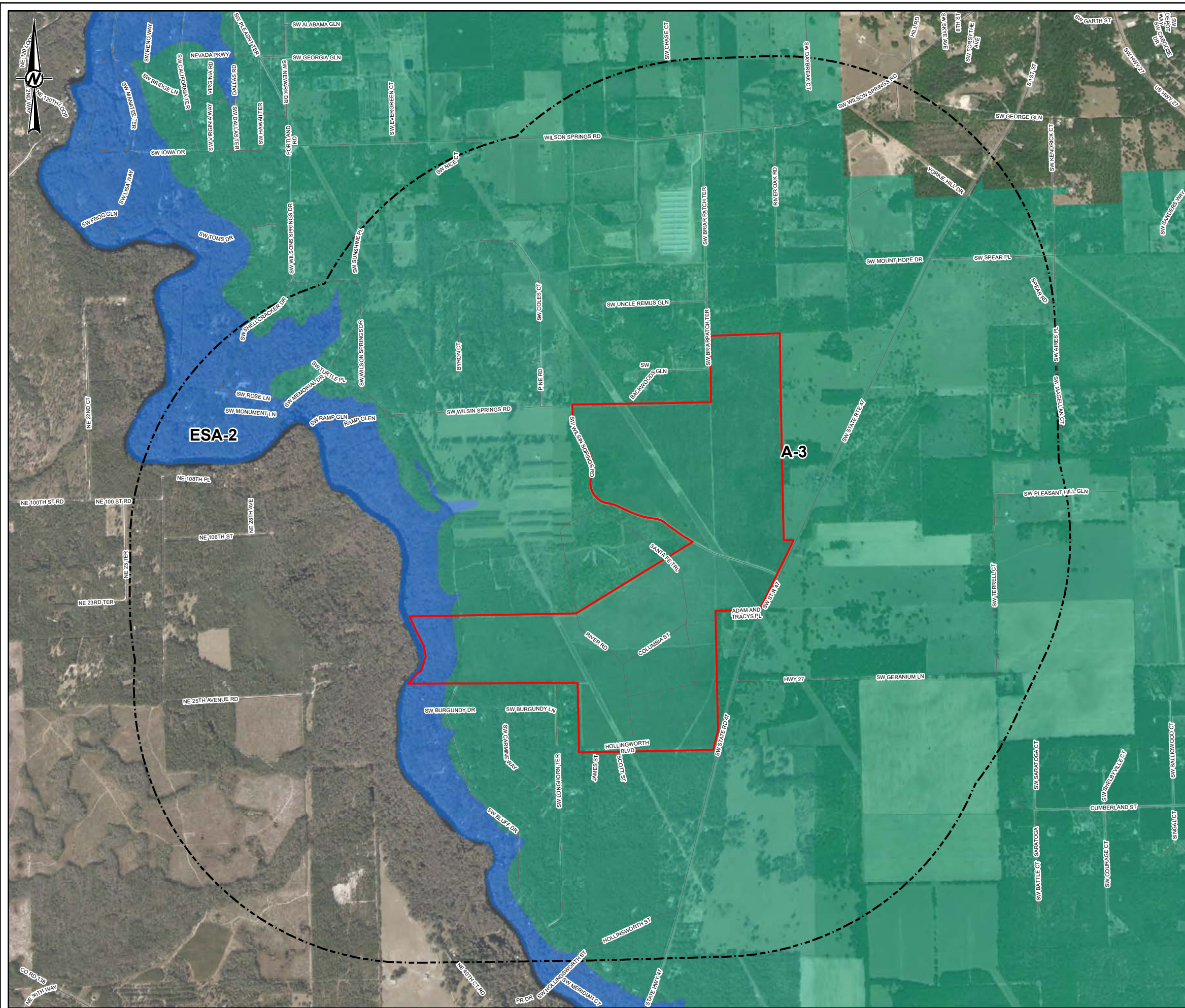
PROJECT
COLUMBIA COUNTY SOLAR

TITLE
FUTURE LAND USE MAP

CONSULTANT	YYYY-MM-DD	2020-10-09
DESIGNED	JGW	
PREPARED	JGW	
REVIEWED	KB	
APPROVED	KB	

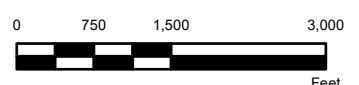
PROJECT NO. 19125540	CONTROL B007	REV. 0	FIGURE 3
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 IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B



LEGEND

- Project Boundary
- 1 Mile Buffer
- Zoning**
- A-3: Agricultural
- ESA-2 : Environmental Sensitive Area



- REFERENCE(S)**
1. PROPERTY BOUNDARY: FPL 2019
 2. ZONING: COLUMBIA COUNTY

COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA NORTH FIPS 0903 FEET
 PROJECTION: LAMBERT CONFORMAL CONIC
 DATUM: NORTH AMERICAN 1983
 SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AERGRID, IGN, AND THE GIS USER COMMUNITY

CLIENT
FLORIDA RENEWABLE PARTNERS

PROJECT
COLUMBIA COUNTY SOLAR

TITLE
ZONING MAP

CONSULTANT	DATE	REVISION
GOLDER	2020-10-09	
DESIGNED	JGW	
PREPARED	JGW	
REVIEWED	KB	
APPROVED	KB	

PATH: G:\Projects\FPL\19125540 - PRODUCTION\01\19125540 - B008_Zoning.mxd
 IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

Prime and other Important Farmlands

This table lists the map units in the survey area that are considered important farmlands. Important farmlands consist of prime farmland, unique farmland, and farmland of statewide or local importance. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation's food supply.

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

For some of the soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, and other fruits and vegetables. It has the special combination of soil quality, growing season, moisture supply, temperature, humidity, air drainage, elevation, and aspect needed for the soil to economically produce sustainable high yields of these crops when properly managed. The water supply is dependable and of adequate quality. Nearness to markets is an additional consideration. Unique farmland is not based on national criteria. It commonly is in areas where there is a special microclimate, such as the wine country in California.

In some areas, land that does not meet the criteria for prime or unique farmland is considered to be *farmland of statewide importance* for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.

In some areas that are not identified as having national or statewide importance, land is considered to be *farmland of local importance* for the production of food, feed, fiber, forage, and oilseed crops. This farmland is identified by the appropriate local agencies. Farmland of local importance may include tracts of land that have been designated for agriculture by local ordinance.

Report—Prime and other Important Farmlands

Prime and other Important Farmlands—Columbia County, Florida		
Map Symbol	Map Unit Name	Farmland Classification
3	Alpin fine sand, 0 to 5 percent slopes	Not prime farmland
7	Bigbee fine sand	Not prime farmland
8	Blanton fine sand, 0 to 5 percent slopes	Not prime farmland
29	Lakeland fine sand, 0 to 5 percent slopes	Not prime farmland
30	Lakeland fine sand, 5 to 12 percent slopes	Not prime farmland
41	Oleno clay	Not prime farmland
61	Udorthents, 0 to 2 percent slopes	Not prime farmland
99	Water	

Data Source Information

Soil Survey Area: Columbia County, Florida
Survey Area Data: Version 17, Sep 2, 2021

District No. 1 - Ronald Williams
District No. 2 - Rocky Ford
District No. 3 - Bucky Nash
District No. 4 - Toby Witt
District No. 5 - Tim Murphy



BOARD OF COUNTY COMMISSIONERS • COLUMBIA COUNTY

September 28, 2020

VIA ELECTRONIC MAIL

Mark W. Shelton, AICP
Kimley-Horn & Associates, Inc.
Jacksonville, FL 32258

Re: SE 0620 "FRP Columbia Solar"
Determination Letter

Dear Mr. Shelton,

At the September 24, 2020 Board of Adjustment ("Board") hearing, the Board approved the application for a Special Exception to allow for a Solar Power Generation Plant use as permitted in Section 4.5.7(39) of the County's Land Development Regulations ("LDRs") in accordance with Section 12.2 of the County's LDRs – subject to conditions. Per Section 12.1.1 of the County's LDRs, there is a thirty (30) day appeal period for all Special Exceptions. If no appeal is filed within thirty (30) days, the decision of the Board shall become final. No permits shall be issued until the thirty (30) day appeal period has expired.

Attached for your records is a copy of Resolution BA SE 0620.

If you have any questions, please do not hesitate to contact me at bstubbs@columbiacountyfla.com or (386) 754-7119.

Sincerely,

A handwritten signature in blue ink, which appears to read "B. M. Stubbs", is written over a light blue horizontal line.

Brandon M. Stubbs
Community Development Coordinator
Land Development Regulation Admin.

BOARD MEETS THE FIRST THURSDAY AT 5:30 P.M.
AND THIRD THURSDAY AT 5:30 P.M.

RESOLUTION NO. BA SE 0620

A RESOLUTION OF THE BOARD OF ADJUSTMENT OF COLUMBIA COUNTY, FLORIDA, GRANTING A SPECIAL EXCEPTION WITH APPROPRIATE CONDITIONS AND SAFEGUARDS AS AUTHORIZED UNDER SECTION 4.5.7(38) OF THE LAND DEVELOPMENT REGULATIONS TO ALLOW FOR A SOLAR POWER GENERATION PLANT IN AN AGRICULTURE-3 ("A-3") ZONE DISTRICT ON CERTAIN LANDS WITHIN THE UNINCORPORATED AREA OF COLUMBIA COUNTY, FLORIDA; PROVIDING FOR REVOCATION OF THE SPECIAL EXCEPTION; REPEALING ALL RESOLUTIONS IN CONFLICT; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Columbia County Land Development Regulations, hereinafter referred to as the Land Development Regulations, empowers the Board of Adjustment of Columbia County, Florida, hereinafter referred to as the Board of Adjustment, to grant, to grant with appropriate conditions and safeguards or to deny special exceptions as authorized under Section 3.2 of the Land Development Regulations;

WHEREAS, a petition for a special exception, as described below, has been filed with the County;

WHEREAS, pursuant to the Land Development Regulations, the Board of Adjustment held the required public hearing, with public notice having been provided, on said petition for a special exception, as described below, and considered all comments received during said public hearing and the Concurrency Management Assessment concerning said petition for a special exception, as described below;

WHEREAS, the Board of Adjustment has found that they are empowered under Section 3.2 of the Land Development Regulations to grant, to grant with appropriate conditions and safeguards or to deny said petition for a special exception, as described below;

WHEREAS, the Board of Adjustment has determined and found that the granting with appropriate conditions and safeguards of said petition for special exception, as described below, would promote the public health, safety, morals, order, comfort, convenience, appearance, prosperity or general welfare;

WHEREAS, the Board of Adjustment has determined and found that the special exception is generally compatible with adjacent properties, other property in the district and natural resources; and

WHEREAS, the Board of Adjustment has determined and found that:

- (a) The proposed use would be in conformance with the Comprehensive Plan and would not have an undue adverse effect on the Comprehensive Plan;
- (b) The proposed use is compatible with the established land use pattern;
- (c) The proposed use will not materially alter the population density pattern and thereby increase or overtax the load on public facilities such as schools, utilities, and streets;
- (d) The proposed use will not have an undue adverse influence on living conditions in the neighborhood;
- (e) The proposed use will not create or excessively increase traffic congestion or otherwise affect public safety;
- (f) The proposed use will not create a drainage problem;
- (g) The proposed use will not seriously reduce light and air to adjacent areas;
- (h) The proposed use will not adversely affect property values in the adjacent areas;
- (i) The proposed use will not be a deterrent to the improvement or development of

adjacent property in accord with existing regulations; and

- (j) The proposed use is not out of scale with the needs of the neighborhood or the community.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ADJUSTMENT OF COLUMBIA COUNTY, FLORIDA, THAT:

Section 1. Pursuant to a petition SE 0620, by Mark Shelton, AICP, of Kimley-Horn and Associates, Inc. on behalf of J-HAJ Entourage, LLC., owner, to request a special exception be granted as provided for in Section 4.5.7(38) of the Land Development Regulations to allow for a Solar Power Generation Plant use in an Agriculture-3 ("A-3") Zone District. The special exception has been filed in accordance with a site plan dated June 8, 2020 and submitted as part of a petition dated June 8, 2020, to be located on property described, as follows:

THE SW 1/4 OF THE SE 1/4 OF SECTION 5, TOWNSHIP 7 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA. ALSO: GOVERNMENT LOTS 6 AND 7, ALSO KNOWN AS THE S 1/2 OF SECTION 7, TOWNSHIP 7 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA, LYING EAST OF SANTA FE RIVER. LESS AND EXCEPT THEREFROM THOSE PORTIONS THEREOF DESCRIBED IN DEEDS RECORDED IN OFFICIAL RECORDS BOOK 1171 PAGE 1546, AND IN OFFICIAL RECORDS BOOK 1171, PAGE 1550 BOTH OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA. ALSO: THE W 1/2 AND THAT PORTION OF THE W 1/2 OF THE NE 1/4, AND THE NW 1/4 OF THE SE 1/4, AND THE NE 1/4 OF THE SE 1/4 LYING WEST OF STATE ROAD NO. 47, ALL IN SECTION 8, TOWNSHIP 7 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA. LESS AND EXCEPT THEREFROM THAT PORTION THEREOF DESCRIBED IN STATE ROAD NO. 47 ADDITIONAL RIGHT OF WAY DEED RECORDED IN DEED BOOK 72, PAGE 201, OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA. ALSO, LESS AND EXCEPT THEREFROM THE RIGHT OF WAY OF WILSON SPRINGS ROAD AND FURTHER LESS AND EXCEPT THEREFROM THOSE PORTIONS THEREOF DESCRIBED IN DEEDS RECORDED IN OFFICIAL RECORDS BOOK 1171 PAGE 1546, AND IN OFFICIAL RECORDS BOOK 1171, PAGE 1550 BOTH OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA. ALSO: THE N 1/2 OF THE NW 1/4 OF SECTION 17, TOWNSHIP 7 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA. LESS AND EXCEPT THEREFROM THAT PORTION THEREOF DESCRIBED IN STATE ROAD NO. 47 ADDITIONAL RIGHT OF WAY RECORDED IN DEED BOOK 72, PAGE 451, OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA. ALSO DESCRIBED AS: A PARCEL OF LAND BEING IN SECTIONS 5, 7, 8, AND 17, TOWNSHIP 7 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA, BEING DESCRIBED AS FOLLOWS: COMMENCE AT THE NW CORNER OF SAID SECTION 8 AND RUN THENCE N.89°11'40"E., ALONG THE NORTH LINE OF SAID SECTION 8 14.79 FEET TO THE CENTER OF SW WILSON SPRINGS ROAD AND THE POINT OF BEGINNING; THENCE CONTINUE N.89°07'19"E., ALONG SAID NORTH LINE OF SECTION 8, 2649.11 FEET TO THE SW CORNER OF THE SW 1/4 OF THE SE 1/4 SAID SECTION 5, THENCE N.00°41'32"W., ALONG THE WEST LINE OF SAID SW 1/4 OF THE SE 1/4, 1270.31 FEET TO THE NW CORNER OF THE SW 1/4 OF THE SE 1/4; THENCE N.87°57'47"E., ALONG THE NORTH LINE OF SAID SW 1/4 OF THE SE 1/4, 1329.15 FEET TO THE NE CORNER OF SAID SW 1/4 OF THE SE 1/4; THENCE S.00°54'08"E., ALONG THE EAST LINE OF SAID SW 1/4 OF THE SE 1/4, 1298.21 FEET TO THE SE CORNER OF THE SW 1/4 OF THE SE 1/4; THENCE S.01°11'53"E., ALONG THE EAST LINE OF THE WEST 1/2 OF THE NE 1/4 OF SAID SECTION 8, 2650.72 FEET TO THE SE CORNER OF THE SW 1/4 OF THE NE 1/4 OF SAID SECTION 8; THENCE N.89°06'01"E., ALONG THE NORTH LINE OF THE SE 1/4 OF SAID SECTION 8, 186.67 FEET TO A POINT ON THE WEST RIGHT-OF-WAY OF STATE ROAD #47; THENCE S.25°55'38"W., ALONG SAID WEST RIGHT-OF-WAY LINE, 1485.73 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF THE SW 1/4 OF THE SE 1/4 OF SAID SECTION 8; THENCE S.88°58'36"W., ALONG THE NORTH LINE OF THE SW 1/4 OF THE SE 1/4 OF SAID SECTION 8, 841.04 FEET TO THE NW CORNER OF THE SW 1/4 OF SE 1/4 OF SAID SECTION 8; THENCE S.01°14'56"E., ALONG THE WEST LINE OF THE SW 1/4 OF SE 1/4 OF SECTION 8, 1326.98 FEET TO THE SW CORNER OF THE SW 1/4 OF THE SE 1/4 OF SAID SECTION 8; THENCE S.01°20'24"E., ALONG THE EAST LINE OF THE NW 1/4 OF SAID SECTION 17, 958.82 FEET TO ITS INTERSECTION WITH SAID WEST RIGHT-OF-WAY LINE OF STATE ROAD #47; THENCE S.14°31'51"W., ALONG SAID WEST RIGHT-OF-WAY LINE, 379.49 FEET TO

ITS INTERSECTION WITH THE SOUTH LINE OF THE NORTH 1/2 OF THE NW 1/4 OF SAID SECTION 17; THENCE S.88°52'31"W., ALONG THE SOUTH LINE OF THE NORTH 1/2 OF THE NW 1/4 OF SAID SECTION 17, 2558.09 FEET TO THE SW CORNER OF THE NW 1/4 OF THE NW 1/4 OF SAID SECTION 17; THENCE N.01°23'26"W., ALONG THE WEST LINE OF SAID SECTION 17, 1328.45 FEET TO THE NW CORNER OF SECTION 17; THENCE S.89°44'58"W., ALONG THE SOUTH LINE OF SECTION 7, 3228.14 FEET TO ITS INTERSECTION WITH THE TOP OF BANK OF THE SANTA FE RIVER; THENCE N.40°17'51"E., ALONG THE TOP OF THE BANK OF SAID SANTA FE RIVER, 260.32 FEET; THENCE N.61°48'20"E., ALONG SAID TOP OF BANK, 84.10 FEET; THENCE N.17°37'58"E., ALONG SAID TOP OF BANK, 296.73 FEET; THENCE N.10°09'28"W., ALONG SAID TOP OF BANK, 206.37 FEET; THENCE N.26°59'48"W., ALONG SAID TOP OF BANK, 337.13 FEET; THENCE N.24°47'27"W., ALONG SAID TOP OF BANK, 285.94 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF SECTION 7; THENCE N.88°57'34"E., ALONG SAID NORTH LINE OF THE SOUTH 1/2 OF THE SOUTH 1/2, 3177.03 FEET TO THE NE CORNER OF THE SE 1/4 OF THE SE 1/4 OF SAID SECTION 7; THENCE N.58°32'08"E., 2611.56 FEET TO THE CENTER OF SW WILSON SPRINGS ROAD; THE FOLLOWING COURSES ARE ALONG THE CENTER LINE OF SW WILSON SPRINGS ROAD, THENCE N.58°22'20"W., 238.66 FEET; THENCE N.54°11'47"W., 322.41 FEET; THENCE N.50°14'11"W., 79.95 FEET TO THE POINT OF CURVE OF A CURVE TO THE LEFT HAVING A RADIUS OF 345.17 FEET AN INCLUDED ANGLE OF 31°17'47" AND A CHORD BEARING AND DISTANCE OF N.65°53'05"W., 186.20 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE FOR AN ARC DISTANCE OF 188.54 FEET; THENCE N.81°55'51"W., 120.65 FEET TO THE POINT OF CURVE OF A CURVE TO THE RIGHT HAVING A RADIUS OF 1127.42 FEET, AN INCLUDED ANGLE OF 11°26'14" AND A CHORD BEARING AND DISTANCE OF N.76°12'44"W., 224.68 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE FOR AN ARC DISTANCE OF 225.05 FEET; THENCE N.70°01'49"W., 123.23 FEET TO THE POINT OF CURVE OF A CURVE TO THE RIGHT HAVING A RADIUS OF 3309.87 FEET, AN INCLUDED ANGLE OF 05°01'17" AND A CHORD BEARING AND DISTANCE OF N.64°50'03"W., 289.99 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE FOR AN ARC DISTANCE OF 290.08 FEET TO A POINT ON A CURVE OF A CURVE TO THE LEFT HAVING A RADIUS OF 840.73 FEET, AN INCLUDED ANGLE OF 14°35'18" AND A CHORD BEARING AND DISTANCE OF N.73°23'03"W., 213.49 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE FOR AN ARC DISTANCE OF 214.07 FEET TO A POINT ON A CURVE OF A CURVE TO THE RIGHT HAVING A RADIUS OF 392.69 FEET, AN INCLUDED ANGLE OF 97°46'51" AND A CHORD BEARING AND DISTANCE OF N.32°44'53"W., 591.75 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE FOR AN ARC DISTANCE OF 670.17 FEET TO A POINT ON A CURVE OF A CURVE TO THE LEFT HAVING A RADIUS OF 661.00 FEET, AN INCLUDED ANGLE OF 50°19'35" AND A CHORD BEARING AND DISTANCE OF N.09°01'14"W., 562.11 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE FOR AN ARC DISTANCE OF 580.60 FEET; THENCE N.34°11'02"W., 238.94 FEET TO THE POINT OF CURVE OF A CURVE TO THE RIGHT HAVING A RADIUS OF 739.00 FEET, AN INCLUDED ANGLE OF 31°43'07" AND A CHORD BEARING AND DISTANCE OF N.18°19'28"W., 403.90 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE FOR AN ARC DISTANCE OF 409.11 FEET; THENCE N.02°57'52"W., 250.71 FEET TO THE POINT OF BEGINNING.

CONTAINING 576.66 ACRES, MORE OR LESS

Tax Parcel Numbers: 07-7s-16-04157-000, 08-4s-16-04158-001, 17-7s-16-04234-000, and 05-7s-16-04140-000.

Section 2. The Planning and Zoning Board, hereby approves the above referenced special exception subject to any conditions and safeguards, if any, hereinafter attached in Exhibit "A". If compliance with any of the conditions of special exception causes substantial deviation in the approved site plan, the applicant shall be required to submit a new special exception application and receive Planning & Zoning Board approval in accordance with the Land Development Regulations.

Section 3. A site plan, as described above, is herewith incorporated into this resolution by reference, shall govern the development and use of the above described property. Any deviation

from the site plan shall be deemed a violation of the Land Development Regulations.

Section 4. The use of land approved by this special exception shall expire within twelve (12) months of the effective date of this resolution unless the applicant provides evidence to the County of a Large Generator Interconnection Agreement. If the applicant provides evidence of said agreement, the use of land approved by this special exception shall expired on December 31, 2022, unless the applicant commences development, as defined via Chapter 380.04, Florida Statutes. Should unforeseen circumstance, as not a result of the applicant, prohibit commencement of development before December 31, 2022, then the applicant may request a one-time extension not to exceed six (6) months. In such case, the applicant shall provide a written request for said extension no later than December 1, 2022 and shall provide evidence such circumstances are not a result of the applicant. Under no circumstances shall the approval of the use of land extended beyond June 30, 2023 if substantial development, as defined via Chapter 380.04, Florida Statutes, has not commenced.

Section 5. If the use of land approved by this special exception ceases for any reason for a period of more than six (6) consecutive months, this resolution shall be thereby revoked and of no force and effect.

Section 6. All resolutions or portions of resolutions in conflict with this resolution are hereby repealed to the extent of such conflict.

Section 7. This resolution shall become effective upon adoption.

PASSED AND DULY ADOPTED, in special session with a quorum present and voting, by the Board of Adjustment this 24th day of September 2020.

Attest:



Brandon M. Stubbs, Secretary to the Board of Adjustment

BOARD OF ADJUSTMENT OF
COLUMBIA COUNTY, FLORIDA

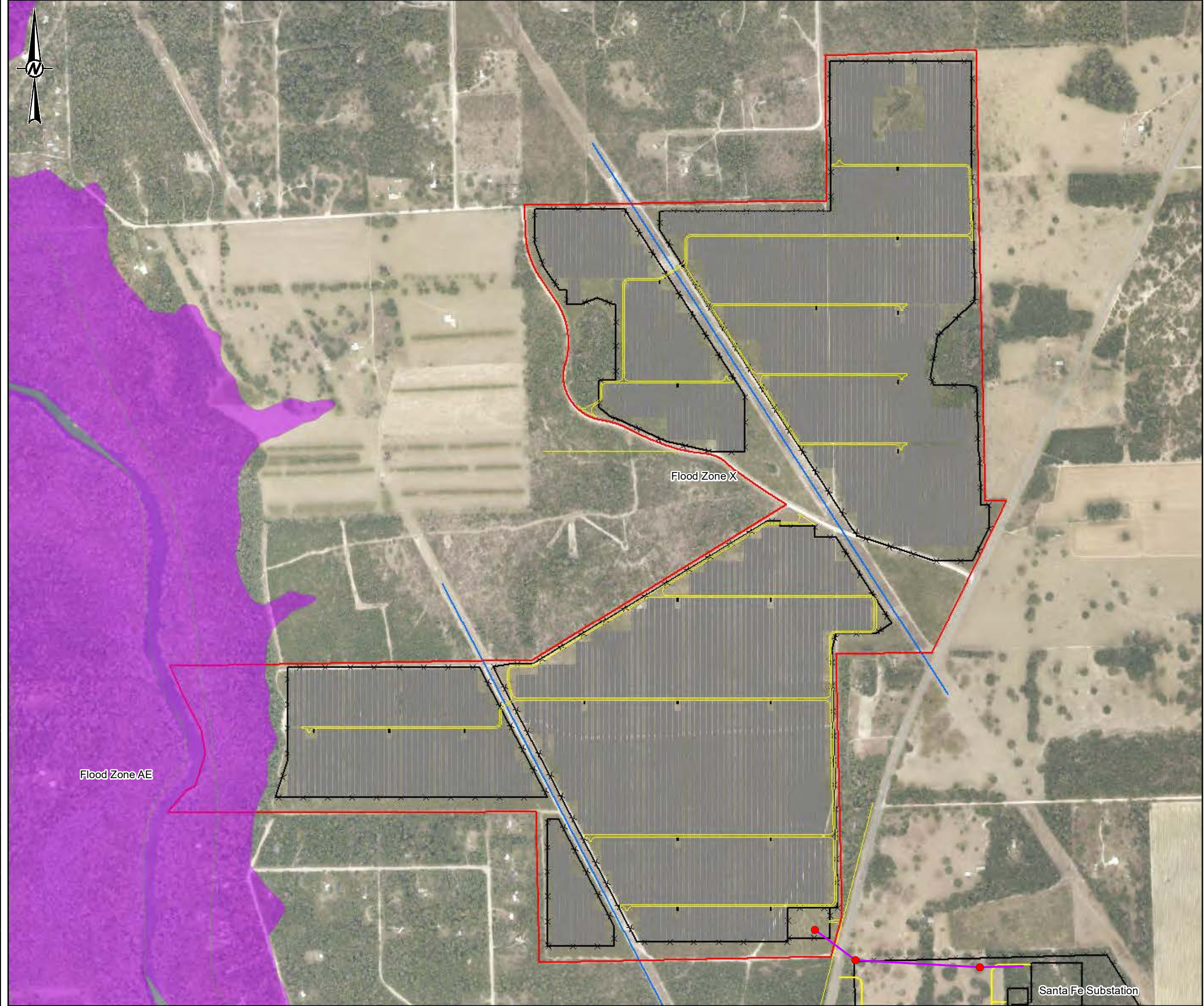


Robert F. Jordan, Chairman

APPENDIX 3.2

Floodplains

Figure 1 – Flood Zone Map



- LEGEND**
- Proposed Transmission Line Structures
 - Proposed Transmission Line
 - Project Boundary (±579.45 Acres)
 - Security Fence
 - Roads
 - Inverters
 - Transmission Lines
 - Solar Arrays
 - Flood Zone AE



REFERENCE(S)

1. PROPERTY BOUNDARY: LONCALA SOLAR, LLC 2019
2. GOPHER TORTOISE BURROWS: GOLDR ASSOCIATES INC. 2019

COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA NORTH FIPS 0903 FEET
 PROJECTION: LAMBERT CONFORMAL CONIC
 DATUM: NORTH AMERICAN 1983
 SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT
FLORIDA RENEWABLE PARTNERS

PROJECT
COLUMBIA COUNTY SOLAR

TITLE
SITE LAYOUT

CONSULTANT	YYYY-MM-DD	2022-04-20
GOLDER	DESIGNED	JGW
	PREPARED	JGW
	REVIEWED	KB
	APPROVED	KB

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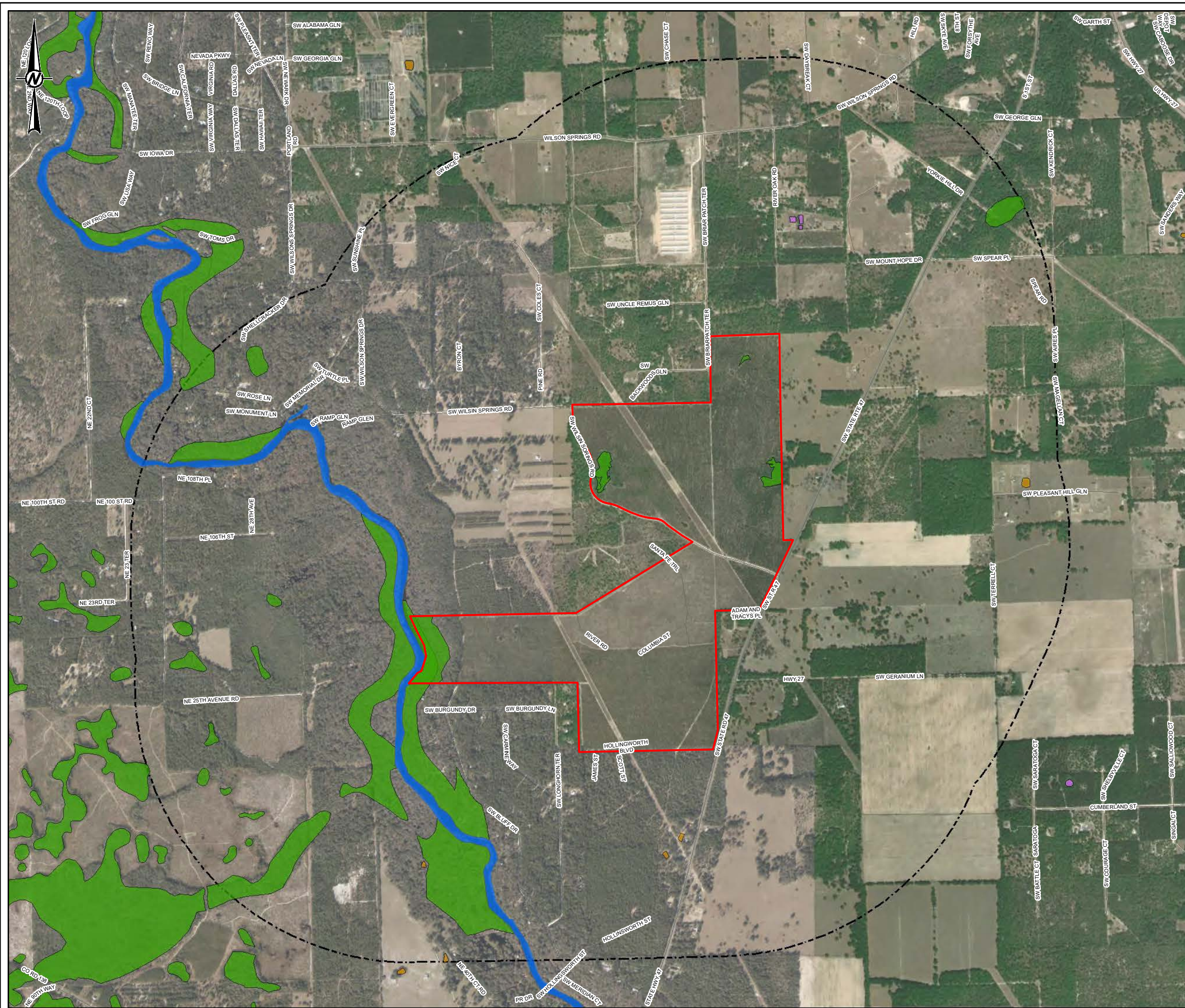
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APPENDIX 3.3

Wetlands

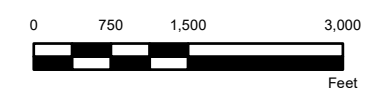
Figure 1 – Wetland and Local Waterbodies Map

USACE Approved Jurisdictional Determination



LEGEND

- Project Boundary
- 1 Mile Buffer
- Lake or Pond
- Reservoir
- Marsh, Wetland, Swamp, or Bog
- Stream or River



REFERENCE(S)

1. PROPERTY BOUNDARY: FPL 2019
2. WETLANDS, RESERVOIRS, AND WATERBODIES: USGS NATIONAL HYDROGRAPHIC DATASET 2017 AND WITHIN THE PROJECT BOUNDARY: GOLDER ASSOCIATES INC 2020

COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA NORTH FIPS 0903 FEET
 PROJECTION: LAMBERT CONFORMAL CONIC
 DATUM: NORTH AMERICAN 1983
 SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AERGRID, IGN, AND THE GIS USER COMMUNITY

CLIENT	
FLORIDA RENEWABLE PARTNERS	
PROJECT	
COLUMBIA COUNTY SOLAR	
TITLE	
LOCAL WATERBODIES MAP	
CONSULTANT	YYYY-MM-DD 2020-10-12
GOLDER	DESIGNED JGW
	PREPARED JGW
	REVIEWED KB
	APPROVED KB
PROJECT NO. 19125540	CONTROL B014
REV. 0	FIGURE 1

PATH: G:\Projects\FP\19125540\PROJECTS\19125540_Locate\B\B014 - Wetlands\Waterbodies.mxd

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
4400 PGA BOULEVARD, SUITE 500
PALM BEACH GARDENS, FLORIDA 33410

November 9, 2020

REPLY TO
ATTENTION OF

Regulatory Division
North Permits Branch
Jacksonville Permits Section
SAJ-2020-04284 (NPR-TLO)

Florida Renewable Partners
Attn: Ms. Natalie Vitola
700 Universe Boulevard
Juno Beach, FL 33408

Dear Ms. Vitola:

Reference is made to the application received on October 20, 2020, for a Department of the Army permit to perform work associated with the project identified as the Florida Renewable Partners Columbia County Solar project. The work involves the construction of a 74.5-megawatt (MW) solar photovoltaic energy facility upon portions of an approximately 579-acre parcel of pine plantation. The facility will consist of solar photovoltaic panels with inverters, transformers, a collector yard, at-grade access paths, collector lines, and security fencing. The project has been designed to avoid all wetland impact, minimize ground disturbance by installing solar arrays without requiring fill material to the greatest extent practicable, and construction of access roads at grade. The project site is located approximately 2.3 miles south of the town of Fort White, in Sections 5, 7, 8, 17, and 18; Township 7 South; Range 16 East, Fort White, Columbia County, Florida. The application has been assigned the file number SAJ-2020-04284 (NPR-TLO).

The project as proposed will not require a Department of the Army permit in accordance with Section 10 of the Rivers and Harbors Act of 1899 as it is not located within the navigable waters of the United States. Furthermore, a permit will not be required in accordance with Section 404 of the Clean Water Act as it will not involve the discharge of dredged or fill material into waters of the United States. Provided the work is done in accordance with the enclosed drawings, Department of the Army authorization will not be required.

This letter contains an approved jurisdictional determination for your subject site. If you object to this determination/decision, you may request an administrative appeal under Corps' regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination/decision, you must submit a completed RFA form to the South Atlantic Division Office at the following address:

Mr. Phillip A. Shannin
South Atlantic Division
U.S. Army Corps of Engineers
CESAD-CM-CO-R, Room 9M15
60 Forsyth St., SW.
Atlanta, Georgia 30303-8801
Via electronic mail at Philip.A.Shannin2@usace.army.mil

Mr. Shannin can be reached by telephone number at 404-562-5136, or by facsimile at 404-562-5138.

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division office within 60 days of the date of the RFA. Should you decide to submit an RFA form, it must be received at the above address by January 8, 2020. It is not necessary to submit an RFA form to the Division office, if you do not object to the determination/decision in this letter.

This determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are U.S. Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work. Please be advised this determination reflects current policy and regulations and is valid for a period of no longer than 5 years from the date of this letter unless new information warrants a revision of the determination before the expiration date. If after the 5-year period, the Corps has not specifically revalidated this determination, it will automatically expire. Any reliance upon this determination beyond the expiration date may lead to possible violation of current Federal laws and/or regulation.

Additionally, your project site may contain species protected by the Endangered Species Act (ESA) of 1972, as amended. You should contact your local U.S. Fish and Wildlife Service (FWS) office to determine if federally listed species or their habitat are present on your project site. If it is determined that federally listed species may be affected by the proposed project, authorization for "incidental take" may be required. FWS offices can be contacted by the following telephone numbers: Jacksonville at 904-232-2580, Panama City at 850-769-0552, St. Petersburg at 727-570-5398, or Vero Beach at 772-562-3909.

This letter does not obviate the requirement to obtain any other Federal, State, or local permits that may be necessary for your project. Should you have any questions, please contact Tarrie Ostrofsky at the letterhead address, by telephone at 904-232-1237, or by email at Tarrie.L.Ostrofsky@usace.army.mil.

Thank you for your cooperation with our permit program. The Corps Jacksonville District Regulatory Division is committed to improving service to our customers. We strive to perform our duty in a friendly and timely manner while working to preserve our environment. We invite you to take a few minutes to visit <http://per2.nwp.usace.army.mil/survey.html> and complete our automated Customer Service Survey. Your input is appreciated – favorable or otherwise. Please be aware this web address is case sensitive and should be entered as it appears above.

Sincerely,

BLAISDELL.MURIE
L.M.1391064691

Digitally signed by
BLAISDELL.MURIEL.M.1391064
691
Date: 2020.11.09 13:02:47
-05'00'

Muriel M. Blaisdell
Chief, Jacksonville Permits Section

Enclosures

1. U.S. Army Corps of Engineers, Regulatory Program, Approved Jurisdictional Determination Form (Interim), Navigable Waters Protection Rule
2. Notification of Administrative Appeal Options and Process and Request for Appeal

APPENDIX 3.4

Cultural Resources

Cultural Resources Mitigation Plan

Cultural Resources Discovery Mitigation Plan

If during any Project-related ground disturbance, any post review discovery, including but not limited to, any artifacts, foundations, or other indications of past human use or occupation of the area are uncovered, such discoveries shall be protected by complying with 36 CFR § 800.13(b)(3) and (c), and if human remains or suspected human remains are encountered by Chapter 872.05, *Florida Statutes*, and shall include the following procedures:

All Project-related ground disturbing activities (“Work”), including vehicular traffic within a 50-foot radius around the area of discovery shall immediately stop. FRP or their construction contractor shall ensure barriers are established to protect the area of discovery and notify the Construction Manager to contact the FRP Construction Compliance Environmental Lead (FRP-CCEL). The Construction Manager and/or the FRP-CCEL shall contact the FRP Archaeologist, a Secretary of the Interior (SOI) qualified professional, who will quickly (within 24 hours) assess the nature and scope of the discovery; implement interim measures to protect the discovery from looting and vandalism; and establish broader barriers if additional historic and/or precontact properties, can reasonably be expected to occur.

The FRP Archaeologist and/or the FRP-CCEL shall notify the Federal Preservation Officer (FPO) and State Historic Preservation Office (SHPO) immediately. Indian tribe(s) that have an interest in the area of discovery (the Seminole Tribe of Florida [STOF]) shall also be contacted immediately. The SHPO may require additional tribes who may have an interest in the area of discovery also be contacted. The notification shall include an assessment of the discovery provided by the FRP Archaeologist, and a copy shall be provided to the FRP Tribal Relations contact.

Should the discovery contain burial sites or human remains, the Construction Manager shall immediately notify the FRP-CCEL and FRP Archaeologist who will contact the FPO, the Florida SHPO, and the STOF. The relevant law enforcement authorities shall be immediately contacted by onsite personnel to reduce delay times, in accordance with tribal, state, or local laws including 36 CFR Part 800.13; 43 CFR Part 10, Subpart B; and the Advisory Council on Historic Preservation’s *Policy Statement Regarding treatment of Burial Sites, Human Remains, or Funerary Objects* (February 23, 2007).

Due to their Indigenous Traditional Ecological Knowledge (ITEK), FRP will engage with the STOF at the contact listed below. The area will be examined by the FRP Archaeologist and representatives of the STOF (if requested), who, in consultation with FPO and Florida SHPO, will determine if the remains are human or potentially human or if the discovery is significant.

When the discovery contains burial sites or human remains, all construction activities, including vehicular traffic shall stop within a 100-foot radius of the discovery and barriers shall be established. The evaluation of human remains shall be conducted at the site of discovery by a SOI qualified professional. Remains that have been removed from their primary context and where that context may be in question may be retained in a secure location on the Project Site pending further decisions on treatment and disposition. FRP may expand this radius based on the FRP Archaeologist’s professional assessment of the discovery and establish broader barriers if further subsurface burial sites, or human remains can reasonably be expected to occur. FRP, in consultation with the SHPO, the STOF and any other interested tribes, shall develop a plan for the treatment of native human remains.

Work may continue in other areas of the Project Site where no historic properties, burial sites, or human remains are present. If the inadvertent discovery appears to be a consequence of illicit activity such as

looting, the FRP Archaeologist and/or the FRP-CCEL shall contact the appropriate legal authorities immediately or take the necessary precautions to prevent further impacts to the discovery.

Work may not resume in the area of the discovery until a notice to proceed has been issued by FRP. FRP shall not issue the notice to proceed until it has determined that the appropriate local protocols and consulting parties have been consulted.

<u>USDA RUS Federal Preservation Officer</u>	Basia M. Howard Archaeologist, Rural Utilities Service U.S. Department of Agriculture (202) 205-9756 (office) basia.howard@usda.gov
<u>FRP Construction Compliance Environmental Lead (FRP-CCEL)</u>	John Tessier NextEra Energy 700 Universe Boulevard, JES/JB Juno Beach, Florida 33408 561-694-4131 (office) John.Tessier@nee.com
<u>Seminole Tribe of Florida THPO Office</u>	Tina Osceola Tribal Historic Preservation Officer 30290 Josie Billie Highway, PMB 1004 Clewiston, FL 33440 863-983-6549 (office) TinaOsceola@semtribe.com
<u>Florida State Historic Preservation Office (SHPO)</u>	Kathryn (Katie) O'Donnell Miyar, Ph.D. Bureau Chief, Bureau of Archaeological Research and State Archaeologist Division of Historical Resources 850-245-6319 (Office) 850-363-5193 (Cell) Kathryn.Miyar@dos.myflorida.com
<u>FRP Archaeologist</u>	Richard W. Estabrook Ph.D./RPA Florida Renewable Partners 700 Universe Boulevard, JES/JB Juno Beach, Florida 33408 561-427-5483 (cell) 561-691-3054 (office) Richard.Estabrook@nee.com
<u>FRP Tribal Relations</u>	Desiree Estabrook, AICP, CNU-A Florida Renewable Partners 700 Universe Boulevard, E5E Juno Beach, Florida 33408 561-310-8843 (cell) Desiree.Estabrook@nee.com

APPENDIX 3.5

Biological Resources

Figure 1 – Listed Species Map

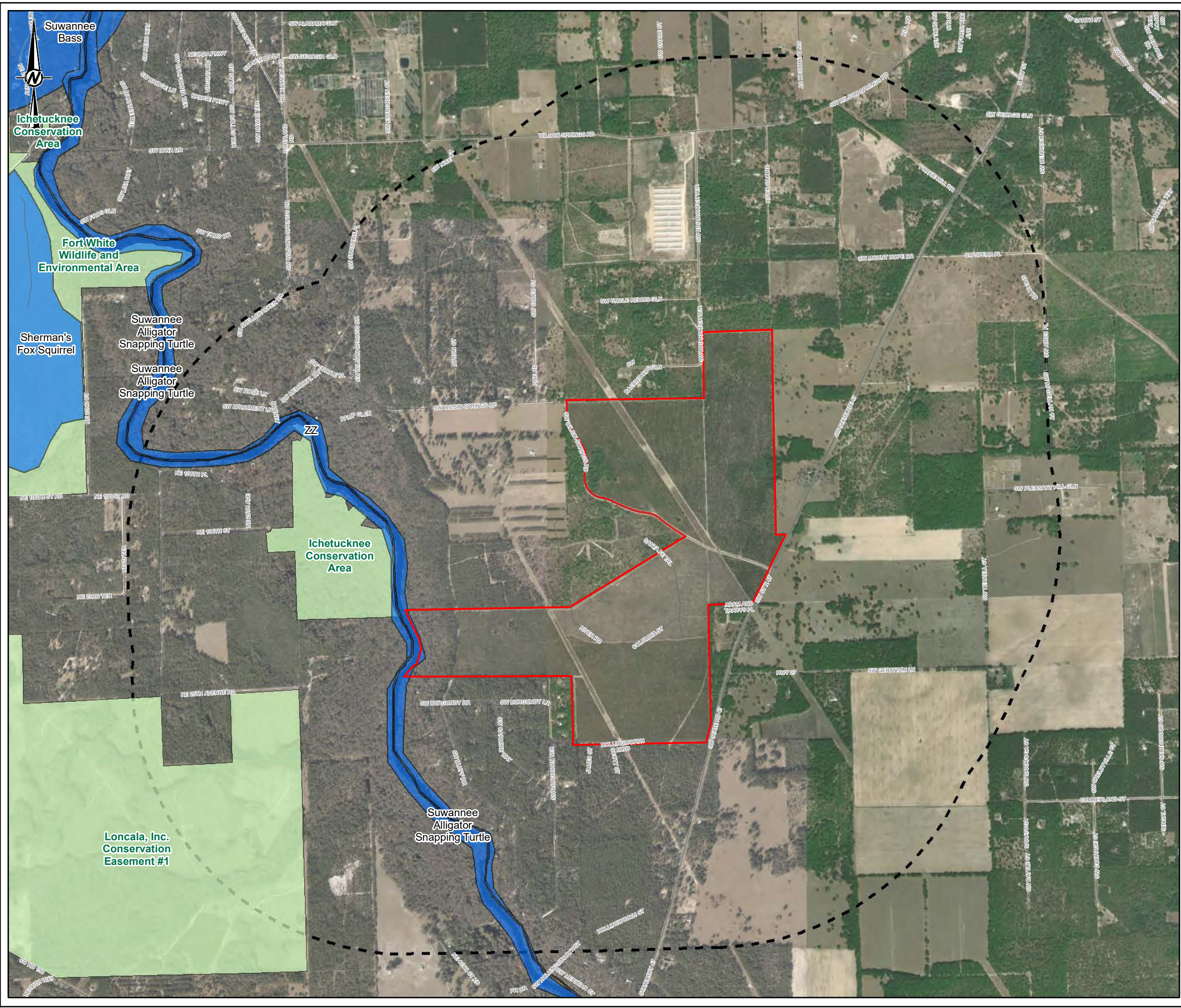
Figure 2 – Gopher Tortoise Survey Map

Site Photos

FNAI Biodiversity Matrix

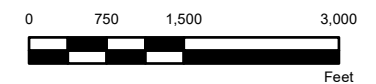
IPaC Official Resource List

USFWS Correspondence



LEGEND

- Project Boundary
- 1 Mile Buffer
- FNAI Element Occurrences
- Florida Managed Lands



- REFERENCE(S)**
1. PROPERTY BOUNDARY: FLORIDA RENEWABLE PARTNERS (FRP) 2019
 2. FLORIDA MANAGED LANDS, FNAI ELEMENT OCCURRENCES: FNAI 2019

COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA NORTH FIPS 0903 FEET
 PROJECTION: LAMBERT CONFORMAL CONIC
 DATUM: NORTH AMERICAN 1983
 SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AERGRID, IGN, AND THE GIS USER COMMUNITY

CLIENT
FLORIDA RENEWABLE PARTNERS

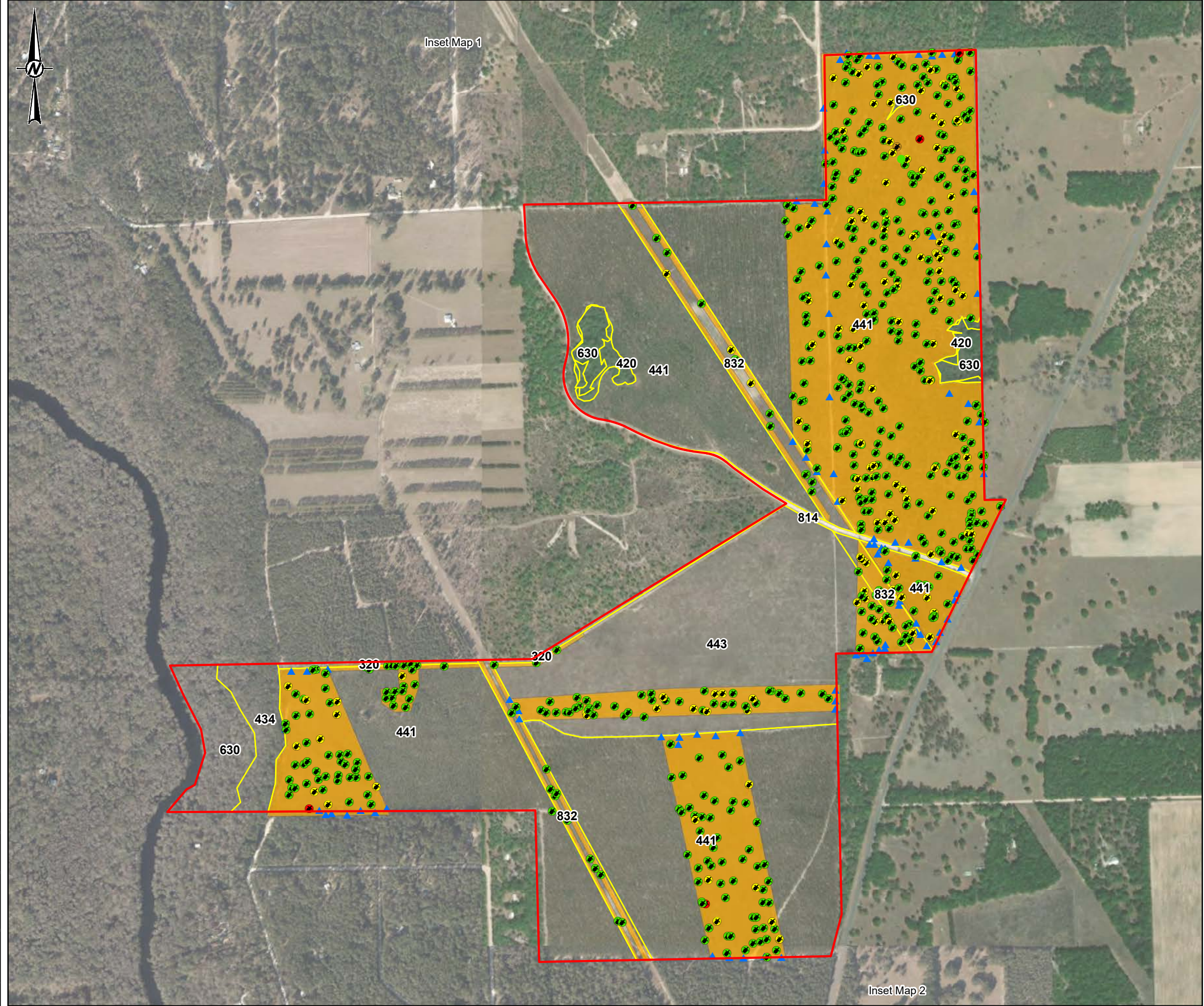
PROJECT
COLUMBIA COUNTY SOLAR

TITLE
FNAI/LISTED SPECIES MAP

CONSULTANT	DATE	REVISION
YYYY-MM-DD	2020-10-12	
DESIGNED	JGW	
PREPARED	JGW	
REVIEWED	KB	
APPROVED	KB	

PATH: G:\Projects\FP\Lomala\09_PROJECTS\19125540_Lomala\09_PROJECTS\19125540_B005_FNAI_Lomala\09.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B



- LEGEND**
- Project Boundary (±579.45 Acres)
 - Land Use
 - Gopher Tortoise Surveyed Areas (±248.25 Acres, 43%)
 - ▲ Gopher Tortoise Survey Transects
- GT Burrows (645 total)**
- Abandoned
 - Potentially Occupied - Active
 - Potentially Occupied - Inactive



- REFERENCE(S)**
1. PROPERTY BOUNDARY: LONCALA SOLAR, LLC 2019
 2. GOPHER TORTOISE BURROWS: GOLDBER ASSOCIATES INC. 2019

COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA NORTH FIPS 0903 FEET
 PROJECTION: LAMBERT CONFORMAL CONIC
 DATUM: NORTH AMERICAN 1983
 SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT
FLORIDA RENEWABLE PARTNERS

PROJECT
COLUMBIA COUNTY SOLAR

TITLE
GOPHER TORTOISE SURVEY MAP

CONSULTANT	DATE	REVISION
	YYYY-MM-DD	2020-09-09
	DESIGNED	JGW
	PREPARED	JGW
	REVIEWED	KB
	APPROVED	KB

PATH: G:\Projects\19125540_LoncalaSolar\B009\PRODUCTION\MAPS\19125540_B009_GT_Survey.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B



Photograph 1. Typical coniferous plantation (FLUCFCS 441)



Photograph 2. Typical forest regeneration area (FLUCFCS 443)



Photograph 3. Mixed wetland forest (FLUCFCS 630), located in SW portion of the site in floodplain of Santa Fe River



Photograph 4. Historical mining excavation, located in NW portion of the site



Florida Natural Areas Inventory

Biodiversity Matrix Query Results

UNOFFICIAL REPORT

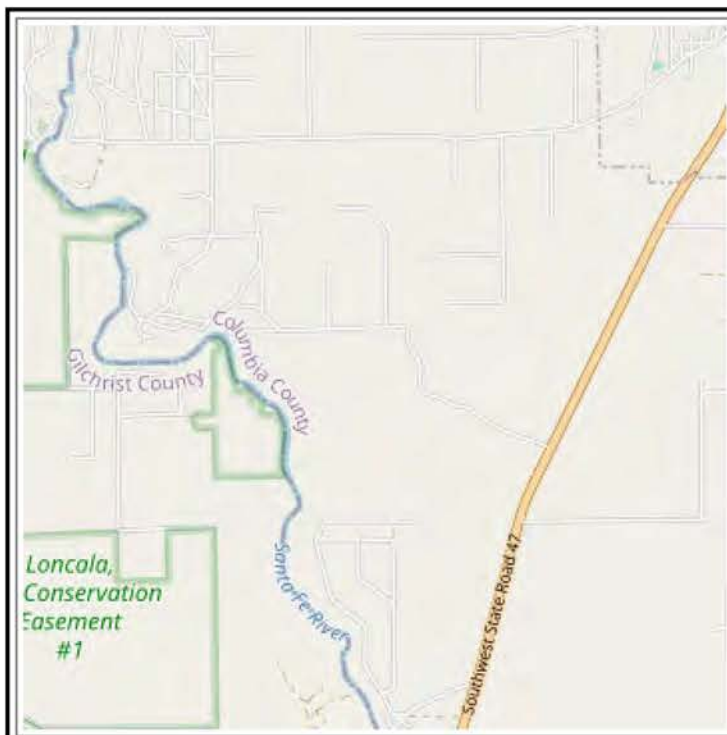
Created 10/6/2021

(Contact the FNAI Data Services Coordinator at 850.224.8207 or kbrinegar@fnai.fsu.edu for information on an official Standard Data Report)

for information on an official

NOTE: The Biodiversity Matrix includes only rare species and natural communities tracked by FNAI.

Report for 4 Matrix Units: 20920 , 20921 , 21155 , 21156



Descriptions

DOCUMENTED - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit.

DOCUMENTED-HISTORIC - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit; however the occurrence has not been observed/reported within the last twenty years.

LIKELY - The species or community is *known* to occur in this vicinity, and is considered likely within this Matrix Unit because:

1. documented occurrence overlaps this and adjacent Matrix Units, but the documentation isn't precise enough to indicate which of those Units the species or community is actually located in; *or*
2. there is a documented occurrence in the vicinity and there is suitable habitat for that species or community within this Matrix Unit.

POTENTIAL - This Matrix Unit lies within the known or predicted range of the species or community based on expert knowledge and environmental variables such as climate, soils, topography, and landcover.

Matrix Unit ID: 20920

3 Documented Elements Found

Scientific and Common Names	Global	State	Federal	State
-----------------------------	--------	-------	---------	-------

	Rank	Rank	Status	Listing
<i>Blackwater stream</i>	G4	S3	N	N
<i>Macrochelys suwanniensis</i> Suwannee Alligator Snapping Turtle	G1G2	S1S2	N	N
<i>Pseudemys concinna suwanniensis</i> Suwannee Cooter	G5T3	S3	N	SSC

0 **Documented-Historic** Elements Found5 **Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Drymarchon couperi</i> Eastern Indigo Snake	G3	S3	LT	FT
<i>Medionidus walkeri</i> Suwannee Moccasinshell	G1	S1	N	N
<i>Mesic flatwoods</i>	G4	S4	N	N
<i>Mycteria americana</i> Wood Stork	G4	S2	LT	FT
<i>Sandhill</i>	G3	S2	N	N

Matrix Unit ID: 209213 **Documented** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Blackwater stream</i>	G4	S3	N	N
<i>Macrochelys suwanniensis</i> Suwannee Alligator Snapping Turtle	G1G2	S1S2	N	N
<i>Pseudemys concinna suwanniensis</i> Suwannee Cooter	G5T3	S3	N	SSC

0 **Documented-Historic** Elements Found3 **Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Drymarchon couperi</i> Eastern Indigo Snake	G3	S3	LT	FT
<i>Medionidus walkeri</i> Suwannee Moccasinshell	G1	S1	N	N
<i>Mycteria americana</i> Wood Stork	G4	S2	LT	FT

Matrix Unit ID: 211550 **Documented** Elements Found0 **Documented-Historic** Elements Found2 **Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi Eastern Indigo Snake	G3	S3	LT	FT
Sandhill	G3	S2	N	N

Matrix Unit ID: 211560 **Documented** Elements Found0 **Documented-Historic** Elements Found1 **Likely** Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi Eastern Indigo Snake	G3	S3	LT	FT

Matrix Unit IDs: 20920 , 20921 , 21155 , 2115622 **Potential** Elements Common to Any of the 4 Matrix Units

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Acipenser oxyrinchus desotoi Gulf Sturgeon	G3T2	S2	LT	FT
Agrimonia incisa Incised Groove-bur	G3	S2	N	T
Ameiurus serracanthus Spotted Bullhead	G3	S3	N	N
Asplenium heteroresiliens Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana Florida Burrowing Owl	G4T3	S3	N	SSC
Calopogon multiflorus Many-flowered Grass-pink	G2G3	S2S3	N	T
Corynorhinus rafinesquii Rafinesque's Big-eared Bat	G3G4	S2	N	N
Forestiera godfreyi Godfrey's Swampprivet	G2	S2	N	E

Gopherus polyphemus Gopher Tortoise	G3	S3	C	ST
Heterodon simus Southern Hognose Snake	G2	S2	N	N
Lampropeltis extenuata Short-tailed Snake	G3	S3	N	ST
Matelea floridana Florida Spiny-pod	G2	S2	N	E
Micropterus notius Suwannee Bass	G3	S3	N	N
Myotis austroriparius Southeastern Bat	G3G4	S3	N	N
Notophthalmus perstriatus Striped Newt	G2G3	S2	C	N
Peucaea aestivalis Bachman's Sparrow	G3	S3	N	N
Phyllanthus liebmannianus ssp. platylepis Pinewoods Dainties	G4T2	S2	N	E
Picoides borealis Red-cockaded Woodpecker	G3	S2	LE	FE
Pituophis melanoleucus mugitus Florida Pine Snake	G4T3	S3	N	SSC
Pteroglossaspis ecristata Giant Orchid	G2G3	S2	N	T
Salix floridana Florida Willow	G2	S2	N	E
Sciurus niger shermani Sherman's Fox Squirrel	G5T3	S3	N	SSC

Disclaimer

The data maintained by the Florida Natural Areas Inventory represent the single most comprehensive source of information available on the locations of rare species and other significant ecological resources statewide. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. FNAI shall not be held liable for the accuracy and completeness of these data, or opinions or conclusions drawn from these data. FNAI is not inviting reliance on these data. Inventory data are designed for the purposes of conservation planning and scientific research and are not intended for use as the primary criteria for regulatory decisions.

Unofficial Report

These results are considered unofficial. FNAI offers a [Standard Data Request](#) option for those needing certifiable data.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
North Florida Ecological Services Field Office
7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256-7517
Phone: (904) 731-3336 Fax: (904) 731-3045

In Reply Refer To:
Consultation Code: 04EF1000-2022-SLI-0039
Event Code: 04EF1000-2022-E-00062
Project Name: Columbia County Solar Energy Center

October 06, 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.*).

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
 - Migratory Birds
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

North Florida Ecological Services Field Office

7915 Baymeadows Way, Suite 200

Jacksonville, FL 32256-7517

(904) 731-3336

Project Summary

Consultation Code: 04EF1000-2022-SLI-0039

Event Code: Some(04EF1000-2022-E-00062)

Project Name: Columbia County Solar Energy Center

Project Type: POWER GENERATION

Project Description: Columbia County Solar (Project) is a new 74.5 megawatt (MW) solar photovoltaic energy facility located within a 579.4-acre site (Site) comprised predominantly of silvicultural lands located on the west side of County Road 47 in Columbia County Florida, approximately 2.3 miles southwest of its intersection with U.S. Highway 27 (Figure 1). The facility will consist of solar photovoltaic panels with inverters, transformers, a collector yard, at-grade access paths, collector lines, gen-tie line, and security fencing.

The Project has been designed to minimize ground disturbance by installing solar arrays without requiring fill material to the greatest extent practicable and construction of at-grade access roads. No wetland impacts are proposed. Prior to construction, erosion and sediment controls will be installed to avoid discharge of erosional materials outside of the work area.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@29.89240335,-82.73235665553642,14z>



Counties: Columbia County, Florida

Endangered Species Act Species

There is a total of 8 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 Fisheries¹, 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.

Birds

NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Threatened
Wood Stork <i>Mycteria americana</i> Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477	Threatened

Reptiles

NAME	STATUS
Eastern Indigo Snake <i>Drymarchon corais couperi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened
Gopher Tortoise <i>Gopherus polyphemus</i> Population: eastern No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6994	Candidate
Suwannee Alligator Snapping Turtle <i>Macrochelys suwanniensis</i> No critical habitat has been designated for this species.	Proposed Threatened

Fishes

NAME	STATUS
Gulf Sturgeon <i>Acipenser oxyrinchus (=oxyrhynchus) desotoi</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/651	Threatened

Clams

NAME	STATUS
Suwannee Moccasinshell <i>Medionidus walkeri</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/533	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

NAME	BREEDING SEASON
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Swallow-tailed Kite <i>Elanoides forficatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

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

Survey Effort (|)

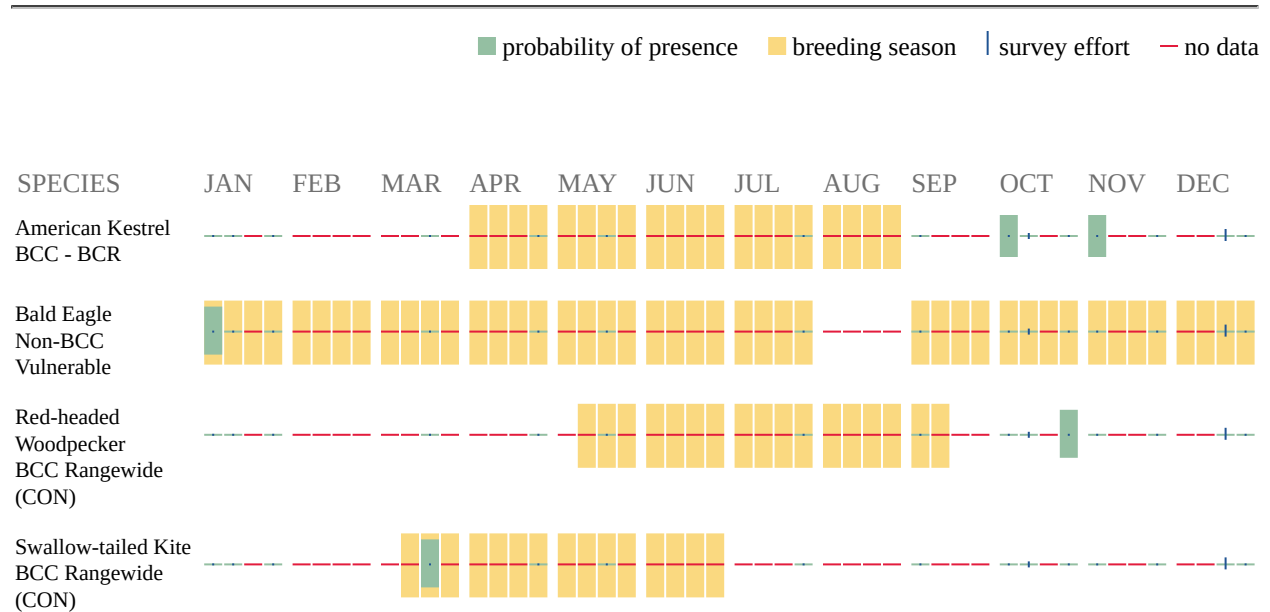
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <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>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the 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.

From: [Williams, Zakia](#)
To: [Bullock, Karl](#)
Subject: USFWS Information Request - Columbia Solar 6-8-21.pdf
Date: Monday, June 14, 2021 12:35:19 PM
Attachments: [Outlook-lp5uma5c.png](#)

EXTERNAL EMAIL

Hello,

Thank you for your request for technical assistance for the Columbia County Solar Project. I reviewed the submitted due diligence report and our threatened and endangered species records. The Service does not have any additional records of federally listed species near the proposed site. The findings you have made fulfill compliance with the Endangered Species Act of 1973, as amended (16 U.S.C. et seq.).

For solar facilities, I have been providing the following best management practices to consider incorporating in environmental planning. These practices may minimize impacts of the solar facility and increase the habitat and species diversity within the facility area.

1. Implement the eastern indigo snake standard protection measures during any clearing and construction. This recommendation was included in the assessment and the Service supports incorporating this measure during habitat modification (such as FWC permitted gopher tortoise relocation activities) and construction.
1. Sow native seed mixes with plant species that are beneficial to pollinators throughout the site, if feasible. Taller growing pollinator plant species should be planted around the periphery of the site and anywhere on the site where mowing can be restricted during the summer months. Taller plants, left un-mowed during the summer, would provide benefits to pollinators, habitat to ground nesting/feeding birds, and cover for small mammals. Low growing/groundcover native species should be planted under the solar panels and between the rows of solar panels. This would provide benefits to pollinators while also minimizing the amount of maintenance such as mowing and herbicide treatment. Using a seed mix that includes milk weed species (milk weed is an important host plant for monarch butterflies) is especially beneficial. Additional information regarding plant species, seed mixes, and pollinator habitat requirements can be provided upon request.
2. If feasible, create openings in fencing to allow passage issues for small mammals and turtles.
3. Provide nesting sites for pollinator species. Different pollinators have different needs for nesting sites. Therefore, we recommend designing the solar facility to maintain a diverse array of habitats to accommodate varied pollinators from hummingbirds to butterflies to bees. Hummingbirds typically nest in trees or shrubs while many butterflies lay eggs on specific host plants. Most bees nest in the ground and in wood or dry plant stems. For additional information and actions that can be taken to benefit pollinators, please visit the following web-site: <http://www.fws.gov/pollinators/pollinatorpages/yourhelp.html>

Please let me know if you have any further questions or concerns.

APPENDIX 3.6

Water Resources

FDEP CZMA Review
NPS Consultation

From: State_Clearinghouse <State.Clearinghouse@dep.state.fl.us>
Sent: Thursday, January 21, 2021 7:48 AM
To: Bullock, Karl; State_Clearinghouse
Subject: RE: federal consistency review - CZMA

EXTERNAL EMAIL

While it is covered by EO 12372, the Florida State Clearinghouse does not select the project for review since an Environmental Resource Permit has already been obtained from the Florida Department of Environmental Protection(#12-0208670-001-EI). You may proceed with your project.

Please continue to send future electronic requests directly to the State of Florida Clearinghouse email address, state.clearinghouse@floridadep.gov.

Good Luck.

Chris Stahl

Chris Stahl, Coordinator
Florida State Clearinghouse
Florida Department of Environmental Protection
3800 Commonwealth Blvd., M.S. 47
Tallahassee, FL 32399-2400
ph. (850) 717-9076
State.Clearinghouse@floridadep.gov

From: [Duncan, Jeffrey R](#)
To: [Zarnstorff, Gina](#)
Subject: Re: [EXTERNAL] NPS Consultation Request Columbia County Solar
Date: April 20, 2022 10:21:07 AM

EXTERNAL EMAIL

Good morning-

Given that the project does not lie within the banks or the floodplain of the Santa Fe River, the NPS has no comments.

Thanks, Jeff

Jeffrey R. Duncan, PhD.
Regional Aquatic Ecologist
[Science and Natural Resources Management](#)
Wild and Scenic Rivers
[Fisheries and Aquatic Resources](#)
National Park Service, Interior Region 2 - South Atlantic Gulf
100 West Martin Luther King, Jr. Blvd. Suite 215
Chattanooga, TN 37402
Ph: (423) 987-6127

I'm a proud graduate of the NPS GOAL Leadership Academy. Ask me about the program!

Confidentiality Notice:

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From: Zarnstorff, Gina <Gina_Zarnstorff@golder.com>
Sent: Wednesday, April 20, 2022 9:14 AM
To: Duncan, Jeffrey R <Jeff_Duncan@nps.gov>
Cc: Bullock, Karl <Karl_Bullock@golder.com>
Subject: [EXTERNAL] NPS Consultation Request Columbia County Solar

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good morning,

Please find attached a consultation request for the Columbia County Solar Energy Center, located within Columbia County, Florida. This project is adjacent to the Santa Fe River which is listed on the NPS National Rivers Inventory List. No construction is proposed within the Santa Fe River or its floodplain. Please contact me if you have any questions about this project or would like further information.

Thank You,

Gina Zarnstorff
Project Environmental Scientist

T+ 352-231-3370



6026 NW 1st Place, Gainesville, Florida 32606

wsp.com | golder.com

NOTICE: This communication and any attachments ("this message") may contain information which is privileged, confidential, proprietary or otherwise subject to restricted disclosure under applicable law. This message is for the sole use of the intended recipient(s). Any unauthorized use, disclosure, viewing, copying, alteration, dissemination or distribution of, or reliance on, this message is strictly prohibited. If you have received this message in error, or you are not an authorized or intended recipient, please notify the sender immediately by replying to this message, delete this message and all copies from your e-mail system and destroy any printed copies.

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APPENDIX 3.8

Socioeconomics and Environmental Justice

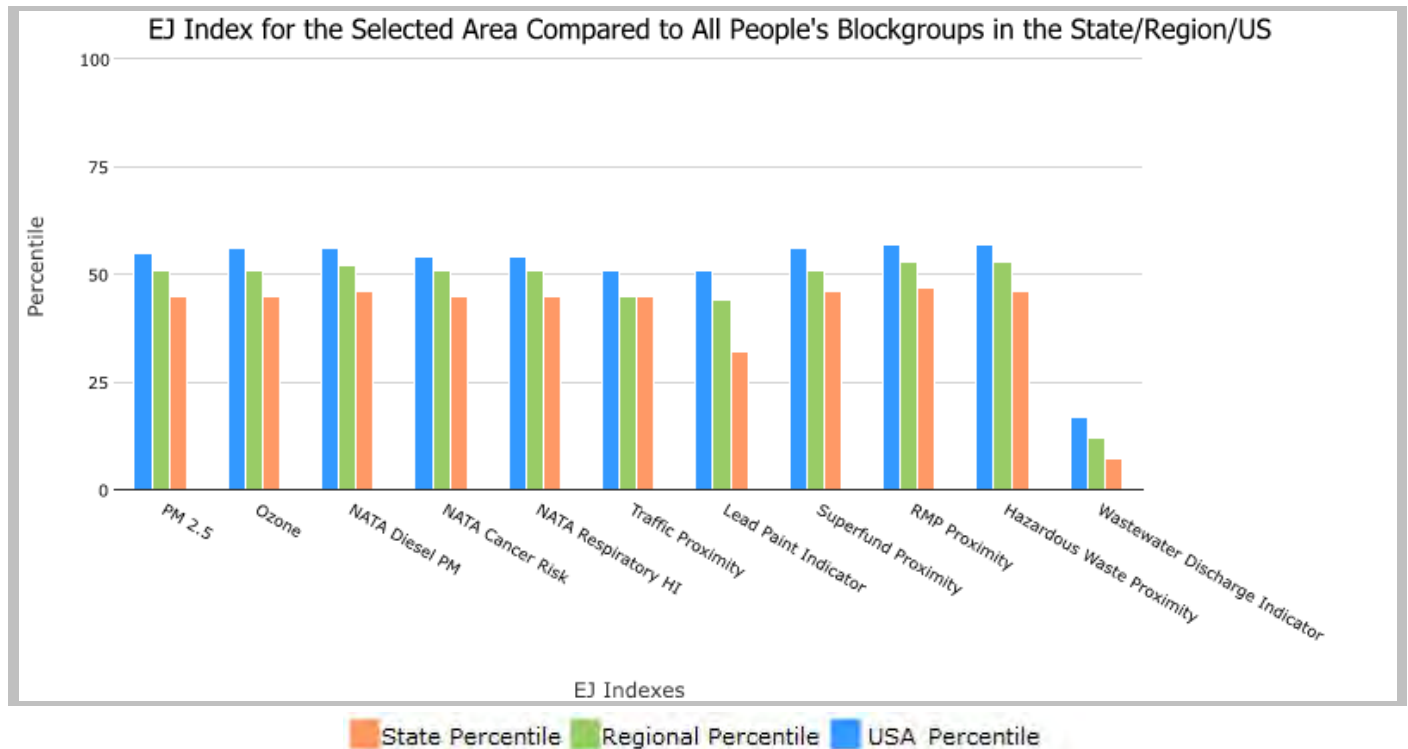
EPA EJSCREEN Report

the User Specified Area, FLORIDA, EPA Region 4

Approximate Population: 2

Input Area (sq. miles): 0.85

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	45	51	55
EJ Index for Ozone	45	51	56
EJ Index for NATA* Diesel PM	46	52	56
EJ Index for NATA* Air Toxics Cancer Risk	45	51	54
EJ Index for NATA* Respiratory Hazard Index	45	51	54
EJ Index for Traffic Proximity and Volume	45	45	51
EJ Index for Lead Paint Indicator	32	44	51
EJ Index for Superfund Proximity	46	51	56
EJ Index for RMP Proximity	47	53	57
EJ Index for Hazardous Waste Proximity	46	53	57
EJ Index for Wastewater Discharge Indicator	7	12	17



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

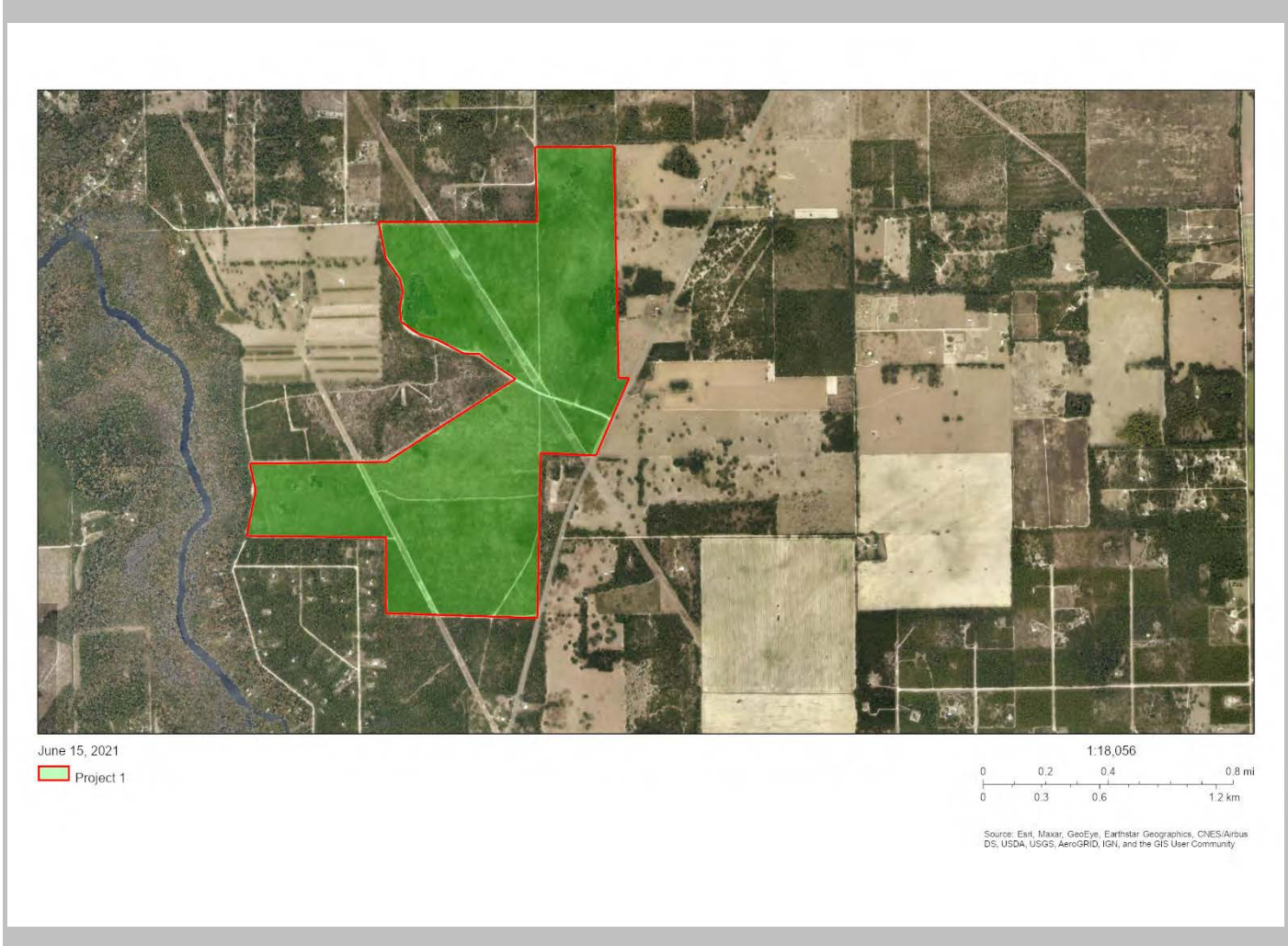
EJSCREEN Report (Version 2020)



the User Specified Area, FLORIDA, EPA Region 4

Approximate Population: 2

Input Area (sq. miles): 0.85



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJSCREEN Report (Version 2020)



the User Specified Area, FLORIDA, EPA Region 4

Approximate Population: 2

Input Area (sq. miles): 0.85

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$)	7.73	8.11	21	8.57	12	8.55	25
Ozone (ppb)	32.1	31.9	44	38	14	42.9	4
NATA* Diesel PM ($\mu\text{g}/\text{m}^3$)	0.14	0.556	1	0.417	<50th	0.478	<50th
NATA* Cancer Risk (lifetime risk per million)	35	33	64	36	<50th	32	60-70th
NATA* Respiratory Hazard Index	0.51	0.49	57	0.52	50-60th	0.44	70-80th
Traffic Proximity and Volume (daily traffic count/distance to road)	22	550	11	350	23	750	16
Lead Paint Indicator (% Pre-1960 Housing)	0.018	0.11	40	0.15	25	0.28	17
Superfund Proximity (site count/km distance)	0.02	0.13	13	0.083	31	0.13	18
RMP Proximity (facility count/km distance)	0.041	0.79	1	0.6	3	0.74	3
Hazardous Waste Proximity (facility count/km distance)	0.054	0.81	5	0.91	6	5	6
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.011	0.61	90	0.65	87	9.4	80
Demographic Indicators							
Demographic Index	34%	41%	45	37%	51	36%	56
People of Color Population	10%	46%	11	39%	18	39%	21
Low Income Population	57%	35%	85	36%	83	33%	86
Linguistically Isolated Population	0%	7%	29	3%	51	4%	45
Population With Less Than High School Education	16%	12%	72	13%	67	13%	71
Population Under 5 years of age	6%	5%	60	6%	55	6%	53
Population over 64 years of age	23%	20%	74	17%	82	15%	85

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.

For additional information, see: www.epa.gov/environmentaljustice

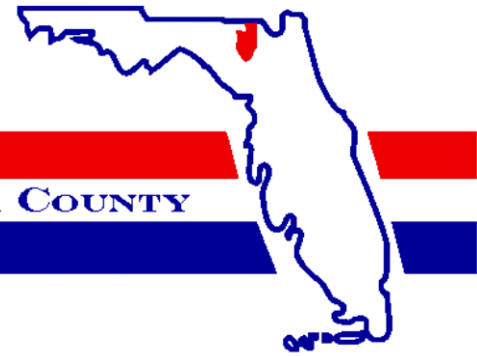
EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

APPENDIX 4.0

Cumulative Effects

Columbia County Correspondence

District No. 1 - Ronald Williams
District No. 2 - Rocky Ford
District No. 3 - Robby Hollingsworth
District No. 4 - Toby Witt
District No. 5 - Tim Murphy



BOARD OF COUNTY COMMISSIONERS • COLUMBIA COUNTY

October 14, 2022

VIA ELECTRONIC MAIL

Mark W. Shelton, AICP
Kimley-Horn & Associates, Inc.
Jacksonville, FL 32258

Re: SE 0620 "FRP Columbia Solar"
USDA Rural Utility Service

Dear Mr. Shelton,

At the September 24, 2020 Board of Adjustment ("Board") hearing, the Board approved the application for a Special Exception (SE 0620) to allow for a Solar Power Generation Plant use as permitted in Section 4.5.7(39) of the County's Land Development Regulations ("LDRs").

At this time, three additional Solar Power Generation Plants have been approved within 5-miles of the FRP Columbia Solar project. However, there have been no other known projects, either submitted or planned, within 5-miles of the FRP Columbia Solar project.

If you have any questions, please do not hesitate to contact me at bstubbs@columbiacountyfla.com or (386) 754-7119.

Sincerely,

A handwritten signature in blue ink, appearing to read "B. M. Stubbs", is located below the word "Sincerely,".

Brandon M. Stubbs
Community Development Coordinator
Land Development Regulation Admin.

BOARD MEETS THE FIRST THURSDAY AT 5:30 P.M.
AND THIRD THURSDAY AT 5:30 P.M.