

APPENDIX 10.4

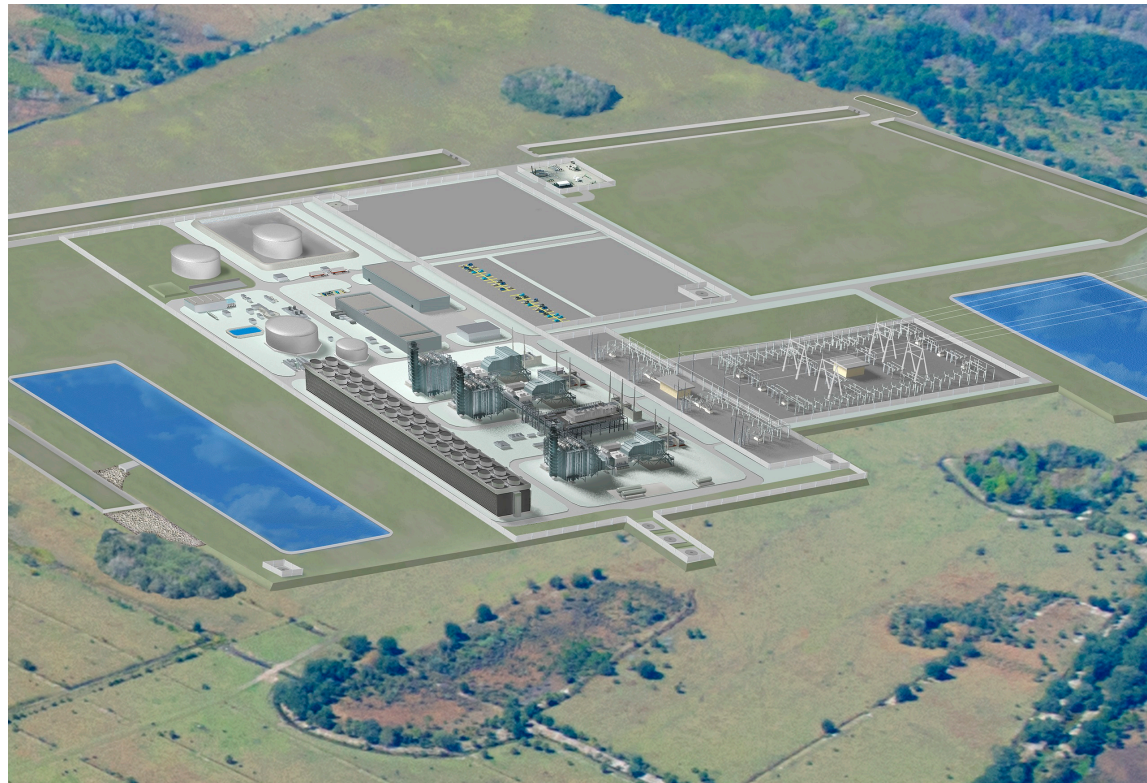
ENVIRONMENTAL RESOURCE PERMIT APPLICATION



Environmental Resource Permit Application

ENVIRONMENTAL RESOURCE PERMIT APPLICATION

FPL Okeechobee Clean Energy Center
Okeechobee County, Florida



September 2015

Project No. 1414979



JOINT APPLICATION FOR INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT/ AUTHORIZATION TO USE STATE-OWNED SUBMERGED LANDS/ FEDERAL DREDGE AND FILL PERMIT

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION/
WATER MANAGEMENT DISTRICTS/
U.S. ARMY CORPS OF ENGINEERS

Effective October 1, 2013



INSTRUCTIONS FOR USE OF THIS FORM:

This form is designed to assist you in submitting a complete application. All applications must include Section A- General Information for All Activities. Sections B through H list typical information that is needed based on the proposed activities, and are only required as applicable. Part 1-C of Section A will guide you to the correct sections needed based on your proposed activities. Applicants are advised to consult Chapter 62-330, F.A.C., and the Environmental Resource Permit Applicant's Handbook Volumes I and II for information regarding the ERP permitting process and requirements while preparing their application. Internet addresses for Chapter 62-330, F.A.C. and the Applicant's Handbook, Agency contact information, and additional instructions for this form can be found in Attachment 1.

What Sections of the Application Must I Fill Out?

Does the project involve....	Section							
	A- General Information	B- Single Family Projects	C- Wetlands and other Surface Waters	D- Structures or Works in Surface Waters	E- Stormwater Management System	F- State-owned Submerged Lands	G- Mitigation Banks	H- Mines
Fill in wetlands or waters for a single family residence?	X	X						
Docks, shoreline stabilization, seawalls associated with a single family residence?	X	X				X, if applicable		
Wetland impacts (other than associated with an individual residence)?	X		X					
Boating facilities, a marina, jetty, reef, or dredging?	X		X	X		X if applicable		
Any work on state owned submerged land?	X		X			X		
Construction of a stormwater management system?	X		X, if applicable		X			
Constructing a mitigation bank?	X		X		X, if applicable		X	
Creating a mine?	X		X, if applicable					X

Note- if you are required to provide Section B, then you do not have to provide any other Sections, unless the activities are on state-owned submerged lands. In that case, Section F will also be required.

If you have any questions, or would like assistance completing this form, please contact the staff of the nearest office of either the Florida Department of Environmental Protection (DEP) or a Water Management District (WMD) (see Attachment 2).

Section A: General Information for All Activities

PART 1: NAME, APPLICATION TYPE, LOCATION, AND DESCRIPTION OF ACTIVITY

A. Name of project, including phase if applicable: **FPL Okeechobee Clean Energy Center**

B. This is for (check all that apply):

- ☒ Construction or operation of **new** works, activities and/ or a stormwater management system
- ☐ **Conceptual Approval** of proposed works, activities and/ or a stormwater management system
- ☐ Modification or Alteration of **existing** works activities and / or a stormwater management system. Provide the existing DEP or WMD permit #, if known: ____ Note: Minor modifications do not require completion of this form, and may instead be requested by letter.
- ☐ **Maintenance or repair** of works, activities and/ or stormwater management system previously permitted by the DEP or WMD Provide existing permit #, if known: ____
- ☐ Abandonment or removal of works, activities and/ or stormwater management system Provide existing DEP or WMD permit #, if known: ____
- ☐ Operation of an **existing unpermitted** stormwater management system.
- ☐ Construction of additional phases of a permitted work, activity and/ or stormwater management system.
Provide the existing DEP or WMD permit #, if known: ____

C. **List the type of activities proposed. Check all that apply, and provide the supplemental information requested in each of the referenced application sections. Please also reference Applicant's Handbooks I and II for the type of information that may be needed.**

- ☐ Activities associated with one single-family residence, duplex, triplex, or quadruplex that do not qualify for an exemption or a General Permit: **Provide the information requested in Section B. Do not complete Section C.**
- ☒ Activities within wetlands or surface waters, or within 25 feet of a wetland or surface water, (not including the activities associated with an individual residence). *Examples include dredging, filling, outfall structures, docks, piers, over-water structures, shoreline stabilization, mitigation, reclamation, restoration/enhancement.* **Provide the information requested in Section C.**
- ☐ Activities within navigable or flowing surface waters such as a multi-slip dock or marina, dry storage facility, dredging, bridge, breakwaters, reefs, or other offshore structures: **In addition to Section C, also provide the information requested in Section D.**
- ☐ Activities that are (or may be) located within, on or over state-owned submerged lands (See Chapter 18-21, F.A.C. <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=18-21>): **In addition to Section B or C, also provide the information requested in Section F**

- ☒ Construction or alteration of a stormwater management system serving residential, commercial, transportation, industrial, agricultural, or other land uses, or a solid waste facility (excluding mines that are regulated by DEP). **Provide the information requested in Section E.**
- ☐ Creation or modification of Mitigation Bank (refer to Chapter 62-342, F.A.C. <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-342>): **Provide the information requested in Section G.**
- ☐ Mines (as defined in Section 2.0 of Applicant's Handbook Volume I) that are regulated by the DEP: **Provide the information requested in Section H.**
- ☐ Other, describe: Please contact the Agency to determine which additional sections of the application are needed. See Attachment 1 for Agency contacts.

D. Describe in general terms the proposed project, system, works, or other activities. For permit modifications, please briefly describe the changes requested to the permit:

Construct a new combined cycle natural gas fired generating unit (Project) providing approximately 1600 megawatts (MW) of electric generation upon approximately 220 acres of an approximately 2,341 acre Site located adjacent to an existing 500-kV transmission system in northeastern Okeechobee County. The Project also includes approximately 1,629 acres designated for potential future solar photovoltaic generation up to 200 MW that will bring the ultimate Site capacity to 1,800 MW. Associated linear facilities are limited to improvements to the existing roadway from SR 60 (226th Court) providing Site access and an approximately 535 foot long by 396 foot wide transmission interconnection corridor. The Project includes two potential gas pipeline configurations within the Site; the connection with off-site providers of natural gas will be permitted and owned by others under a separate application. Unavoidable wetland fill includes approximately 19.99 acres of man-made citrus and drainage ditches and 4.71 acres of ditched mixed wetland hardwoods within citrus groves. Wetland impacts will be offset through enhancement and preservation of an approximately 376-acre on-site mitigation area. Temporary wetland impacts are limited to 0.11 acre of ditches, which will be restored in-situ. No impacts within the area designated for potential future solar generation are currently proposed as part of the OCEC Project. If future solar generation is proposed, a separate ERP application would be included with a supplemental SCA submittal describing the solar facility layout, engineering design, drainage system, and construction specifications prior to development of the future solar generation area of the Site.

E. For activities in, on, or over wetlands or other surface waters, check the type of federal dredge and fill permit requested (if known): ☒ Individual ☐ Programmatic General permit #: ☐ General ☐ Nationwide permit #: ☐ Not Applicable ☐ Not sure

F. Project/Activity Street/Road Address or other location (if applicable): **Approximately 24 miles west of Vero Beach, 1 mile south of intersection of State Road 60 and 226th Court.**

City: **N/A**

County(ies): **Okeechobee**

Zip: **34972**

Note: For utility, road, or ditch/canal activities, provide a starting and ending point using street names and nearest house numbers or provide length of project in miles along named streets or highways.

G. Project location map and Section, Township, and Range information (use additional sheets if needed):

Please attach a location map showing the location and boundaries of the proposed activity in relation to major intersections or other landmarks. The map should also contain a north arrow and a graphic scale; show Section(s), Township(s), and Range(s); and must be of sufficient detail to allow a person unfamiliar with the site to find it.

Section(s): **1,2,11,12** Township: **33S** Range: **35E** Land Grant name, if applicable:

Section(s): Township: Range:

Section(s): Township: Range:

See Attachment A – Site Location Information, Figure 1 – Project Location Map

H. Latitude (DMS) **27° 38' 03"** Longitude (DMS) **80° 47' 28"** (Taken from central location of the activity). Explain source for obtaining latitude and longitude (i.e. U.S.G.S. Quadrangle Map, GPS, online resource): **Google Earth**

I. Tax Parcel Identification Number(s): **11133350A00000010000, 11233350A00000010000, 10133350A00000010000, 10233350A00000010000**

[Number may be obtained from property tax bill or from the county property appraiser's office; if on multiple parcels, provide multiple Tax Parcel Identification Numbers]

J. Directions to Site (from major roads; include distances and landmarks as applicable):

State Road 60 approximately 24 miles west of Vero Beach, south on 226th Court to Okeechobee County line.

K. Project area or phase area: **2,341** acres

L. Name of waterbody(ies) (if known) in which activities will occur or into which the system will discharge: **N/A**

The following questions (M-O) are not applicable to activities related to a single-family residence, including private single-family residential docks, piers, seawalls or boat ramps.

M. Is it part of a larger plan of development or sale? ☐ yes ☒ no

N. Impervious or semi-impervious area excluding wetlands and other surface waters (if applicable):
0 acres or **0** square feet

O. Volume of water the system is capable of impounding (if applicable): **0** acre-feet.

PART 2: SUPPLEMENTAL INFORMATION, AND PERMIT HISTORY

A. Is this an application to modify an existing Environmental Resource Permit, or to construct or implement part of a multi-phase project, such as a project with a Conceptual Approval permit? ☐ Yes ☒ No *If you answered "yes", please provide permit numbers below:*

AGENCY	DATE	PERMIT/APPLICATION NO.	PROJECT NAME

- B. Indicate if there have been any ***pre-application meeting(s)*** or other discussions about the proposed project, system or activity. If so, please provide the date(s), location(s) of the meeting, and the name(s) of Agency staff that attended the meeting(s):

AGENCY	DATE	LOCATION	MEETING ATTENDEES
FDEP	2-16-15	SCO Tallahassee	Ann Seiler, Justin Green, Bobby Bull, Paul Wierzbicki (SE District – phone)
FDEP	4-2-15	SE District, West Palm Beach	Benny Luedike
FDEP	4-22-15	OCEC Site Visit	John Renfranz, Cindy Lott
FDEP	7-20-15	SE District, West Palm Beach	Paul Wierzbicki, John Renfranz, Indar Jagarine (FDEP SE District), Ann Seiler (FDEP SCO - phone)
USACE	4-2-15	USACE Palm Beach	Garett Lips
USACE	7-30-15	USACE Palm Beach	Samantha Rice, Susan Kaynor

- C. ***Attach a depiction (plan and section views), which clearly shows the works or other activities proposed to be constructed.*** Use multiple sheets, if necessary, a scale sufficient to show the location and type of works, and include a north arrow and a key to any symbols used. ***Specific information to be included in the plans is based on the activities proposed and is further described in Sections B-H.*** However, supplemental information may be required based on the specific circumstances or location of the proposed works or other activities.

See Attachment B – Construction Plans

- D. Processing Fee: ***Please submit the application processing fee along with this application form and supplemental information.*** Processing fees vary based on the size of the activity, the type of permit applied for, and the reviewing Agency. Please reference Attachment 3 to determine the appropriate fee.

The ERP application is being submitted as part of the OCEC Site Certification Application.

PART 3: APPLICANT AND ASSOCIATED PARTIES INFORMATION

Instructions: Permits are only issued to entities having sufficient real property interest as described in Section 4.2.3 (d) of Applicant's Handbook Volume I. Please attach evidence of sufficient real property interest over the land upon which the activities subject to the application will be conducted, including mitigation (if applicable). Refer to Section 4.2.3 (d) for acceptable ownership or real property interest documentation. For corporations, list a person who is a registered agent or officer of the corporation who has the legal authority to bind the corporation.

A. APPLICANT (ENTITY MUST HAVE SUFFICIENT REAL PROPERTY INTEREST)			
☒ THIS IS A CONTACT PERSON FOR ADDITIONAL INFORMATION			
Name: Last: LaBauve		First: Randall	Middle: R.
Title: Vice President		Company: Florida Power & Light Company	
Address: 700 Universe Boulevard			
City: Juno Beach		State: FL	Zip: 33408
Home Telephone:		Work Telephone: 561-691-7001	
Cell Phone:		Fax: 561-691-7070	
E-mail Address: Randall.R.LaBauve@fpl.com			
Correspondence will be sent via email. Check here to receive correspondence via US Mail: ☐			
B. LAND OWNER(S) (IF DIFFERENT OR IN ADDITION TO APPLICANT)			
☐ CHECK HERE IF LAND OWNER IS ALSO A CO-APPLICANT			
Name: Last:		First:	Middle:
Title:		Company:	
Address:			
City:		State:	Zip:
Home Telephone:		Work Telephone:	
Cell Phone:		Fax:	
E-mail Address:			
Correspondence will be sent via email. Check here to receive correspondence via US Mail: ☐			
C. OPERATION AND MAINTENANCE ENTITY (see Applicant's Handbook I, Section 12.3)			
Entity Name:		Contact: Last:	First: Middle:
Title:		Company:	
Address:			
City:		State:	Zip:
Home Telephone:		Work Telephone:	
Cell Phone:		Fax:	
E-mail Address:			
Correspondence will be sent via email. Check here to receive correspondence via US Mail: ☐			

D. CO-APPLICANT (IF DIFFERENT OR IN ADDITION TO APPLICANT AND OWNER)

Name: Last:	First:	Middle:
Title:	Company:	
Address:		
City:	State:	Zip:
Home Telephone:	Work Telephone:	
Cell Phone:	Fax:	
E-mail Address:		
Correspondence will be sent via email. Check here to receive correspondence via US Mail: ☐		
E. ENGINEERING CONSULTANT ☐ THIS IS A CONTACT PERSON FOR ADDITIONAL INFORMATION		
Name: Last:	First:	Middle:
Title:	Company:	
Address:		
City:	State:	Zip:
Home Telephone:	Work Telephone:	
Cell Phone:	Fax:	
E-mail Address:		
Correspondence will be sent via email. Check here to receive correspondence via US Mail: ☐		
F. ENVIRONMENTAL CONSULTANT ☒ THIS IS A CONTACT PERSON FOR ADDITIONAL INFORMATION		
Name: Last: Bullock	First: Karl	Middle:
Title: Associate	Company: Golder Associates	
Address: 6026 NW 1st Place		
City: Gainesville	State: FL	Zip: 32607
Home Telephone:	Work Telephone: 352-336-5600	
Cell Phone:	Fax: 352-336-6603	
E-mail Address: kbullock@golder.com		
Correspondence will be sent via email. Check here to receive correspondence via US Mail: ☐		
G. AGENT AUTHORIZED TO SECURE PERMIT (IF DIFFERENT FROM CONSULTANT) ☐ THIS IS A CONTACT PERSON FOR ADDITIONAL INFORMATION		
Name: Last:	First:	Middle:
Title:	Company:	
Address:		
City:	State:	Zip:
Home Telephone:	Work Telephone:	
Cell Phone:	Fax:	
E-mail Address:		
Correspondence will be sent via email. Check here to receive correspondence via US Mail: ☐		

If necessary, please add additional pages for other contacts and property owners related to this project.

PART 4: SIGNATURES AND AUTHORIZATION TO ACCESS PROPERTY

Instructions: For multiple applicants please provide a separate Part 4 for each applicant. For corporations, the application must be signed by a person authorized to bind the corporation. A person who has sufficient real property interest (see Section 4.2.3 (d) of Applicant's Handbook Volume I) is required in (B) to authorize access to the property, except when the applicant has the power of eminent domain.

A. By signing this application form, I am applying for the permit and any proprietary authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application and represent that such information is true, complete and accurate. I understand this is an application and not a permit, and that work prior to approval is a violation. I understand that this application and any permit issued or proprietary authorization issued pursuant thereto, does not relieve of any obligation for obtaining any other required federal, state, water management district or local permit prior to commencement of construction. I agree to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a different responsible operation and maintenance entity. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

Randall La Bauve

Typed/Printed Name of Applicant or
Applicant's Authorized Agent

Signature of Applicant or Applicant's
Authorized Agent

Date

Sept 23, 2015

Vice President

(Corporate Title if applicable)

B. CERTIFICATION OF SUFFICIENT REAL PROPERTY INTEREST AND AUTHORIZATION FOR STAFF TO ACCESS THE PROPERTY:

I certify that:

☒ I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency and the U.S. Army Corps of Engineers to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/ or sampling. Further, I agree to provide entry to the project site for such agents or personnel to monitor and inspect permitted work if a permit is granted.

OR

☐ I represent an entity having **the power of eminent domain and condemnation authority**, and I/we shall make appropriate arrangements to enable staff of the Agency and the U.S. Army Corps of Engineers to access, inspect, and sample the property as described above.

Randall La Bauve

Typed/Printed Name

Signature

Date

Sept 23, 2015

Vice President

(Corporate Title if applicable)

C. DESIGNATION OF AUTHORIZED AGENT (IF APPLICABLE):

I hereby designate and authorize _____ to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

_____ Typed/Printed Name of Applicant	_____ Signature of Applicant	_____ Date
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(Corporate Title if applicable)

(9.25.13)

SECTION C: SUPPLEMENTAL INFORMATION FOR WORKS OR OTHER ACTIVITIES IN, ON, OR OVER WETLANDS AND/OR OTHER SURFACE WATERS

(Note: This section is not required if all the proposed activities are covered in Section B.)

Instructions: This section is for ERP applications that do not involve activities associated with an individual single-family residence, duplex, triplex or quadruplex. For those activities, please use Section B. This form is to be completed if the proposed work or activity will occur in, on, over, or within 25 feet of a wetland or other surface water. The supplemental information required by this section is in addition to the information required by Section A of the ERP application.

PART 1: WETLAND OR OTHER SURFACE WATER IMPACT SUMMARY

1. Describe the basic purpose of the project or activity:

The basic purpose is to provide additional baseload generation to maintain system reliability in the most cost-effective manner (as required by the Florida Public Service Commission) within FPL's service territory. Baseload capacity is electricity that is available most of the time on a continuous basis and is only subject to infrequent shutdown or maintenance outages.

2. Total area of work (dredging, filling, construction, alteration, or removal) in, on, or over wetlands or other surface waters: **1,080,724 sq. ft.; 24.81 ac. Unavoidable wetland fill impact includes approximately 19.99 acres of man-made citrus and drainage ditches and 4.71 acres of ditched mixed wetland hardwoods within citrus groves. Temporary wetland impacts are limited to approximately 0.11 acre, to be restored in-situ.**
3. Total volume of material in wetlands or other surface waters:
 - a. to be dredged: **0** cubic yards,
 - b. to be filled: **approximately 121,000** cubic yards.
4. Identify the seasonal high water level (SHWL) and wetland normal pool elevations for each wetland or surface water within the project site. For tidal wetlands and/or surface waters provide the elevation of mean high and mean low water. Include an aerial photograph showing the location of each sampling location, dates, datum, and methods used to determine these elevations.

Seasonal high water elevations were approximated based upon the wetland boundary lines delineated in December 2014 (Attachment C) and topographic survey. Approximate seasonal high water elevations for wetlands within the Site range from approximately 30 to 31 ft NAVD88; normal pool elevations are approximately 12" below seasonal high water elevation.

5. Name of waterbody(ies) (if applicable & if known) in which work will occur? **N/A**
6. Is the activity proposed in an Outstanding Florida Water or Aquatic Preserve?
☐ yes, name: ☒ no ☐ I don't know
7. Has there ever been a formal or informal wetland determination for the project site? If yes, provide the identifying number and/ or a copy of the jurisdictional map.

No. Wetlands were delineated in December 2014, see Attachment C.

8. Provide a map(s) of the project area and vicinity delineating USDA/NRCS soil types.

See Attachment A – Site Location Information, Figure 2 - Soils

9. Provide recent aerials, legible for photointerpretation (no photocopies) with a scale of 1" = 400 ft, or more detailed, with project boundaries and wetland boundaries delineated on the aerial.

See Attachment A – Site Location Information, Figure 3 – Aerial Map and Attachment C – Wetland Survey, Figure 1 – Wetland Map

10. Provide existing and proposed maps indicating vegetative community types based on Florida Land Use and Cover Classification System (FLUCCS) (FDOT 1999). For vegetated areas dominated by exotic vegetation, use the FLUCCS code representative of the native community type that was present prior to exotic infestation.

See Attachment A – Site Location Information, Figure 4 – FLUCFCS Map. A summary of the acreage of existing and proposed vegetative community types is provided below:

FLUCFCS Code	Habitat Type	Acreage	
		Existing	Proposed
211	Improved Pastures	1257.38	1218.71
212	Unimproved Pastures	66.65	66.47
215	Field Crops	17.79	17.79
221	Citrus Groves	309.95	185.08
320	Shrub And Brushland	118.2	118.2
321	Palmetto Prairies	24.54	24.54
411	Pine Flatwoods	17.39	17.39
427	Live Oak	5.69	5.55
434	Hardwood-Coniferous Mixed	85.51	84.74
511	Ditches	80.89	60.87
534	Reservoirs Less Than 10 Acres	0.78	0.78
617	Mixed Wetland Hardwoods	93.43	88.72
621	Cypress	2.36	2.36
625	Hydric Pine Flatwoods	19.91	19.91
630	Wetland Forested Mixed	36.79	36.79
631	Wetland Shrub	43.58	43.58
641	Freshwater Marshes	134.06	134.06
643	Wet Prairies	25.55	25.55
740	Disturbed Land	0.44	0.44
813	Utilities	0	189.36
TOTAL		2340.89	2340.89

11. Provide existing and proposed maps indicating vegetative community types based on the Florida Natural Areas Inventory Guide to the Natural Communities of Florida.

See Attachment A – Site Location Information, Figure 4 – FLUCFCS Map

12. Impact Summary Tables (located at the end of this section):

- a. For all projects, complete Table 1, 2 and 3 as applicable. **Table 1 is provided below**

b. For shoreline stabilization projects, provide the information requested in Table 4. **N/A**

13. Adjacent property owners. The following information is required only for projects proposed to occur in, on or over wetlands that need a federal dredge and fill permit and/or authorization to use state owned submerged lands and is not necessary when applying solely for an Environmental Resource Permit. If the activity is located on state owned submerged lands and requires a lease or easement, provide a list of names and addresses from the latest county tax assessment roll of all property owners located within a 500 ft. radius of the proposed lease or easement boundary in mailing label format, or you may elect to send notice to those persons by certified mail, with the return-receipt card addressed to the DEP or water management district, as applicable, in accordance with subsection 18-21.005(3), F.A.C., and Section 253.115, F.S. For projects that need a federal dredge and fill permit, please provide the names, addresses and zip codes of property owners whose property directly adjoins the project (excluding applicant). Attach additional sheets if necessary.

Please see Attachment D – Adjacent Property Owners for the names, addresses, and locations of properties directly adjoining the Project Area.

1.	2.
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PART 2: ENVIRONMENTAL CONSIDERATIONS

Note: for many questions, a state rule/Applicant's Handbook Volume I (AH I) section is cited to assist the applicant in addressing these questions. However, additional Federal criteria may apply.

1. Elimination or Reduction of Impacts (Avoidance and Minimization). Describe measures taken to eliminate or reduce impacts to wetlands and other surface waters (*Refer to AH I Section 10.2.1*).

Elimination and reduction of wetland impacts focused on selection of a site that maximized acreage of uplands and provided opportunities to co-locate with existing infrastructure (transmission lines, access roads) to reduce the area of required construction disturbance. Within the OCEC Site, further avoidance and minimization efforts focused upon locating the construction area so as to maximize utilization of previously-disturbed upland areas (citrus grove and improved pasture) to the greatest extent practicable. The loss of wetland functions is proposed to be offset through enhancement and preservation of a 376-acre mitigation area in the northeast corner of the Site (see Attachment E – Mitigation Plan).

2. Fish, Wildlife, Listed Species and their Habitats. Provide results of any wildlife assessments that have been conducted on the project site and provide any comments pertaining to the project from the Florida Fish and Wildlife Conservation Commission and/or the U.S. Fish and Wildlife Service (*Refer to AH I Section 10.2.2*).

An assessment of potential impacts to federally threatened and endangered (listed) species resulting from the proposed OCEC Project (Project) was conducted through a combination of site surveys, agency consultation and site visits, database queries, and literature review. Prior to field reconnaissance, county-specific lists of threatened and endangered species were obtained from the Florida Natural Areas Inventory (FNAI, 2014). In addition, geographic

information system (GIS) data were obtained from the FNAI, which maintains a database of known occurrences of listed species throughout the State of Florida. The FNAI database was queried and documented locations of listed species within the Site and vicinity were identified. Listed and non-listed wildlife species observed during field surveys conducted between December 2014 and July 2015 were recorded, and also supplemented with evaluation of habitat conditions suitable for listed species to help identify additional species that were not observed but are likely to occur. In addition, site visits were conducted with representatives of the Florida Fish and Wildlife Conservation Commission (FWC) on 3/4/2015 and 4/29/2015 and with representatives of the USFWS on 4/29/2015. Prior to the field visit with USFWS, an initial consultation was conducted at the USFWS Vero Beach office on 3/30/2015. The Project design has minimized impacts to areas of suitable habitat for listed species, through utilization of a previously-disturbed citrus grove and portion of an adjacent cattle pasture for location of the OCEC Unit 1.

The Site and surrounding areas provide habitat for a variety of wildlife, primarily avian species and mammals common to pasturelands and forested wetlands. The wildlife habitat in the region surrounding the OCEC property supports a variety of species characteristic of freshwater marsh and agricultural lands of south-central Florida.

Listed animal species observed within and adjacent to the Site during the field reconnaissance conducted November 2014 through July 2015 (Attachment A – Site Location Information, Figure 5 – Listed Species Occurrences within 5 Miles) include six species of wading birds, limpkin (*Aramus guarauna*), little blue heron (*Egretta caerulea*), tricolored heron (*Egretta tricolor*), white ibis (*Eudocimus albus*), Florida sandhill crane (*Grus canadensis pratensis*), and wood stork (*Mycteria americana*), as well as the American alligator (*Alligator mississippiensis*), Sherman's fox squirrel (*Sciurus niger shermani*), gopher tortoise (*Gopherus polyphemus*), Southeastern American kestrel (*Falco sparverius paulus*), and caracara (*Caracara cheriway*). Species that were not observed, but have a moderate or high probability of occurrence at the OCEC Site based on the presence of suitable habitat, include the gopher frog (*Rana capito*), Eastern indigo snake (*Drymarchon couperi*), Florida grasshopper sparrow (*Ammodramus savannarum floridanus*), Florida burrowing owl (*Athene cunicularia floridana*), snowy egret (*Egretta thula*), and snail kite (*Rostrhamus sociabilis plumbeus*). The FNAI database review did not indicate any reported occurrences of listed animal species in the vicinity of the Site.

No listed plant species were observed within the Site during field surveys, however, based on presence of suitable habitat there is a moderate likelihood of occurrence for four species of state-endangered plants, the many-flowered grass-pink (*Calopogon multiflorus*), celestial lily (*Nemastylis floridana*), hand fern (*Ophioglossum palmatum*), and cutthroat grass (*Panicum abscissum*). The FNAI database review did not indicate any reported occurrences of listed plant species in the vicinity of the Site.

3. Water quantity impacts to wetlands and other surface waters (Refer to AH I Section 10.2.2.4 and AH II).
 - a. Does the activity include a proposed stormwater water management system with a control elevation different than the wetland normal pool elevation(s) of existing or proposed created wetlands or other surface waters? **No**

- b. If yes to (a), provide documentation (e.g. drawdown assessment or other methods) that shows the proposed surface water management system will not change the hydroperiod of the existing or created wetland or other surface water. **N/A**
- 4. Public Interest Test. Please describe how the proposed activity will **not be contrary** to the public interest, OR if such an activity significantly degrades or is located within an Outstanding Florida Water (OFW), that the regulated activity will be **clearly in** the public interest (*Refer to AH I Section 10.2.3*).

The Project is not contrary to the public interest as it facilitates the generation of electricity derived from natural gas to fulfill the need for new baseload generation to support electric system reliability.

- a. Please describe how the project will be designed to avoid adverse effects to public health, safety, or the welfare or the property of others.

The Project has been designed to meet the applicable ERP water quantity, water quality, and environmental criteria. Thus, the Project will avoid adverse effects to public health, safety, and the property of others by incorporating the ERP criteria and applicable requirements on offsite water discharge, flood protection, water quality treatment, and mitigation for the unavoidable loss of wetland functions.

- b. Please describe how the project will be designed to avoid adverse effects to the conservation of fish and wildlife, including endangered or threatened species, or their habitats.

The OCEC Unit 1 is proposed to be located within a previously-impacted agricultural area upon citrus groves and cattle pasture. No significant habitat for fish and wildlife, including endangered or threatened species, will be impacted. The Project's on-site Mitigation Area will enhance and preserve 376 acres of undeveloped natural upland and wetland wildlife habitat adjacent to the Fort Drum Marsh Conservation Area.

- c. Please describe how the project will be designed to avoid adverse effects to navigation or the flow of water or cause harmful erosion or shoaling.

The Project is not located within or near navigable waters and thus will have no impact on navigation. The Project will meet applicable ERP criteria and will not adversely affect the flow of water. Erosion and sedimentation BMPs will be employed during construction, therefore the Project will not cause harmful erosion or shoaling.

- d. Please describe how the project will be designed to avoid adverse effects to the fishing or recreational values or marine productivity in the vicinity of the activity.

The Project is not located within or near navigable waters or waterbodies used for fishing or recreational activities or containing marine organisms; therefore the Project will not adversely affect fishing or recreational values or marine productivity.

- e. Will the project be of a temporary or permanent nature?

The OCEC Project will be permanent. Approximately 0.11 acre of wetland impact will be temporary, associated with installation of underground pipelines and culvert improvement within drainage ditches.

- f. Please describe how the project will be designed to avoid adverse impacts to significant historical and archaeological resources, under the provisions of section 267.061, F.S.

No significant historical or archaeological resources occur within the OCEC Unit 1 footprint; see SCA Appendix 10.7.2.

- g. Please describe how the project will be designed to avoid adverse effects to the current condition and relative value of functions being performed by areas affected by the proposed regulated activity.

The OCEC Unit 1 is proposed upon an area of citrus grove and cattle pasture; the conversion of these areas to generation of electricity will not significantly affect regional citrus and cattle production. Any adverse effects on the current condition and relative value of functions being provided by wetlands will be offset.

5. Water Quality. Provide a description of how water quality will be maintained in wetlands and other surface waters that will be preserved or will remain undisturbed, both on and offsite. Please address both short-term (such as during construction) and long-term water quality considerations (*Refer to AH I Section 10.2.4*).

Construction areas will be isolated from adjacent wetlands through installation of staked turbidity screen and/or silt fence, in accordance with best management practices (BMPs). The stormwater management system has been designed to provide required water quality treatment prior to release at a rate designed to maintain hydroperiod in adjacent wetlands and surface waters.

6. Class II Waters; Waters approved for shellfish harvesting (*Refer to AH I Section 10.2.5*).
- a. Will the project occur in Class II that are NOT approved for shellfish harvesting? If yes, please provide a plan or procedure detailing the measures to be taken to meet the requirements of *AH I Section 10.2.5(a)*. **No**
- b. Is the project located adjacent to or in close proximity to Class II waters? If yes, please provide a plan or procedure detailing the measures to be taken to meet the requirements of *AH I Section 10.2.5(b)*. **No**
- c. Is the project located in Class II or Class III waters that are classified as "approved", "restricted", "conditionally approved", or "conditionally restricted"? If yes, demonstrate that the project meets the requirements of *AH I Section 10.2.5(c)*. **No**
7. Vertical seawalls. Are vertical seawalls proposed in an estuary or lagoon as part of the project? If yes, please describe how the project meets the requirements of *AH I Section 10.2.6*. **No**
8. Secondary Impacts (*AH I Section 10.2.7*).
- a. Will an upland buffer, with a minimum width of 15' and an average width of 25', be provided between the proposed activities and existing wetlands or wetlands to be preserved, enhanced, restored, or created? Provide the location and dimension of all buffers on the plans. If not, demonstrate that secondary impacts will not occur or how they will be offset.

Areas of wetland fill associated with the Project are bounded by existing perimeter drainage/irrigation ditches (see Attachment B – Construction Plans, Figure 2 – Wetland Impacts). The Project will maintain a minimum width of 15' and an average width of at least 25' of upland buffer surrounding all wetlands on the Site not proposed to be impacted by the Project construction. Wetlands proposed to be preserved and enhanced within the Project's Mitigation Area are located over 25 feet from OCEC Unit 1. In addition, the implementation of BMPs to avoid erosion/sedimentation within areas adjacent to construction will minimize potential secondary wetland impacts.

- b. If listed species are present or may be present then coordination with wildlife agencies is needed. Have you coordinated with the FFWCC and/or USFWS? If so, please provide correspondence from the wildlife agencies indicating concurrence with the species management plan(s).

The Project has been designed to avoid impacts to listed species through use of disturbed areas of the Site for construction of OCEC Unit 1. Representatives of both FWC and USFWS have conducted field visits of the Site in March and April 2015.

- c. What measures will be taken to avoid impacts to wetland-dependent wildlife and/or listed species that use uplands for nesting or denning?

Measures to avoid impacts to wetland-dependent wildlife and/or listed species that use uplands for nesting or denning include avoidance of undisturbed areas of natural wetland and upland habitat at the Site, enhancement and preservation of 376 acres of native habitat in the northeastern portion of the Site, and location of the OCEC Unit 1 upon citrus groves and cattle pasture, as well as incorporation of BMPs to minimize any erosion or sedimentation outside of the construction area.

- d. Describe whether there are any other relevant activities that are very closely linked and causally related to any proposed dredging or filling in wetlands or other surface waters that have the potential to cause impacts to significant historical and archaeological resources.

No significant historical and archaeological resources occur within the OCEC Unit 1 footprint. See SCA Appendix 10.7.2.

- e. Are there additional future phases or extensions of the proposed activities that are not shown? If yes, please describe.

Approximately 1,629 acres of the Site are designated for potential future solar generation. No impacts associated with solar generation are proposed as part of the current OCEC Project. If the development of solar generation at the Site is pursued, a separate ERP application will be included with a Supplemental SCA submittal upon completion of the layout, engineering design, and impact assessment for the solar facility. In general, future development of solar generation at the Site would be achieved through maximizing upland pasture and citrus grove areas of the Site, avoiding and minimizing wetland impacts to the greatest extent practicable.

9. Cumulative Impacts. Is the proposed mitigation located within the same drainage basin (*Refer to AH I Figures 10.2.8.1 – 10.2.8.5*) as the proposed wetland impacts? **Yes** If not, please submit a Cumulative Impact Evaluation in accordance with *AH I Section 10.2.8*.

10. Mitigation Plan (Refer to AH I Section 10.3).

- a. If a mitigation bank is proposed to offset wetland/other surface water impacts, provide:
- i. the name of the bank: **N/A**. A letter of reservation from the banker will be required once the application has been evaluated.
 - ii. If the mitigation bank was assessed using UMAM, provide UMAM worksheets for impact area(s). If the bank was assessed using a method other than UMAM, then prepare the impact assessment using the same method.
- b. If mitigation is proposed to offset wetland/other surface water impacts, please provide a mitigation plan that includes, at a minimum, the following:

Please see Attachment E – Mitigation Plan

- i. ☐ Proposed mitigation narrative:
 - (1) ☐ Describe the current and proposed condition for each type of mitigation component (restoration, enhancement, creation, preservation), including:
 - (a) ☐ Describe current and proposed vegetation
 - (b) ☐ Describe current and proposed hydrologic conditions for the proposed mitigation.
 - (c) ☐ Describe the soil types from NRCS maps and confirm if actual soil conditions appear to match.
 - (2) ☐ Provide details of the proposed construction/mitigation activities including phasing and timing, as appropriate.
 - (3) ☐ Identify measures that will be implemented during and after construction to avoid adverse impacts related to the proposed activities.
 - (4) ☐ A mitigation implementation and monitoring schedule with dates.
 - (5) ☐ Identify the success criteria.
 - (6) ☐ Describe the anticipated site conditions in and around the mitigation area after the mitigation plan is successfully implemented.
 - (7) ☐ Provide a comparison of current fish and wildlife habitat to expected habitat after the mitigation plan is successfully implemented.
- ii. ☐ Provide a Management Plan that includes, as appropriate, aspects of operation and maintenance, including water management practices, vegetation establishment, exotic and nuisance species control, fire management, and control of access.
- iii. ☐ Maps:
 - (1) ☐ Soil map (include soil names/codes, hydrologic soil groups and hydric soil types).
 - (2) ☐ Topographic map of the mitigation area and adjacent contributing and receiving areas.
 - (3) ☐ Hydrologic features map of the mitigation area and adjacent contributing and receiving areas.
 - (4) ☐ Vegetative communities map (using FLUCCS or other appropriate classification system).
 - (5) ☐ For all maps, identify source.

- iv. Provide the necessary supporting information for the application of sections 62-345.400 - .600 (Uniform Mitigation Assessment Method (UMAM)). To meet this requirement, submittal of UMAM worksheets is acceptable for impact and mitigation areas.
- v. If onsite and/or offsite applicant-responsible mitigation is proposed, submit a draft Conservation Easement document or other form of restrictive covenant that provides for protection of the mitigation area in perpetuity. Standard forms, as described in subsection 62-330.301(6), F.A.C., are available from the Agency or on its website.
- vi. If onsite and/or offsite applicant-responsible mitigation is proposed, submit a cost estimate for completing the mitigation, including monitoring and maintenance.
- vii. If onsite and/or offsite applicant-responsible mitigation is proposed and the proposed mitigation exceeds \$25,000, please provide a draft financial assurance document.
- viii. Identify the entity responsible for monitoring, maintenance and long-term stewardship of the mitigation area (i.e. the landowner or homeowner association, not the consultant or contractor that will do the work).

PART 3: PLANS

PLANS: The information listed in the checklist below represent the typical information required on the submitted project plans. The Plans checklists in each application section are cumulative unless otherwise noted. Separate plans for each application section are not required.

See Attachment B – Construction Plans

1. ☐ Include the following on the construction plans and cross sections:
 - a. ☐ An Existing Conditions sheet showing the entire project and wetland/other surface water boundaries. Include the following: Acreage and type (herbaceous, forested or other surface water) of each wetland/other surface water.
 - b. ☐ A Proposed Conditions sheet showing the entire project and wetland/other surface water boundaries with construction plan overlay.
 - c. ☐ A Proposed Wetland Impact sheet that include the following: **See Table 1 – Project Wetland Impact Summary**
 - i. ☐ Acreage and type (herbaceous, forested or other surface water) of each wetland/other surface water to be impacted.
 - ii. ☐ Proposed upland buffers with dimensions.
 - iii. ☐ Identify the seasonal high water and wetland normal pool elevations on the plans.
 - iv. ☐ Separately identify WMD/FDEP and USACE wetland/other surface water impacts if different.
 - d. ☐ Include wetland boundaries on all construction plan sheets.
2. ☐ If onsite and/or offsite applicant-responsible mitigation is proposed, submit mitigation permit plans and cross sections including, at a minimum: **See Attachment E – Mitigation Plan**
 - a. ☐ existing conditions plan sheet identifying upland and wetland communities and acreage of each, topography, drainage patterns, and location of cross-section detail.
 - b. ☐ proposed conditions plan sheet identifying proposed improvements by type (restoration, enhancement, creation, preservation), acreage of each, topography, drainage patterns, and location of cross-section detail.
 - c. ☐ monitoring plan sheet including proposed improvements, monitoring transects, photostations, and mitigation signage (if applicable).
 - d. ☐ cross-section and/or profile detail(s) sheet(s) including representative section of each type of mitigation component. Include existing and proposed conditions and representative elevations.
 - e. ☐ planting schedule, plant species including common and scientific names divided into three sections (canopy, shrub, herbaceous) by mitigation component, quantity, spacing, size, and elevation range.

TABLE 1 - PROJECT WETLAND (WL) AND OTHER SURFACE WATER (SW) IMPACT SUMMARY

WL & SW ID	WL & SW TYPE (FLUCFCS CODE)	WL & SW SIZE (ACRES)	WL & SW NOT IMPACTED (ACRES)	WL & SW IMPACTS		MITIGATION ID
				IMPACT SIZE (ac)	IMPACT TYPE	
OCEC Unit 1						
1	511	0.66	0.00	0.66	Fill	On-site Mitigation Area
3	511	0.94	0.00	0.94	Fill	On-site Mitigation Area
4	511	0.21	0.00	0.21	Fill	On-site Mitigation Area
5	511	1.04	0.00	1.04	Fill	On-site Mitigation Area
6	511	0.41	0.00	0.41	Fill	On-site Mitigation Area
7	511	0.23	0.00	0.23	Fill	On-site Mitigation Area
8	511	0.22	0.00	0.22	Fill	On-site Mitigation Area
02-N	511	0.84	0.00	0.84	Fill	On-site Mitigation Area
02-S	511	0.44	0.00	0.44	Fill	On-site Mitigation Area
A	511	0.66	0.00	0.66	Fill	On-site Mitigation Area
AA	511	0.87	0.00	0.87	Fill	On-site Mitigation Area
AB	511	0.57	0.00	0.57	Fill	On-site Mitigation Area
B	511	1.09	0.00	1.09	Fill	On-site Mitigation Area
C	511	1.18	0.00	1.18	Fill	On-site Mitigation Area
D	511	0.70	0.00	0.70	Fill	On-site Mitigation Area
E	511	2.77	0.00	2.77	Fill	On-site Mitigation Area
F	511	0.40	0.00	0.40	Fill	On-site Mitigation Area
G	511	1.00	0.00	1.00	Fill	On-site Mitigation Area
H	511	0.06	0.00	0.06	Fill	On-site Mitigation Area
I-J	511	0.14	0.00	0.14	Fill	On-site Mitigation Area
M	511	0.20	0.00	0.20	Fill	On-site Mitigation Area
02-N	617	1.80	0.00	1.80	Fill	On-site Mitigation Area
AB	617	1.76	0.00	1.76	Fill	On-site Mitigation Area
C	617	1.15	0.00	1.15	Fill	On-site Mitigation Area
D	617	1.82	1.82	0.00	-	-
Potential Future Solar Area						
-	511	45.09	45.09	0.00	-	-
9	511	4.97	4.87	0.10	Temporary – pipeline installation	In-situ Restoration
N	511	0.02	0.02	0.00	-	-
O	511	0.03	0.03	0.00	-	-
P	511	1.02	1.02	0.00	-	-

Q	511	0.05	0.05	0.00	-	-
R	511	0.36	0.36	0.00	-	-
-	534	0.27	0.27	0.00	-	-
15	534	0.51	0.51	0.00	-	-
	617	34.00	34.00	0.00	-	-
9	617	14.30	14.30	0.00	-	-
-	621	2.36	2.36	0.00	-	-
-	630	11.16	11.16	0.00	-	-
-	641	36.25	36.25	0.00	-	-
9	641	22.48	22.48	0.00	-	-
10	641	0.02	0.02	0.00	-	-
11	641	1.63	1.63	0.00	-	-
12	641	0.39	0.39	0.00	-	-
13	641	0.99	0.99	0.00	-	-
14	641	0.08	0.08	0.00	-	-
16	641	0.34	0.34	0.00	-	-
02-S	641	0.92	0.92	0.00	-	-
N	641	1.40	1.40	0.00	-	-
-	643	21.60	21.60	0.00	-	-
Open Space						
-	511	0.10	0.10	0.00	-	-
02-S	511	0.22	0.00	0.22	Fill	On-site Mitigation Area
4	511	0.10	0.00	0.10	Fill	On-site Mitigation Area
5	511	0.08	0.00	0.08	Fill	On-site Mitigation Area
6	511	0.40	0.00	0.40	Fill	On-site Mitigation Area
7	511	1.54	0.00	1.54	Fill	On-site Mitigation Area
8	511	0.70	0.00	0.70	Fill	On-site Mitigation Area
G	511	1.48	1.10	0.38	Fill	On-site Mitigation Area
I-J	511	2.42	1.32	1.10	Fill	On-site Mitigation Area
L	511	0.01	0.01	0.00	Fill	On-site Mitigation Area
M	511	0.09	0.00	0.09	Fill	On-site Mitigation Area
N	511	0.62	0.34	0.28	Fill	On-site Mitigation Area
-	617	1.13	1.13	0.00	-	-
9	617	0.31	0.31	0.00	-	-
D	617	1.82	1.82	0.00	-	-
K	617	1.85	1.85	0.00	-	-
I-J	641	3.00	3.00	0.00	-	-
N	641	5.11	5.11	0.00	-	-
Mitigation Area						
-	617	35.0	35.0	0.00	-	-

-	625	18.97	18.97	0.00	-	-
-	630	25.63	25.63	0.00	-	-
-	631	41.92	41.92	0.00	-	-
-	641	55.55	55.55	0.00	-	-
-	643	3.95	3.95	0.00	-	-
Setback Area (North/East Boundary of Mitigation Area)						
-	511	0.13	0.13	0.00	-	-
AD	511	0.03	0.03	0.00	-	-
-	617	0.30	0.30	0.00	-	-
-	625	0.94	0.94	0.00	-	-
-	631	1.67	1.67	0.00	-	-
-	641	6.10	6.10	0.00	-	-
SITE TOTAL:		437.65	413.32	24.23 ac. (Fill) 0.10 ac. (Temp)		
Linear Facilities Corridor						
AD	511	3.02	2.57	0.45	Fill	On-site Mitigation Area
				0.0028	Temporary – culvert replacement	In-situ Restoration
AF	511	0.06	0.06	0.00	-	-
S	511	0.30	0.30	0.0045	Temporary – culvert replacement	In-situ Restoration
U	511	0.03	0.03	0.00	-	-
V	511	0.03	0.03	0.00	-	-
W	511	0.03	0.03	0.00	-	-
SR60	511	0.02	0.00	0.02	Fill	On-site Mitigation Area
SR60	511	0.01	0.00	0.0074	Temporary – culvert replacement	In-situ Restoration
T	534	0.31	0.31	0.00	-	-
X3	534	0.20	0.20	0.00	-	-
-	641	0.00	0.00	0.00	-	-
X	641	1.39	1.39	0.00	-	-
PROJECT TOTAL:		443.05	418.24	24.70 ac. (Fill) 0.11 ac. (Temp)		

Comments:

SECTION E: SUPPLEMENTAL INFORMATION REQUIRED FOR WORKS OR OTHER ACTIVITIES INVOLVING A STORMWATER MANAGEMENT SYSTEM (OTHER THAN A SINGLE-FAMILY PROJECT)

Instructions: The information listed in the checklists below represents the level of information that is usually required to evaluate an application. Information can be provided within reports, plans and documents. The level of information required for a specific project will vary depending on the nature and location of the site and the activity proposed. Conceptual approvals generally do not require the same level of detail as a construction permit. However, providing a greater level of detail will reduce the need to submit additional information at a later date. If an item does not apply to your project, proceed to the next item. The supplemental information required by this section is in addition to the information required by Section A of the ERP application.

PART 1: STORMWATER MANAGEMENT SYSTEM SUMMARY

Provide drainage calculations, signed and sealed by an appropriate registered professional, and supporting documentation demonstrating that the proposed project meets the conditions for issuance under 62-330.301(1)(a),(b),(c),(e), F.A.C. The drainage calculations should include, but not necessarily be limited to, the following:

See SCA Appendix 10.8 - Stormwater Management System Design, Dewatering Plans, and Calculations

1. General Site Information:

- a. ☐ Provide pre-development and post-development drainage map(s), as appropriate, that include drainage patterns and basin boundaries with acreage served by each hydraulically separate system, showing the direction of flows, including any off-site runoff being routed through or around the system; topographic information; and connections between wetlands and other surface waters.
- b. ☐ Provide the results of any percolation tests, where appropriate, and soil borings that are representative of the actual site conditions. Identify the wet season high water table elevations, soil profiles, and hydraulic conductivity. Include dates, datum, and methods used to determine these soil parameters.
- c. ☐ Identify the onsite hydrologic soil classification (e.g. Type A, B/D, D). Reference the source, such as the USDA/NRCS Soil Survey, used in estimating the onsite hydrologic soil classification. Provide maps, as appropriate, with the project limits delineated.
- d. ☐ Identify the seasonal high water or mean high tide elevation for receiving waters/wetlands into which runoff will be discharged. Include dates, datum, and methods used to determine these elevations.
- e. ☐ Identify the name of each receiving waterbody to which the proposed stormwater management system will discharge: **unnamed wetlands on site.**
- f. ☐ Indicate the existing land use and land cover. **See Attachment A – Site Location Information, Figure 4 – Landuse/Landcover. A summary table is provided below:**

FLUCFCS Code	Land Cover	Acreage
211	Improved Pastures	1257.38
212	Unimproved Pastures	66.65
215	Field Crops	17.79
221	Citrus Groves	309.95
320	Shrub And Brushland	118.2
321	Palmetto Prairies	24.54
411	Pine Flatwoods	17.39
427	Live Oak	5.69
434	Hardwood-Coniferous Mixed	85.51
511	Ditches	80.89
534	Reservoirs Less Than 10 Acres	0.78
617	Mixed Wetland Hardwoods	93.43
621	Cypress	2.36
625	Hydric Pine Flatwoods	19.91
630	Wetland Forested Mixed	36.79
631	Wetland Shrub	43.58
641	Freshwater Marshes	134.06
643	Wet Prairies	25.55
740	Disturbed Land	0.44
TOTAL		2340.89

- g. ☐ Provide the acreage, and percentages of the total project, of the following:
1. Impervious surfaces, excluding buildings, wetlands and other surface waters;
 2. Buildings;
 3. Pervious surfaces (green areas not including wetlands);
 4. Lakes, canals, retention areas, other open water areas; and
 5. Wetlands (Please refer to Section C to ensure consistency in wetland acreages).

Area	Acreage	Percent
Impervious Surfaces (excluding buildings, wetlands, surface waters)	68.01	2.91
Buildings	1.69	0.07
Pervious surfaces (not including wetlands)	1901.72	81.24
Lakes, canals, other open water areas (ditches, reservoirs, stormwater ponds)	18.5	0.79
Wetlands	350.97	14.99
TOTAL	2340.89	100

- h. ☐ Provide the location and description of any nearby existing offsite features (such as wetland and other surface waters, stormwater management ponds, and building or other structures) which might be affected by or affect the proposed construction or development.

2. Water Quality Analysis:

Please see SCA Appendix 10.8 - Stormwater Management System Design, Dewatering Plans, and Calculations

- a. ☐ Provide a description of the proposed stormwater treatment methodology that addresses the type of treatment, pollution abatement volumes, and recovery analysis.
- b. ☐ Is the receiving waterbody known to be impaired, and/or has an established Total Maximum Daily Load (TMDL) or Basin Management Action Plan (BMAP)? If so, please provide specific descriptions of all water quality parameters for which the waterbody is known to be impaired? For more information about water quality, impaired waters, and to determine whether a TMDL has been adopted in your project area, refer to: <http://waterwebprod.dep.state.fl.us/basin411/downloads/Florida-Adopted-TMDLs.pdf>. To determine whether a BMAP exists, or is being developed in your project area, refer to: <http://www.dep.state.fl.us/water/watersheds/bmap.htm#rad>.
☐ yes ☒ no ☐ don't know
If yes, provide calculations demonstrating that the proposed project will not contribute to violations of state water quality standards in accordance with the applicable Applicant's Handbook, Vol. II.
- c. ☐ Does the project have a direct discharge to a Class I, Class II, Outstanding Florida Waters or Class III waters, which are approved, conditionally approved, restricted, or conditionally restricted for shellfish harvesting? *To determine whether your project is within, or will discharge to an OFW, or for more information about OFWs in general, refer to:* <http://www.dep.state.fl.us/water/wqssp/ofw.htm>.
☐ yes ☒ no ☐ don't know
If yes, additional treatment in accordance with the applicable Applicant's Handbook, Vol. II, may be required.
- d. ☐ Provide construction plans and calculations that address the required treatment volume and recovery, as well as stage-storage and design elevations, which demonstrate compliance with the appropriate water quality treatment criteria in the applicable Applicant's Handbook, Vol. II.

Provide a description of the engineering methodology, assumptions and references for the parameters listed above, and a copy of all such computations, engineering plans, and specifications used to analyze the system. If a computer program is used for the analysis, provide the name of the program, a description of the program, input and output data, and justification for model selection.

3. Water Quantity Analysis:

Please see SCA Appendix 10.8 - Stormwater Management System Design, Dewatering Plans, and Calculations

Provide calculations and documentations demonstrating that the project, as proposed, meets the applicable design criteria as indicated in the applicable Applicant's Handbook, Vol. II. Typically, the information would include, at a minimum, but is not necessarily be limited to, the following:

- a. ☐ For projects requiring pre-development analysis, provide an analysis of the pre-development peak rate of discharge and / or volume of runoff, for all design storm events. Account for all onsite depressional storage and offsite contributing area. Please refer to the applicable Applicant's Handbook, Vol. II for the design storm event(s) that apply to your project.
- b. ☐ Provide an analysis of the post-development peak rate of discharge and / or volume of runoff for all applicable design storm events. Account for all onsite storage and offsite contributing area. Please refer to the applicable Applicant's Handbook, Vol. II for the design storm event(s) and criteria that apply to your project.

These analyses should include:

- ☐ Runoff characteristics, including area, runoff curve number or runoff coefficient, and time of concentration for each drainage basins in the pre-development and post-development condition;
- ☐ Design storms used including rainfall depth, duration, frequency, and distribution;

- ☐ Runoff hydrograph(s) for each drainage basin, for all required design storm event(s);
- ☐ Stage-storage computations for any area such as a reservoir, closed basin, detention area, or channel, used in storage routing;
- ☐ Stage-discharge computations for any storage areas at a selected control point, such as control structure or natural restriction;
- ☐ Flood routings through on-site conveyance and storage areas;
- ☐ Water surface profiles in the primary drainage system for each required design storm event(s);
- ☐ Runoff peak rates and volumes discharged from the site for each required design storm event(s);
- ☐ Design tailwater elevation(s) for each storm event at all points of discharge (include source or method of estimate); and
- ☐ Pump specifications and operating curves for range of possible operating conditions (if used in system).

Provide a description of the engineering methodology, assumptions and references for the parameters listed above, and a copy of all such computations, engineering plans, and specifications used to analyze the system. If a computer program is used for the analysis, provide the name of the program, input and output data, justification for model selection, and, if necessary, a description of the program.

4. Floodplain Analysis (where applicable).

A portion of the OCEC Unit 1 development area will be placed within the 100 year floodplain, please see Attachment A – Site Location Information, Figure 6 – FEMA Flood Zones. Compensating storage will be provided by onsite detention areas as described in SCA Appendix 10.8 - Stormwater Management System Design, Dewatering Plans, and Calculations and illustrated on SCA Appendix 10.8, Drawing 185922-DS-1107.

- a. ☐ If the project is in a known floodplain of a stream or other water course, identify the appropriate floodplain boundary and approximate flooding elevations of any lake, stream or other watercourse located on or adjacent to the site.
- b. ☐ For traversing works, in accordance with the applicable Applicant's Handbook, Vol. II, provide:
 - ☐ Hydraulic calculations for all proposed traversing works; and
 - ☐ Water surface profiles showing upstream impact of traversing works.

- c. ☐ For impacts to regulated floodplains, in accordance with the applicable Applicant's Handbook, Vol. II, provide:

Please see SCA Appendix 10.8, Drawing 185922-DS-1107

- ☒ Location and volume of encroachment within regulated floodplain(s); and
- ☒ Plans and calculations for compensating floodplain storage, if necessary, and calculations required for determining minimum building and road flood elevations.

PART 2: CONSTRUCTION PLANS

Please See Attachment B – Construction Plans and SCA Appendix 10.8 - Stormwater Management System Design, Dewatering Plans, and Calculations

1. Provide clear, construction level detailed plans for the system. The plans must be signed and sealed by an appropriate registered professional as required by law. These plans should include cumulative information from all applicable sections; as well as the following:
 - a. ☐ Project area boundary and total area, including distances and orientation from roads or other landmark.
 - b. ☐ Existing topography extending at least 100 feet off the project area. All topography shall include location and description of benchmarks, reference to NGVD 1929 or NAVD 1988 along with the conversion factor.
 - c. ☐ Proposed site plan with acreage, including the following:
 - ☐ plan view of proposed development, including impervious surfaces and water management areas;
 - ☐ land cover and natural communities*;
 - ☐ wetlands and other surface waters*;
 - ☐ undisturbed uplands*;
 - ☐ aquatic communities*;
 - ☐ proposed buffers*;
 - ☐ proposed impacts to wetlands and other surface waters, and any proposed connections/outfalls to other surface waters or wetlands, (if applicable); and
 - ☐ onsite wetland mitigation areas*.

*Please refer to Section C.

 - ☐ For phased projects, provide a master development plan clearing delineating the limits of each phase of construction.
 - d. ☐ Paving, Grading, and Drainage Information, which includes, but not necessarily limited to, the following:
 - ☐ Existing topography;
 - ☐ Boundaries of wetlands and other surface waters and upland buffers (see Section C);
 - ☐ Plan view of proposed development;
 - ☐ Proposed elevations and/or profiles, including:
 - ☐ roadway, parking, and pavement grades;
 - ☐ floor slabs, walkways, and other paved surfaces;
 - ☐ earthwork grades for pervious landscaped areas; and
 - ☐ perimeter site grading, tying back into existing grades.
 - ☐ Location of all water management areas, including elevations, dimensions, side slopes, and design water depths;
 - ☐ Location, size, and invert elevations of existing and proposed stormwater conveyance systems;
 - ☐ Vegetative cover plan for all on-site and off-site earth surfaces disturbed by construction; and
 - ☐ Rights-of-way and easements for the system, including all on-site and off-site areas to be reserved for water management purposes (including access), and rights-of-way and easements for the existing drainage system, if any.
 - e. ☐ Stormwater detail information, including but not necessarily limited to, the following:
 - ☐ Cross section of all stormwater management areas, including elevations, dimensions, side slopes, and proposed stabilization measures (with location of the cross section(s) shown on the corresponding plan view);
 - ☐ Detail of all proposed control structures, including elevations, dimensions, and skimmer, where applicable; and
 - ☐ Details of proposed stormwater management systems, such as underdrains, exfiltration trenches, vaults, and other proposed Best Management Practices (BMPs).

- f. ☐ Location and description of any nearby existing offsite features (such as wetland and other surface waters, stormwater management ponds, and building or other structures) which might be affected by or affect the proposed construction or development.

PART 3: CONSTRUCTION SCHEDULE AND TECHNIQUES

Please See Attachment B – Construction Plans and SCA Appendix 10.8 - Stormwater Management System Design, Dewatering Plans, and Calculations

Provide a construction schedule, and a description of construction techniques, sequencing and equipment. This information should include, as applicable, the following.

- a. ☐ Access and staging of equipment; **Existing and proposed roadways will be used for access; areas for construction laydown are identified on the construction plans upon an upland area of row crops.**
- b. ☐ Location and details of the erosion, sediment and turbidity control measures to be implemented during each phase of construction and all permanent control measures to be implemented in post-development conditions. **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).**
- c. ☐ The location of disposal site(s) for any excavated material, including temporary and permanent disposal sites. **The on-site temporary spoils disposal site is identified on the construction plans.**
- d. ☐ A demolition plan for any existing structures to be removed. **N/A**
- e. ☐ Dewatering plan details. If dewatering is required, detail the dewatering proposal including the methods that are proposed to contain the discharge, methods of isolating dewatering areas, and indicate the period dewatering structures will be in place; Note: a Consumptive Use or Water Use permit may be required for dewatering. **Please see SCA Appendix 10.8 - Stormwater Management System Design, Dewatering Plans, and Calculations**
- f. ☐ Methods for transporting equipment and materials to and from the work site. If barges are required for access, provide the low water depths and draft of the fully loaded barge; **Existing roadways will be used for transport.**

PART 4: OPERATION AND MAINTENANCE AND LEGAL DOCUMENTATION:

- a. ☐ Describe the overall maintenance and operation schedule for the proposed system. **FPL will be responsible for the upkeep and maintenance of the proposed stormwater management system. FPL will inspect and maintain the system as required to ensure proper operation.**
- b. ☐ Identify the entity (or entities) that will be responsible for operating and maintaining the system (or parts of the system) to demonstrate that the entity (or entities) meet(s) the requirements of section 12.3 of the Applicant's Handbook, Vol. I. **FPL will remain the entity responsible for operation and maintenance of the system in perpetuity.**
- ☐ If different from the permittee, provide a draft document enumerating the enforceable affirmative obligations on the entity to properly operate and maintain the system for its expected life, and documentation of the entity's financial responsibility for long-term maintenance.
- ☐ If the proposed operation and maintenance entity is not a property owner's association, provide proof of the existence of an entity, or the future acceptance of the system by an entity which will operate and maintain the system.

- c. ☐ Provide drafts of all proposed conservation easements, stormwater management system easements, draft property owner's association documents, and plats for the property containing the proposed system. **No conservation easements or homeowner's association documents associated with the stormwater management system are proposed.**
- d. ☐ Provide legal reservations for access to the treatment system for maintenance and operation by future maintenance entities for subdivided projects. **N/A – The Project will not be subdivided.**
- e. ☐ Provide indication of how water and wastewater service will be supplied. **The OCEC will utilize groundwater for Plant water use; wastewater will be disposed of via deepwell injection authorized by an Underground Injection Control permit.**
- f. ☐ Provide a copy of the boundary survey and/or legal description and acreage of the total land area of contiguous property owned/controlled the applicant. **See Attachment C – Wetland Survey and Boundary Survey**

PART 5: WATER USE

- a. ☐ Describe how irrigation will be provided to the project. Will the surface water system be used for water supply, including landscape irrigation, or recreation?
- b. ☐ If a Consumptive Use or Water Use permit has been issued for the project, state the permit number:
- c. ☐ If a Consumptive Use or Water Use permit has not been issued for the project, indicate if such a permit will be required. ☒ yes ☐ no ☐ don't know
If yes, please indicate when the application for a permit will be submitted: **Submitted as part of Site Certification Application; Water use authorizations are requested as part of the site certification application and will be issued as part of the state certification under the Florida Electrical Power Plant Siting Act.**
- d. ☐ Indicate how any existing wells located within the project site will be utilized or abandoned. **Five artesian wells occur within the Site; FPL intends to cap two of these wells located within the footprint of OCEC Unit 1, utilize one well during construction, and leave the remaining two wells for continued agricultural use within the area proposed for potential future solar generation.**

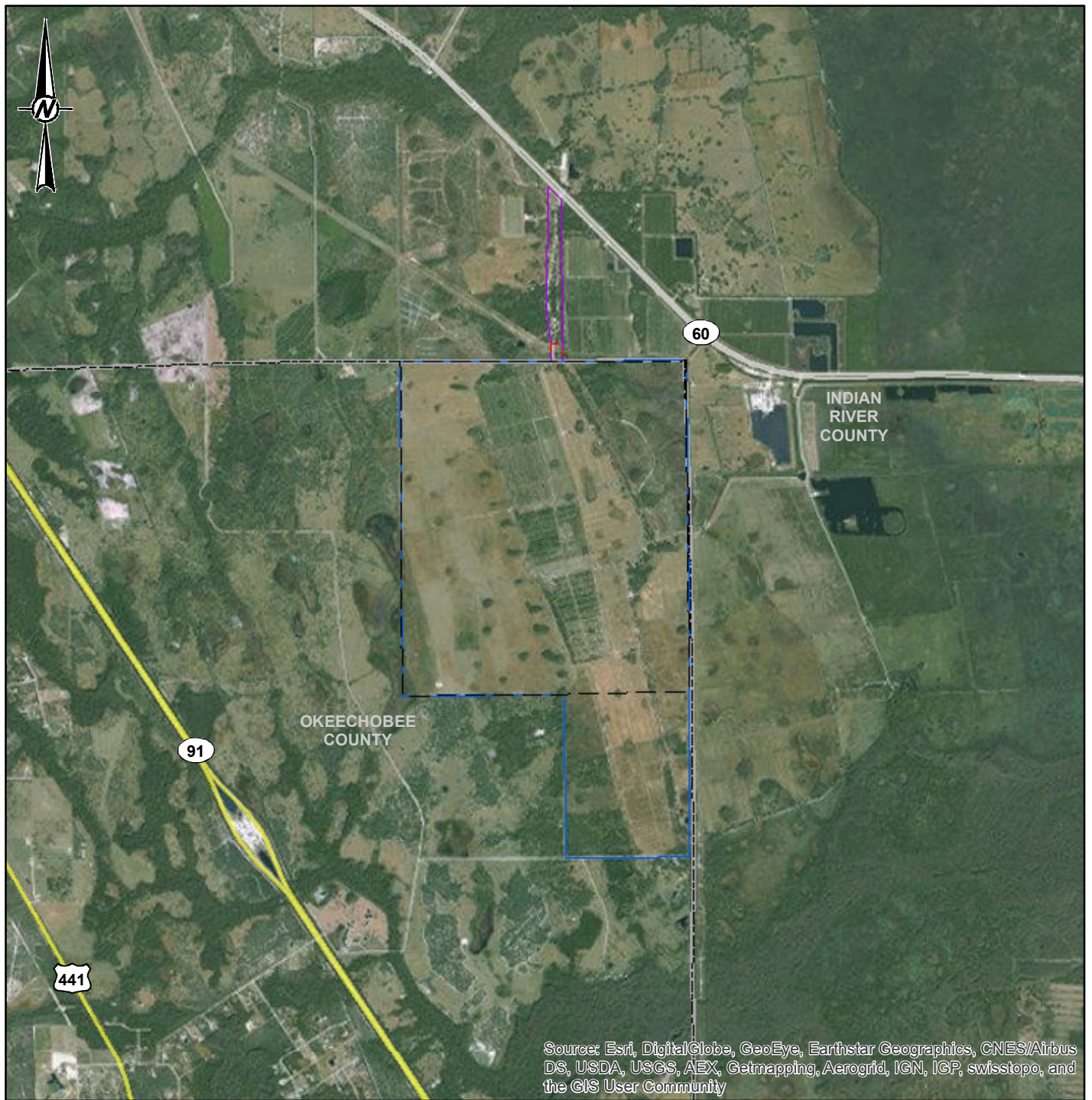
PART 6: SPECIAL BASIN INFORMATION

Is your project within a special basin as described in the applicable Applicant's Handbook, Vol. II?

☐ yes ☒ no ☐ don't know

If yes, please demonstrate that the project will meet the applicable special basin criteria.

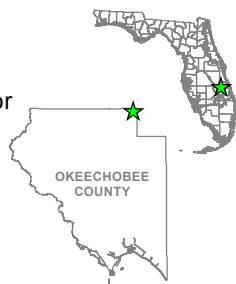
ATTACHMENT A
SITE LOCATION INFORMATION



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- FPL Owned Property
- Linear Facility Corridor
- Transmission Interconnection Corridor
- Certified Site Boundary
- County Boundary



CLIENT
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PROJECT
OKEECHOBEE CLEAN ENERGY CENTER

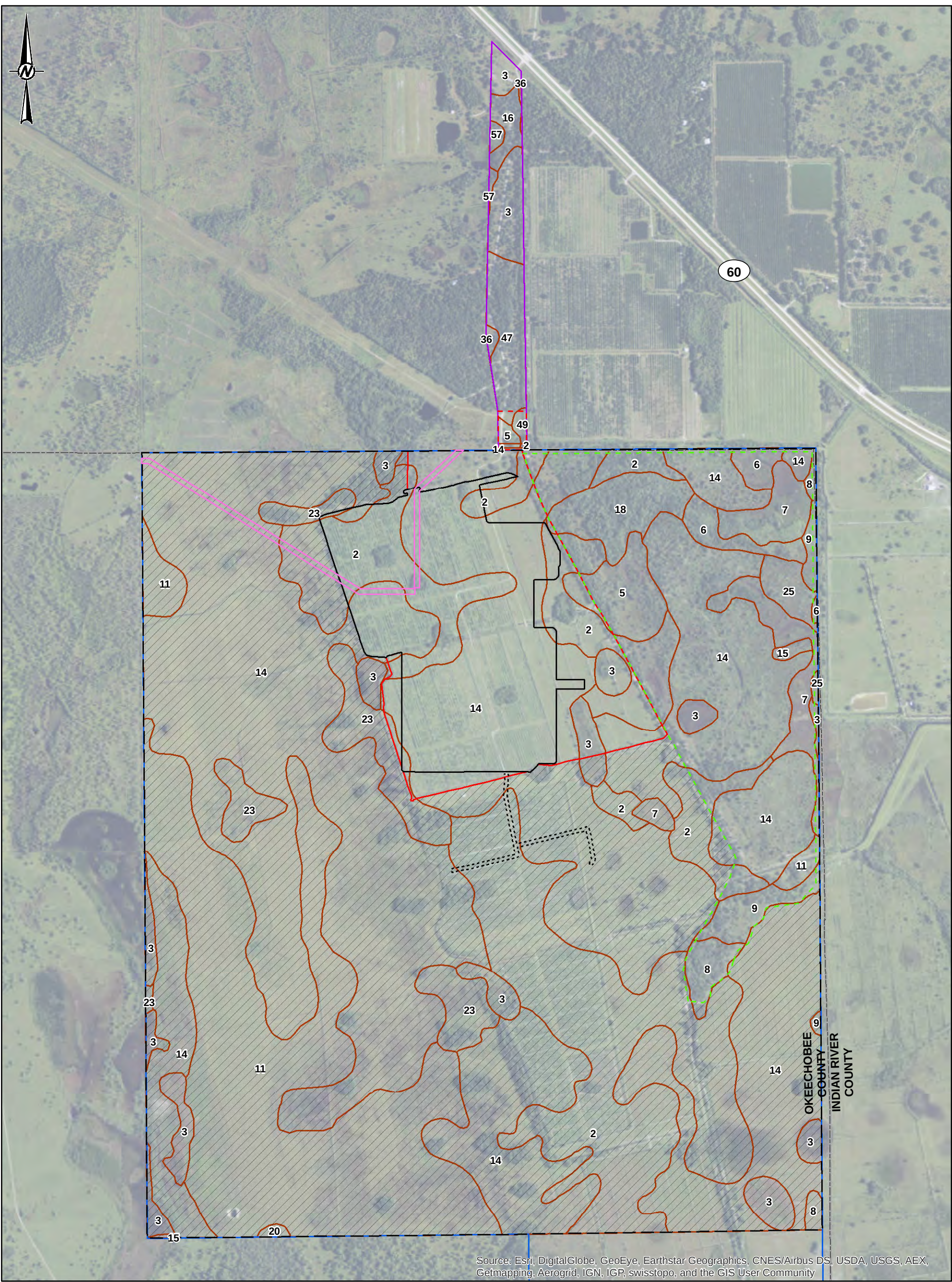
TITLE
**GENERAL LOCATION
MAP**



YYYY-MM-DD	2015-09-07
DESIGNED	NRL
PREPARED	NRL
REVIEWED	KAB
APPROVED	KFK

REFERENCE(S)
PROPERTY, LINEAR FACILITY CORRIDOR, CERTIFIED BOUNDARY, FPL & GOLDER ASSOCIATES INC., 2015

PROJECT NO. 1414979	CONTROL B064	REV. 0	FIGURE 1
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- Certified Site Boundary
- Mitigation Area
- FPL Owned Property
- Linear Facility Corridor
- Transmission Interconnection Corridor
- On-Site Gas Pipeline Alternatives
- OCEC Unit 1
- Open Space
- UFA Well Delivery Pipeline
- Future Solar Area

- Soils
- 2 - Basinger Fine Sand
- 3 - Basinger and Placid Soils, Depressional
- 3 - Eaugallie Fine Sand
- 5 - Myakka Fine Sand
- 5 - Valkaria Fine Sand
- 6 - Manatee Loamy Fine Sand, Depressional

- 7 - Floridana, Riviera, and Placid Soils, Depressional
- 8 - Pindea Fine Sand
- 9 - Riviera Fine Sand
- 11 - Immokalee Fine Sand
- 14 - Myakka Fine Sand
- 15 - Okeelanta Muck
- 16 - Pineda Fine Sand
- 18 - Parkwood Fine Sand

- 20 - Pomello Fine Sand, 0 to 5 Percent Slopes
- 23 - St. Johns Fine Sand
- 25 - Wabasso Fine Sand
- 36 - Boca Fine Sand
- 47 - Holopaw Fine Sand
- 49 - Pompano Fine Sand
- 57 - Holopaw Fine Sand, Depressional

REFERENCE(S)

PROPERTY, LINEAR FACILITY CORRIDOR, CERTIFIED SITE BOUNDARY, FUTURE SOLAR AREA, OPEN SPACE, MITIGATION AREA, FPL & GOLDER ASSOCIATES INC., 2015
SOILS, USDA/NRCS, 2012

CLIENT
FPL

PROJECT
OKEECHOBEE CLEAN ENERGY CENTER

TITLE
SOILS



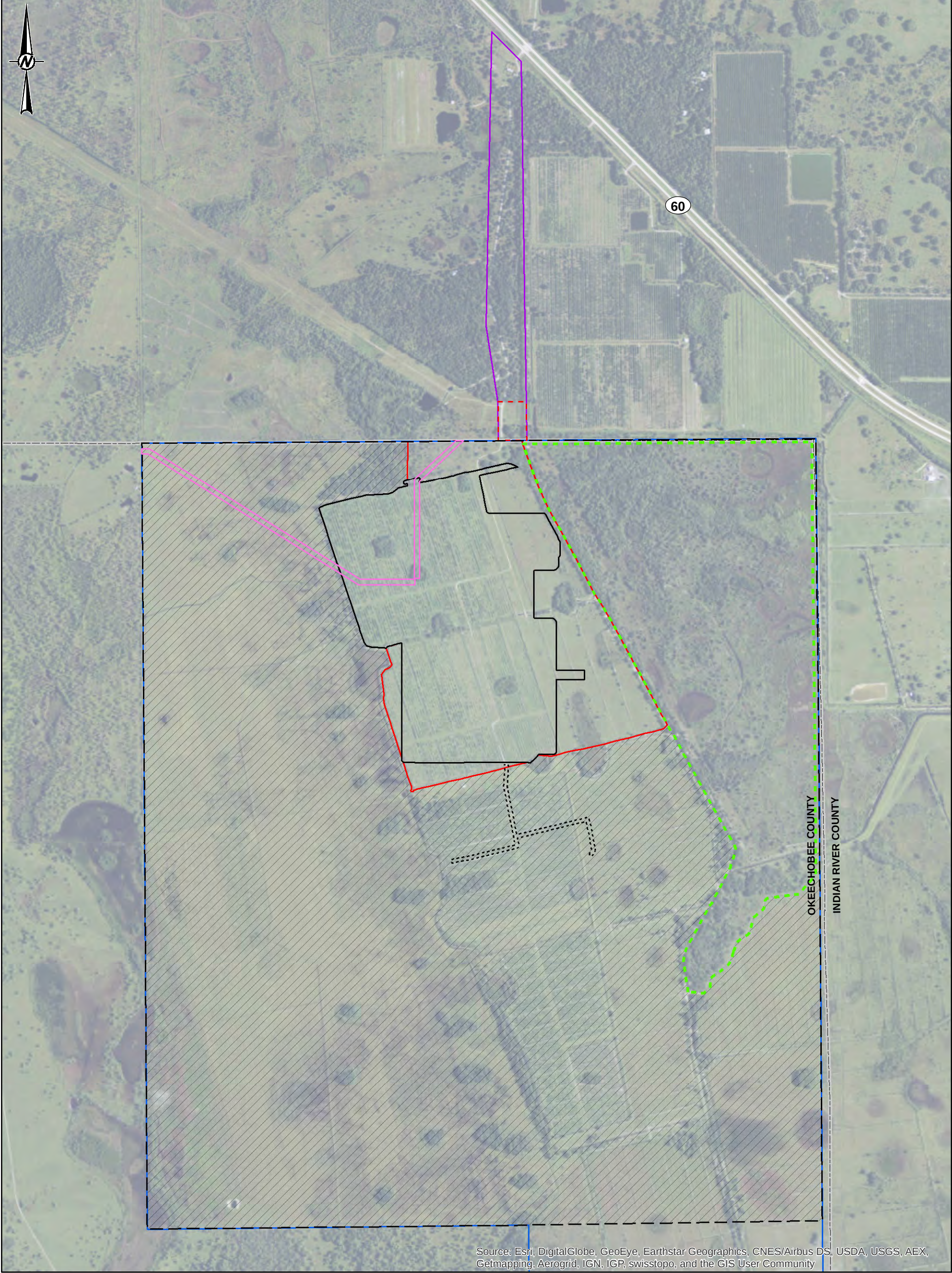
YYYY-MM-DD	2015-09-17
DESIGNED	NRL
PREPARED	GFD
REVIEWED	KAB
APPROVED	KFK

PROJECT NO.
1414979

CONTROL
B041

REV.
0

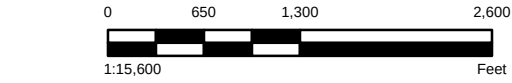
FIGURE
2



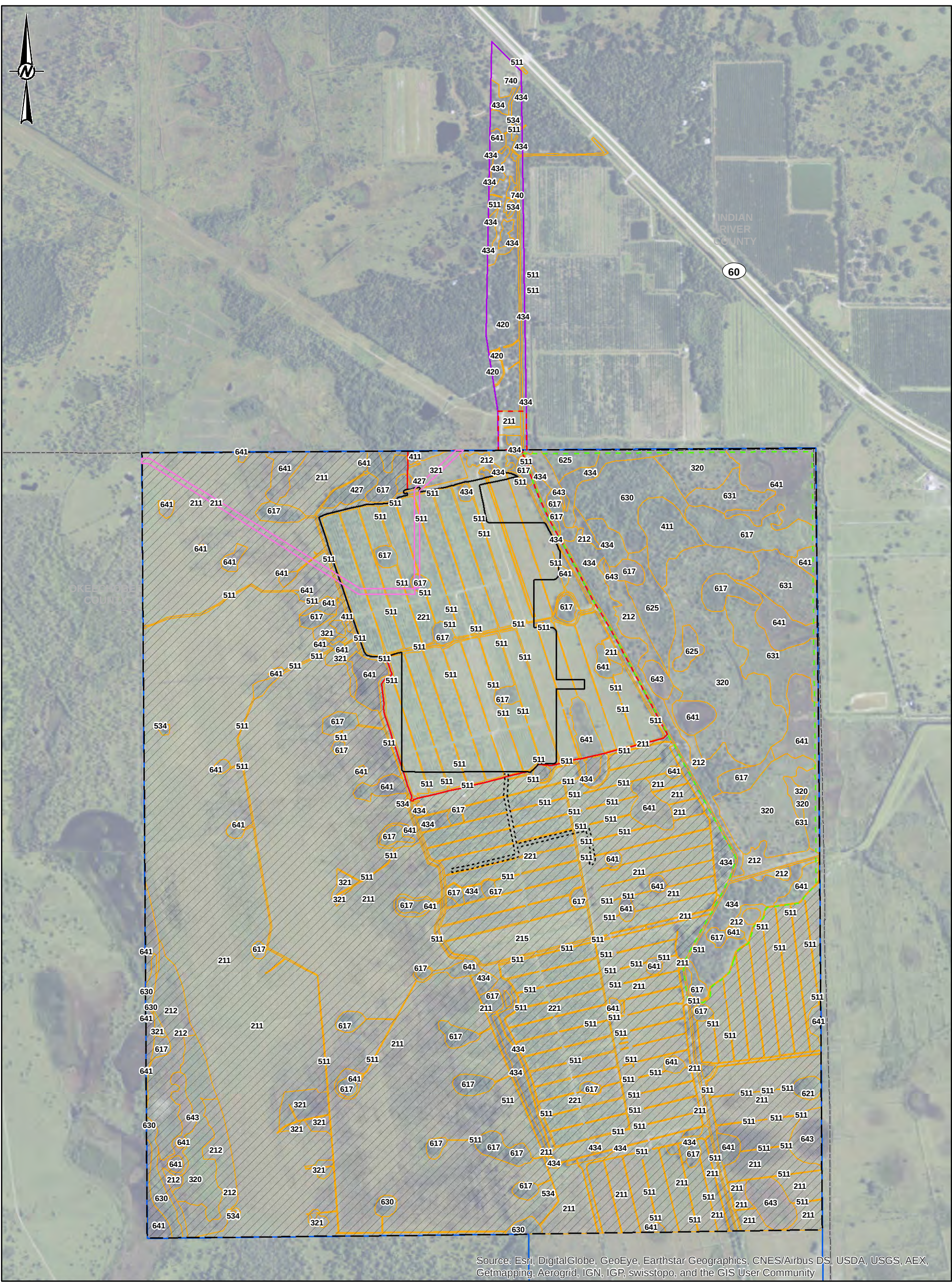
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- LEGEND**
- Certified Site Boundary
 - County Boundary
 - On-Site Gas Pipeline Alternatives
 - Mitigation Area
 - FPL Owned Property
 - Linear Facility Corridor
 - Transmission Interconnection Corridor
 - OCEC Unit 1
 - Open Space
 - UFA Well Delivery Pipeline
 - Future Solar Area

CLIENT	
FPL	
PROJECT	
OKEECHOBEE CLEAN ENERGY CENTER	
TITLE	
AERIAL MAP	
YYYY-MM-DD	2015-09-17
DESIGNED	NRL
PREPARED	GFD
REVIEWED	KAB
APPROVED	KFK



REFERENCE(S)
CERTIFIED SITE BOUNDARY, FPL & GOLDER ASSOCIATES INC., 2015



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- Certified Site Boundary
- Mitigation Area
- FPL Owned Property
- Linear Facility Corridor
- Transmission Interconnection Corridor
- On-Site Gas Pipeline Alternatives
- OCEC Unit 1
- Open Space
- UFA Well Delivery Pipeline
- Future Solar Area
- Vegetation / Land Use
- 211 - Improved Pastures
- 212 - Unimproved Pastures
- 215 - Field Crops
- 221 - Citrus Groves
- 320 - Shrub And Brushland
- 321 - Palmetto Prairies
- 411 - Pine Flatwoods

- 420 - Upland Hardwood Forests
- 427 - Live Oak
- 434 - Hardwood-Coniferous Mixed
- 511 - Ditches
- 534 - Reservoirs Less Than 10 Acres (4 Hectares) Which Are Dominant Features
- 617 - Mixed Wetland Hardwoods
- 621 - Cypress
- 625 - Hydric Pine Flatwoods
- 630 - Wetland Forested Mixed
- 631 - Hydric Pine Flatwoods
- 641 - Freshwater Marshes
- 643 - Wet Prairies
- 740 - Disturbed Land

REFERENCE(S)

PROPERTY, LINEAR FACILITY CORRIDOR, CERTIFIED SITE BOUNDARY, FUTURE SOLAR AREA, OPEN SPACE, MITIGATION AREA, FPL & GOLDER ASSOCIATES INC., 2015
VEGETATION / LAND USE, SJRWMD & GOLDER ASSOCIATES INC., 2009-2015

CLIENT
FPL

PROJECT
OKEECHOBEE CLEAN ENERGY CENTER

TITLE
VEGETATION / LAND USE
(FLUCCS LEVEL III)



YYYY-MM-DD	2015-09-17
DESIGNED	NRL
PREPARED	GFD
REVIEWED	KAB
APPROVED	KFK

PROJECT NO.
1414979

CONTROL
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REV.
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FIGURE
4

PATH: G:\PROJECTS\FPL\Okeechobee\99_PROJECTS\14147979_5CA_Project\02_PRODUCTION\X014147979_B066_SolarArea_LandUse_ERP.mxd



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- Certified Site Boundary
- Mitigation Area
- FPL Owned Property
- Linear Facility Corridor
- Transmission Interconnection Corridor
- On-Site Gas Pipeline Alternatives
- Future Solar Area
- OCEC Unit 1
- Open Space
- UFA Well Delivery Pipeline
- Vegetation / Land Use
 - 211 - Improved Pastures
 - 212 - Unimproved Pastures
 - 215 - Field Crops
 - 221 - Citrus Groves
 - 320 - Shrub And Brushland
 - 321 - Palmetto Prairies
 - 411 - Pine Flatwoods
 - 427 - Live Oak
 - 434 - Hardwood-Coniferous Mixed
 - 511 - Ditches
 - 534 - Reservoirs Less Than 10 Acres (4 Hectares) Which Are Dominant Features
 - 617 - Mixed Wetland Hardwoods
 - 621 - Cypress
 - 630 - Wetland Forested Mixed
 - 641 - Freshwater Marshes
 - 643 - Wet Prairies
 - 740 - Disturbed Land

0 600 1,200 2,400

Feet

REFERENCE(S)

PROPERTY, LINEAR FACILITY CORRIDOR, CERTIFIED SITE BOUNDARY, FUTURE SOLAR AREA, OPEN SPACE, MITIGATION AREA, FPL & GOLDER ASSOCIATES INC., 2015

VEGETATION / LAND USE, SJRWMD & GOLDER ASSOCIATES INC., 2009-2015

CLIENT

FPL

PROJECT

OKEECHOBEE CLEAN ENERGY CENTER

TITLE

VEGETATION / LAND USE

FUTURE SOLAR AREA

(FLUCCS LEVEL III)



YYYY-MM-DD	2015-09-17
DESIGNED	NRL
PREPARED	NRL
REVIEWED	KAB
APPROVED	KFK

PROJECT NO.
14147979

CONTROL
B066

REV.
0

FIGURE
4a

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



LEGEND

-  Certified Site Boundary
-  Mitigation Area
-  FPL Owned Property
-  Linear Facility Corridor
-  Transmission Interconnection Corridor
-  On-Site Gas Pipeline Alternatives
-  OCEC Unit 1
-  Open Space
-  UFA Well Delivery Pipeline
-  Future Solar Area
-  Vegetation / Land Use

- 211 - Improved Pastures
212 - Unimproved Pastures
221 - Citrus Groves
321 - Palmetto Prairies
411 - Pine Flatwoods
427 - Live Oak
434 - Hardwood-Coniferous Mixed
511 - Ditches
617 - Mixed Wetland Hardwoods
641 - Freshwater Marshes



REFERENCE(S)

PROPERTY, LINEAR FACILITY CORRIDOR, CERTIFIED SITE BOUNDARY, FUTURE SOLAR AREA,
OPEN SPACE, MITIGATION AREA, FPL & GOLDER ASSOCIATES INC., 2015
VEGETATION / LAND USE, SJRWMD & GOLDER ASSOCIATES INC., 2009-2015

CLIENT

FPL

PROJECT

PROJECT
OKEECHOBEE CLEAN ENERGY CENTER

TITLE

VEGETATION / LAND USE
OCEC UNIT 1 AND OPEN SPACE
(FLUCCS LEVEL III)



YYYY-MM-DD	2015-09-17
DESIGNED	NRL
PREPARED	NRL
REVIEWED	KAB
APPROVED	KFK

PROJECT NO.
1414979

CONTROL
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FIGURE
4b

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



LEGEND

- Certified Site Boundary
- Mitigation Area
- FPL Owned Property
- Linear Facility Corridor
- Transmission Interconnection Corridor
- On-Site Gas Pipeline Alternatives
- OCEC Unit 1
- Open Space
- Production Well Pipeline
- Future Solar Area
- Vegetation / Land Use
 - 211 - Improved Pastures
 - 212 - Unimproved Pastures
 - 320 - Shrub And Brushland
 - 411 - Pine Flatwoods
 - 434 - Hardwood-Coniferous Mixed
 - 511 - Ditches
 - 617 - Mixed Wetland Hardwoods
 - 625 - Hydric Pine Flatwoods
 - 630 - Wetland Forested Mixed
 - 631 - Hydric Pine Flatwoods
 - 641 - Freshwater Marshes
 - 643 - Wet Prairies

0 412.5 825 1,650

Feet

REFERENCE(S)

PROPERTY, LINEAR FACILITY CORRIDOR, CERTIFIED SITE BOUNDARY, FUTURE SOLAR AREA, OPEN SPACE, MITIGATION AREA, FPL & GOLDER ASSOCIATES INC., 2015

VEGETATION / LAND USE, SJRWMD & GOLDER ASSOCIATES INC., 2009-2015

CLIENT

FPL

PROJECT

OKEECHOBEE CLEAN ENERGY CENTER

TITLE

VEGETATION / LAND USE

MITIGATION AREA

(FLUCCS LEVEL III)



YYYY-MM-DD	2015-09-17
DESIGNED	NRL
PREPARED	NRL
REVIEWED	KAB
APPROVED	KFK

PROJECT NO.

1414979

CONTROL

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REV.

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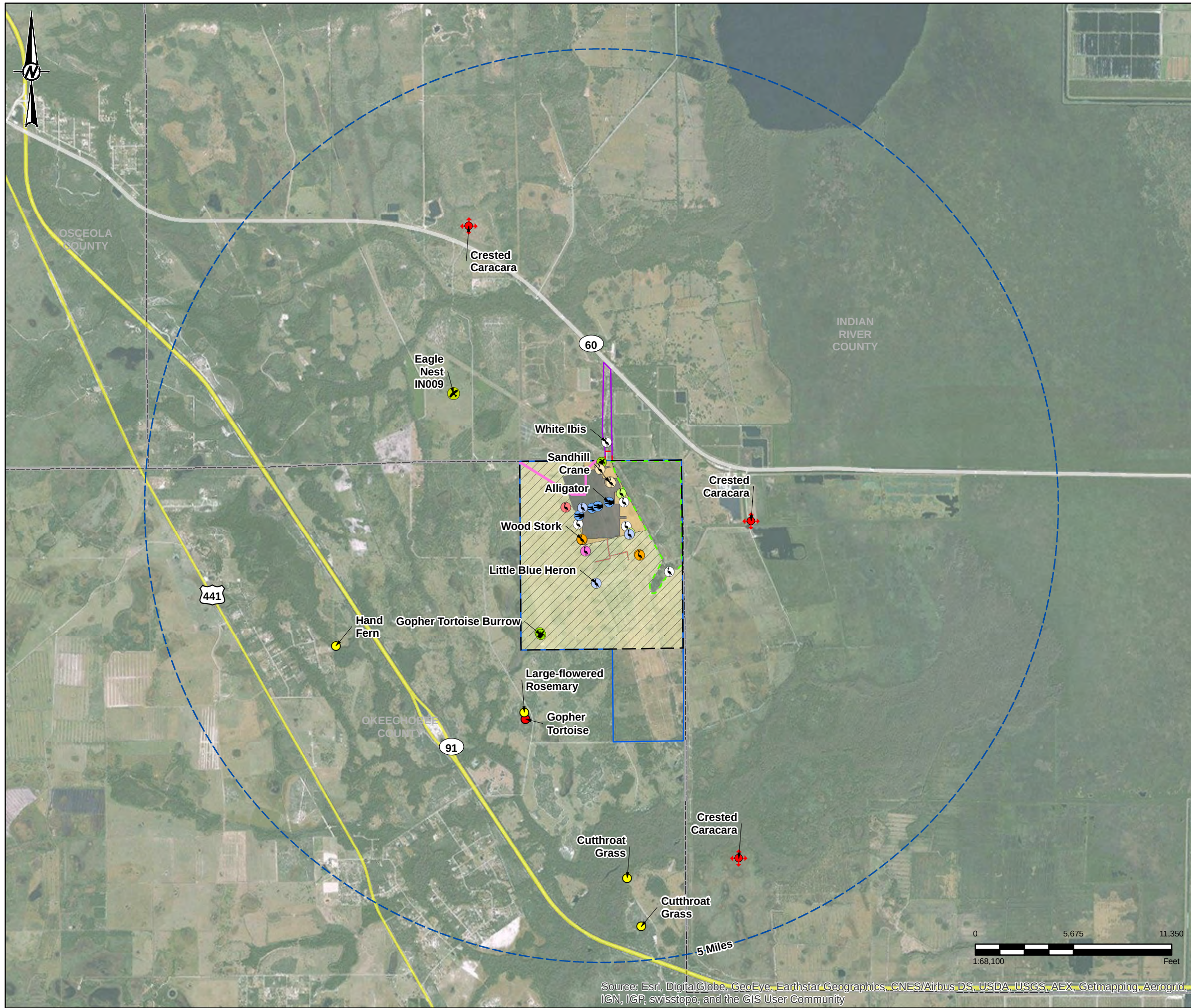
FIGURE

4c

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

G:\PROJECTS\FPL\Okeechobee\B069_PROJECT\B1414797\B_SCA_Project\02_PRODUCTION\MXD\1414797_B069_Theme_Species_ERP.mxd



LEGEND

- 5-Mile Radius
- Certified Site Boundary
- Mitigation Area
- FPL Owned Property
- Linear Facility Corridor
- Transmission Interconnection Corridor
- On-Site Gas Pipeline Alternatives
- OCEC Unit 1
- Open Space
- UFA Well Delivery Pipeline
- Future Solar Area
- FWC Eagle Nest
- Gopher Tortoise Burrow
- Alligator
- Crested Caracara
- Limpkin
- Little Blue Heron
- Sandhill Crane
- Tricolored Heron
- White Ibis
- Wood Stork

FNAI Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element

REFERENCE(S)

PROPERTY, LINEAR FACILITY CORRIDOR, CERTIFIED SITE BOUNDARY, FUTURE SOLAR AREA, OPEN AREA, MITIGATION AREA, FPL & GOLDER ASSOCIATES INC., 2015
FACILITY LAYOUT, BLACK & VEATCH, 2015
EAGLE NEST LOCATION, FWC, 2015
GOPHER TORTOISE BURROW, GOLDER ASSOCIATES INC., 2015
FNAI ELEMENT OCCURRENCES, FNAI, 2007-2011

CLIENT

FPL

PROJECT

OKEECHOBEE CLEAN ENERGY CENTER

TITLE

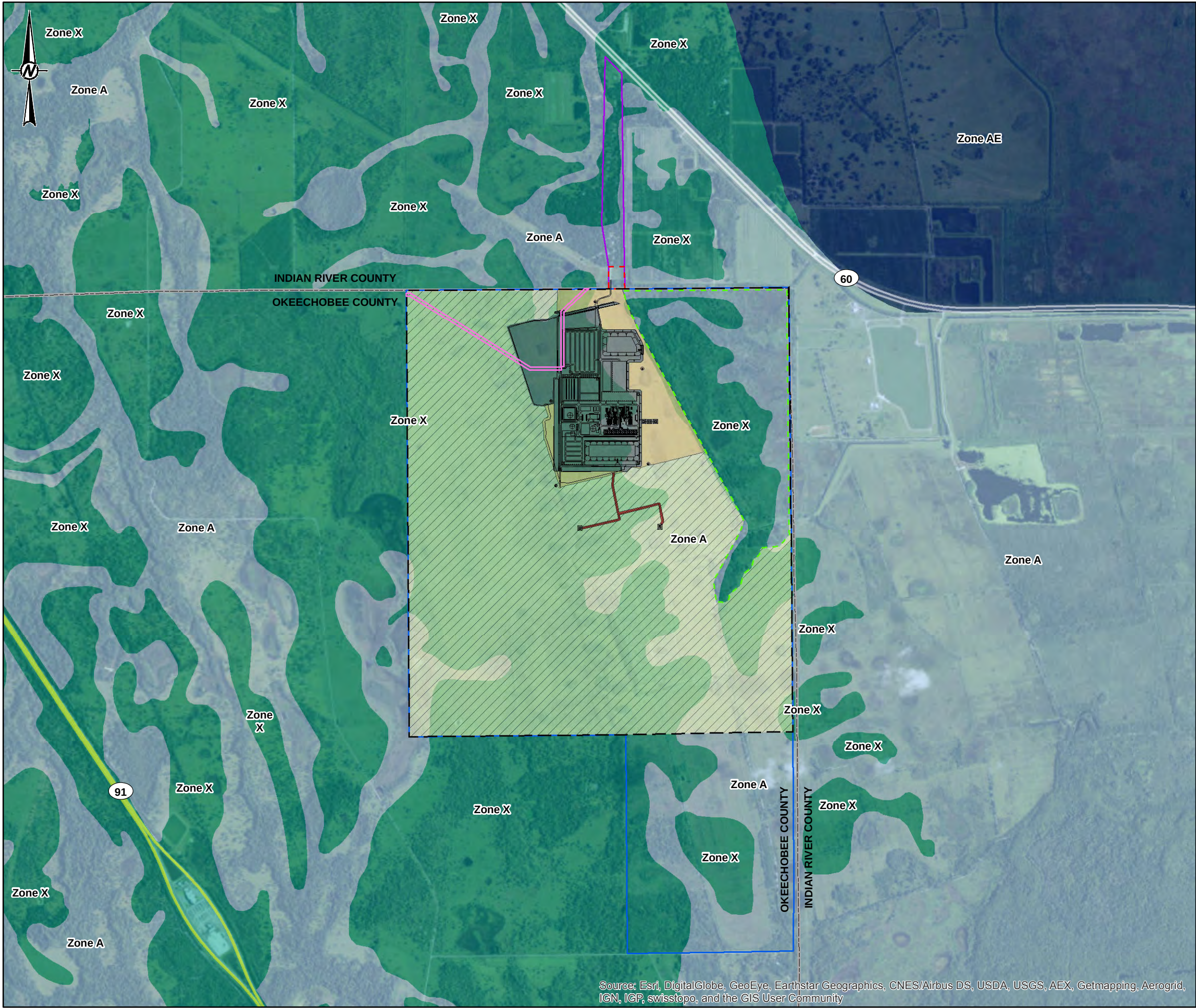
LISTED AND OBSERVED SPECIES OCCURRENCES WITHIN 5-MILES

YYYY-MM-DD	2015-09-21
DESIGNED	NRL
PREPARED	NRL
REVIEWED	KAB
APPROVED	KFK

PROJECT NO. 1414797	CONTROL B069	REV. 0	FIGURE 5
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B 22mm



LEGEND

- Certified Site Boundary
- Mitigation Area
- FPL Owned Property
- Linear Facility Corridor
- Transmission Interconnection Corridor
- On-Site Gas Pipeline Alternatives
- OCEC Unit 1
- Open Space
- UFA Well Delivery Pipeline
- Future Solar Area

A: Areas subject to inundation by the 1-percent-annual-chance flood event. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown.

AE: Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. BFEs are shown within these zones. (Zone AE is used on new and revised maps in place of Zones A1–A30.)

X: Minimal risk areas outside the 1-percent and .2-percent-annual-chance floodplains. No BFEs or base flood depths are shown within these zones. (Zone X (unshaded) is used on new and revised maps in place of Zone C.)

0 2,400 4,800
1:28,800 Feet

REFERENCE(S)
PROPERTY, LINEAR FACILITY CORRIDOR, CERTIFIED SITE BOUNDARY, FUTURE SOLAR AREA, OPEN SPACE, MITIGATION AREA, FPL & GOLDER ASSOCIATES INC., 2015
FACILITY LAYOUT, BLACK & VEATCH, 2015
FLOOD ZONES, FEMA, 2012-2015

CLIENT
FPL

PROJECT
OKEECHOBEE CLEAN ENERGY CENTER

TITLE
FEMA
FLOOD ZONES

YYYY-MM-DD	2015-09-17
DESIGNED	NRL
PREPARED	NRL
REVIEWED	KAB
APPROVED	KFK

PROJECT NO.
1414979

CONTROL
B070

REV.
0

FIGURE
6

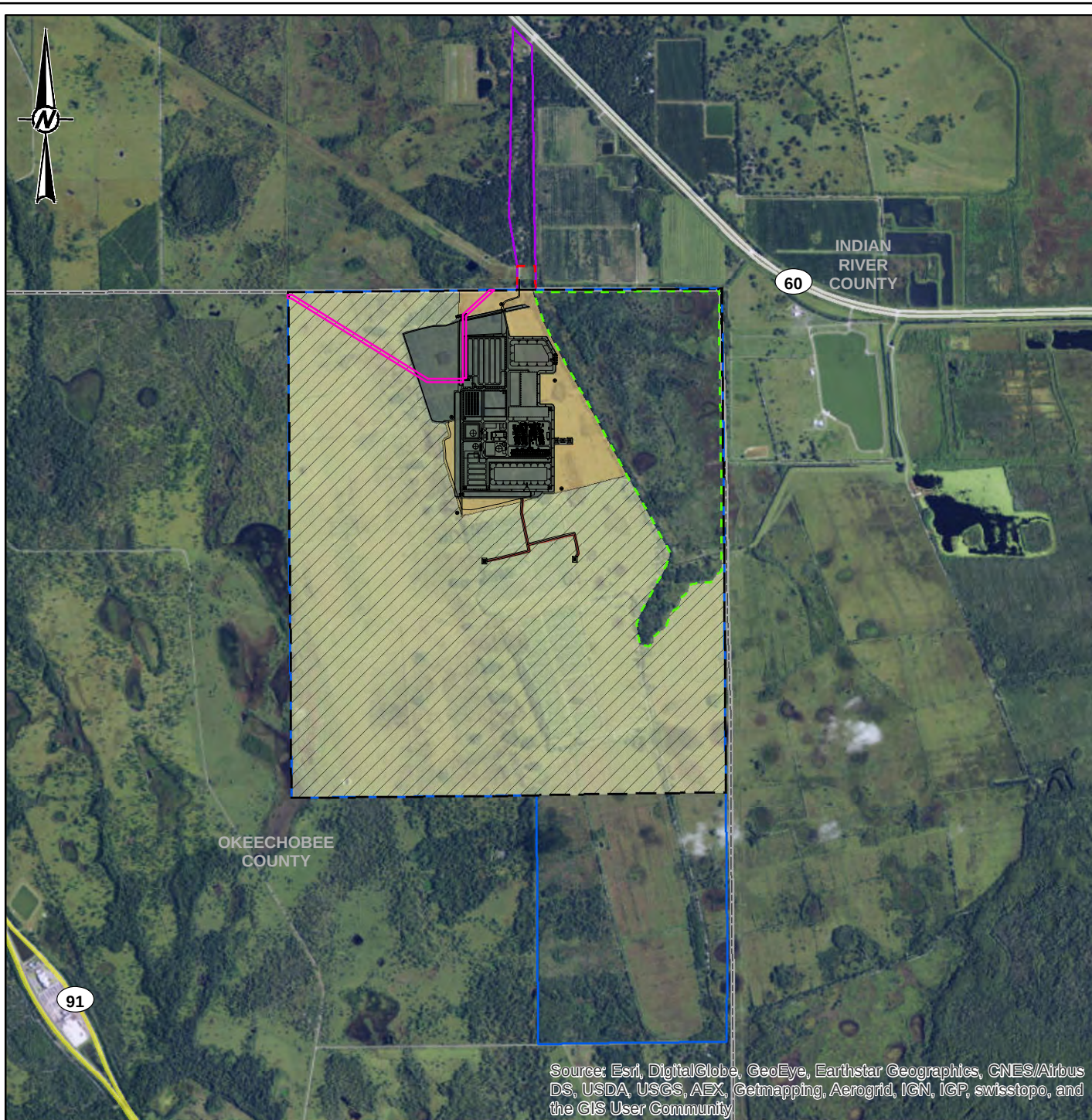
G:\PROJECTS\FLOkeechobee09_PROJECTS\1414979B_SCA_Project02_PRODUCTION\X01414979_B070_FEMA FloodZone_ERP.mxd

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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

28mm

ATTACHMENT B
CONSTRUCTION PLANS



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- OCEC Unit 1
- Open Space
- UFA Well Delivery Pipeline
- Mitigation Area
- Certified Site Boundary
- FPL Owned Property
- Linear Facility Corridor
- Transmission Interconnection Corridor
- On-Site Gas Pipeline Alternatives
- Future Solar Area

0 3,200 6,400
1:38,400 Feet

REFERENCE(S)

PROPERTY, LINEAR FACILITY CORRIDOR, CERTIFIED BOUNDARY, FUTURE SOLAR AREA, OPEN SPACE, MITIGATION AREA, FPL & GOLDER ASSOCIATES INC., 2015
FACILITY LAYOUT, BLACK & VEATCH, 2015

CLIENT
FPL

PROJECT
OKEECHOBEE CLEAN ENERGY CENTER

TITLE
SITE PLAN



YYYY-MM-DD	2015-09-17
DESIGNED	NRL
PREPARED	NRL
REVIEWED	KAB
APPROVED	KFK

PROJECT NO.
1414979

CONTROL
B072

REV.
0

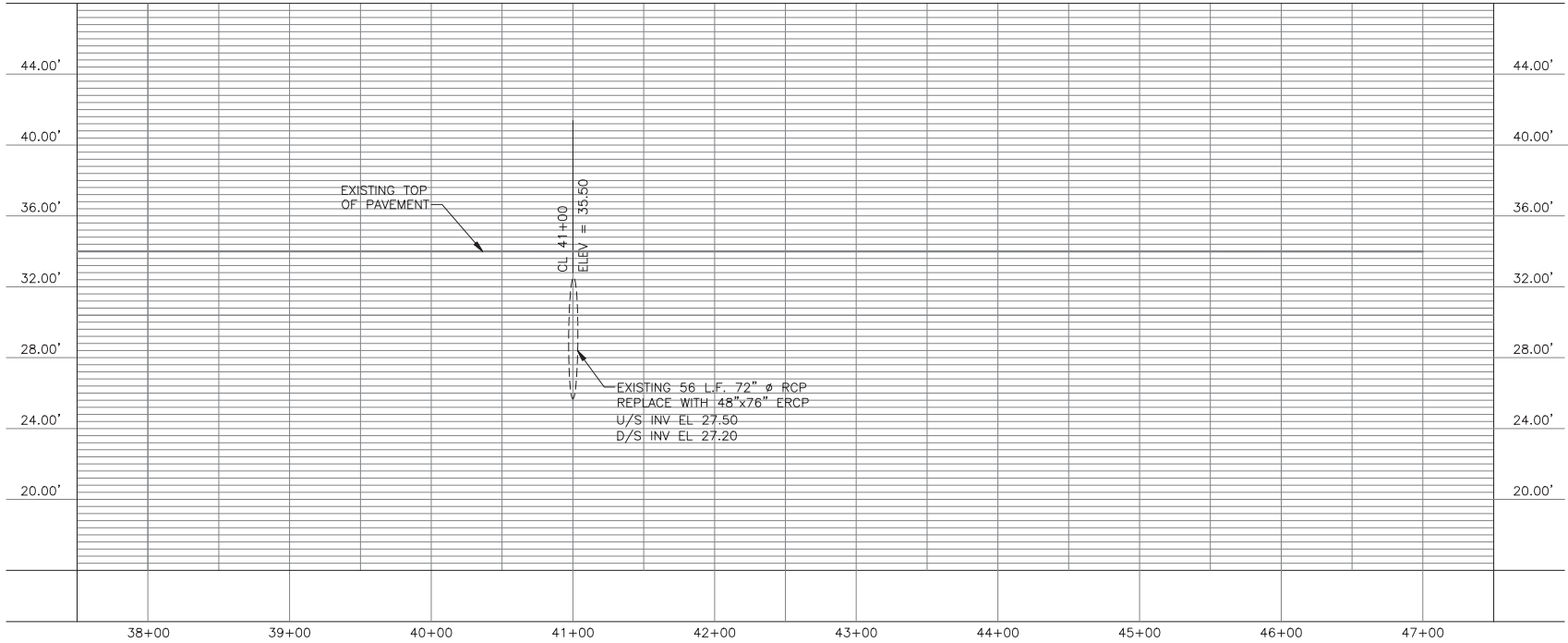
FIGURE
1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A
25mm

CH159790 ACAD 18.2s (LMS Tech)
04/17/15 17:15:22 1"=1 22 x 34

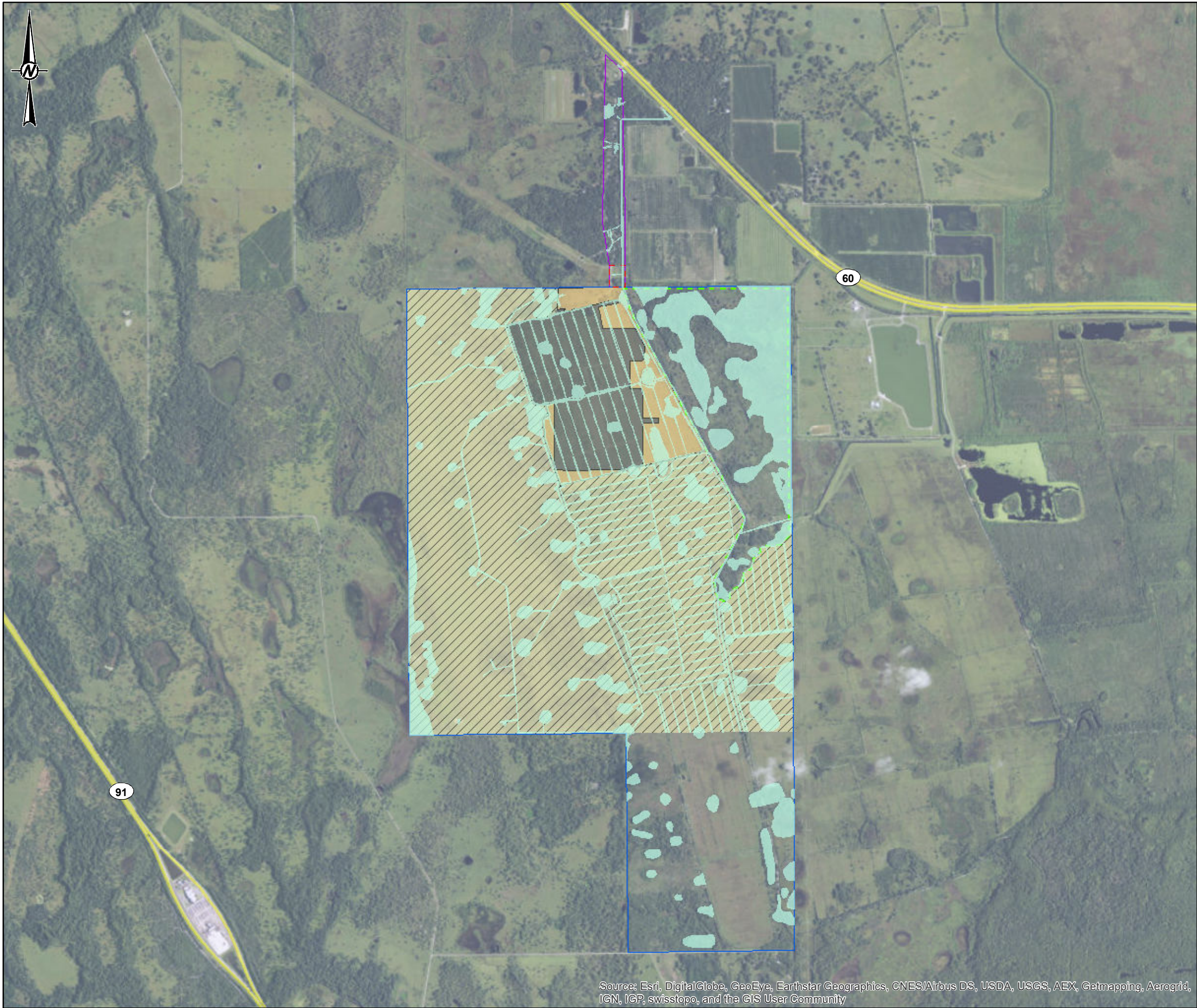


PLAN — ROAD — STA 38+00 TO STA 47+00
SCALE: 1"=60'



ATTACHMENT C

**WETLAND SURVEY
BOUNDARY SURVEY**



- LEGEND
- Mitigation Area
 - FPL Owned Property
 - Linear Facility Corridor
 - Transmission Interconnection Corridor
 - OCEC Unit 1
 - Open Space
 - Future Solar Area
 - Wetlands



REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA EAST FIPS 0901 FEET
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
OKEECHOBEE SCA

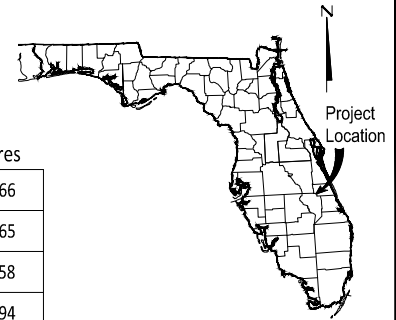
TITLE
WETLAND MAP

CONSULTANT 	YYYY-MM-DD	2015-08-09
	DESIGNED	NRL
	PREPARED	NRL
	REVIEWED	NRL
	APPROVED	KAB

PROJECT NO. 1414979	CONTROL B017	REV. 0	FIGURE 1
------------------------	-----------------	-----------	-------------

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Specific Purpose Survey of Wetland Jurisdictional Delineation
FPL Okeechobee Site
 Okeechobee & Indian River County, Florida



SURVEYOR'S NOTES:

- 1) This Specific Purpose Survey is not valid without the signature and the original raised seal of the signing Florida licensed surveyor and mapper.
- 2) The Specific Purpose of this survey was to locate and map Wetland Jurisdictional Delineations (as determined by others) in relation to the approximate boundary of the site, in conformance with Chapters 62-343 and 5J-17 Florida Administrative Code.
- 3) Lands shown hereon were not abstracted for ownership, rights-of-way, easements or other matters of title by this firm, nor were any such documents provided by client.
- 4) The boundary depicted hereon was provided by the client and is approximate. This specific purpose survey is NOT a Boundary Survey of the site.
- 5) This survey was performed using Global Positioning System Technology. The horizontal accuracy is at the sub-meter level.
- 6) Coordinates of wetland flags shown hereon are relative to the Florida State Plane Coordinate System, East Zone (901), North American Datum of 1983/2011 Adjustment, and expressed in US Feet.
- 7) Wetland jurisdictional delineations were determined and flagged by Golder Associates, Gainesville, Florida.
- 8) The wetland flag descriptions shown hereon correspond to the numbers shown on each flag located in the field.
- 9) This survey is certified to: Golder Associates, Inc.

SHEET INDEX:

SHEET	DESCRIPTION
1	Cover Sheet with Notes & Areas
2	Overall Site & Key Sheet
3-12	Coordinate Listings
13-30	Wetlands Flag Locations

LEGEND:

* A-01 = Wetland Flag Delineator

Wetland Name	Acres
Wetland "01"	0.66
Wetland "02 North"	2.65
Wetland "02 South"	1.58
Wetland "03"	0.94
Wetland "04"	0.31
Wetland "05"	1.12
Wetland "06"	0.81
Wetland "07"	1.77
Wetland "08"	0.92
Wetland "09"	42.07
Wetland "10"	0.02
Wetland "11"	1.63
Wetland "12"	0.39
Wetland "13"	0.99
Wetland "14"	0.08
Wetland "15"	0.51
Wetland "16"	0.34
Wetland "A"	0.66
Wetland "B"	1.09
Wetland "C"	2.34
Wetland "D"	2.53
Wetland "E"	2.77
Wetland "F"	0.40
Wetland "G"	2.47
Wetland "H"	0.06
Wetland "I & J"	5.65
Wetland "K"	1.85
Wetland "L"	0.01
Wetland "M"	0.29
Wetland "N"	7.14
Wetland "O"	0.03
Wetland "P"	1.02
Wetland "Q"	0.05
Wetland "R"	0.36
Wetland "S"	0.30

Wetland Name	Acres
Wetland "T"	0.31
Wetland "U"	0.03
Wetland "V"	0.03
Wetland "W"	0.03
Wetland "X"	1.39
Wetland "X2"	0.002
Wetland "X3"	0.20
Wetland "Y"	0.00
Wetland "Z"	0.00
Wetland "AA"	0.87
Wetland "AB"	2.33
Wetland "AC"	0.11
Wetland "AD"	3.06
Wetland "AF"	0.06
Total Acres	94.23

PROJECT TITLE:

Specific Purpose Survey of Wetland Jurisdictional Delineation
 FPL Okeechobee Site
 Okeechobee & Indian River County, Florida

DATE	BY	DESCRIPTION

REVISION

DRAWN BY: <u>ADW</u>	CHKD. BY: <u>RMJ</u>
DATE: <u>1/27/2015</u>	DATE: <u>1/27/2015</u>
JOB No. <u>6374140790</u>	SCALE: <u>1</u>
	SHT. <u>30</u>
	OF <u>30</u>

DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg

AMEC Environment & Infrastructure, Inc.



75 East Amelia Street, Suite 200
 Orlando, FL 32801 USA
 Phone: (407) 522-7570
 Fax: (407) 522-7576

Certificate of Authorization Number LB-0007932

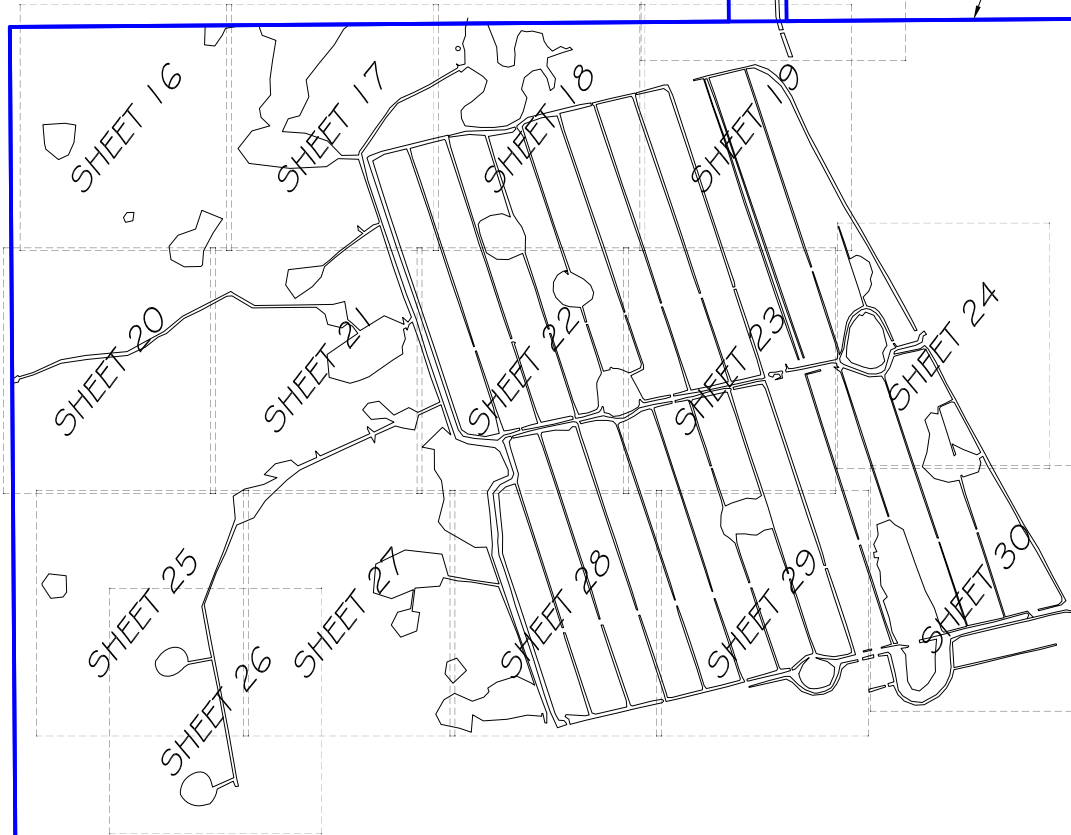
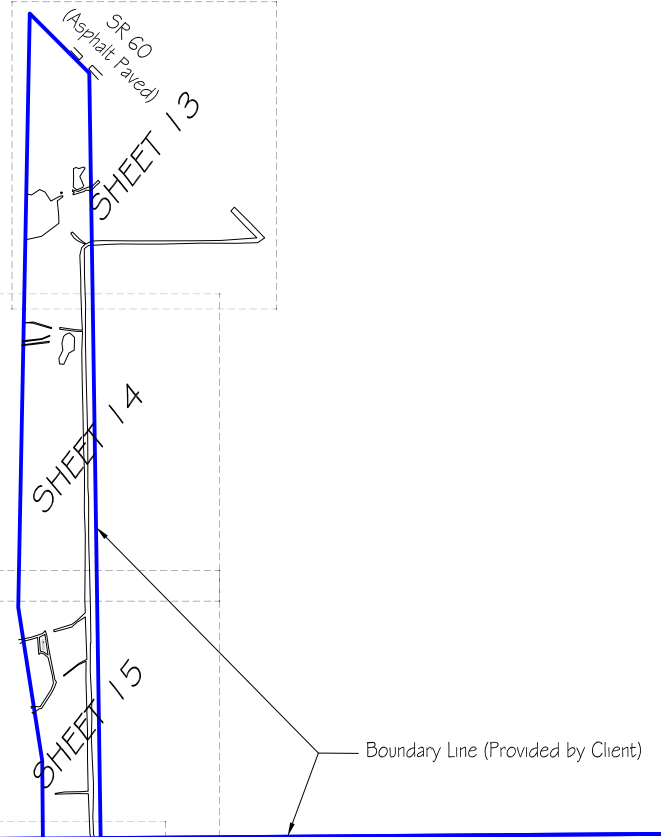
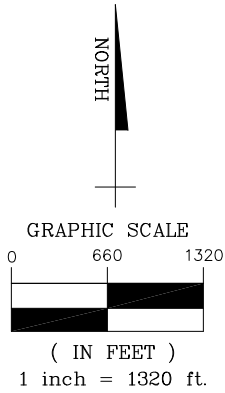
ROBERT M. JONES
 FLORIDA PROFESSIONAL SURVEYOR AND MAPPER
 LICENSE NO. 6374140790



PREPARED FOR:

GOLDER ASSOCIATES
 6026 NW 1st PLACE
 GAINESVILLE, FLORIDA 32607

OVERALL SITE & KEY SHEET



PROJECT TITLE:

Specific Purpose Survey of Wetland Jurisdictional Delineation
FPL Okeechobee Site
Okeechobee & Indian River County, Florida

DATE	BY	DESCRIPTION
REVISION		

DRAWN BY: <u>ADW</u>	CHKD. BY: <u>RMJ</u>
DATE: <u>1/27/2015</u>	DATE: <u>1/27/2015</u>
JOB No. <u>6374140790</u>	SCALE: <u>1" = 1320'</u>
	SHT. <u>2</u> OF <u>30</u>
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg	

PREPARED BY:

AMEC Environment & Infrastructure, Inc.



75 East Amelia Street, Suite 200
Orlando, FL 32801 USA
Phone: (407) 522-7570
Fax: (407) 522-7576
Certificate of Authorization Number LB-0007932

PREPARED FOR:



GOLDER ASSOCIATES
6026 NW 1st PLACE
GAINESVILLE, FLORIDA 32607

WETLAND FLAG LOCATION COORDINATES

01-01	1199333	724303	N02-12	1200550	723611	N02-48	1199545	723604	S02-19	1198664	724138	03-15	1200452	723196
01-02	1199407	724284	N02-13	1200525	723495	N02-49	1199525	723636	S02-20	1198620	724094	03-16	1200438	723118
01-03	1199519	724249	N02-14	1200494	723390	N02-50	1199487	723679	S02-21	1198613	724074	03-17	1200415	723021
01-04	1199656	724203	N02-15	1200487	723349	N02-51	1199396	723710	S02-22	1198628	724069	03-18	1200380	722975
01-05	1199801	724154	N02-16	1200465	723266	N02-52	1199212	723775	S02-23	1198712	724165	03-19	1200345	722916
01-06	1199956	724104	N02-17	1200454	723267	N02-53	1199218	723782	S02-24	1198726	724212	03-20	1200344	722862
01-07	1200083	724063	N02-18	1200463	723321	N02-54	1199399	723720	S02-25	1198741	724216	03-21	1200351	722827
01-08	1200252	724006	N02-19	1200454	723365	N02-55	1199489	723692	S02-26	1198826	724187	03-22	1200353	722807
01-09	1200430	723946	N02-19	1200470	723356	N02-56	1199549	723686	S02-27	1199050	724112	03-23	1200361	722775
01-10	1200550	723906	N02-20	1200274	723423	N02-57	1199550	723748	S02-28	1199238	724053	03-24	1200351	722723
01-11	1200605	723886	N02-21	1200132	723470	N02-58	1199543	723790	S02-29	1199241	724062	03-25	1200338	722675
01-12	1200597	723832	N02-22	1200015	723508	N02-59	1199541	723828	S02-30	1199103	724110	03-26	1200323	722610
01-13	1200557	723666	N02-23	1200017	723517	N02-60	1199555	723850	S02-31	1198843	724193	03-27	1200307	722619
01-14	1200542	723670	N02-24	1200134	723483	N02-61	1199575	723881	S02-32	1198751	724229	03-28	1200316	722658
01-15	1200575	723838	N02-25	1200277	723434	N02-62	1199584	723924	S02-33	1198727	724238	03-29	1200330	722727
01-16	1200578	723867	N02-26	1200456	723380	N02-63	1199587	723935	S02-34	1198714	724291	03-30	1200330	722799
01-17	1200547	723888	N02-27	1200473	723387	N02-64	1199552	723947	S02-35	1198705	724360	03-31	1200323	722841
01-18	1200432	723926	N02-28	1200498	723494	N02-65	1199452	723980	S02-36	1198722	724454	03-32	1200303	722860
01-19	1200251	723987	N02-29	1200523	723608	N02-66	1199277	724042	S02-37	1198734	724480	03-33	1200245	722882
01-20	1200077	724045	N02-30	1200523	723626	S02-01	1199312	724315	S02-38	1198759	724478	03-34	1200091	722931
01-21	1199954	724084	N02-31	1200365	723683	S02-02	1199170	724364	S02-39	1198909	724429	03-35	1199937	722983
01-22	1199787	724139	N02-32	1200195	723736	S02-03	1198926	724445	S02-40	1199116	724360	03-36	1199804	723028
01-23	1199658	724183	N02-33	1199881	723839	S02-04	1198719	724508	S02-41	1199309	724299	03-37	1199676	723071
01-24	1199526	724227	N02-34	1199813	723861	S02-05	1198685	724376	03-01	1199153	723527	03-38	1199550	723112
01-25	1199407	724267	N02-35	1199789	723823	S02-06	1198692	724291	03-02	1199305	723481	03-39	1199408	723158
01-26	1199333	724289	N02-36	1199795	723760	S02-07	1198698	724234	03-03	1199433	723439	03-40	1199279	723201
N02-01	1199278	724048	N02-37	1199761	723656	S02-08	1198688	724260	03-04	1199579	723391	03-41	1199212	723223
N02-02	1199452	723994	N02-38	1199741	723613	S02-09	1198672	724313	03-05	1199694	723355	03-42	1199093	723264
N02-03	1199584	723951	N02-39	1199784	723597	S02-10	1198632	724364	03-06	1199799	723319	03-43	1199094	723270
N02-04	1199732	723906	N02-40	1199863	723570	S02-11	1198578	724360	03-07	1199941	723273	03-44	1199209	723235
N02-05	1199880	723858	N02-41	1200000	723524	S02-12	1198513	724331	03-08	1200142	723207	03-45	1199276	723214
N02-06	1200110	723780	N02-42	1200000	723516	S02-13	1198486	724243	03-09	1200276	723163	03-46	1199410	723168
N02-07	1200195	723752	N02-43	1199862	723558	S02-14	1198488	724189	03-10	1200406	723123	03-47	1199544	723124
N02-08	1200365	723697	N02-44	1199783	723584	S02-15	1198534	724138	03-11	1200417	723123	03-48	1199677	723082
N02-09	1200531	723648	N02-45	1199731	723596	S02-16	1198587	724118	03-12	1200426	723157	03-49	1199801	723041
N02-10	1200540	723652	N02-46	1199678	723583	S02-17	1198651	724146	03-13	1200447	723247	03-50	1199942	722991
N02-11	1200549	723651	N02-47	1199602	723581	S02-18	1198698	724189	03-14	1200460	723247	03-51	1200102	722941

PROJECT TITLE:

*Specific Purpose Survey of Wetland Jurisdictional Delineation
FPL Okeechobee Site
Okeechobee & Indian River County, Florida*

DATE	BY	DESCRIPTION
REVISION		

DRAWN BY: ADW
DATE: 1/27/2015

CHKD. BY: RMJ
DATE: 1/27/2015

JOB No. 6374140790 SCALE: 3
OF 30
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg

PREPARED BY:

AMEC Environment & Infrastructure, Inc.



75 East Amelia Street, Suite 200
Orlando, FL 32801 USA
Phone: (407) 522-7570
Fax: (407) 522-7576
Certificate of Authorization Number LB-0007932

PREPARED FOR:



GOLDER ASSOCIATES
6026 NW 1st PLACE
GAINESVILLE, FLORIDA 32607

WETLAND FLAG LOCATION COORDINATES

03-52	1200249	722889	05-01	1199025	723011	05-39	1200261	722511	06-31	1198945	723324	07-108	1199537	722082
03-53	1200299	722874	05-02	1199156	722971	05-40	1200261	722537	06-32	1198807	723371	07-109	1199417	722080
03-54	1200313	722887	05-03	1199330	722914	05-41	1200287	722562	06-33	1198628	723429	07-110	1199323	722109
03-55	1200328	722930	05-04	1199509	722857	05-41	1200286	722584	06-34	1198507	723467	07-111	1199175	722161
03-56	1200358	722985	05-05	1199681	722798	05-42	1200109	722642	06-35	1198486	723483	07-112	1198972	722226
03-57	1200392	723035	05-06	1199880	722734	05-43	1199882	722717	06-36	1198508	723580	07-113	1198845	722270
03-58	1200409	723091	05-07	1200111	722660	05-45	1199505	722843	06-37	1198542	723711	07-114	1198687	722319
03-59	1200404	723105	05-08	1200229	722619	05-47	1199194	722947	06-38	1198552	723716	07-115	1198546	722367
03-60	1200394	723111	05-09	1200307	722599	05-48	1199028	723001	06-39	1198735	723657	07-116	1198431	722405
03-61	1200244	723164	05-10	1200319	722587	06-01	1199106	723542	06-40	1198915	723597	07-117	1198311	722444
03-62	1200137	723199	05-11	1200321	722564	06-02	1198810	723646	06-41	1199104	723535	07-118	1198268	722468
03-63	1200000	723244	05-12	1200308	722501	06-03	1198613	723708	07-01	1198905	722501	07-119	1198266	722503
03-64	1199939	723264	05-13	1200284	722388	06-04	1198562	723731	07-02	1199201	722406	07-120	1198253	722516
03-65	1199801	723310	05-14	1200271	722329	06-05	1198544	723741	07-03	1199508	722307	07-121	1198239	722523
03-66	1199691	723345	05-15	1200253	722253	06-06	1198532	723746	07-04	1199773	722222	07-122	1198217	722459
03-67	1199576	723383	05-16	1200222	722150	06-07	1198499	723628	07-05	1199906	722182	07-123	1198330	722407
03-68	1199434	723429	05-17	1200207	722153	06-09	1198414	723281	07-06	1199961	722191	07-124	1198442	722369
03-69	1199300	723473	05-18	1200236	722305	06-10	1198397	723205	07-07	1200140	722136	07-126	1198683	722295
03-70	1199197	723506	05-19	1200237	722323	06-11	1198451	723190	07-08	1200183	722127	07-127	1198841	722242
03-71	1199153	723522	05-20	1200154	722356	06-13	1198713	723106	07-09	1200208	722145	07-128	1199058	722169
04-01	1199178	723796	05-21	1199988	722410	06-14	1198839	723064	07-10	1200222	722137	07-129	1199166	722138
04-02	1198907	723889	05-22	1199788	722476	06-15	1198989	723017	07-11	1200211	722100	07-130	1199315	722089
04-03	1198633	723984	05-24	1199460	722582	06-16	1198992	723025	07-12	1200188	722081	07-131	1199403	722056
04-04	1198619	723993	05-25	1199299	722636	06-17	1198887	723062	07-13	1200166	722093	07-132	1199495	722048
04-05	1198626	724056	05-26	1199157	722682	06-18	1198721	723119	07-14	1199963	722159	08-01	1198923	722772
04-06	1198609	724061	05-27	1198964	722744	06-19	1198564	723171	07-15	1199929	722144	08-02	1198625	722875
04-07	1198593	724004	05-28	1198964	722753	06-20	1198457	723206	07-16	1199888	722064	08-04	1198373	722961
04-08	1198556	723844	05-29	1199158	722695	06-21	1198425	723215	07-17	1199827	722016	08-05	1198366	722973
04-09	1198537	723766	05-30	1199273	722657	06-22	1198425	723245	07-18	1199548	722051	08-06	1198400	723107
04-10	1198539	723763	05-31	1199460	722594	06-23	1198454	723361	07-100	1198904	722490	08-07	1198413	723176
04-11	1198546	723760	05-32	1199642	722535	06-24	1198478	723454	07-101	1199199	722395	08-08	1198406	723186
04-12	1198552	723765	05-33	1199791	722487	06-25	1198494	723457	07-102	1199506	722296	08-09	1198399	723188
04-13	1198587	723890	05-34	1199987	722423	06-26	1198627	723416	07-103	1199769	722209	08-10	1198388	723177
04-14	1198610	723965	05-35	1200151	722369	06-27	1198817	723351	07-104	1199894	722167	08-11	1198351	723006
04-15	1198623	723972	05-36	1200229	722346	06-28	1199001	723290	07-105	1199872	722103	08-12	1198318	722869
04-17	1199064	723823	05-37	1200247	722351	06-29	1199053	723277	07-106	1199828	722054	08-13	1198268	722654
04-18	1199178	723787	05-38	1200263	722443	06-30	1199056	723283	07-107	1199698	722065	08-14	1198240	722545

PROJECT TITLE: Specific Purpose Survey of Wetland Jurisdictional Delineation FPL Okeechobee Site Okeechobee & Indian River County, Florida				DRAWN BY: <u>ADW</u>		CHKD. BY: <u>RMJ</u>	
				DATE: <u>1/27/2015</u>		DATE: <u>1/27/2015</u>	
				JOB No. <u>6374140790</u>		SCALE: <u>4</u>	
	DATE	BY	DESCRIPTION			OF	<u>30</u>
REVISION			DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg				

PREPARED BY:  AMEC Environment & Infrastructure, Inc. 75 East Amelia Street, Suite 200 Orlando, FL 32801 USA Phone: (407) 522-7570 Fax: (407) 522-7576 Certificate of Authorization Number LB-0007932	PREPARED FOR:  GOLDER ASSOCIATES 6026 NW 1st PLACE GAINESVILLE, FLORIDA 32607
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WETLAND FLAG LOCATION COORDINATES

08-15	1198275	722537	09-019	1201196	721420	09-055	1202680	722445	09-092	1202584	721471	09-129	1201968	721142
08-16	1198294	722511	09-020	1201418	721344	09-056	1202765	722386	09-093	1202544	721379	09-130	1201759	721213
08-17	1198307	722517	09-021	1201675	721257	09-057	1202822	722391	09-094	1202479	721307	09-131	1201697	721233
08-19	1198299	722648	09-022	1201977	721155	09-058	1202859	722497	09-095	1202434	721278	09-132	1201684	721229
08-20	1198305	722677	09-023	1202164	721111	09-059	1202878	722561	09-096	1202334	721205	09-133	1201674	721192
08-21	1198535	722606	09-024	1202261	721180	09-060	1202894	722545	09-097	1202216	721124	09-133	1201628	721130
08-23	1198833	722510	09-025	1202410	721278	09-061	1202884	722518	09-098	1202179	721097	09-134	1201668	721085
08-23	1198870	722500	09-026	1202510	721360	09-062	1202900	722481	09-099	1202153	721090	09-135	1201636	721089
08-24	1198869	722513	09-027	1202565	721473	09-063	1202868	722424	09-100	1202151	720975	09-136	1201615	721120
08-25	1198632	722591	09-028	1202618	721582	09-064	1202902	722389	09-101	1202250	720878	09-137	1201545	721030
08-26	1198457	722649	09-029	1202688	721698	09-065	1202937	722367	09-102	1202304	720725	09-138	1201491	720958
08-27	1198318	722696	09-030	1202735	721783	09-066	1202989	722354	09-103	1202315	720567	09-139	1201435	720897
08-28	1198310	722721	09-031	1202723	721797	09-067	1203006	722286	09-104	1202403	720607	09-140	1201393	720844
08-29	1198348	722882	09-032	1202760	721842	09-068	1203001	722245	09-105	1202424	720686	09-141	1201366	720609
08-30	1198360	722935	09-033	1202733	721887	09-069	1203009	722210	09-106	1202553	720749	09-142	1201260	720590
08-31	1198403	722932	09-034	1202694	721946	09-070	1202972	722185	09-107	1202670	720731	09-143	1201168	720655
08-32	1198548	722882	09-035	1202665	721975	09-071	1202885	722163	09-108	1202786	720821	09-144	1201249	720774
08-33	1198768	722809	09-036	1202590	721951	09-072	1202846	722167	09-109	1202910	720923	09-145	1201316	720834
08-34	1198923	722758	09-037	1202567	721923	09-073	1202770	722162	09-110	1203018	720988	09-146	1201387	720857
09-001	1198249	722385	09-038	1202519	721868	09-074	1202758	722122	09-111	1203054	721031	09-147	1201421	720897
09-002	1198318	722385	09-039	1202490	721822	09-075	1202766	722082	09-112	1203048	720403	09-148	1201465	720949
09-003	1198474	722327	09-040	1202459	721795	09-076	1202789	722049	09-113	1202977	720428	09-149	1201519	721019
09-004	1198923	722170	09-041	1202405	721799	09-077	1202896	722041	09-114	1202942	720523	09-149	1201603	721137
09-005	1199402	722007	09-041	1202355	721823	09-078	1202961	722015	09-115	1202803	720500	09-150	1201642	721194
09-006	1199477	722011	09-042	1202343	721929	09-079	1203096	721843	09-116	1202677	720482	09-151	1201658	721218
09-007	1199697	721994	09-043	1202344	722023	09-080	1203028	721825	09-117	1202618	720484	09-152	1201669	721238
09-008	1199838	721976	09-044	1202355	722110	09-081	1202976	721826	09-118	1202567	720486	09-153	1201394	721326
09-009	1199908	722020	09-045	1202404	722200	09-082	1202920	721806	09-119	1202474	720409	09-154	1201180	721399
09-010	1199950	722120	09-046	1202455	722224	09-083	1202872	721821	09-120	1202413	720421	09-155	1201039	721454
09-011	1199989	722120	09-047	1202548	722249	09-084	1202824	721822	09-121	1202354	720481	09-156	1201005	721431
09-012	1200115	722062	09-048	1202606	722211	09-085	1202779	721823	09-122	1202319	720358	09-157	1201038	721394
09-013	1200143	722028	09-049	1202686	722231	09-086	1202769	721782	09-123	1202198	720262	09-158	1200990	721404
09-014	1200168	721843	09-050	1202732	722287	09-087	1202780	721764	09-124	1202096	720338	09-159	1201049	721268
09-015	1200202	721760	09-051	1202745	722342	09-088	1202766	721775	09-125	1202062	720620	09-160	1200947	721101
09-016	1200418	721685	09-052	1202680	722387	09-089	1202752	721770	09-126	1202074	720871	09-161	1200997	721047
09-017	1200787	721560	09-053	1202596	722409	09-090	1202689	721662	09-127	1202129	720951	09-162	1201022	721017
09-018	1201022	721489	09-054	1202617	722436	09-091	1202637	721577	09-128	1202125	721090	09-164	1201147	720996

PROJECT TITLE:

*Specific Purpose Survey of Wetland Jurisdictional Delineation
FPL Okeechobee Site
Okeechobee & Indian River County, Florida*

DATE	BY	DESCRIPTION
REVISION		

DRAWN BY: ADW
DATE: 1/27/2015

CHKD. BY: RMJ
DATE: 1/27/2015

JOB No. 6374140790 SCALE: 5
OF 30

DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg

PREPARED BY:

AMEC Environment & Infrastructure, Inc.

PREPARED FOR:



75 East Amelia Street, Suite 200
Orlando, FL 32801 USA
Phone: (407) 522-7570
Fax: (407) 522-7576
Certificate of Authorization Number LB-0007932



GOLDER ASSOCIATES
6026 NW 1st PLACE
GAINESVILLE, FLORIDA 32607

WETLAND FLAG LOCATION COORDINATES

09-165	1201127	720915	09-202	1200928	721086	09-238	1200017	720675	09-277	1198704	720098	09-314	1199104	721318
09-166	1201123	720648	09-203	1200783	720875	09-239	1200057	720626	09-278	1199064	720030	09-315	1199166	721468
09-167	1201119	720376	09-204	1200625	720889	09-240	1200032	720520	09-279	1199284	720113	09-316	1199035	721449
09-168	1201202	720233	09-205	1200585	721032	09-241	1199957	720442	09-280	1199418	720176	09-317	1199011	721360
09-169	1201216	720213	09-206	1200603	721097	09-242	1199936	720531	09-281	1199610	720253	09-318	1198923	721316
09-170	1201044	719879	09-207	1200630	721163	09-243	1199890	720440	09-282	1199660	720371	09-319	1198839	721381
09-171	1200941	719754	09-208	1200684	721234	09-244	1199858	720308	09-283	1199776	720449	09-320	1198882	721491
09-172	1200873	719627	09-209	1200745	721328	09-245	1199808	720229	09-284	1199922	720601	09-321	1199009	721511
09-173	1200803	719500	09-210	1200787	721395	09-246	1199653	720243	09-285	1199989	720688	09-322	1199018	721459
09-174	1200776	719215	09-211	1200834	721391	09-247	1199426	720161	09-286	1200060	720838	09-323	1199177	721479
09-175	1200746	719044	09-212	1200891	721413	09-248	1199287	720105	09-287	1200135	720999	09-324	1199190	721649
09-176	1200658	718853	09-213	1200956	721399	09-249	1199051	720013	09-288	1200216	721177	09-325	1199249	721675
09-177	1200630	718757	09-214	1200966	721417	09-250	1198765	720065	09-289	1200175	721202	09-326	1199227	721770
09-178	1200639	718749	09-215	1200950	721425	09-251	1198700	720081	09-290	1200230	721206	09-327	1199219	721866
09-179	1200613	718713	09-216	1200989	721439	09-252	1198671	719919	09-291	1200291	721344	09-328	1199187	722053
09-180	1200585	718713	09-217	1201006	721461	09-253	1198767	719857	09-292	1200278	721393	09-329	1198859	722184
09-181	1200592	718752	09-218	1200862	721513	09-254	1198741	719753	09-293	1200264	721476	09-330	1198509	722302
09-182	1200613	718760	09-219	1200775	721540	09-255	1198675	719696	09-294	1200366	721504	09-331	1198525	722277
09-183	1200642	718854	09-220	1200627	721588	09-256	1198570	719787	09-295	1200437	721658	09-332	1198573	722175
09-184	1200722	719046	09-221	1200456	721650	09-257	1198631	719890	09-296	1200230	721725	09-333	1198558	722130
09-185	1200749	719226	09-222	1200385	721498	09-258	1198652	719920	09-297	1200282	721668	09-334	1198530	722042
09-186	1200776	719503	09-223	1200418	721437	09-259	1198683	720082	09-298	1200146	721528	09-335	1198490	721979
09-187	1200833	719625	09-224	1200366	721335	09-260	1198424	720136	09-299	1200129	721612	09-336	1198464	721988
09-188	1200903	719713	09-225	1200462	721231	09-262	1197874	720233	09-300	1199991	721613	09-337	1198427	721952
09-189	1200927	719770	09-226	1200447	721156	09-263	1197809	720087	09-301	1199916	721661	09-338	1198399	721874
09-190	1201030	719890	09-227	1200402	721119	09-264	1197847	720077	09-302	1199787	721679	09-339	1198453	721751
09-191	1201087	720009	09-228	1200336	721178	09-265	1197914	720000	09-303	1199633	721639	09-340	1198409	721678
09-192	1201183	720185	09-229	1200345	721278	09-266	1197889	719931	09-304	1199576	721683	09-341	1198310	721622
09-193	1201185	720221	09-230	1200317	721335	09-267	1197759	719866	09-305	1199456	721891	09-342	1198240	721658
09-194	1201103	720360	09-231	1200249	721197	09-268	1197682	720018	09-306	1199458	721970	09-343	1198214	721786
09-195	1201106	720644	09-232	1200287	721152	09-269	1197694	720070	09-307	1199206	722057	09-344	1198186	721866
09-196	1201107	720800	09-233	1200273	721151	09-270	1197795	720119	09-308	1199232	721871	09-345	1198306	721876
09-197	1201060	720860	09-234	1200238	721169	09-271	1197849	720229	09-309	1199262	721707	09-346	1198264	721948
09-198	1200989	720879	09-234	1200159	720992	09-272	1197812	720244	09-310	1199410	721665	09-347	1198275	722112
09-199	1200965	720977	09-235	1200085	720827	09-273	1197815	720265	09-311	1199439	721412	09-348	1198304	722252
09-200	1200994	721014	09-236	1200120	720796	09-274	1197873	720252	09-312	1199342	721209	09-349	1198296	722350
09-201	1200977	721049	09-237	1200075	720803	09-275	1198172	720200	09-313	1199145	721193	09-350	1198316	722351

PROJECT TITLE:

*Specific Purpose Survey of Wetland Jurisdictional Delineation
FPL Okeechobee Site
Okeechobee & Indian River County, Florida*

DATE	BY	DESCRIPTION
REVISION		

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CHKD. BY: RMJ
DATE: 1/27/2015

JOB No. 6374140790 SCALE: 6
OF 30

DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg

PREPARED BY:

AMEC Environment & Infrastructure, Inc.

PREPARED FOR:



75 East Amelia Street, Suite 200
Orlando, FL 32801 USA
Phone: (407) 522-7570
Fax: (407) 522-7576
Certificate of Authorization Number LB-0007932



GOLDER ASSOCIATES
6026 NW 1st PLACE
GAINESVILLE, FLORIDA 32607

WETLAND FLAG LOCATION COORDINATES

09-351	1198314	722359	15-03	1199275	718962	AA-05	1200623	723886	AB-06	1200682	723051	AB-43	1200928	722413
09-352	1198251	722372	15-04	1199262	719081	AA-06	1200615	723864	AB-07	1200636	722963	AB-44	1200838	722444
10-01	1202871	721780	15-05	1199148	719084	AA-07	1200615	723841	AB-08	1200557	723007	AB-45	1200599	722523
10-02	1202896	721787	15-06	1199115	719059	AA-08	1200582	723695	AB-09	1200483	723045	AB-46	1200461	722567
10-03	1202896	721763	15-07	1199107	718975	AA-09	1200527	723439	AB-10	1200469	723060	AB-47	1200371	722604
11-01	1201399	720018	16-01	1198523	721740	AA-10	1200497	723258	AB-11	1200474	723082	AB-48	1200381	722668
11-02	1201495	720026	16-02	1198611	721833	AA-11	1200510	723256	AB-12	1200490	723155	AB-49	1200394	722702
11-03	1201618	720090	16-03	1198695	721766	AA-12	1200521	723302	AB-13	1200504	723234	AB-50	1200405	722728
11-04	1201715	720157	16-04	1198669	721699	AA-13	1200538	723354	AB-14	1200491	723237	AB-51	1200427	722741
11-05	1201774	720014	16-05	1198587	721686	AA-14	1200764	723288	AB-15	1200480	723201	AB-52	1200498	722736
11-06	1201645	719971	A-01	1201245	723666	AA-15	1200906	723242	AB-16	1200471	723153	AB-53	1200552	722730
11-07	1201602	719850	A-02	1201249	723679	AA-16	1201109	723173	AB-17	1200451	723056	AB-54	1200587	722728
11-08	1201526	719788	A-03	1201280	723674	AA-17	1201111	723182	AB-18	1200453	723047	AB-55	1200617	722741
11-09	1201435	719801	A-04	1201432	723621	AA-18	1200996	723222	AB-19	1200460	723039	AB-56	1200648	722758
11-10	1201385	719893	A-05	1201606	723564	AA-19	1200761	723299	AB-20	1200475	723025	AB-57	1200662	722760
11-11	1201388	720007	A-06	1201798	723501	AA-20	1200537	723376	AB-21	1200464	723020	AB-58	1200771	722727
12-01	1203041	720036	A-07	1202072	723409	AA-21	1200571	723534	AB-22	1200441	723022	AB-59	1200988	722657
12-02	1202911	720032	A-08	1202264	723350	AA-22	1200595	723631	AB-23	1200421	723013	AB-60	1200990	722667
12-03	1202903	720103	A-09	1202395	723307	AA-23	1200610	723632	AB-24	1200395	722968	AB-61	1200735	722752
12-04	1202978	720154	A-10	1202562	723252	AA-24	1200763	723582	AB-25	1200382	722938	AB-62	1200667	722775
12-05	1203024	720176	A-11	1202637	723218	AA-25	1200946	723522	AB-26	1200362	722884	AB-63	1200678	722820
12-06	1203048	720310	A-12	1202635	723190	AA-26	1201169	723447	AB-27	1200357	722841	AB-64	1200690	722820
13-01	1202194	718941	A-13	1202581	723000	AA-27	1201170	723455	AB-28	1200376	722814	AB-65	1200695	722829
13-02	1202231	718932	A-14	1202569	723004	AA-28	1201037	723500	AB-29	1200384	722780	AB-66	1200687	722840
13-03	1202362	718921	A-15	1202611	723189	AA-29	1200942	723532	AB-30	1200423	722773	AB-67	1200686	722872
13-04	1202372	719072	A-16	1202587	723223	AA-30	1200737	723602	AB-31	1200425	722766	AB-68	1200680	722894
13-05	1202360	719147	A-17	1202558	723231	AA-31	1200598	723654	AB-32	1200409	722761	AB-69	1200659	722947
13-06	1202240	719135	A-18	1202421	723275	AA-32	1200609	723718	AB-33	1200390	722748	AB-70	1200658	722959
13-07	1202154	719096	A-19	1202268	723330	AA-33	1200642	723855	AB-34	1200383	722736	AB-71	1200691	723030
13-08	1202122	719028	A-20	1202111	723380	AA-34	1200654	723856	AB-35	1200352	722629	AB-72	1200718	723035
14-01	1201758	719499	A-21	1201747	723503	AA-35	1200750	723829	AB-36	1200344	722583	AB-73	1200805	723006
14-02	1201724	719474	A-22	1201527	723574	AA-36	1200936	723767	AB-37	1200361	722578	AB-74	1200919	722967
14-03	1201691	719489	A-23	1201365	723627	AB-01	1201050	722922	AB-38	1200370	722580	AB-75	1200981	722946
14-04	1201702	719539	AA-01	1201228	723671	AB-02	1201053	722930	AB-39	1200450	722559	AC-01	1202828	724047
14-05	1201759	719547	AA-02	1201233	723686	AB-03	1200986	722955	AB-40	1200596	722512	AC-02	1202989	723991
15-01	1199197	718916	AA-03	1201005	723763	AB-04	1200870	722994	AB-41	1200752	722462	AC-03	1202994	724017
15-02	1199209	718915	AA-04	1200778	723837	AB-05	1200710	723050	AB-42	1200927	722404	AC-04	1202828	724076

PROJECT TITLE:

*Specific Purpose Survey of Wetland Jurisdictional Delineation
FPL Okeechobee Site
Okeechobee & Indian River County, Florida*

		DRAWN BY: <u>ADW</u>		CHKD. BY: <u>RMJ</u>	
		DATE: <u>1/27/2015</u>		DATE: <u>1/27/2015</u>	
		JOB No. <u>6374140790</u>		SCALE: <u>7</u>	
		DATE		BY	
		DESCRIPTION		SHT. <u>30</u>	
		REVISION		OF	
		DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg			

PREPARED BY:

AMEC Environment & Infrastructure, Inc.



75 East Amelia Street, Suite 200
Orlando, FL 32801 USA
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PREPARED FOR:



GOLDER ASSOCIATES
6026 NW 1st PLACE
GAINESVILLE, FLORIDA 32607

WETLAND FLAG LOCATION COORDINATES

AD-01	1203013	723983	AD-38	1206211	723908	AD-75	1207158	724292	AF-07	1207503	723844	B-32	1202544	722978
AD-02	1203103	723960	AD-39	1206419	723904	AD-76	1207159	724183	AF-08	1207516	723854	B-33	1202279	723065
AD-03	1203380	723949	AD-40	1206557	723910	AD-77	1207157	724102	AF-09	1207519	723840	B-34	1201986	723168
AD-04	1203381	723870	AD-41	1206558	723865	AD-78	1207148	723950	AF-10	1207530	723840	B-35	1201779	723238
AD-05	1203376	723721	AD-42	1206572	723752	AD-79	1207127	723922	AF-11	1207519	723879	B-36	1201553	723313
AD-06	1203382	723722	AD-43	1206584	723754	AD-80	1206945	723923	AF-12	1207543	723930	B-37	1201332	723388
AD-07	1203392	723786	AD-44	1206569	723866	AD-81	1206740	723931	AF-13	1207559	723979	C-01	1201072	722915
AD-08	1203394	723906	AD-45	1206566	723909	AD-82	1206651	723930	AF-14	1207596	724018	C-02	1201075	722923
AD-09	1203397	723948	AD-46	1206644	723904	AD-83	1206483	723930	B-01	1201203	723434	C-03	1201275	722859
AD-10	1203616	723944	AD-47	1206843	723898	AD-84	1206270	723934	B-02	1201206	723443	C-04	1201528	722777
AD-11	1203811	723944	AD-48	1206911	723898	AD-85	1205843	723945	B-03	1201335	723401	C-05	1201818	722677
AD-12	1203946	723940	AD-49	1207079	723891	AD-86	1205658	723946	B-04	1201558	723327	C-07	1202321	722506
AD-13	1204167	723933	AD-50	1207132	723903	AD-87	1205488	723946	B-05	1201777	723256	C-08	1202441	722474
AD-14	1204290	723934	AD-51	1207156	723927	AD-88	1205408	723952	B-06	1201988	723184	C-09	1202470	722602
AD-15	1204265	723880	AD-52	1207182	723873	AD-89	1205172	723952	B-07	1202344	723063	C-11	1202494	722692
AD-16	1204187	723781	AD-53	1207202	723849	AD-90	1205079	723953	B-08	1202494	723011	C-12	1202512	722687
AD-17	1204193	723779	AD-54	1207232	723828	AD-91	1204944	723957	B-09	1202563	722995	C-13	1202500	722616
AD-18	1204276	723886	AD-55	1207241	723839	AD-92	1204674	723964	B-10	1202573	722996	C-14	1202412	722253
AD-19	1204303	723939	AD-56	1207187	723894	AD-92	1204416	723967	B-11	1202580	722992	C-15	1202355	722180
AD-20	1204595	723929	AD-57	1207159	723935	AD-93	1204415	723964	B-12	1202541	722818	C-16	1202340	722181
AD-21	1204557	723871	AD-58	1207179	723972	AD-94	1204220	723963	B-13	1202511	722696	C-17	1202287	722220
AD-22	1204526	723836	AD-59	1207182	724040	AD-95	1204033	723972	B-14	1202496	722702	C-18	1202116	722276
AD-23	1204509	723778	AD-60	1207179	724181	AD-96	1203900	723974	B-15	1202494	722710	C-19	1201911	722346
AD-24	1204493	723714	AD-61	1207181	724309	AD-97	1203762	723970	B-16	1202464	722718	C-20	1201643	722434
AD-25	1204505	723711	AD-62	1207181	724472	AD-98	1203609	723977	B-17	1202271	722781	C-20	1201368	722525
AD-26	1204544	723837	AD-63	1207180	724678	AD-99	1203457	723985	B-18	1201950	722892	C-21	1201333	722532
AD-27	1204571	723872	AD-64	1207183	724863	AD-100	1203378	723985	B-19	1201711	722971	C-22	1201354	722506
AD-28	1204624	723929	AD-65	1207200	725109	AD-101	1203273	723982	B-20	1201481	723052	C-23	1201356	722525
AD-29	1204714	723925	AD-66	1207281	725028	AD-102	1203227	723980	B-22	1201137	723175	C-24	1201356	722500
AD-30	1204945	723927	AD-67	1207385	724930	AD-103	1203099	723986	B-23	1201458	723072	C-25	1201330	722459
AD-31	1205158	723928	AD-68	1207412	724954	AD-104	1203015	724011	B-24	1201715	722986	C-26	1201280	722431
AD-32	1205247	723925	AD-69	1207305	725062	AF-01	1207582	724029	B-25	1201948	722905	C-27	1201219	722429
AD-33	1205323	723922	AD-70	1207200	725162	AF-02	1207563	724005	B-26	1202224	722816	C-28	1201174	722447
AD-34	1205471	723923	AD-71	1207168	725114	AF-03	1207524	723967	B-27	1202470	722733	C-29	1201126	722496
AD-35	1205587	723923	AD-72	1207163	724963	AF-04	1207529	723932	B-28	1202501	722724	C-30	1201112	722539
AD-36	1205769	723916	AD-73	1207164	724727	AF-05	1207519	723921	B-29	1202511	722762	C-31	1201106	722616
AD-37	1205978	723913	AD-74	1207158	724452	AF-06	1207496	723845	B-31	1202558	722966	C-32	1201004	722649

PROJECT TITLE:

*Specific Purpose Survey of Wetland Jurisdictional Delineation
FPL Okeechobee Site
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DATE	BY	DESCRIPTION
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CHKD. BY: RMJ
DATE: 1/27/2015

JOB No. 6374140790 SCALE: 8 SHT. 30
OF
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg

PREPARED BY:

AMEC Environment & Infrastructure, Inc.



75 East Amelia Street, Suite 200
Orlando, FL 32801 USA
Phone: (407) 522-7570
Fax: (407) 522-7576
Certificate of Authorization Number LB-0007932

PREPARED FOR:



GOLDER ASSOCIATES
6026 NW 1st PLACE
GAINESVILLE, FLORIDA 32607

WETLAND FLAG LOCATION COORDINATES

C-33	1201007	722660	D-20	1202107	722018	E-25	1200261	722124	E-64	1202261	721682	G-12	1200967	724048
C-34	1201114	722630	D-21	1201727	722134	E-26	1200257	722090	E-65	1202253	721689	G-13	1201227	723959
C-35	1201164	722698	D-22	1201751	722078	E-27	1200413	722033	E-66	1202161	721720	G-14	1201579	723838
C-36	1201207	722707	D-23	1201737	721997	E-28	1200567	721984	E-67	1201709	721868	G-15	1201833	723751
C-37	1201259	722686	D-24	1201700	721928	E-29	1200808	721901	E-68	1201543	721919	G-16	1202205	723631
C-38	1201302	722637	D-25	1201677	721913	E-30	1200806	721893	E-69	1201415	721964	G-17	1202501	723526
C-39	1201349	722549	D-26	1201610	721927	E-30	1200806	721894	E-70	1201035	722087	G-18	1202675	723470
C-40	1201655	722441	D-27	1201481	721971	E-31	1200563	721971	F-01	1200278	722211	G-19	1202679	723486
C-41	1202150	722279	D-28	1201437	722042	E-32	1200414	722019	F-02	1200263	722217	G-20	1202542	723538
C-42	1202348	722216	D-29	1201435	722120	E-34	1200241	722058	F-03	1200274	722277	G-21	1202253	723638
C-43	1202369	722231	D-30	1201478	722219	E-35	1200218	721963	F-04	1200303	722433	G-22	1201929	723748
C-44	1202411	722352	D-31	1201236	722305	E-36	1200236	721843	F-05	1200337	722567	G-23	1201630	723846
C-45	1202422	722456	D-32	1201104	722345	E-37	1200266	721799	F-06	1200355	722563	G-24	1201222	723986
C-46	1202318	722491	E-01	1200890	722138	E-38	1200446	721738	F-07	1200359	722549	G-25	1200979	724070
C-47	1202116	722560	E-02	1200895	722146	E-39	1200630	721680	F-08	1200316	722346	G-26	1200757	724149
C-49	1201807	722664	E-03	1201150	722062	E-40	1200829	721611	F-09	1200385	722316	G-27	1200761	724156
C-50	1201526	722759	E-04	1201423	721974	E-41	1201067	721531	F-10	1200505	722275	G-28	1200971	724082
C-51	1201241	722857	E-05	1201723	721876	E-42	1201374	721428	F-11	1200688	722216	G-29	1201230	723994
D-01	1200957	722394	E-06	1202213	721723	E-43	1201575	721361	F-12	1200854	722163	G-30	1201645	723851
D-02	1200958	722403	E-07	1202291	721707	E-44	1201814	721283	F-13	1200864	722170	G-31	1201936	723754
D-03	1201221	722321	E-08	1202261	721581	E-45	1201927	721247	F-14	1200870	722156	G-32	1202263	723643
D-04	1201481	722237	E-09	1202179	721248	E-46	1202114	721188	F-15	1200867	722143	G-33	1202569	723540
D-05	1201596	722239	E-10	1202148	721165	E-48	1202159	721268	F-16	1200622	722226	G-34	1202684	723500
D-06	1201662	722212	E-11	1202135	721149	E-49	1202196	721422	F-17	1200510	722262	G-35	1202701	723568
D-07	1201698	722185	E-12	1201873	721236	E-50	1202143	721443	F-18	1200310	722322	G-36	1202744	723745
D-08	1201744	722155	E-13	1201510	721355	E-51	1201969	721502	F-19	1200299	722276	G-37	1202453	723842
D-09	1202121	722030	E-14	1201175	721472	E-52	1201771	721570	G-01	1202672	723394	G-38	1202163	723937
D-10	1202282	721984	E-15	1200801	721597	E-54	1201282	721730	G-02	1202665	723395	G-39	1201826	724047
D-11	1202310	722151	E-16	1200391	721734	E-55	1200836	721882	G-03	1202679	723462	G-40	1201531	724145
D-12	1202334	722173	E-17	1200265	721777	E-56	1200838	721888	G-04	1202498	723521	G-41	1201382	724200
D-13	1202347	722166	E-18	1200221	721810	E-57	1201170	721782	G-05	1202203	723624	G-42	1201385	724207
D-14	1202327	722101	E-19	1200205	721889	E-58	1201493	721674	G-06	1201825	723742	G-43	1201540	724155
D-15	1202317	721826	E-20	1200193	722047	E-59	1201775	721582	G-07	1201540	723841	G-44	1201828	724059
D-16	1202287	721712	E-21	1200228	722090	E-60	1201971	721518	G-08	1201203	723953	G-45	1202161	723948
D-17	1202276	721714	E-22	1200241	722138	E-61	1202135	721461	G-09	1200962	724036	G-46	1202454	723853
D-18	1202295	721854	E-23	1200262	722200	E-62	1202199	721446	G-10	1200747	724113	G-47	1202746	723755
D-19	1202288	721961	E-24	1200277	722197	E-63	1202231	721563	G-11	1200747	724121	G-48	1202753	723811

PROJECT TITLE:

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JOB No. 6374140790 SCALE: 9
OF 30
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg

PREPARED BY:

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75 East Amelia Street, Suite 200
Orlando, FL 32801 USA
Phone: (407) 522-7570
Fax: (407) 522-7576
Certificate of Authorization Number LB-0007932

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GOLDER ASSOCIATES
6026 NW 1st PLACE
GAINESVILLE, FLORIDA 32607

WETLAND FLAG LOCATION COORDINATES

G-49	1202707	723908	H-07	1200668	724004	I-29	1201439	724469	I-66	1200837	724792	J-33	1200788	724835
G-50	1202629	723996	H-08	1200658	724008	I-30	1201465	724514	I-67	1200876	724935	J-34	1200809	724935
G-51	1202533	724056	H-09	1200649	724001	I-31	1201458	724542	I-68	1200917	724948	J-35	1200821	724977
G-52	1202445	724097	H-10	1200620	724006	I-32	1201417	724603	I-69	1200944	724979	J-36	1200816	724992
G-53	1202219	724204	H-11	1200609	723955	I-33	1201348	724625	J-01	1200681	724138	J-37	1200725	725043
G-54	1202077	724280	H-12	1200628	723994	I-34	1201301	724609	J-02	1200726	724347	J-38	1200564	725127
G-55	1201800	724427	H-13	1200647	723981	I-35	1201267	724618	J-03	1200722	724377	J-39	1200474	725175
G-56	1201527	724591	H-14	1200646	723949	I-36	1201219	724600	J-04	1200705	724380	J-40	1200452	725135
G-57	1201325	724702	H-15	1200627	723939	I-37	1201177	724560	J-05	1200694	724394	J-41	1200423	725075
G-58	1201202	724770	I-01	1200662	724031	I-38	1201117	724584	J-05	1200697	724359	J-42	1200374	725075
G-59	1200946	724914	I-02	1200675	724026	I-39	1201102	724640	J-06	1200662	724405	J-43	1200382	725026
G-60	1200949	724931	I-03	1200686	724034	I-40	1201079	724668	J-07	1200572	724437	J-44	1200332	724984
G-61	1201002	724905	I-04	1200718	724027	I-41	1201029	724702	J-08	1200481	724465	J-45	1200236	725018
G-62	1201113	724846	I-05	1200685	724048	I-42	1200948	724739	J-09	1200240	724540	J-46	1200111	724999
G-63	1201310	724737	I-06	1200687	724079	I-43	1200879	724769	J-10	1199913	724650	J-47	1200012	724967
G-64	1201441	724659	I-07	1200748	724373	I-44	1200875	724757	J-11	1199668	724731	J-48	1199930	725049
G-65	1201647	724543	I-08	1200758	724384	I-45	1200981	724705	J-12	1199671	724738	J-49	1199904	725146
G-66	1201815	724443	I-09	1200798	724386	I-46	1201042	724671	J-13	1199912	724659	J-50	1199918	725220
G-67	1202026	724332	I-10	1200871	724365	I-47	1201069	724647	J-14	1200244	724551	J-51	1199812	725254
G-68	1202203	724239	I-11	1201097	724290	I-48	1201092	724610	J-15	1200576	724442	J-52	1199581	725337
G-69	1202299	724186	I-12	1201351	724210	I-49	1201098	724583	J-16	1200673	724411	J-53	1199584	725343
G-70	1202437	724123	I-13	1201352	724216	I-50	1201091	724549	J-17	1200691	724422	J-54	1199828	725263
G-71	1202559	724069	I-14	1201100	724301	I-51	1201044	724488	J-18	1200629	724601	J-55	1199949	725231
G-72	1202643	724015	I-15	1200974	724341	I-52	1200993	724462	J-19	1200634	724687	J-56	1199953	725237
G-73	1202701	723963	I-16	1200816	724393	I-53	1200897	724438	J-20	1200594	724712	J-57	1199940	725247
G-74	1202744	723907	I-17	1200781	724397	I-54	1200826	724428	J-21	1200449	724759	J-58	1199975	725353
G-75	1202764	723852	I-18	1200813	724413	I-55	1200754	724398	J-22	1200120	724867	J-59	1200037	725369
G-76	1202776	723819	I-19	1200898	724427	I-56	1200730	724404	J-23	1199827	724965	J-60	1200067	725360
G-77	1202760	723759	I-20	1201004	724447	I-57	1200713	724428	J-24	1199521	725069	J-61	1200083	725383
G-78	1202739	723662	I-21	1201042	724464	I-58	1200650	724596	J-25	1199520	725078	J-62	1200018	725414
G-79	1202698	723485	I-22	1201081	724498	I-59	1200649	724648	J-26	1199833	724973	J-63	1199757	725567
H-01	1200635	723913	I-23	1201118	724563	I-60	1200658	724685	J-27	1200109	724880	J-64	1199674	725613
H-02	1200648	723909	I-24	1201219	724533	I-61	1200677	724710	J-28	1200451	724767	J-65	1199589	725654
H-03	1200660	723919	I-25	1201458	724454	I-62	1200813	724749	J-29	1200618	724711	J-66	1199430	725752
H-04	1200661	723955	I-26	1201662	724388	I-63	1200830	724785	J-30	1200642	724709	J-67	1199262	725845
H-05	1200666	723981	I-27	1201664	724393	I-64	1200857	724767	J-31	1200690	724743	J-68	1199114	725926
H-06	1200670	723997	I-28	1201537	724437	I-65	1200860	724775	J-32	1200770	724772	J-69	1199085	725926

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WETLAND FLAG LOCATION COORDINATES

J-70	1199063	725901	J-UP-10	1200457	725168	M-09	1200306	724277	N-36	1199159	725190	O-02	1198719	724631
J-71	1199031	725762	J-UP-11	1200453	725187	M-10	1200645	724172	N-37	1199493	725080	O-03	1198697	724555
J-72	1199021	725765	J-UP-12	1200278	725281	N-01	1198763	724684	N-38	1199493	725086	O-04	1198682	724558
J-73	1199062	725923	K-01	1200825	724710	N-02	1198770	724684	N-39	1199162	725197	P-01	1198708	724666
J-74	1199090	725955	K-02	1200844	724724	N-03	1198791	724755	N-40	1198918	725278	P-02	1198721	724663
J-75	1199267	725859	K-03	1200914	724706	N-04	1198928	724709	N-41	1198974	725530	P-03	1198737	724730
J-76	1199447	725768	K-04	1200957	724696	N-05	1199203	724620	N-42	1199402	725393	P-04	1198721	724749
J-77	1199610	725666	K-05	1200990	724678	N-06	1199470	724534	N-43	1199555	725342	P-05	1198588	724781
J-78	1199783	725571	K-06	1201030	724646	N-07	1199474	724543	N-44	1199559	725351	P-06	1198475	724802
J-79	1200018	725441	K-07	1201052	724634	N-08	1199207	724631	N-45	1199418	725397	P-07	1198437	724832
J-80	1200094	725401	K-08	1201074	724576	N-09	1198954	724711	N-46	1198979	725538	P-08	1198398	724893
J-81	1200170	725360	K-09	1201049	724555	N-10	1198795	724770	N-47	1199019	725690	P-09	1198391	724966
J-82	1200330	725271	K-10	1201057	724534	N-11	1198799	724797	N-48	1198978	725728	P-10	1198444	725064
J-83	1200478	725193	K-11	1201010	724495	N-12	1198874	724759	N-49	1198968	725689	P-11	1198511	725125
J-84	1200581	725134	K-12	1200968	724469	N-13	1198974	724739	N-50	1198994	725700	P-12	1198579	725156
J-85	1200630	725111	K-13	1200913	724461	N-14	1199091	724698	N-51	1199006	725686	P-13	1198635	725165
J-86	1200733	725059	K-14	1200835	724448	N-15	1199116	724726	N-52	1198943	725455	P-14	1198692	725159
J-87	1200820	725008	K-15	1200767	724444	N-16	1199195	724682	N-53	1198899	725257	P-15	1198766	725156
J-88	1200844	724983	K-16	1200727	724480	N-17	1199290	724676	N-54	1198860	725116	P-16	1198828	725163
J-89	1200822	724953	K-17	1200696	724564	N-18	1199339	724655	N-55	1198839	725033	P-17	1198859	725244
J-90	1200785	724772	K-18	1200685	724611	N-19	1199386	724667	N-56	1198819	724946	P-18	1198879	725318
J-91	1200802	724774	K-19	1200691	724652	N-20	1199386	724637	N-57	1198801	724949	P-19	1198912	725447
J-93	1200815	724796	K-20	1200714	724690	N-21	1199422	724632	N-58	1198826	725065	P-20	1198938	725567
J-94	1200845	724921	K-21	1200737	724708	N-22	1199427	724654	N-59	1198702	725055	P-21	1198967	725688
J-95	1200868	724966	K-22	1200794	724694	N-23	1199477	724633	N-60	1198601	725057	P-22	1198977	725729
J-96	1200910	724974	L-01	1198759	724617	N-24	1199524	724657	N-61	1198519	725005	P-23	1199004	725852
J-97	1200921	724996	L-02	1198745	724560	N-25	1199545	724663	N-62	1198470	724947	P-24	1199027	725957
J-UP-01	1200110	725368	L-03	1198737	724562	N-26	1199612	724654	N-63	1198482	724896	P-25	1199016	726009
J-UP-02	1200093	725342	L-04	1198750	724620	N-27	1199647	724743	N-64	1198537	724866	P-26	1199026	726036
J-UP-03	1200130	725246	M-01	1200669	724270	N-28	1199613	724779	N-65	1198598	724861	P-27	1198996	726059
J-UP-04	1200168	725172	M-02	1200679	724266	N-29	1199580	724836	N-66	1198652	724856	P-28	1199008	726033
J-UP-05	1200097	725197	M-03	1200649	724160	N-30	1199351	724916	N-67	1198719	724853	P-29	1199011	725948
J-UP-06	1200086	725186	M-04	1200303	724268	N-31	1199157	724988	N-68	1198762	724821	P-30	1198990	725844
J-UP-07	1200162	725163	M-05	1199651	724477	N-32	1199041	725049	N-69	1198769	724867	P-31	1198950	725694
J-UP-07	1200271	725129	M-06	1199511	724525	N-33	1198887	725100	N-70	1198779	724874	P-32	1198942	725649
J-UP-08	1200408	725085	M-07	1199514	724531	N-34	1198873	725114	N-71	1198786	724809	P-33	1198909	725510
J-UP-09	1200424	725092	M-08	1199655	724487	N-35	1198914	725272	O-01	1198699	724634	P-34	1198841	725229

PROJECT TITLE:

*Specific Purpose Survey of Wetland Jurisdictional Delineation
FPL Okeechobee Site
Okeechobee & Indian River County, Florida*

		DRAWN BY: <u>ADW</u>		CHKD. BY: <u>RMJ</u>	
		DATE: <u>1/27/2015</u>		DATE: <u>1/27/2015</u>	
		JOB No. <u>6374140790</u>		SCALE: <u>11</u>	
DATE		BY		SHT. <u>30</u>	
		DESCRIPTION			
		REVISION		DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg	

PREPARED BY:

AMEC Environment & Infrastructure, Inc.



75 East Amelia Street, Suite 200
Orlando, FL 32801 USA
Phone: (407) 522-7570
Fax: (407) 522-7576
Certificate of Authorization Number LB-0007932

PREPARED FOR:



GOLDER ASSOCIATES
6026 NW 1st PLACE
GAINESVILLE, FLORIDA 32607

WETLAND FLAG LOCATION COORDINATES

P-35	1198804	725174	R-11	1198456	724249	S-19	1204355	723607	X-01	1207186	723515
P-36	1198630	725185	R-12	1198454	724225	S-20	1204337	723610	X-02	1207211	723628
P-37	1198722	725590	R-14	1198512	724117	S-21	1204347	723619	X-03	1207300	723747
P-38	1198794	725888	R-15	1198570	724057	S-22	1204340	723645	X-04	1207356	723746
P-39	1198784	725890	R-16	1198570	724024	S-23	1204314	723673	X-04	1207454	723736
P-40	1198755	725777	R-17	1198541	723914	S-24	1204193	723702	X-05	1207482	723773
P-41	1198724	725633	R-18	1198501	723775	S-25	1204138	723710	X-06	1207490	723774
P-42	1198673	725429	R-19	1198494	723777	S-26	1204092	723692	X-07	1207486	723752
P-43	1198644	725309	R-20	1198527	723924	S-27	1203978	723618	X-08	1207453	723692
P-44	1198616	725185	R-21	1198551	724032	S-28	1203979	723556	X-09	1207515	723652
P-45	1198562	725172	R-22	1198529	724074	S-29	1203966	723559	X-10	1207533	723615
P-46	1198490	725133	R-23	1198467	724138	T-01	1206371	723747	X-11	1207495	723559
P-47	1198431	725080	R-24	1198440	724212	T-02	1206334	723753	X-12	1207503	723522
P-48	1198375	724980	R-25	1198448	724288	T-03	1206332	723781	X2-01	1207503	723761
P-49	1198372	724917	R-26	1198473	724345	T-04	1206409	723816	X2-02	1207515	723759
P-50	1198401	724843	R-27	1198518	724378	T-05	1206429	723853	X2-03	1207515	723770
P-51	1198445	724799	R-28	1198560	724399	T-06	1206516	723855	X2-04	1207508	723771
P-52	1198508	724769	R-29	1198620	724414	T-07	1206547	723822	X3-01	1207550	723846
P-53	1198501	724736	R-30	1198654	724451	T-08	1206537	723794	X3-02	1207530	723870
P-54	1198520	724730	S-01	1203939	723562	T-09	1206522	723779	X3-03	1207547	723910
P-55	1198533	724772	S-02	1203932	723568	T-10	1206475	723768	X3-04	1207559	723917
P-56	1198576	724762	S-03	1203963	723611	T-11	1206428	723774	X3-05	1207623	723891
P-57	1198715	724727	S-04	1203966	723628	U-01	1206459	723493	X3-06	1207680	723927
Q-01	1198482	724598	S-05	1204078	723701	U-02	1206481	723680	X3-07	1207688	723917
Q-02	1198461	724603	S-06	1204118	723720	U-03	1206490	723681	X3-08	1207677	723885
Q-03	1198497	724714	S-07	1204147	723730	U-04	1206465	723494	X3-09	1207684	723866
Q-04	1198509	724712	S-08	1204163	723719	V-01	1206485	723496	X3-10	1207677	723847
R-01	1198672	724527	S-09	1204381	723677	V-02	1206502	723629	X3-11	1207608	723848
R-02	1198685	724523	S-10	1204465	723664	V-03	1206525	723685	Y-01	1208486	723828
R-03	1198661	724409	S-11	1204500	723654	V-04	1206531	723684	Y-02	1208425	723887
R-04	1198645	724402	S-12	1204481	723634	V-05	1206508	723628	Y-03	1208448	723911
R-05	1198624	724397	S-13	1204454	723555	V-06	1206493	723497	Y-04	1208509	723852
R-06	1198592	724390	S-14	1204438	723470	W-01	1206618	723516	Z-01	1208289	724018
R-07	1198538	724367	S-15	1204411	723480	W-02	1206614	723568	Z-02	1208363	723952
R-08	1198506	724351	S-16	1204429	723507	W-03	1206577	723695	Z-03	1208387	723977
R-09	1198490	724338	S-17	1204441	723559	W-04	1206583	723697	Z-04	1208318	724046
R-10	1198470	724301	S-18	1204454	723601	W-05	1206622	723572			

PROJECT TITLE:

Specific Purpose Survey of Wetland Jurisdictional Delineation
FPL Okeechobee Site
Okeechobee & Indian River County, Florida

DATE	BY	DESCRIPTION
		REVISION

DRAWN BY: ADW	CHKD. BY: RMJ
DATE: 1/27/2015	DATE: 1/27/2015
JOB No. 6374140790	SCALE: 12 OF 30
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg	

PREPARED BY:

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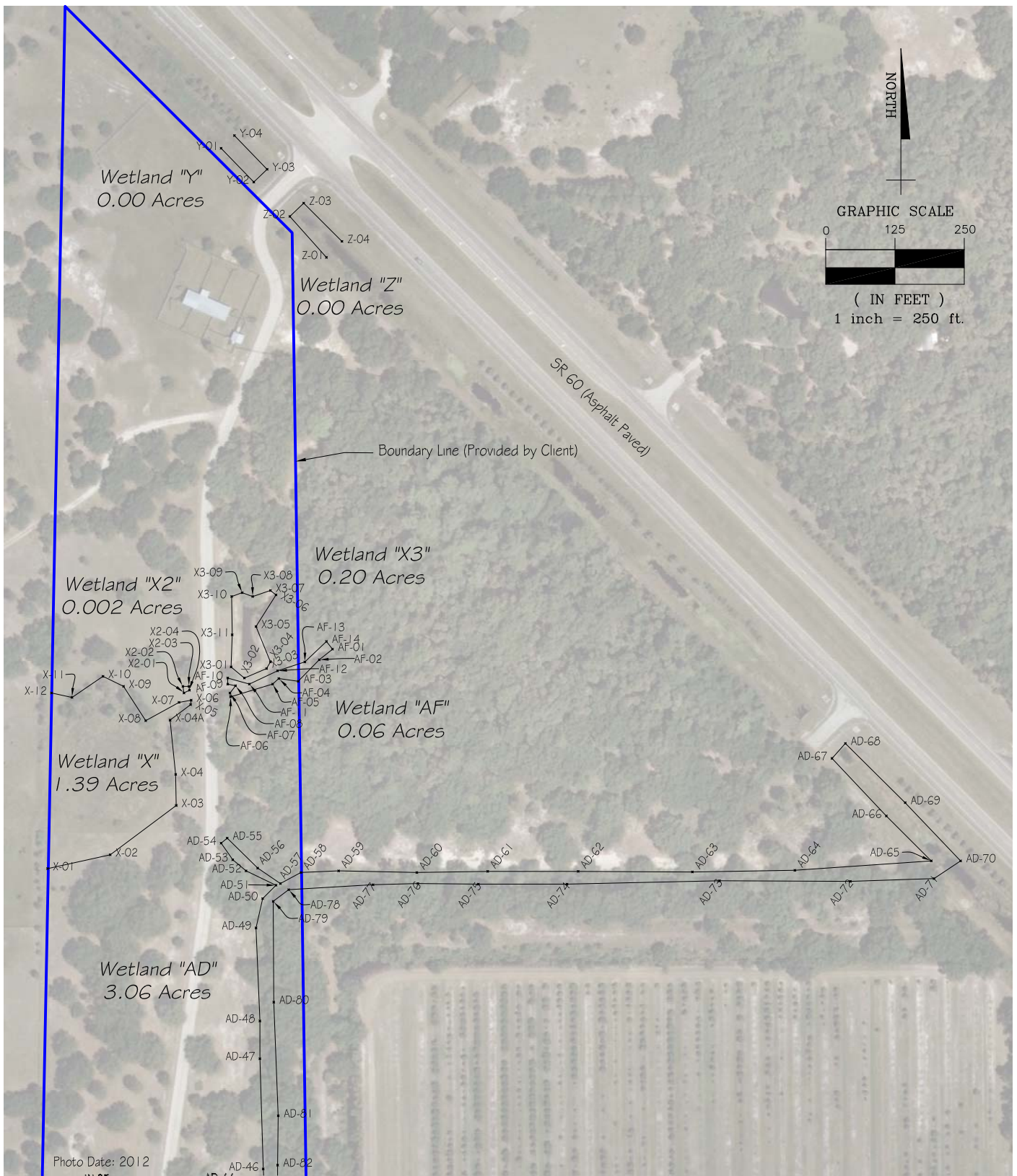
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75 East Amelia Street, Suite 200
Orlando, FL 32801 USA
Phone: (407) 522-7570
Fax: (407) 522-7576
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GOLDER ASSOCIATES
6026 NW 1st PLACE
GAINESVILLE, FLORIDA 32607



PROJECT TITLE:

Specific Purpose Survey of Wetland Jurisdictional Delineation
FPL Okeechobee Site
Okeechobee & Indian River County, Florida

DATE	BY	DESCRIPTION
REVISION		

DRAWN BY: <u>ADW</u>	CHKD. BY: <u>RMJ</u>
DATE: <u>1/27/2015</u>	DATE: <u>1/27/2015</u>
JOB No. <u>6374140790</u>	SCALE: <u>1" = 250'</u>
	SHT. <u>13</u> OF <u>30</u>
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg	

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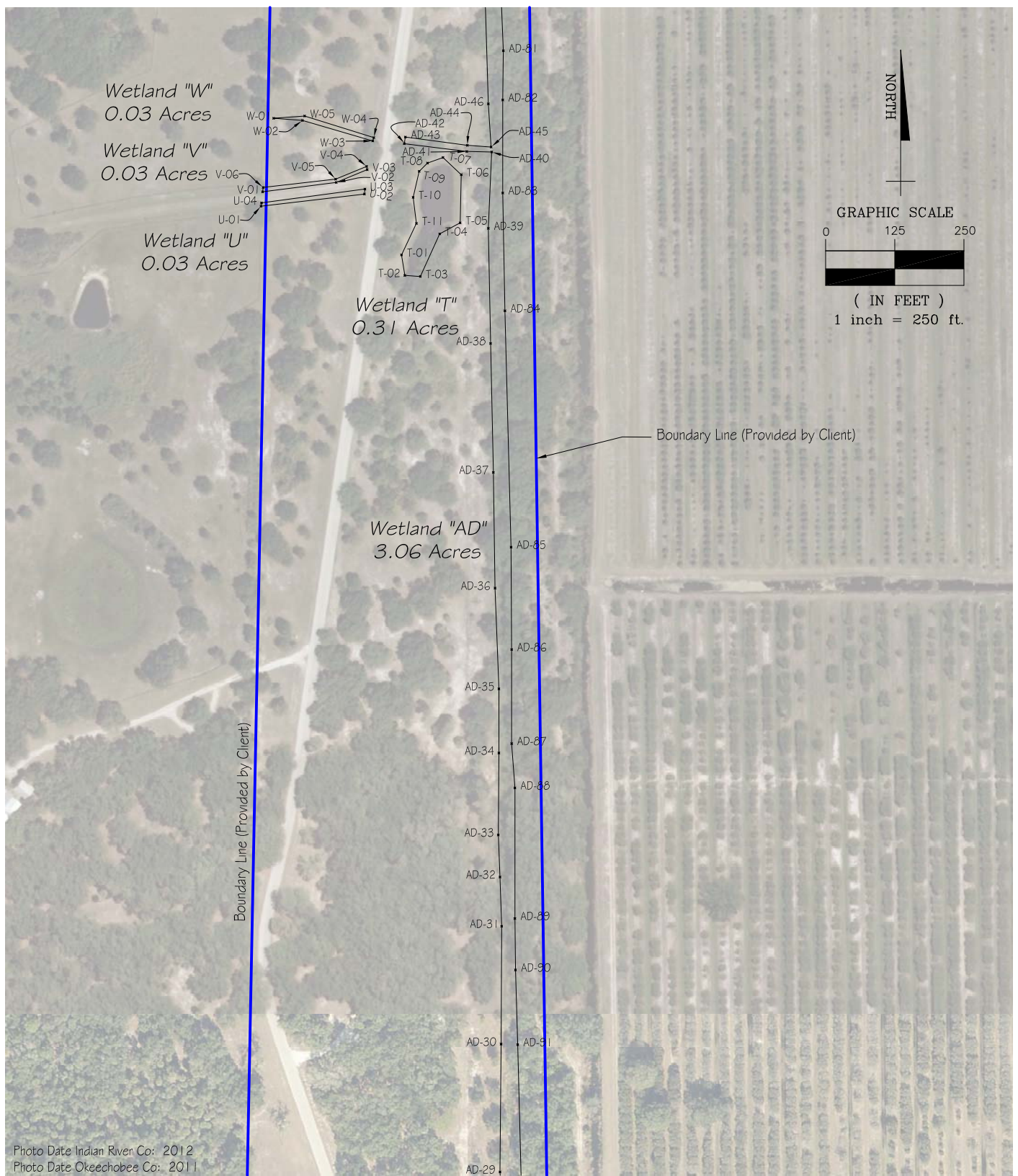
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6026 NW 1st PLACE
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PROJECT TITLE:

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JOB No. <u>6374140790</u>	SCALE: <u>1" = 250'</u>
	SHT. <u>14</u> OF <u>30</u>
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg	

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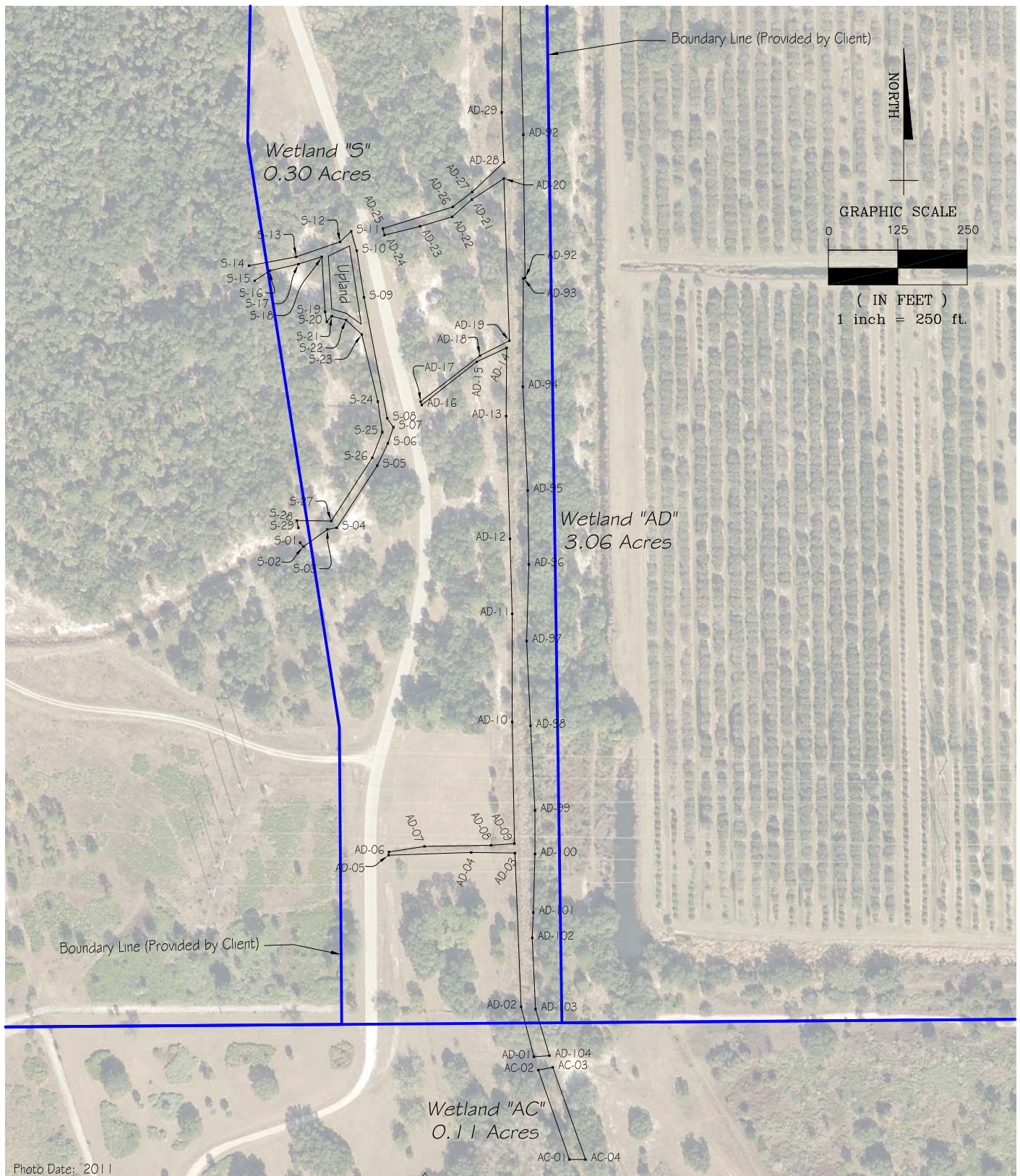
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DATE: <u>1/27/2015</u>	DATE: <u>1/27/2015</u>
JOB No. <u>6374140790</u>	SCALE: <u>1" = 250'</u>
	SHT. <u>15</u> OF <u>30</u>
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg	

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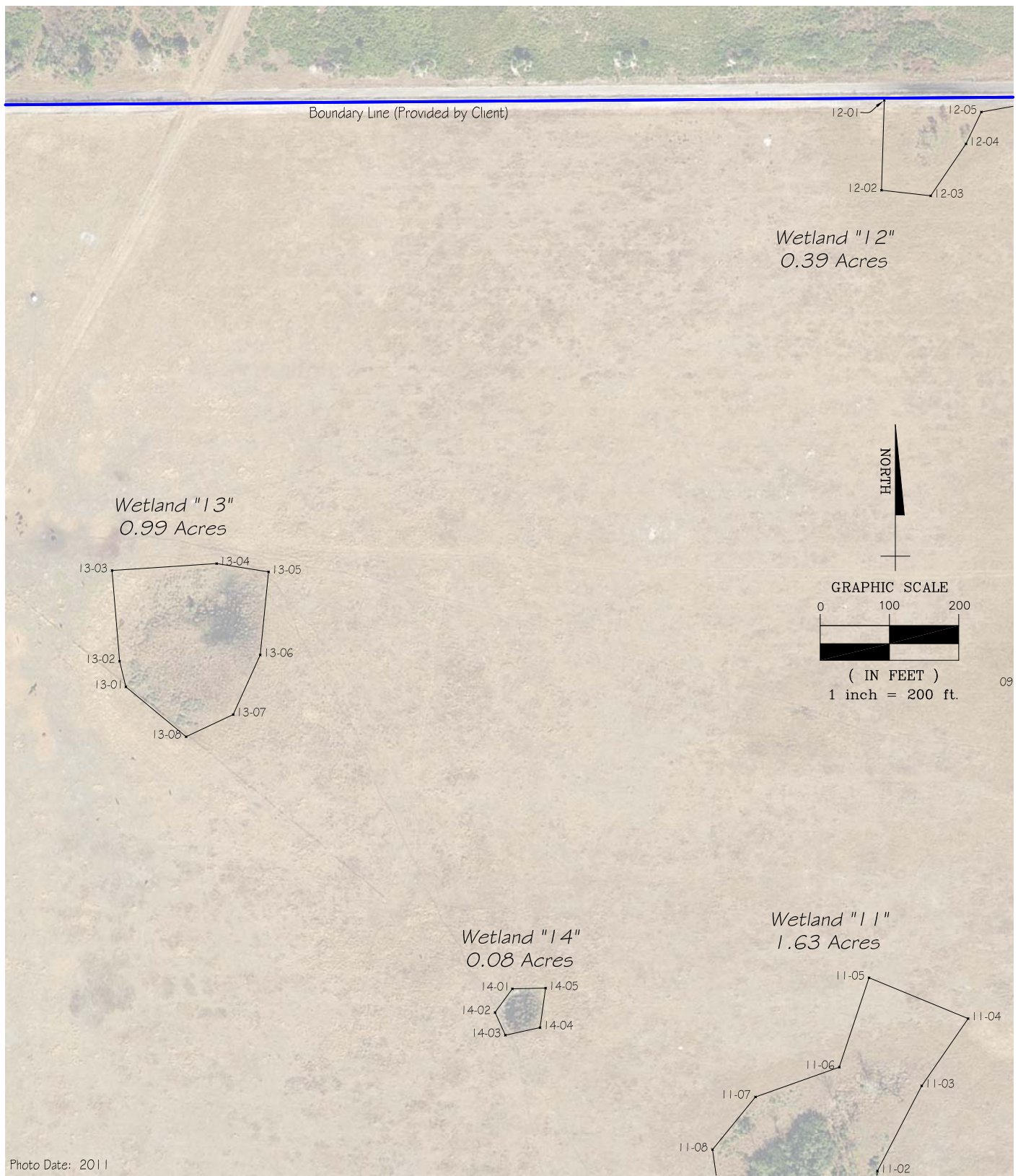
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DATE: <u>1/27/2015</u>	DATE: <u>1/27/2015</u>
JOB No. <u>6374140790</u>	SCALE: <u>1" = 200'</u>
	SHT. <u>16</u> OF <u>30</u>
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg	

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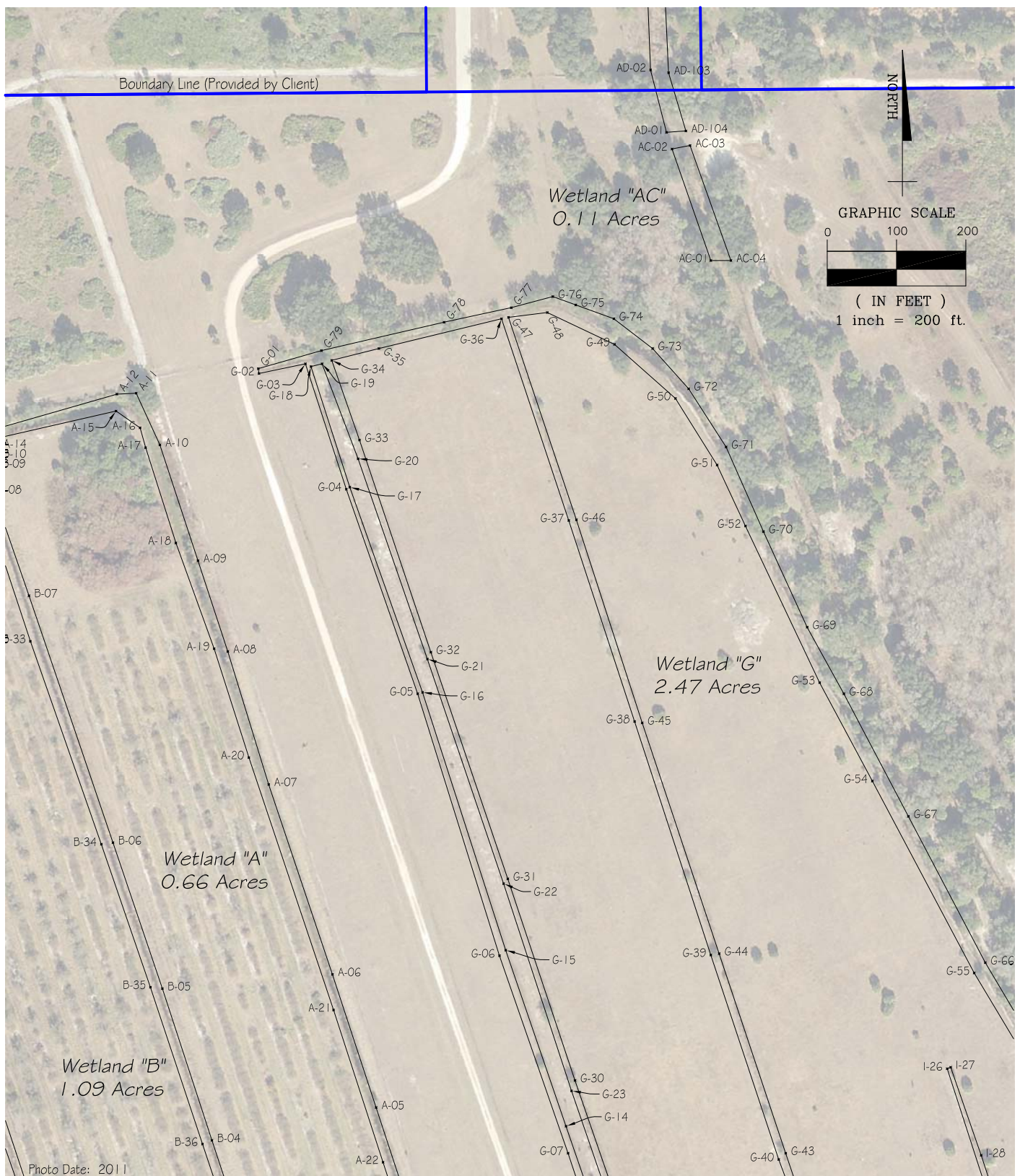


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PROJECT TITLE:

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Okeechobee & Indian River County, Florida

DATE	BY	DESCRIPTION
REVISION		

DRAWN BY: ADW	CHKD. BY: RMJ
DATE: 1/27/2015	DATE: 1/27/2015
JOB No. 6374140790	SCALE: 1" = 200'
SHT. 19	OF 30

DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg

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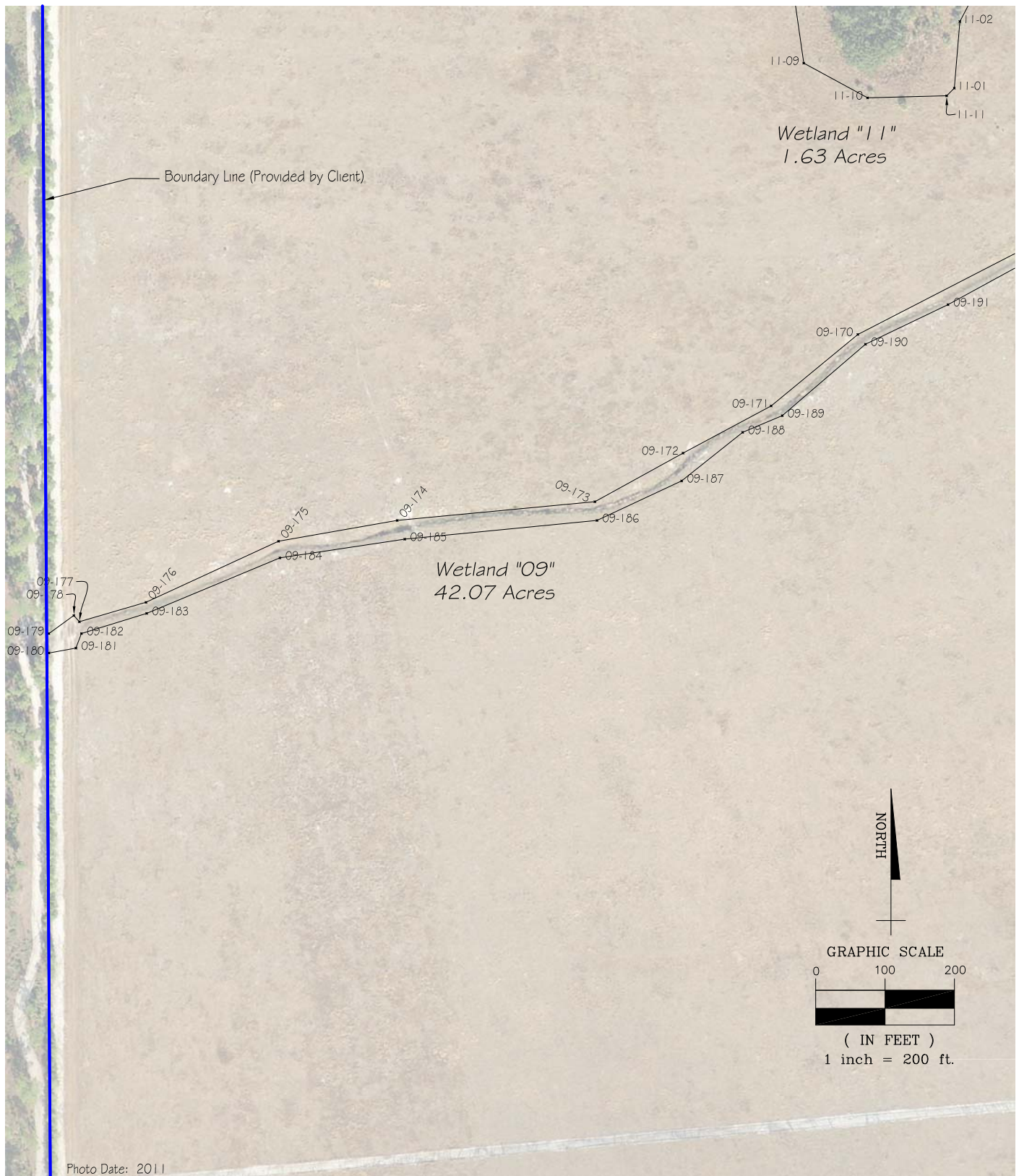
Certificate of Authorization Number LB-0007932

PREPARED FOR:



GOLDER ASSOCIATES
6026 NW 1st PLACE
GAINESVILLE, FLORIDA 32607





PROJECT TITLE:

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FPL Okeechobee Site
Okeechobee & Indian River County, Florida

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DATE: <u>1/27/2015</u>	DATE: <u>1/27/2015</u>
JOB No. <u>6374140790</u>	SCALE: <u>1" = 200'</u>
	SHT. <u>20</u> OF <u>30</u>
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg	

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GAINESVILLE, FLORIDA 32607



PROJECT TITLE:

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DATE	BY	DESCRIPTION
REVISION		

DRAWN BY: ADW	CHKD. BY: RMJ
DATE: 1/27/2015	DATE: 1/27/2015
JOB No. 6374140790	SCALE: 1" = 200'
	SHT. 22 OF 30
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg	

PREPARED BY:

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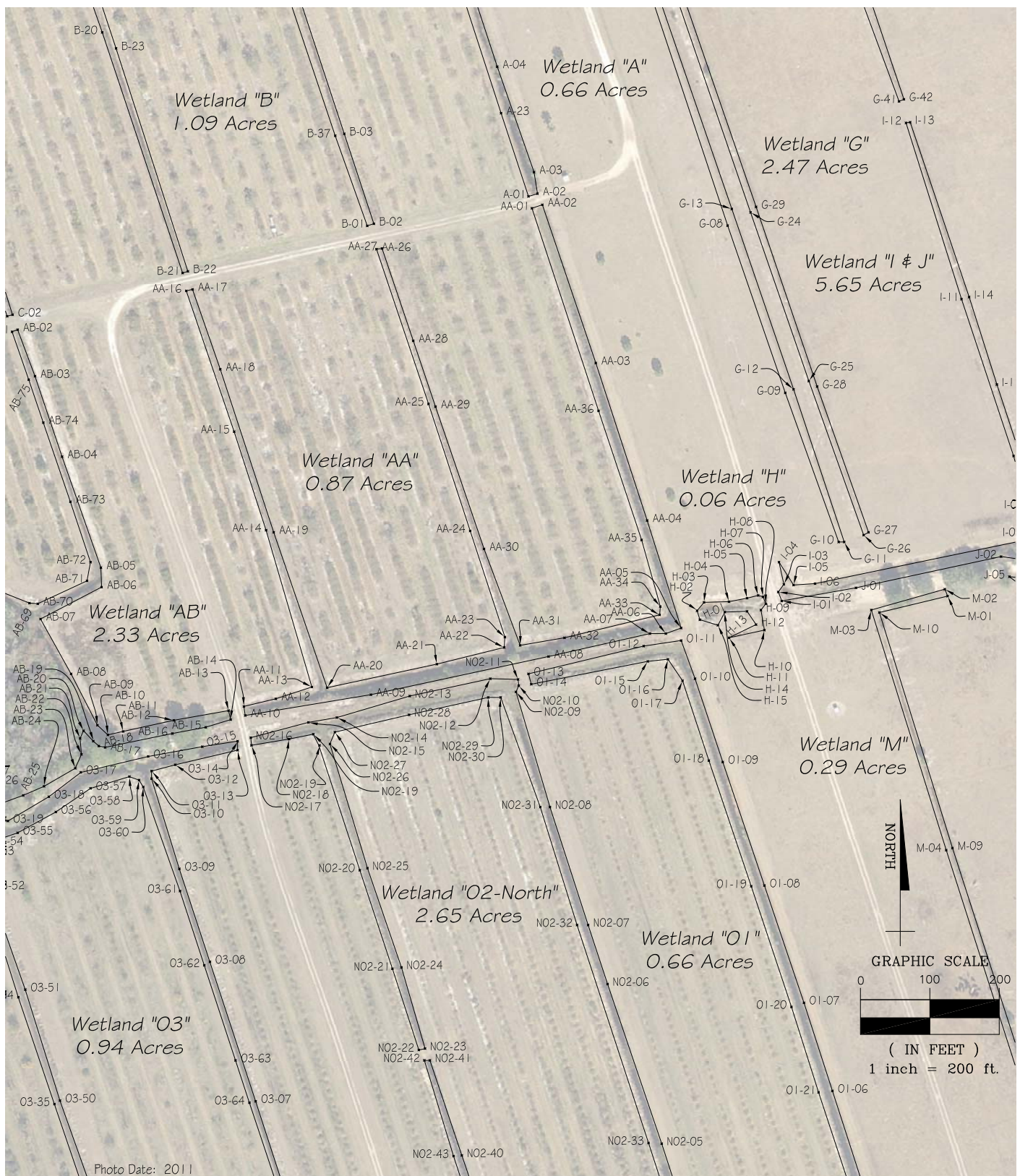
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PROJECT TITLE:

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6026 NW 1st PLACE

GAINESVILLE, FLORIDA 32607

DRAWN BY: ADW

DATE: 1/27/2015

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JOB No.

6374140790

SCALE:

1" = 200'

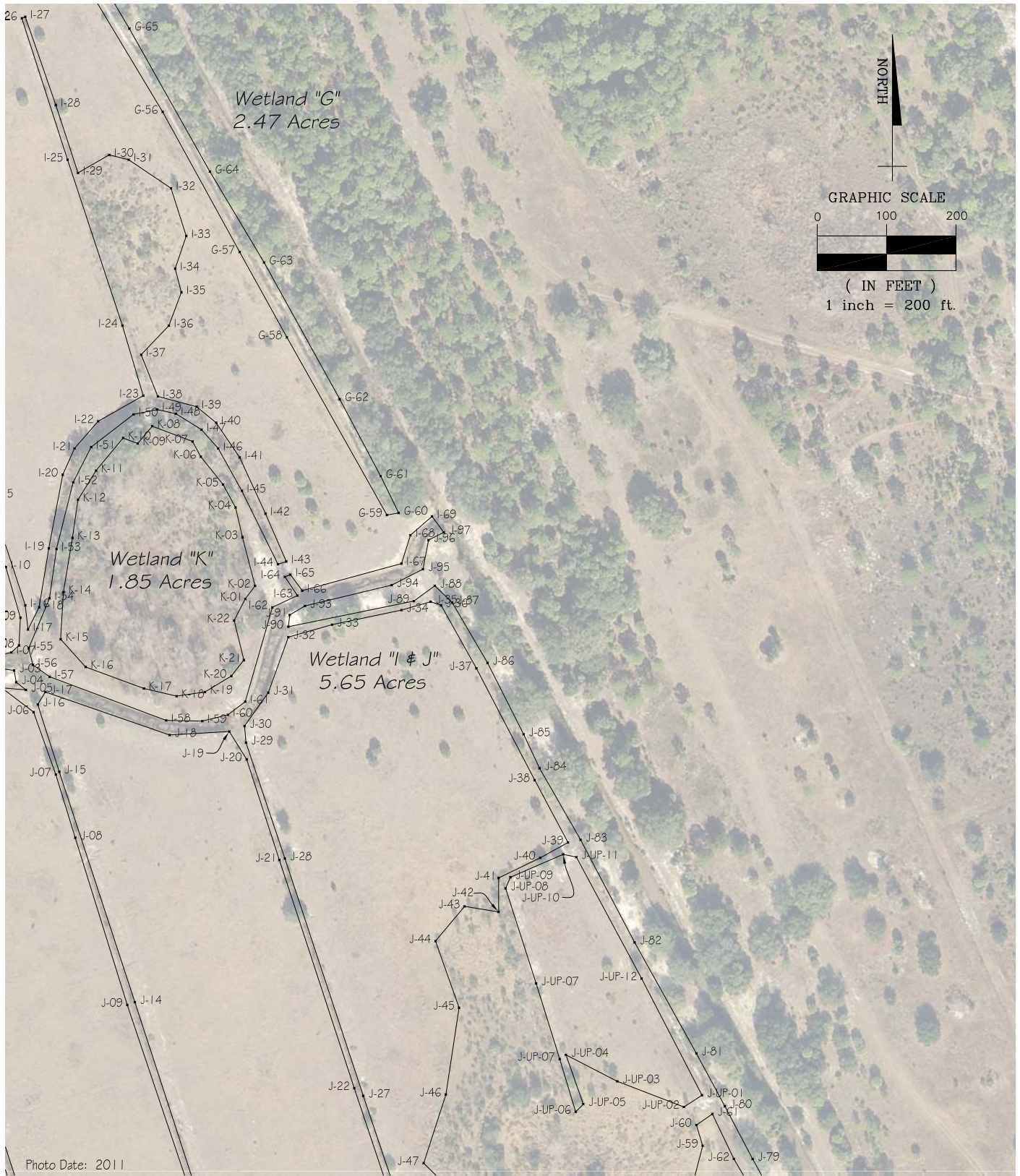
SHT.

23

OF

30

DRAWING NAME: 6374140790-FPL Okeechobee Wetlands.dwg



PROJECT TITLE:

Specific Purpose Survey of Wetland Jurisdictional Delineation
FPL Okeechobee Site
Okeechobee & Indian River County, Florida

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JOB No. <u>6374140790</u>	SCALE: <u>1" = 200'</u>
	SHT. <u>24</u> OF <u>30</u>
DRAWING NAME: 6374140790-FPL Okeechobee Wetlands.dwg	

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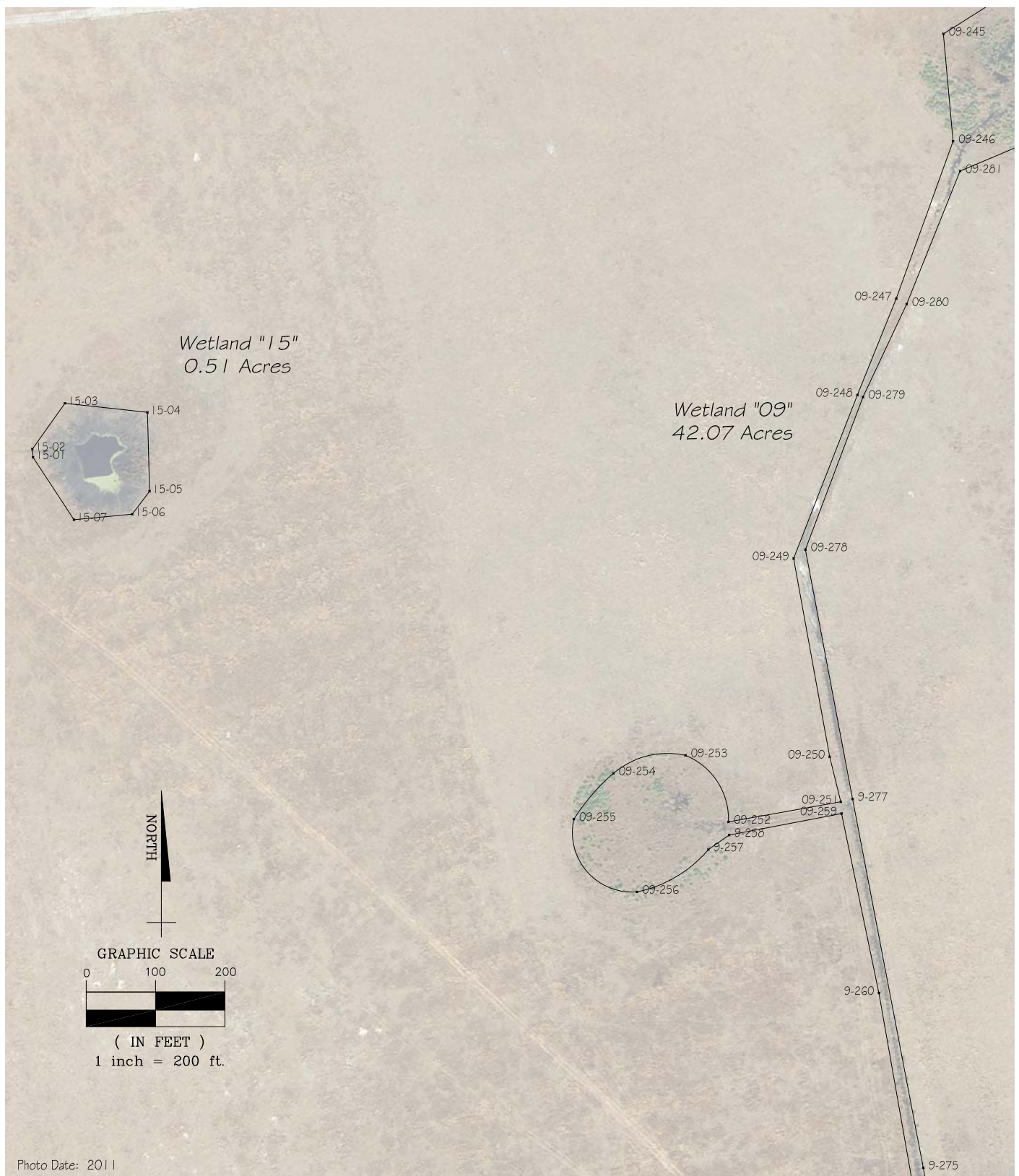


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PROJECT TITLE:

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JOB No. <u>6374140790</u>	SCALE: <u>1" = 200'</u>
	SHT. <u>25</u> OF <u>30</u>
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg	

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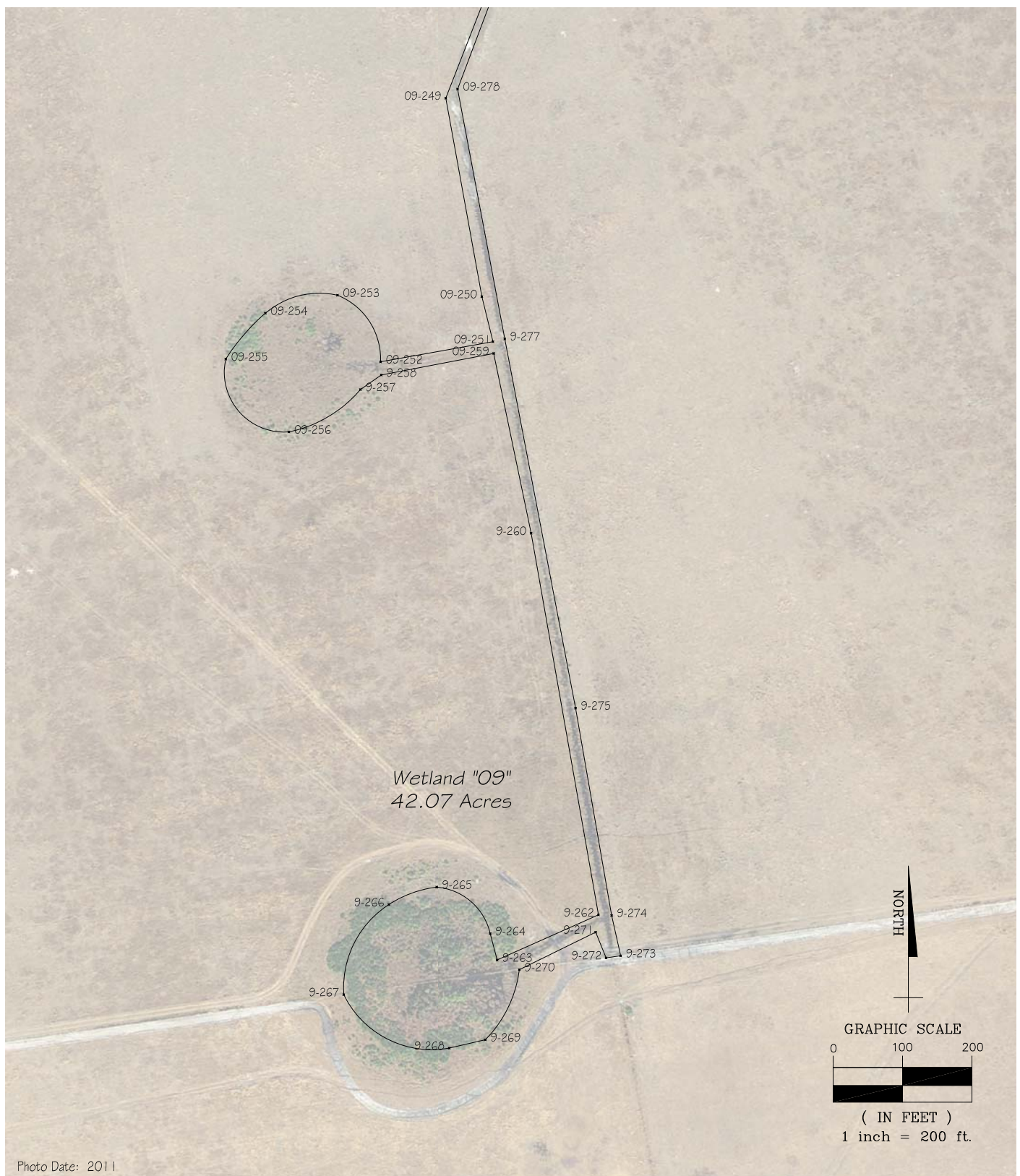
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JOB No. <u>6374140790</u>	SCALE: <u>1" = 200'</u>
	SHT. <u>26</u> OF <u>30</u>
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg	

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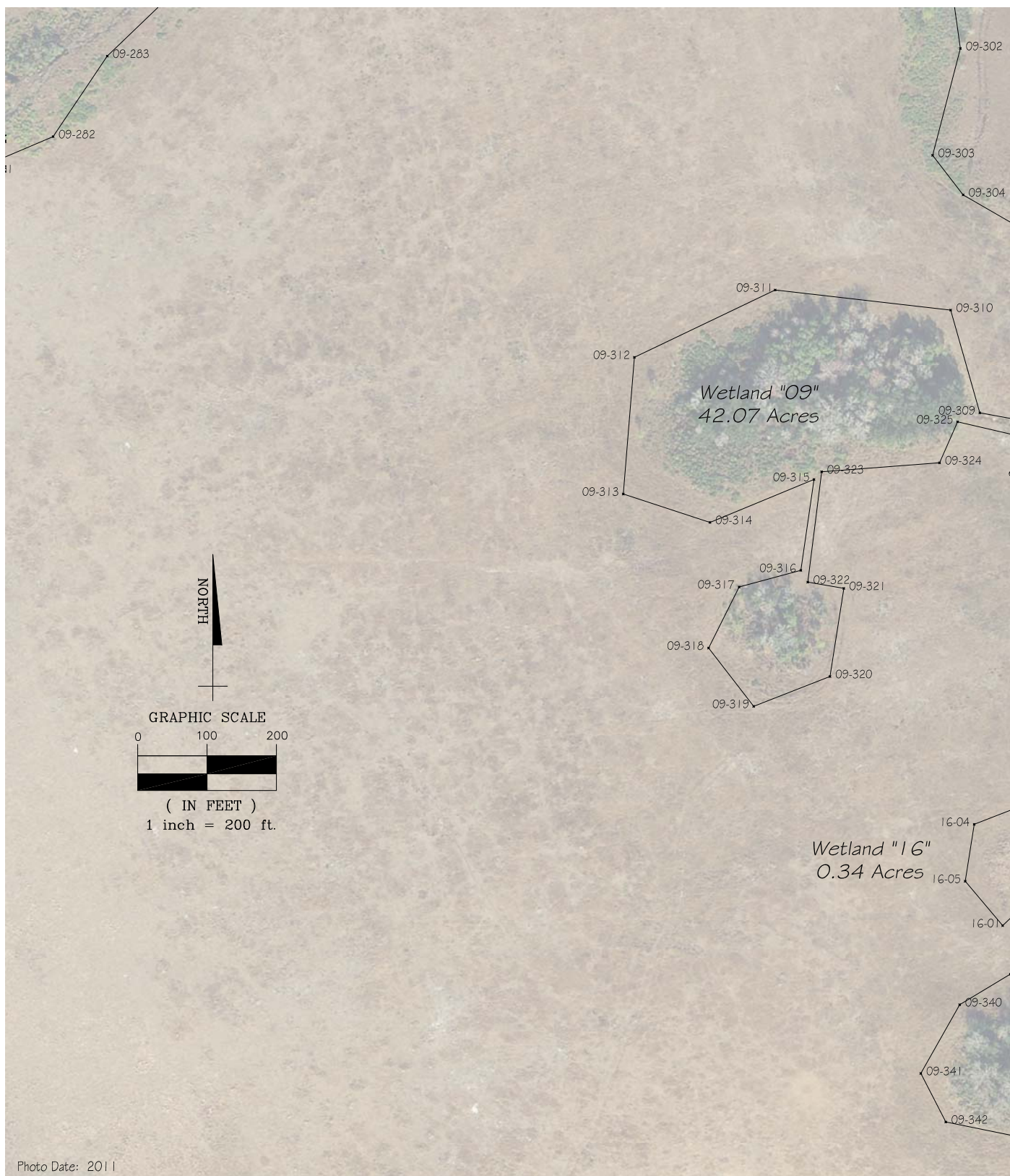
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JOB No. <u>6374140790</u>	SCALE: <u>1" = 200'</u>
	SHT. <u>27</u> OF <u>30</u>
DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg	

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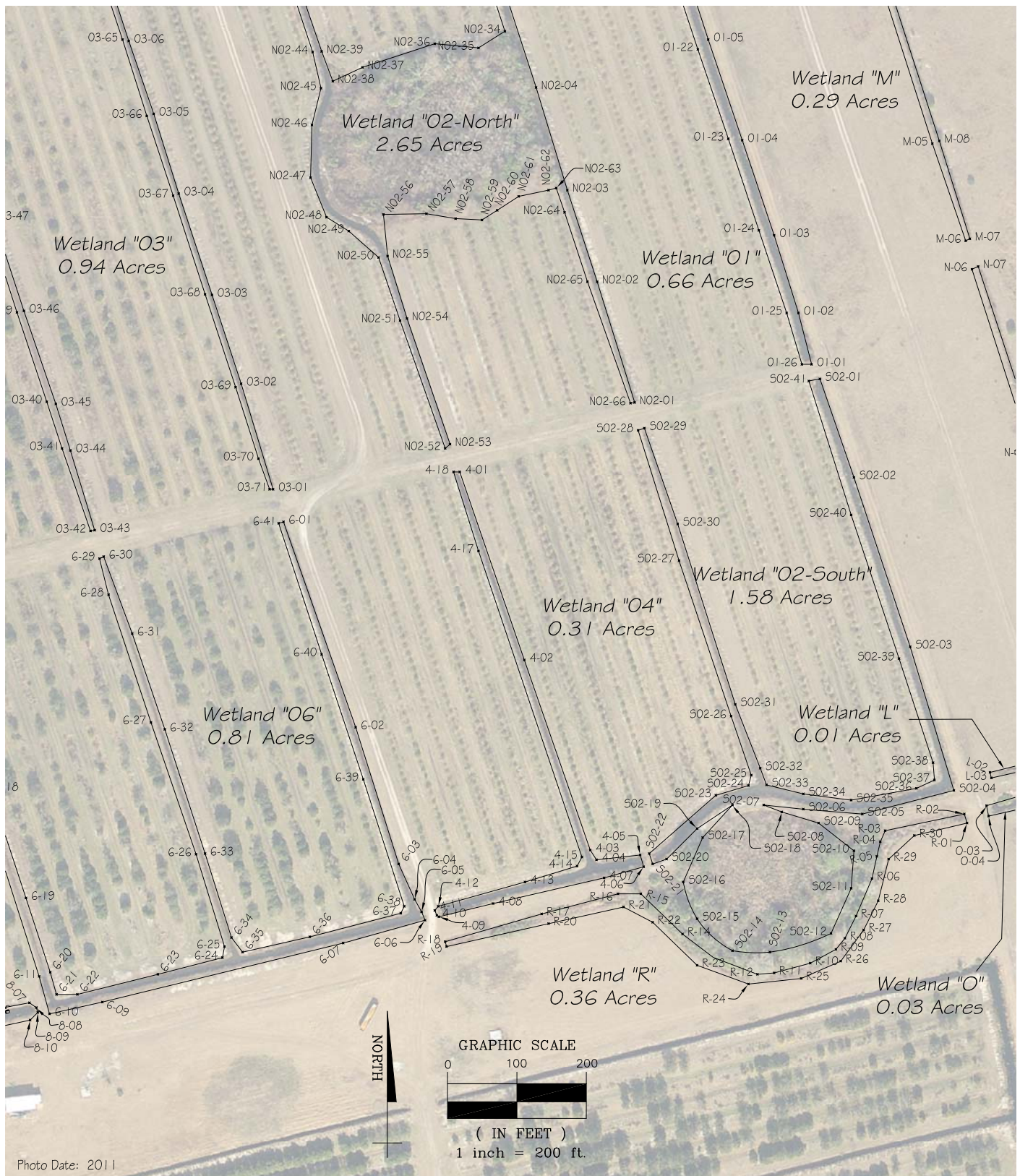


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DRAWN BY: ADW

DATE: 1/27/2015

CHKD. BY: RMJ

DATE: 1/27/2015

JOB No.
6374140790

SCALE:
1" = 200'

SHT. 29
OF 30

DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg

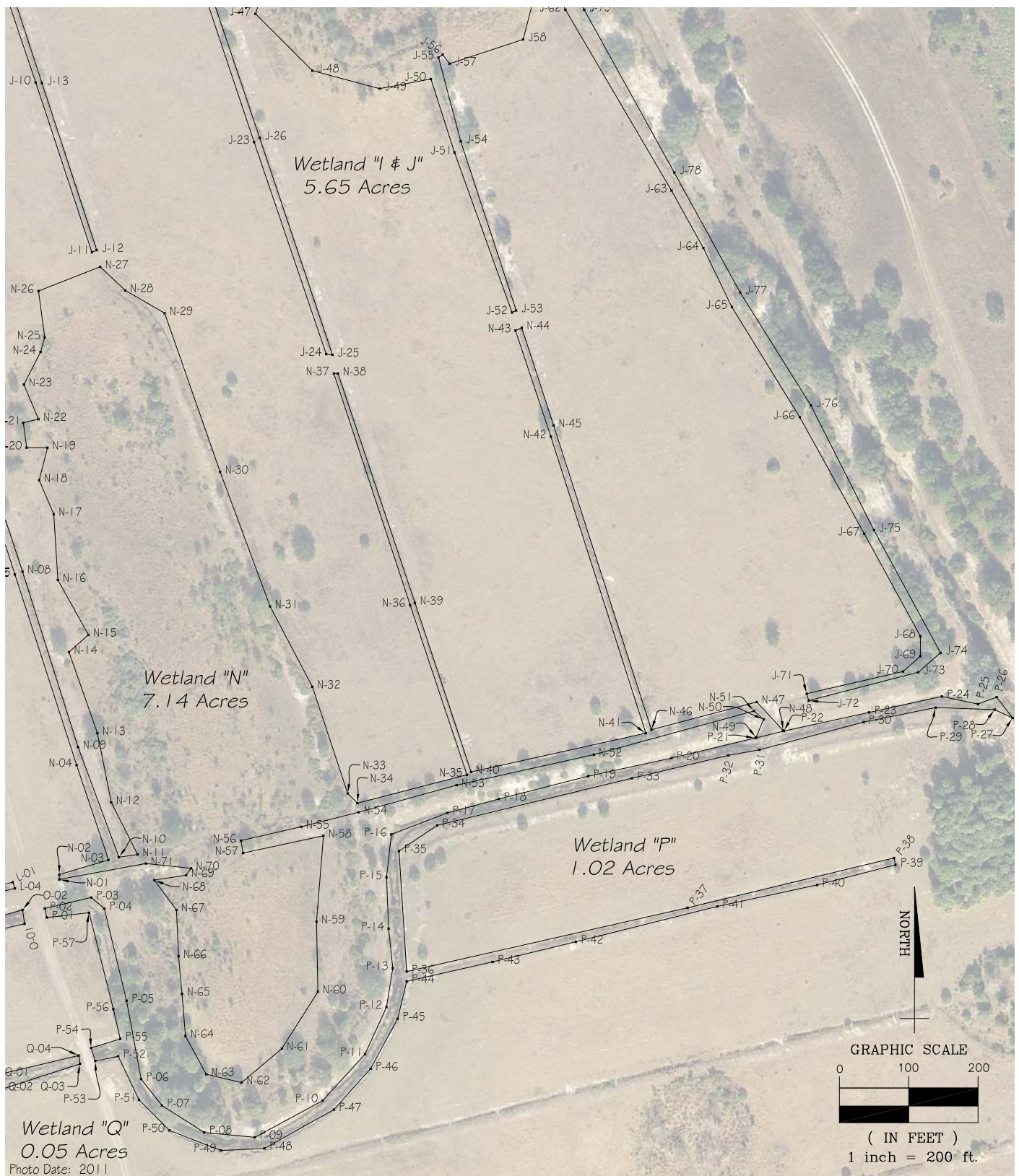
PREPARED FOR:



GOLDER ASSOCIATES

6026 NW 1st PLACE

GAINESVILLE, FLORIDA 32607



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JOB No. <u>6374140790</u>	SHT. <u>30</u>
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DRAWING NAME: 6374140790- FPL Okeechobee Wetlands.dwg	

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Fax: (407) 522-7576
Certificate of Authorization Number LB-0007932

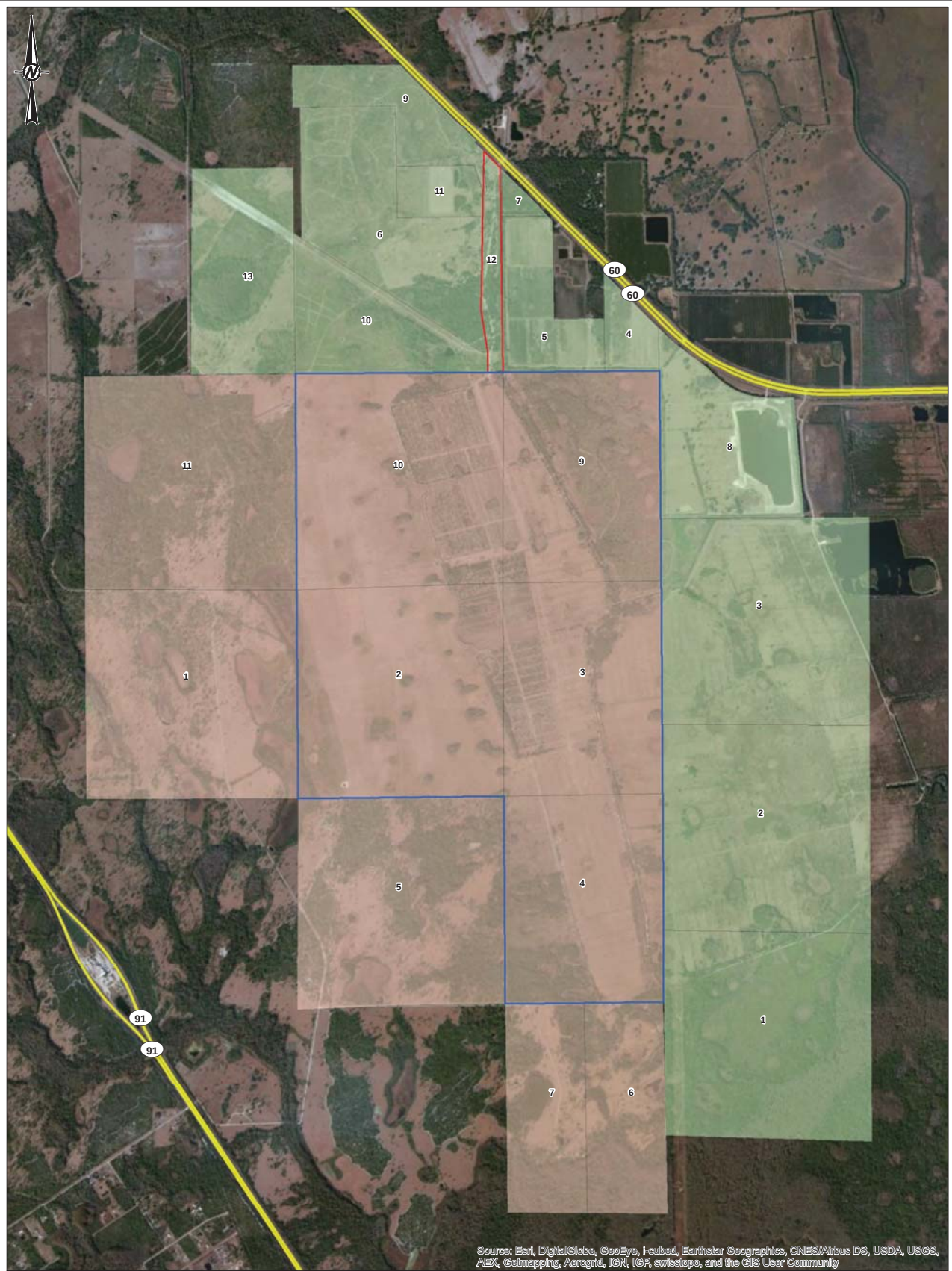


GOLDER ASSOCIATES
6026 NW 1st PLACE
GAINESVILLE, FLORIDA 32607

OKEECHOBEE COUNTY, FLORIDA

BOUNDARY SURVEY ONLY SECTIONS 1, 2, 11 AND 12 TOWNSHIP 33 SOUTH, RANGE 35 EAST OKEECHOBEE COUNTY, FLORIDA	SHEET 1 of 2 Dwg. #: 19869 C1
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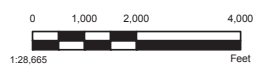
ATTACHMENT D
ADJACENT PROPERTY OWNERS



Source: Esri, DigitalGlobe, GeoEye, Ikonos, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- FPL Owned Property
- Linear Facilities Corridor
- Okeechobee County Parcels
- Indian River County Parcels



REFERENCE(S)
INDIAN RIVER COUNTY PARCELS, INDIAN RIVER PROPERTY APPRAISER, 2013
OKEECHOBEE COUNTY PARCELS, FLORIDA DEPARTMENT OF REVENUE, 2012
COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA EAST FIPS 0901 FEET
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT OKEECHOBEE CLEAN ENERGY CENTER

TITLE ADJACENT PROPERTY OWNERS



YYYY-MM-DD	2014-11-25
DESIGNED	GD
PREPARED	GD
REVIEWED	KAB
APPROVED	KAB

PROJECT NO.
1414879

CONTROL
B003

REV.
0

FIGURE
1

Adjacent Property Owners to OCEC
Indian River County, FL

MAP ID	PARCEL ID NUMBER	NAME	ADDRESS	CITY	STATE	ZIP CODE
1	33361900000100000001.0	ST JOHNS RIVER WATER MGMT DIST ATTN: VICTORIA M KROGER, DIR	PO BOX 1429	PALATKA	FL	32178-1429
2	33361800000100000001.0	ST JOHNS RIVER WATER MGMT DIST ATTN: VICTORIA M KROGER, DIR	PO BOX 1429	PALATKA	FL	32178-1429
3	33360700000100000001.0	ST JOHNS RIVER WATER MGMT DIST ATTN: VICTORIA M KROGER, DIR	PO BOX 1429	PALATKA	FL	32178-1429
4	32353600000002000001.0	ROONEY, DANIEL M & CASSA L	225 24TH AVE	VERO BEACH	FL	32962-2669
5	323536000000300000005.0	ROONEY, DANIEL M & CASSA L	225 24TH AVE	VERO BEACH	FL	32962-2669
6	323526000000500000002.0	KAHLE FAMILY INVESTMENTS III, LLC	6020 5TH ST SW	VERO BEACH	FL	32968
7	323536000000300000004.0	HUDMON, GRADY G (TR) & GAIL LYNNE (TR)	21335 STATE ROAD 60	VERO BEACH	FL	32966
8	333606000000300000001.0	HUDMON GRADY G (TR)(TOK) GAIL LYNNE (TR)(TOK)	21335 SR 60	VERO BEACH	FL	32966
9	323526000000500000001.1	CALLAHAN JOHN H (SUCTR)	PO BOX 700306	WABASSO	FL	32970
10	323535000000300000001.0	KAHLE FAMILY INVESTMENTS III, LLC	6020 5TH ST SW	VERO BEACH	FL	32968
11	323535000000100000003.0	GRANTHAM H VARLEY (TRS)	1925 LAKESIDE DR	ORLANDO	FL	32803
12	323526000000500000001.2	CALLAHAN JOHN H (SUCTR)	PO BOX 700306	WABASSO	FL	32970
13	323534000000100000001.0	PADGETT CREEK LLC	4776 OLD DIXIE HWY	VERO BEACH	FL	32967

**Adjacent Property Owners to OCEC
Okeechobee County, FL**

MAP ID	PARCEL ID NUMBER	NAME	ADDRESS	CITY	STATE	ZIP CODE
1	11033350A00000010000	WEDGWORTH FARMS INC	BOX 2076	BELLE GLADE	FL	33430
2	11133350A00000010000	FLORIDA POWER & LIGHT COMPANY	%PROPERTY TAX DEPARTMENT PO BOX 14000	JUNO BEACH	FL	33408
3	11233350A00000010000	FLORIDA POWER & LIGHT COMPANY	%PROPERTY TAX DEPARTMENT PO BOX 14000	JUNO BEACH	FL	33408
4	11333350A00000010000	FLORIDA POWER & LIGHT COMPANY	%PROPERTY TAX DEPARTMENT PO BOX 14000	JUNO BEACH	FL	33408
5	11433350A00000010000	WEDGWORTH FARMS INC	BOX 2076	BELLE GLADE	FL	33430
6	12433350A00000010000	HAIR G W JR TRUSTEE	4050 NE 366 TRAIL	OKEECHOBEE	FL	34972
7	12433350A00000020000	WEDGWORTH GEORGE H	BOX 2255	BELLE GLADE	FL	33430
9	10133350A00000010000	FLORIDA POWER & LIGHT COMPANY	%PROPERTY TAX DEPARTMENT PO BOX 14000	JUNO BEACH	FL	33408
10	10233350A00000010000	FLORIDA POWER & LIGHT COMPANY	%PROPERTY TAX DEPARTMENT PO BOX 14000	JUNO BEACH	FL	33408
11	10333350A00000010000	PADGETT CREEK LLC	4776 OLD DIXIE HWY	VERO BEACH	FL	32967

ATTACHMENT E
MITIGATION PLAN

FPL OKEECHOBEE CLEAN ENERGY CENTER WETLAND MITIGATION PLAN



September 2015

Project No. 1414979



1.0 INTRODUCTION

The FPL Okeechobee Clean Energy Center (OCEC) is a proposed natural gas fired combined cycle power plant and associated linear facilities (Project) located in rural NE Okeechobee County (Figure 1). The Project has been designed to avoid and minimize impacts to jurisdictional wetlands through maximizing utilization of previously-disturbed upland improved pasture and citrus grove areas for construction of the power block and associated facilities (Figure 2). The Project design will result in 19.99 acres of unavoidable impact to citrus irrigation ditches and 4.71 acres of impact to mixed hardwood wetlands (Figure 3), requiring a total of 12.6 credits of mitigation as calculated according to the Florida Department of Environmental Protection (FDEP) Uniform Mitigation Assessment Method (UMAM), as detailed below (Table 1). In addition, 0.11 acre of temporary impacts within drainage ditches are proposed; these areas will be restored in-situ. UMAM functional assessment forms for both impact and mitigation areas are included in Appendix A.

Table 1. FPL Okeechobee Clean Energy Center – Wetland Impact Summary

Wetland Type (FLUCFCS Code)	Acreage		UMAM Score	Functional Loss
	Permanent (Fill)	Temporary		
Citrus and Pasture Ditches (511)	19.52	0.10	0.47	9.17
Linear Facilities Corridor Ditches (511)	0.47	0.01	0.50	0.24
Mixed Wetland Hardwoods (617)	4.71		0.67	3.16
TOTAL	24.70	0.11		12.6

The loss of wetland functions associated with construction of the Project will be replaced through onsite mitigation in the form of enhancement and preservation of an approximately 376 acre undeveloped parcel (Mitigation Area) located in the northeastern portion of the 2,341-acre OCEC Site (Figure 4) adjacent to the Fort Drum Marsh Conservation Area. Mitigation focused upon removal of nuisance/exotic species of vegetation and preservation of significant acreage of enhanced habitat through a conservation easement would provide a regional increase in the functional value of wetland and upland habitats to offset the functional loss associated with construction of the Project. Onsite wetland and upland enhancement and preservation will generate 14.4 credits, resulting in an overall net increase in wetland functions compared to the Project's unavoidable wetland impacts. Functional lift in excess of the OCEC Unit 1 impacts will be used to offset unavoidable wetland impacts associated with the potential construction of future solar generation within the OCEC Site.

The following describes the vegetative communities within the Mitigation Area, wildlife utilization, proposed enhancement activities, and the resulting functional lift generated through the proposed enhancement and preservation of the Site, as well as a description of the monitoring and reporting schedule and success criteria. In addition, a demonstration of the proposed mitigation plan's compliance with 33 CFR 332.4(c)(2-13) follows the discussion of monitoring, reporting, and success criteria.

2.0 HABITAT CLASSIFICATION

The approximately 376-acre Mitigation Area is located within the undeveloped northeastern portion of the OCEC Site, bounded on the west and south by existing drainage ditches and on the east and north by the Site boundary. Approximately 50% of the existing vegetative communities within the Mitigation Area are high-quality wetlands, including mixed wetland hardwoods (FLUCFCS 617), mixed hardwood-conifer forested wetlands (FLUCFCS 630), wetland shrubs (FLUCFCS 631), freshwater marsh (FLUCFCS 641), and wet prairie (FLUCFCS 643), with ditches (FLUCFCS 511) along the western and southern perimeter (Figure 4). Upland communities are dominated by shrub and brushland (FLUCFCS 320), mixed hardwood-conifer forest (FLUCFCS 434), pine flatwoods (FLUCFCS 411), and unimproved pasture (FLUCFCS 212). The Site is approximately 50% wetlands and 50% uplands. A soil series map and USGS topographic map are provided in Figures 5 and 6, respectively. A summary of acreage by habitat is provided in Table 2.

Table 2. FPL Okeechobee Clean Energy Center Mitigation Site – Acreage by Habitat Types (Florida Land Use, Cover and Forms Classification System (FLUCFCS))

Habitat Type	FLUCFCS	Acreage	Percent
Unimproved Pasture	212	22.75	6.0
Shrub and Brushland	320	98.1	26.1
Pine Flatwoods	411	13.48	3.6
Hardwood-Conifer Mixed	434	54.23	14.4
Ditches	511	6.9	1.8
Mixed Wetland Hardwoods	617	35.0	9.3
Hydric Pine	625	18.97	5.0
Wetland Forested Mixed	630	25.63	6.8
Wetland Scrub	631	41.92	11.1
Freshwater Marsh	641	55.55	14.8
Wet Prairie	643	3.95	1.0
TOTAL		376.5	100

A description of each vegetative habitat follows, presented in order based upon FLUCFCS code. Representative photographs of dominant habitat types are included in Appendix B.

Unimproved Pasture (FLUCFCS 212) – Areas of unimproved pasture (Appendix B, Photograph 1) occur along the southern and western portions of the Mitigation Area, comprising approximately 22.8 acres (6%). These areas have been historically converted from natural vegetation to bahia grass (*Paspalum notatum*), but have not been actively maintained and support a variety of weedy herbaceous species and scattered shrubs and trees such as wax myrtle (*Myrica cerifera*), laurel oak (*Quercus laurifolia*), live oak (*Quercus virginiana*), and slash pine (*Pinus elliotii*).

Shrub and Brushland (FLUCFCS 320) – Approximately 98.1 acres (26%) of shrub and brushland (Appendix B, Photograph 2) occur within the Mitigation Area, comprising approximately 26% of the entire Site. Saw palmetto (*Serenoa repens*) is the dominant species in the shrub layer, with a variety of subdominant species include gallberry (*Ilex glabra*), rusty lyonia (*Lyonia ferruginea*), fetterbush (*Lyonia lucida*), wax myrtle, American beautyberry (*Callicarpa americana*), and running oak (*Quercus pumila*), as well as occasional trees including cabbage palm (*Sabal palmetto*), laurel oak, slash pine, and persimmon (*Diospyros virginiana*). The groundcover is relatively sparse due to the dense shrub cover; common species include blackroot (*Pterocaulon pycnostachyum*), wiregrass (*Aristida stricta*), witchgrass (*Dichanthelium* sp.), muscadine (*Vitis rotundifolia*), ticktrefoil (*Desmodium* sp.), bahia grass, and field paspalum (*Paspalum laeve*).

Pine Flatwoods (FLUCFCS 411) – Pine flatwoods (Appendix B, Photograph 3) comprise approximately 13.5 acres or 4% of the Mitigation Area. The canopy is dominated by slash pine, with occasional laurel oak and an understory dominated by saw palmetto. Additional shrub species include wax myrtle, gallberry, running oak, fetterbush, and rusty lyonia.

Hardwood-Coniferous Mixed (FLUCFCS 434) – A total of approximately 54.2 acres of upland hardwood-coniferous forest (Appendix B, Photograph 4) are located within the Mitigation Area, comprising approximately 14% of the Site. Slash pine, cabbage palm, and live oak are the primary canopy species, with occasional water oak (*Quercus nigra*) and laurel oak also present. Shrub species include saw palmetto, gallberry, rusty lyonia, American beautyberry, and wax myrtle.

Ditches (FLUCFCS 511) – Approximately 6.9 acres of ditches (Appendix B, Photograph 5) occur within western and southern edges of the Mitigation Area, comprising approximately 2% of the Site. Typical vegetation within and adjacent to the ditches includes pickerelweed (*Pontederia cordata*), soft rush (*Juncus effusus*), lemon bacopa (*Bacopa caroliniana*), alligator weed (*Alternanthera philoxeroides*), Peruvian primrose willow (*Ludwigia peruviana*), Mexican primrose willow (*Ludwigia leptocarpa*), smartweed (*Polygonum* spp.), arrowhead (*Sagittaria lancifolia*), water spangles (*Salvinia minima*), duckweed (*Lemna minor*), torpedo grass (*Panicum repens*), and water hyacinth (*Eichhornia crassipes*).

Mixed Wetland Hardwoods (FLUCFCS 617) – High-quality mixed wetland hardwoods (Appendix B, Photographs 6 and 7) comprise approximately 35 acres (9%) of the Mitigation Area. The canopy species composition is diverse, including red maple (*Acer rubrum*), blackgum (*Nyssa sylvatica*), pop ash (*Fraxinus caroliniana*), dahoon holly (*Ilex cassine*), coastal plain willow (*Salix caroliniana*), cabbage palm, American elm (*Ulmus americana*), and persimmon. A variety of shrub and groundcover species are present, such as buttonbush (*Cephalanthus occidentalis*), groundsel tree (*Baccharis halimifolia*), wax myrtle, Brazilian pepper (*Schinus terebinthifolius*), pickerelweed, arrowhead, fireflag (*Thalia geniculata*), swamp fern (*Blechnum serrulatum*), sawgrass (*Cladium jamaicense*), Virginia chain fern (*Woodwardia virginica*), maidencane (*Panicum hemitomon*), canna (*Canna flacida*), false nettle (*Boehmeria cylindrica*), iris (*Iris hexagona*), water spangles, duckweed, and Virginia saltmarsh mallow (*Kosteletzkya pentacarpos*).

Hydric Pine Flatwoods (FLUCFCS 625) – Approximately 19 acres of hydric pine flatwoods (Appendix B, Photograph 8) occur within the Mitigation Area, comprising approximately 5% of the Site. The community composition is similar to pine flatwoods, with the addition of red maple, dahoon holly, and a variety of plants adapted to hydric soils such as redroot (*Lachnanthes caroliniana*), bogbuttons (*Lachnocaulon* sp.), St. John's wort (*Hypericum* spp.), sundews (*Drosera* sp.), meadowbeauty (*Rhexia* sp.), orange milkroot (*Polygala lutea*), and candyroot (*Polygala nana*).

Mixed Wetland Forest (FLUCFCS 630) – Mixed wetland forest (Appendix B, Photograph 9) comprises approximately 25.6 acres (7%) of the Mitigation Area. This wetland type contains a similar composition

as described above for mixed wetland hardwoods, but with the addition of slash pine as a common canopy component as well as cabbage palm and live oak.

Wetland Shrub (FLUCFCS 631) – Approximately 41.9 acres of wetland shrubs (Appendix B, Photographs 10 and 11) occur primarily within the east-central portion of the Mitigation Area, comprising approximately 11% of the Site. This vegetative community is dominated by a mixture of shrub and groundcover species with a scattered overstory of wetland trees. Common species include saw palmetto, fetterbush, wax myrtle, St. John's wort, gallberry, redroot (*Lachnanthes caroliniana*), carpet grass (*Axonopus bifurcatus*), camphorweed (*Pluchea odorata*), maidencane (*Panicum hemitomon*), candyroot, bogbuttons, red maple, blackgum, dahoon holly, cabbage palm, slash pine, and live oak.

Freshwater Marsh (FLUCFCS 641) – Large areas of high-quality freshwater marshes (Appendix B, Photographs 12 and 13) occur within the Mitigation Area, comprising a total of approximately 55.6 acres or 15% of the Site. The marshes are concentrated along the eastern edge of the Mitigation Area, contiguous with parcels of mixed wetland hardwoods and wetland shrubs. The herbaceous vegetative community is diverse, with dominant species including maidencane, St. John's wort, and cordgrass and a variety of subdominant species such as pickerelweed, arrowhead, buttonbush, redroot, blue maidencane (*Amphicarpum muhlenbergianum*), fireflag, lemon bacopa, yellow-eyed grass (*Xyris* sp.), camphorweed (*Pluchea* sp.), Virginia chain fern, iris, mermaidweed (*Proserpinaca pectinata*), marsh pennywort (*Hydrocotyle umbellata*), bushy bluestem (*Andropogon glomeratus*), pipeworts (*Eriocaulon* spp.), and swamp fern. Shrub and canopy species along the edges and occasionally within the interior of freshwater marsh wetlands include wax myrtle, dahoon holly, blackgum, red maple, cabbage palm, and coastal plain willow.

Wet Prairie (FLUCFCS 643) – Approximately 4 acres of wet prairie (Appendix B, Photograph 14) occurs adjacent to unimproved pasture along the western edge of the Mitigation Area. These are areas of hydric soil that support low-growing herbaceous wetland vegetation but typically are not inundated. Common species include yellow-eyed grass, St. John's wort, mermaidweed, bushy bluestem, marsh pennywort, blue maidencane, sedges (*Cyperus* spp.), and sundews.

3.0 WILDLIFE UTILIZATION

The Mitigation Area provides high quality undisturbed upland and wetland wildlife habitat adjacent to the approximately 20,862 acre Fort Drum Marsh Conservation Area. Species classified by the US Fish and Wildlife Service (USFWS) and/or the Florida Fish and Wildlife Conservation Commission (FWC) as endangered, threatened, or species of special concern observed or likely to occur within the Mitigation Area include the white ibis (*Eudocimus albus*; FWC species of special concern), wood stork (*Mycteria americana*; USFWS and FWC endangered), snowy egret (*Egretta thula*; FWC species of special concern), little blue heron (*Egretta caerulea*; FWC species of special concern), tricolored heron (*Egretta tricolor*; FWC species of special concern), limpkin (*Aramus guarauna*, FWC species of special concern), sandhill crane (*Grus canadensis pratensis*; FWC threatened), gopher tortoise (*Gopherus polyphemus*; FWC threatened), Eastern indigo snake (*Drymarchon corais couperi*; USFWS and FWC threatened), gopher frog (*Rana capito*; FWC species of special concern), Florida mouse (*Peromyscus floridanus*; FWC species of special concern), Southeastern American kestrel (*Falco sparverius paulus*, FWC threatened), caracara (*Caracara cheriway*, USFWS and FWC threatened), and Sherman's fox squirrel (*Sciurus niger shermanii*; FWC species of special concern). In addition, the Mitigation Area provides suitable habitat for several species of state-endangered plants known to occur within Okeechobee County, including the many-flowered grass-pink (*Calopogon multiflorus*), celestial lily (*Nemastylis floridana*), hand fern (*Ophioglossum palmatum*), and cutthroat grass (*Panicum abscissum*).

The Mitigation Area provides suitable habitat for a variety of non-listed wildlife common to freshwater marshes, forested wetlands, pine flatwoods, and shrub and brushland of south Florida. Species observed or likely to occur include a variety of avian species such as common ground-dove (*Columbina passerina*), northern mockingbird (*Mimus polyglottos*), house wren (*Troglodytes aedon*), Carolina wren (*Thryothorus ludovicianus*), white-eyed vireo (*Vireo griseus*), blue-gray gnatcatcher (*Poliophtila caerulea*), common yellowthroat (*Geothlypis trichas*), palm warbler (*Setophaga palmarum*), painted bunting (*Passerina ciris*), Eastern meadowlark (*Sturnella magna*), wild turkey (*Meleagris gallopavo*), swallow-tailed kite (*Elanoides forficatus*), red-shouldered hawk (*Buteo lineatus*), barred owl (*Strix varia*), mourning dove (*Zenaidura macroura*), red-bellied woodpecker (*Melanerpes caroliniana*), pileated woodpecker (*Hylatomus pileatus*), yellow-bellied sapsucker (*Sphyrapicus varius*), blue jay (*Cyanocitta cristata*), tufted titmouse (*Baeolophus bicolor*), ruby-crowned kinglet (*Regulus calendula*), American robin (*Turdus migratorius*), catbird (*Dumetella carolinensis*), black-and-white warbler (*Mniotilta varia*), yellow-rumped warbler (*Setophaga coronata*), northern parula (*Setophaga americana*), northern cardinal (*Cardinalis cardinalis*), short-tailed hawk (*Buteo brachyurus*), northern waterthrush (*Parkesia noveboracensis*), red-winged blackbird (*Agelaius phoeniceus*), common grackle (*Quiscalus quiscula*), boat-tailed grackle (*Quiscalus major*), mottled duck (*Anas fulvigula*), anhinga (*Anhinga anhinga*), great egret (*Casmerodias albus*), green heron (*Butorides virescens*), great blue heron (*Ardea herodias*), Wilson's snipe (*Gallinago delicata*), and belted kingfisher (*Megasceryle alcyon*). Common mammalian species observed or likely to occur include feral hog (*Sus scrofa*), white-tailed deer (*Odocoileus virginianus*), nine-banded armadillo (*Dasypus novemcinctus*), raccoon (*Procyon lotor*), coyote (*Canis latrans*), Eastern gray squirrel (*Sciurus carolinensis*), Eastern cottontail (*Sylvilagus floridanus*), and marsh rabbit (*Sylvilagus palustris*), while a variety of herpetofauna are likely to occur within the Site including black racer (*Coluber constrictor priapus*), yellow rat snake (*Pantherophis alleghaniensis*), pygmy rattlesnake (*Sistrurus miliarius*), water moccasin (*Agkistrodon piscivorus*), banded water snake (*Nerodia fasciata*), leopard frog (*Lithobates pipiens*), southern cricket frog (*Acris gryllus*), green tree frog (*Hyla cinerea*), ring-necked snake (*Diadophis punctatus*), Cuban brown anole (*Anolis sagrei*), and green anole (*Anolis caroliniana*).

4.0 ENHANCEMENT AND PRESERVATION

Proposed mitigation activities include enhancement of native vegetative communities through removal of nuisance/exotic species of vegetation and preservation of the 376-acre Mitigation Area through a conservation easement. Enhancement of the native vegetative community through control of the nuisance/exotic species Brazilian pepper, old world climbing fern (*Lygodium microphyllum*), and other Category 1 and 2 species on the Florida Exotic Pest Plant Council's 2015 List of Invasive Plant Species will be conducted throughout the Mitigation Area, improving wildlife habitat conditions and preventing further spread of exotic vegetation within the region. In addition to exotic vegetation control, all wetland and upland areas within the Mitigation Area will be preserved through a conservation easement to provide habitat for threatened species as well as to increase the extent and quality of upland buffers for adjacent wetlands.

Eradication of Brazilian pepper will be achieved through manual removal and a combination of basal-bark and cut-stump application of EPA-approved herbicides by qualified personnel skilled in the identification and control of nuisance species, while old world climbing fern and other herbaceous invasive species will be treated through foliar application of glyphosate herbicide (Roundup, Rodeo). Brazilian pepper will be cut utilizing chainsaws and removed by hand, and followed with cut stump application of an approved herbicide such as triclopyr (Garlon). Basal-bark treatment will be utilized for the remaining individuals, which allows for minimal disturbance of desirable vegetation through selective application upon target plants utilizing backpack and hand-held equipment. The cut Brazilian pepper will be placed in an upland staging area within the unimproved pasture portion of the Mitigation Area, and subsequently burned or ground into mulch utilizing a chipper. As necessary, herbicide re-treatments will be conducted at 6-month intervals for a period of two years to discourage regeneration of invasive plants.

A functional assessment of the Mitigation Area “without project” (current condition) and “with project” (post-mitigation) was conducted utilizing the Uniform Mitigation Assessment Method (62-345, F.A.C.). For upland preservation areas, the appropriate preservation adjustment factors were applied in accordance with 62-345.500(3)(a), F.A.C. For enhancement areas, time lag and risk variables were assigned based upon the protocol in 62-345.600, F.A.C. to quantify the number of years before the target community is achieved and the associated risk of the mitigation activity.

The exotic vegetation eradication and preservation of the entire 376 acre Mitigation Area will yield a total of 14.4 mitigation credits. UMAM spreadsheets for each habitat type are provided in Appendix A; a summary is provided in Table 3 below:

Table 3. Summary of acreage by habitat type, proposed functional lift, and mitigation credits generated

Habitat Type (FLUCFCS Code)	Acres	Existing UMAM	Functional Lift		Time Lag (TL) x Risk (R) or Preservation Factors	Lift per Acre	Mitigation Credits*
			Enhance	Preserve			
Unimproved Pasture (212)	22.75						N/A
Shrub and Brushland (320)	98.1	0.70		0.05	Preservation Factor = 0.6	0.03	2.94
Pine Flatwoods (411)	13.48	0.70		0.05	Preservation Factor = 0.6	0.03	0.40
Hardwood-Conifer Mixed (434)	54.23	0.70		0.05	Preservation Factor = 0.6	0.03	1.63
Ditches (511)	6.9	0.53	0.04		$1.03(TL) \times 1.25(R) = 1.2875$	0.031	0.21
Mixed Wetland Hardwoods (617)	35	0.77	0.06		$1.03(TL) \times 1.25(R) = 1.2875$	0.047	1.65
Hydric Pine (625)	18.97	0.77	0.06		$1.03(TL) \times 1.25(R) = 1.2875$	0.047	0.89
Wetland Forested Mixed (630)	25.63	0.77	0.06		$1.03(TL) \times 1.25(R) = 1.2875$	0.047	1.20
Wetland Scrub (631)	41.92	0.73	0.07		$1.03(TL) \times 1.25(R) = 1.2876$	0.054	2.26
Freshwater Marsh (641)	55.55	0.73	0.07		$1.03(TL) \times 1.25(R) = 1.2875$	0.054	3.00
Wet Prairie (643)	3.95	0.70	0.07		$1.03(TL) \times 1.25(R) = 1.2875$	0.054	0.21
Total	376.5						14.4

*Credits calculated as acreage x (functional lift/TLxR); in the case of preservation, credits calculated as acreage x functional lift x preservation factor

5.0 MAINTENANCE AND MONITORING SCHEDULE

In accordance with typical conditions of FDEP and US Army Corps of Engineers (USACE) permits relative to applicant-sponsored mitigation, Table 4 provides a conceptual five-year schedule for mitigation activities and monitoring at the Mitigation Area:

Table 4. Conceptual schedule of mitigation activities and monitoring

YEAR	MONTH	ACTIVITY
1	March	Baseline monitoring event
	April/May	Herbicide treatment; mechanical/hand removal of exotic species
	May	Time Zero monitoring of herbaceous and forested wetland vegetative community
	June	Semiannual monitoring of herbaceous and forested wetland vegetative community
	October	Semiannual monitoring of herbaceous and forested wetland vegetative community; spot herbicide treatment/mechanical or hand removal of exotic vegetation as necessary
2	May	Spot herbicide treatment/mechanical or hand removal of exotic vegetation as necessary
	October	Annual monitoring of herbaceous and forested wetland vegetative community; spot herbicide treatment/mechanical or hand removal of exotic vegetation as necessary
3	October	Annual monitoring of herbaceous and forested wetland vegetative community
4	October	Annual monitoring of herbaceous and forested wetland vegetative community
5	October	Annual monitoring of herbaceous and forested wetland vegetative community

Monitoring activities include identification and percent cover of herbaceous and canopy species, tree diameters, water depths, panoramic photographs of the enhancement area as well photographs of each individual herbaceous and canopy plot, wildlife observations, and status of exotic/nuisance species eradication.

Five transects will be established throughout the Mitigation Area, with five herbaceous monitoring stations established at regular intervals upon each transect. Four of the herbaceous monitoring transects are proposed to be located within freshwater marsh and wetland shrub communities, while one transect is proposed within upland shrub and brushland habitat. In addition, ten canopy plots will be established within representative forested areas of the Mitigation Area, with eight plots located within forested wetlands and two plots within forested uplands. Proposed transect locations, monitoring stations, and canopy plots are illustrated on Figure 7. The locations of monitoring stations will be permanently established with rebar and PVC pipes. At each of the 25 herbaceous monitoring stations, a 1-meter

square quadrat will be placed to determine composition of the herbaceous strata. All plant species within the 1-meter square quadrat will be identified and their corresponding percent cover recorded, including coverage of bare ground and open water. Canopy plots of 10 m x 10 m (100 m²) in size will be established to measure canopy and sub-canopy vegetation. Within the ten canopy plots, all trees and shrubs will be identified; percent cover recorded by species, individual diameter at breast height measured, and survival noted. In addition, the herbaceous community within the canopy plots will be generally described to further document the overall species composition within the mitigation area and identify those plants that may not be present within the 1-meter square herbaceous quadrats. Percent cover will be measured in the field and converted to Daubenmire cover classes as follows:

Daubenmire Cover Class	Percent Cover Range	Midpoint of Range
1	0-5	2.5
2	6-25	15
3	26-50	37.5
4	51-75	62.5
5	76-95	85
6	96-100	97.5

Water depth will be recorded to the nearest centimeter at four locations within each canopy plot and at one location within each herbaceous monitoring station. Panoramic photographic documentation will be provided, including views of the Mitigation Area from fixed locations on the north, south, east, and west boundaries of the Mitigation Area, as well as photographic documentation of each herbaceous monitoring station and canopy plot.

A conceptual five year schedule of monitoring reports is described below, to be finalized in consultation with FDEP and USACE. A baseline monitoring event will be conducted prior to initiation of the mitigation plan in order to document existing conditions and vegetative community composition. A "Time Zero" report will be submitted within 30 days of completion of the Year One exotic vegetation control. The "Time Zero" report will include the date that each portion of the mitigation plan was completed, herbicide listing and date of application, and color photographs taken from fixed reference points shown on an aerial map.

Subsequent monitoring reports will be submitted to FDEP and/or the USACE for a period of up to five years with semiannual reports to the FDEP for the first year, and annual reports thereafter for a minimum of three years following completion of the wetland enhancement work. Including the baseline and time zero monitoring events, a minimum of six monitoring reports are required, as summarized below (Table 5):

Table 5. Conceptual Summary of Mitigation Monitoring Reports

Report	Submitted to FDEP	Submitted to USACE
Baseline Monitoring Event	X	
Time Zero Monitoring Event	X	X
1 st Semiannual Monitoring Event	X	
2 nd Semiannual/1 st Annual Monitoring Event	X	X
2 nd Annual Monitoring Event	X	X
3 rd Annual Monitoring Event	X	X
4 th Annual Monitoring Event	*	*
5 th Annual Monitoring Event	*	*

*Year Four and Five Reports only submitted if success criteria are not met after Year Three

The monitoring reports will include the date of the inspection or work done, color photographs taken from the fixed reference points, data collected from the transects and monitoring stations, percent cover of Category 1 and 2 invasive exotic species within the overall Mitigation Area and within each community type, and a written summary describing the success of the Mitigation Area including steps needed and/or taken to promote future success such as additional nuisance or exotic species removal/treatment.

5.1 SUCCESS CRITERIA

The monitoring reports will detail the condition of the Mitigation Area relative to the prescribed success criteria as required by the FDEP and USACE, as well as proposed corrective actions to be implemented to achieve success criteria, as necessary.

Based on typical FDEP and USACE mitigation criteria, the Mitigation Area will be deemed successful when FDEP and USACE staff have determined that the percent cover of Florida Exotic Plant Pest Council Category 1 and 2 invasive exotic species has been maintained at less than 5% within the overall Mitigation Area for a period of at least one year without intervention.

6.0 COMPLIANCE WITH 33 CFR 332.4(C)(2-13)

In accordance with the USACE Compensatory Mitigation for Losses of Aquatic Resources, Final Rule (Federal Register Vol. 73, No. 70, April 10, 2008), mitigation plans must incorporate the 12 components presented in 33 CFR 332.4(c)(2-13). The following describes each of the 12 components and documents the OCEC Mitigation Plan's compliance:

332.4(c)(2): Objectives. A description of the resource type(s) and amount(s) that will be provided, the method of compensation (i.e., restoration, establishment, enhancement, and/or preservation), and the manner in which the resource functions of the compensatory mitigation project will address the needs of the watershed, ecoregion, physiographic province, or other geographic area of interest.

Project Compliance: The mitigation plan proposes approximately 376 acres of enhancement and preservation contiguous to the St. Johns River Water Management District Fort Drum Marsh Conservation Area, providing significant acreage of conservation land within the headwaters of the St. Johns River. The Mitigation Area contributes to the regional watershed restoration goals of the SJRWMD and USACE Upper St Johns River Basin Project, through enhancement and preservation of high quality native habitat within the headwaters of the Upper St. Johns River Basin. The resource types and amounts within the Mitigation Area are provided above in Section 2.0 - Habitat Classification and are summarized in Tables 2 and 3.

332.4(c)(3): Site selection. A description of the factors considered during the site selection process. This should include consideration of watershed needs, onsite alternatives where applicable, and the practicability of accomplishing ecologically self-sustaining aquatic resource restoration, establishment, enhancement, and/or preservation at the compensatory mitigation project site.

Project Compliance: Following avoidance and minimization of impacts associated with the Project through utilization of previously-impacted areas and uplands to the greatest extent practicable, unavoidable wetland impacts and associated functional loss were derived. The OCEC is within the service area of the Mary A Mitigation Bank in Brevard County, but the bank does not provide mitigation credits to offset impacts to forested wetlands and it is not located within the same drainage basin as the OCEC. In addition, no Corps-approved in lieu fee program has been established with a service area covering the OCEC Project. Since resource type-for-type wetland mitigation bank credits were not available and no in lieu fee program exists, permittee-responsible mitigation was proposed. The proposed Mitigation Area fulfills each of the criteria used during the mitigation site selection process:

- Preference for on-site mitigation, within the same drainage basin, to ensure replacement of aquatic resource functions within the immediate vicinity of Project impacts;
- Existence of hydrological conditions, soil characteristics, and other physical and chemical characteristics conducive to provide type-for-type resource functions;
- Preference for mitigation parcels that provide suitable habitat for threatened and endangered species and watershed-scale features such as aquatic habitat diversity, habitat connectivity, and other landscape scale functions to support regional conservation efforts;
- Selection of sites with conditions conducive to rehabilitation and re-establishment efforts focused upon successful restoration of native wetland communities; and
- Sites of sufficient size to allow for mitigation of the aquatic resource functions lost as a result of the Project.

332.4(c)(4): Site protection instrument. A description of the legal arrangements and instrument, including site ownership, that will be used to ensure the long-term protection of the compensatory mitigation project site.

Project Compliance: It is FPL's intention to place the Mitigation Area under a conservation easement and manage the site in perpetuity upon fulfilling the proposed restoration activities and demonstrating compliance with success criteria.

332.4(c)(5): Baseline information. A description of the ecological characteristics of the proposed compensatory mitigation project site and, in the case of an application for a DA permit, the impact site. This may include descriptions of historic and existing plant communities, historic and existing hydrology, soil conditions, a map showing the locations of the impact and mitigation site(s) or the geographic coordinates for those site(s), and other site characteristics appropriate to the type of resource proposed as compensation. The baseline information should also include a delineation of waters of the United States on the proposed compensatory mitigation project site. A prospective permittee planning to secure credits from an approved mitigation bank or in-lieu fee program only needs to provide baseline information about the impact site, not the mitigation bank or in-lieu fee project site.

Project Compliance: A description of the Mitigation Area and impact sites is included in this mitigation plan and the Section 404 permit application. The delineation of waters of the United States on the proposed compensatory mitigation sites is based upon field review, soil surveys, and aerial imagery.

332.4(c)(6): Determination of credits. A description of the number of credits to be provided, including a brief explanation of the rationale for this determination.

(i) For permittee-responsible mitigation, this should include an explanation of how the compensatory mitigation project will provide the required compensation for unavoidable impacts to aquatic resources resulting from the permitted activity.

(ii) For permittees intending to secure credits from an approved mitigation bank or in-lieu fee program, it should include the number and resource type of credits to be secured and how these were determined.

Project Compliance: A UMAM functional assessment of each wetland type within the proposed Mitigation Area is included in Appendix A and summarized in Table 3 above. The functional assessment includes an evaluation of the functional value of the Mitigation Area in its existing condition and the expected functional value following completion of mitigation activities. The number of mitigation credits generated includes time lag and risk factors (both FDEP and USACE time lag factors have been included). The proposed mitigation activities will provide type-for-type enhancement and preservation of wetlands and adjacent uplands to replace the loss of wetland functions associated with construction of the OCEC.

332.4(c)(7): Mitigation work plan. Detailed written specifications and work descriptions for the compensatory mitigation project, including, but not limited to, the geographic boundaries of the project; construction methods, timing, and sequence; source(s) of water, including connections to existing waters and uplands; methods for establishing the desired plant community; plans to control invasive plant species; the proposed grading plan, including elevations and slopes of the substrate; soil management; and erosion control measures. For stream compensatory mitigation projects, the mitigation work plan may also include other relevant information, such as planform geometry, channel form (e.g., typical channel cross-sections), watershed size, design discharge, and riparian area plantings.

Project Compliance: Please see the discussion contained with this mitigation plan for a description of the proposed work at the Mitigation Area. In accordance with 33 CFR 332.4(c)(1), FPL would request that the district engineer address any of the specific work plan requirements as permit conditions.

332.4(c)(8): Maintenance plan. A description and schedule of maintenance requirements to ensure the continued viability of the resource once initial construction is completed.

Project Compliance: Please see discussion above in Sections 4.0 and 5.0 for proposed methods and maintenance requirements to ensure the continued viability of the mitigation sites.

332.4(c)(9): Performance standards. Ecologically-based standards that will be used to determine whether the compensatory mitigation project is achieving its objectives.

Project Compliance: The mitigation activities will be measured against performance standards to assess whether the project is achieving its objectives. Specifically, the enhancement of natural vegetative communities will be measured through annual monitoring of the vegetative community structure. As described in this mitigation plan, the conceptual performance standards, to be finalized in consultation with the USACE and FDEP, will likely include the following typical criteria:

- Nuisance/exotic species of vegetation occupy <5 percent of the total cover on the parcel
- Percent cover by native vegetation is 95 percent or greater within the wetlands on the parcel
- Wetland species will be reproducing naturally in each stratum

The final success determination shall not be made less than three years from the completion of implementation of the initial enhancement measures and when the above mentioned criteria have been continuously met for a period of at least one growing season, without intervention in the form of removal of undesirable vegetation.

332.4(c)(10): Monitoring requirements. A description of parameters to be monitored in order to determine if the compensatory mitigation project is on track to meet performance standards and if adaptive management is needed. A schedule for monitoring and reporting on monitoring results to the district engineer must be included.

Project Compliance: Monitoring events are expected to occur annually towards the end of the growing season (October), with reports delivered to the USACE and FDEP by the end of the calendar year in accordance with the conceptual schedule provided above in Table 5. During each monitoring event, data will be collected at permanent monitoring stations to document the vegetative community condition.

Monitoring activities include identification and percent cover of herbaceous and canopy species, water depths, panoramic photographs of the Mitigation Area as well as photographs of each individual herbaceous and/or canopy plot, wildlife observations, and status of exotic/nuisance species eradication.

Transects will be established through the Mitigation Area, with herbaceous monitoring stations established at equal intervals along each transect. The locations of monitoring stations will be permanently established with rebar and PVC pipes.

At each monitoring station, a 1-meter square quadrat will be placed to determine composition of the herbaceous strata. All plant species within each 1-meter square quadrat will be identified and their corresponding percent cover recorded, including coverage of bare ground and open water.

Within forested communities, 100 m² canopy plots will be established to measure canopy and sub-canopy vegetation. Within the canopy plots, all trees and shrubs will be identified; percent cover recorded by species, and individual diameters measured. In addition, the herbaceous community within the canopy plots will be generally described to further illustrate the overall vegetative community species composition.

Water depth will be recorded to the nearest inch at four locations within each canopy plot and at one location within each 1-meter square quadrat. Panoramic photographs will be taken from fixed permanent stations, to document conditions through views of each mitigation site from the north, south, east, and west boundaries.

Monitoring reports will be furnished to the USACE and FDEP to include, at a minimum:

- Status of construction
- Problems encountered and solutions
- Anticipated work within the next 12 months
- Panoramic photographs taken from permanent stations
- Status of nuisance eradication, if required
- Status of enhancement
- Herbicide listing and date of application, if any, and
- Percent cover of all herbaceous and canopy species

332.4(c)(11): Long-term management plan. A description of how the compensatory mitigation project will be managed after performance standards have been achieved to ensure the long-term sustainability of the resource, including long-term financing mechanisms and the party responsible for long-term management.

Project Compliance: It is FPL's intention to place the Mitigation Area under a conservation easement and manage the area in perpetuity upon fulfilling the proposed restoration activities and demonstrating compliance with success criteria.

As a public utility, FPL has sufficient financial assurances to successfully complete the proposed mitigation activities and provide long-term management. FPL has a proven track record of large, successful mitigation and conservation projects, such as the Northwest Mitigation Parcel associated with the FPL Martin Plant (Martin County), the Everglades Mitigation Bank (Miami-Dade County), the Barley Barber Swamp (Martin County), the Scout Lagoon on the Turkey Point Plant property, and mangrove restoration areas on the Turkey Point Plant property associated with Turkey Point Unit 5 and stack laydown projects.

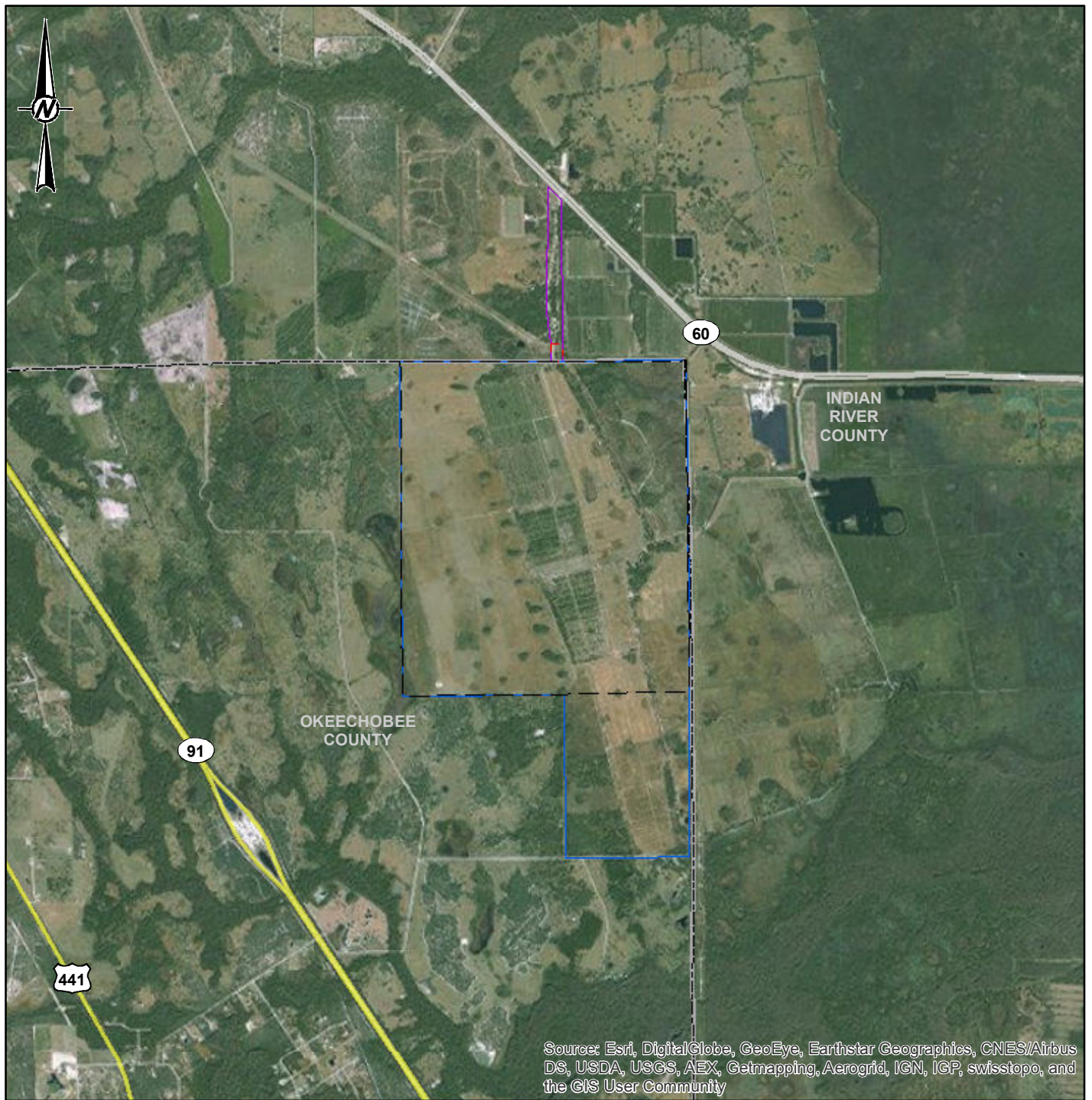
332.4(c)(12): Adaptive management plan. A management strategy to address unforeseen changes in site conditions or other components of the compensatory mitigation project, including the party or parties responsible for implementing adaptive management measures. The adaptive management plan will guide decisions for revising compensatory mitigation plans and implementing measures to address both foreseeable and unforeseen circumstances that adversely affect compensatory mitigation success.

Project Compliance: Results of the annual monitoring will be used to identify those mitigation activities that are to be adapted to address any unforeseen changes in site conditions. In the case of nuisance/exotic species of vegetation, the adaptive management plan will focus on altering treatment

locations depending upon the reduction in extent or encroachment into additional areas of the mitigation Site. A similar facet of the adaptive management plan may arise in the unforeseen instance of failure of natural recruitment of native species. In this case, FPL would evaluate the installation of native species of vegetation to supplement natural recruitment, with the goal of achieving the performance standard.

332.4(c)(13): Financial assurances. A description of financial assurances that will be provided and how they are sufficient to ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with its performance standards.

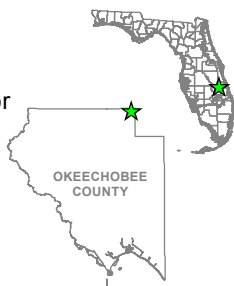
Project Compliance: The mitigation project's financial assurance will be provided by FPL, who has a track record of successful mitigation projects that fulfill performance standards. FPL will remain the owner and operator of the OCEC and will manage the Mitigation Area as part of the overall OCEC operations and maintenance plan.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- FPL Owned Property
- Linear Facility Corridor
- Transmission Interconnection Corridor
- Certified Site Boundary
- County Boundary



REFERENCE(S)
PROPERTY, LINEAR FACILITY CORRIDOR, CERTIFIED BOUNDARY, FPL & GOLDER ASSOCIATES INC., 2015

CLIENT
FPL

PROJECT
OKEECHOBEE CLEAN ENERGY CENTER

TITLE
GENERAL LOCATION
MAP

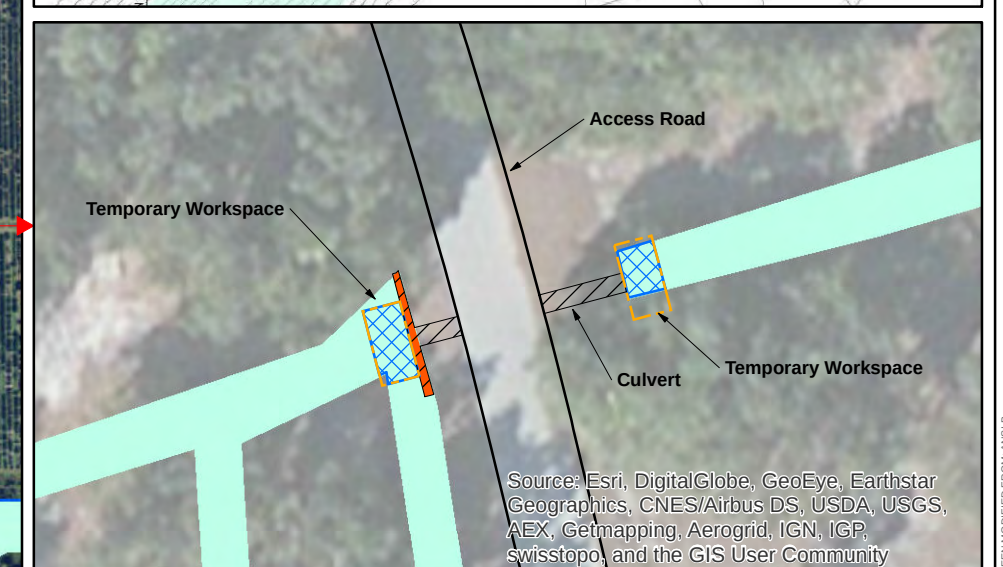
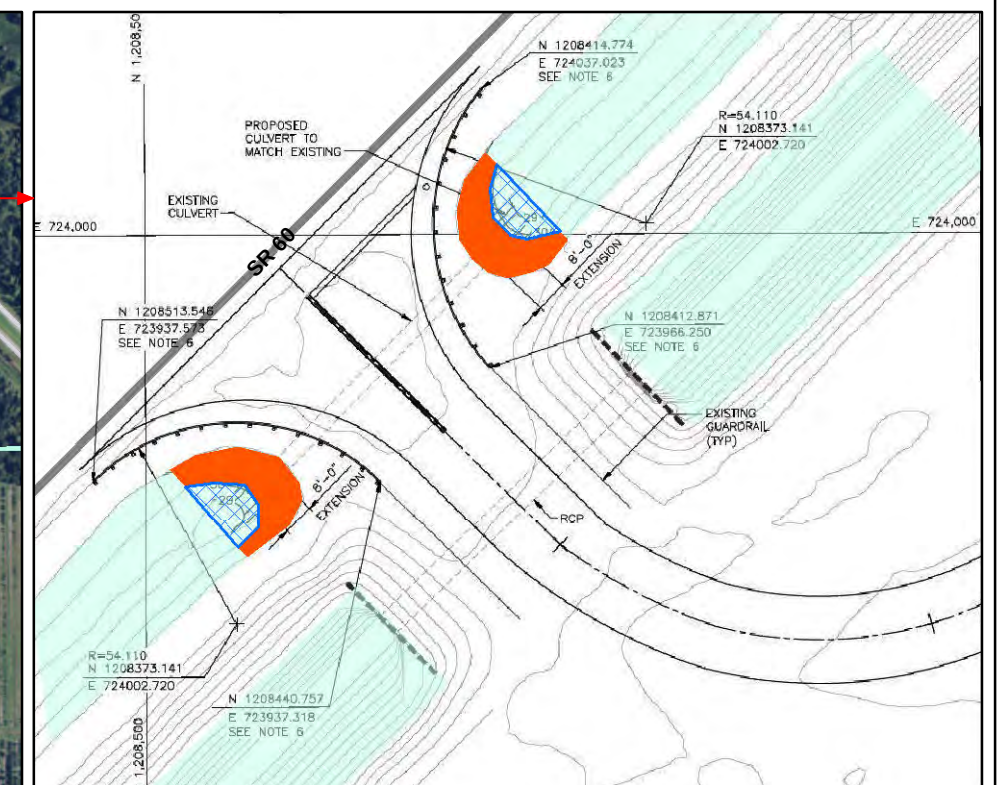


YYYY-MM-DD	2015-09-07
DESIGNED	NRL
PREPARED	NRL
REVIEWED	KAB
APPROVED	KFK

PROJECT NO. 1414979 CONTROL B071 REV. 0 FIGURE 1

G:\PROJECTS\FPL\Okeechobee\9 PROJECTS\1414979\8 SCA Project\02 PRODUCTION\XD1414979_B023_GeneralLocMap.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A 25mm



LEGEND

- Facility Layout
- ▬ Certified Site Boundary
- ▬ Mitigation Area
- ▭ FPL Owned Property
- ▭ Linear Facility Corridor
- ▬ Transmission Interconnection Corridor
- ▭ OCEC Unit 1
- ▭ Open Space
- ▬ UFA Well Delivery Pipeline
- ▭ On-Site Gas Pipeline Alternatives
- ▭ Future Solar Area

Wetland Impacts

- ▭ Direct
- ▭ Temporary

WETLAND IMPACTS			
FLUCFCS CODE	HABITAT DESCRIPTION	ACREAGE	
		Direct	Temporary
511	Ditches	19.99	0.11
617	Mixed Wetland Hardwoods	4.71	
	GRAND TOTAL	24.70	0.11

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 STATEPLANE FLORIDA EAST FIPS 0901 FEET
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
OKEECHOBEE CLEAN ENERGY CENTER

TITLE

WETLAND IMPACTS

	YYYY-MM-DD	2015-09-17
	DESIGNED	JW
	PREPARED	NRL
	REVIEWED	KAB
	APPROVED	KAB

PROJECT NO.	CONTROL	REV.	FIGURE
1411979	R019	0	3



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- LEGEND
- Certified Site Boundary
 - FPL Owned Property
 - Linear Facilities Corridor
 - Mitigation Area (376.48 acres)
 - Setback (50ft)
 - Habitat Classification
 - 211 - Improved Pastures
 - 212 - Unimproved Pastures
 - 320 - Shrub And Brushland
 - 411 - Pine Flatwoods
 - 434 - Hardwood-Coniferous Mixed
 - 511 - Ditches
 - 617 - Mixed Wetland Hardwoods
 - 625 - Hydric Pine Flatwoods
 - 630 - Wetland Forested Mixed
 - 631 - Wetland Shrub
 - 641 - Freshwater Marshes
 - 643 - Wet Prairies
 - 646 - Treeless Hydric Savanna
 - 740 - Disturbed Land

REFERENCE(S)

MITIGATION AREA, GOLDER ASSOCIATES INC., 2014-2015
LAND USE, SJRWMD, 2009

MITIGATION AREA LAND USE		
FLUCFCS CODE	HABITAT DESCRIPTION	ACREAGE
211	Improved Pastures	0
212	Unimproved Pastures	22.75
320	Shrub And Brushland	98.1
411	Pine Flatwoods	13.48
434	Hardwood-Coniferous Mixed	54.23
511	Ditches	6.9
617	Mixed Wetland Hardwoods	35
625	Hydric Pine Flatwoods	18.97
630	Wetland Forested Mixed	25.63
631	Wetland Shrub	41.92
641	Freshwater Marshes	55.55
643	Wet Prairies	3.95
GRAND TOTAL		376.48



CLIENT
FPL

PROJECT OKEECHOBEE CLEAN ENERGY CENTER

TITLE
MITIGATION AREA LAND COVER



YYYY-MM-DD	2015-05-20
DESIGNED	GD
PREPARED	GD
REVIEWED	KAB
APPROVED	KAB

PROJECT NO. 1414979 CONTROL B004 REV. 0

FIGURE 4



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- Certified Site Boundary
- FPL Owned Property
- Linear Facility Corridor
- Mitigation Area (376.48 acres)
- Setback (50ft)
- Soils_NRCS_2012
- 2 - BASINGER FINE SAND
- 3 - BASINGER AND PLACID SOILS, DEPRESSIONAL
- 5 - VALKARIA FINE SAND

- 6 - MANATEE LOAMY FINE SAND, DEPRESSIONAL
- 7 - FLORIDANA, RIVERIA, AND PLACID SOILS, DEPRESSIONAL
- 8 - PINDEA FINE SAND
- 9 - RIVIERA FINE SAND
- 11 - IMMOKALEE FINE SAND
- 14 - MYAKKA FINE SAND
- 15 - OKEELANTA MUCK
- 18 - PARKWOOD FINE SAND
- 25 - WABASSO FINE SAND

REFERENCE(S)

MITIGATION AREA, GOLDER ASSOCIATES INC., 2014-2015
LAND USE, SJRWMD, 2009

CLIENT
FPL

PROJECT
OKEECHOBEE CLEAN ENERGY CENTER

TITLE
USDA/NRCS SOILS



YYYY-MM-DD	2015-08-27
DESIGNED	GD
PREPARED	JW
REVIEWED	KAB
APPROVED	KAB

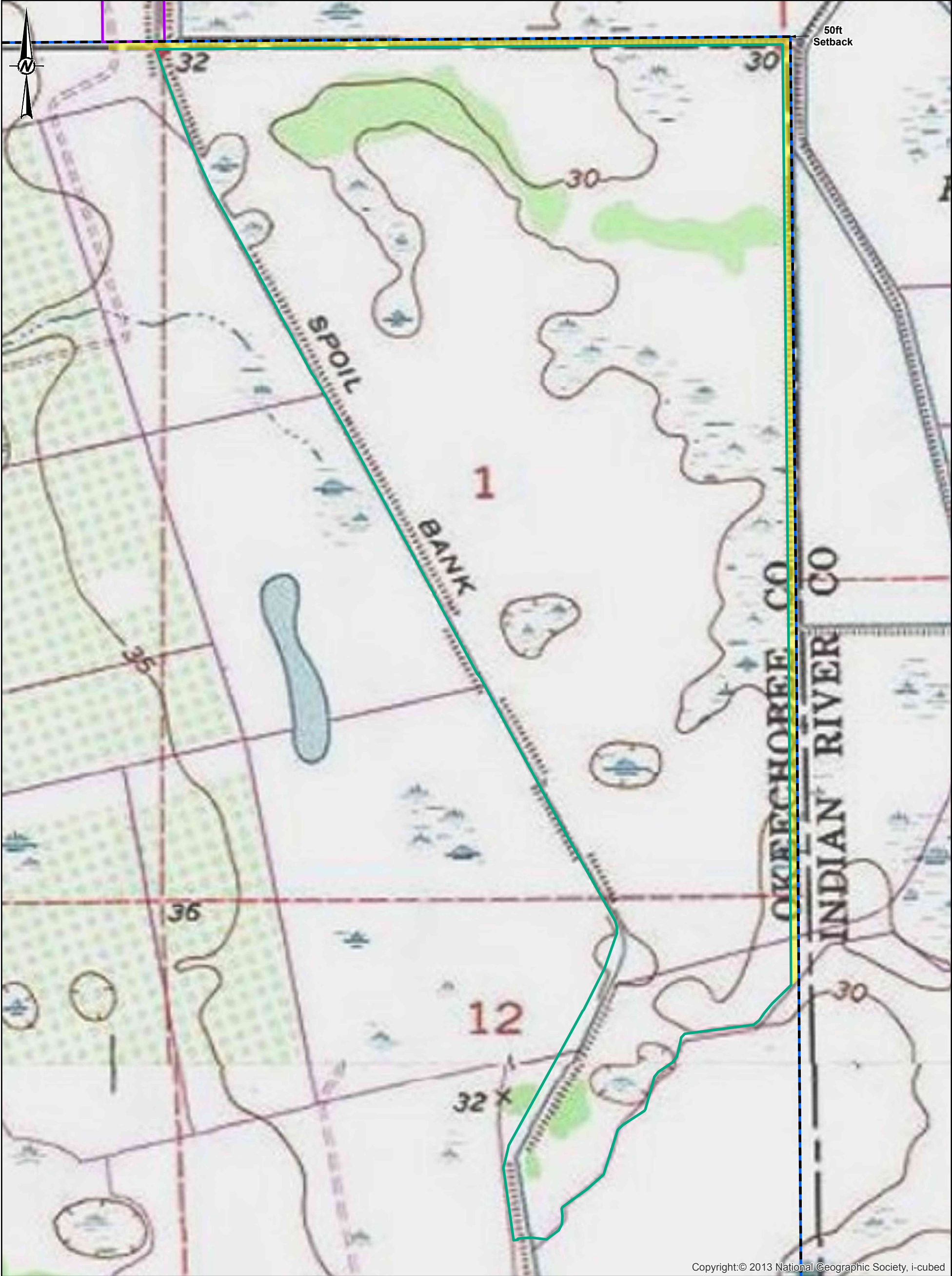


PROJECT NO.
1414979

CONTROL
B061

REV.
0

FIGURE
5



- LEGEND
- Certified Site Boundary
 - FPL Owned Property
 - Linear Facility Corridor
 - Mitigation Area (376.48 acres)
 - Setback (50ft)

REFERENCE(S)

MITIGATION AREA, GOLDER ASSOCIATES INC., 2014-2015
LAND USE, SJRWMD, 2009



CLIENT
FPL

PROJECT
OKEECHOBEE CLEAN ENERGY CENTER

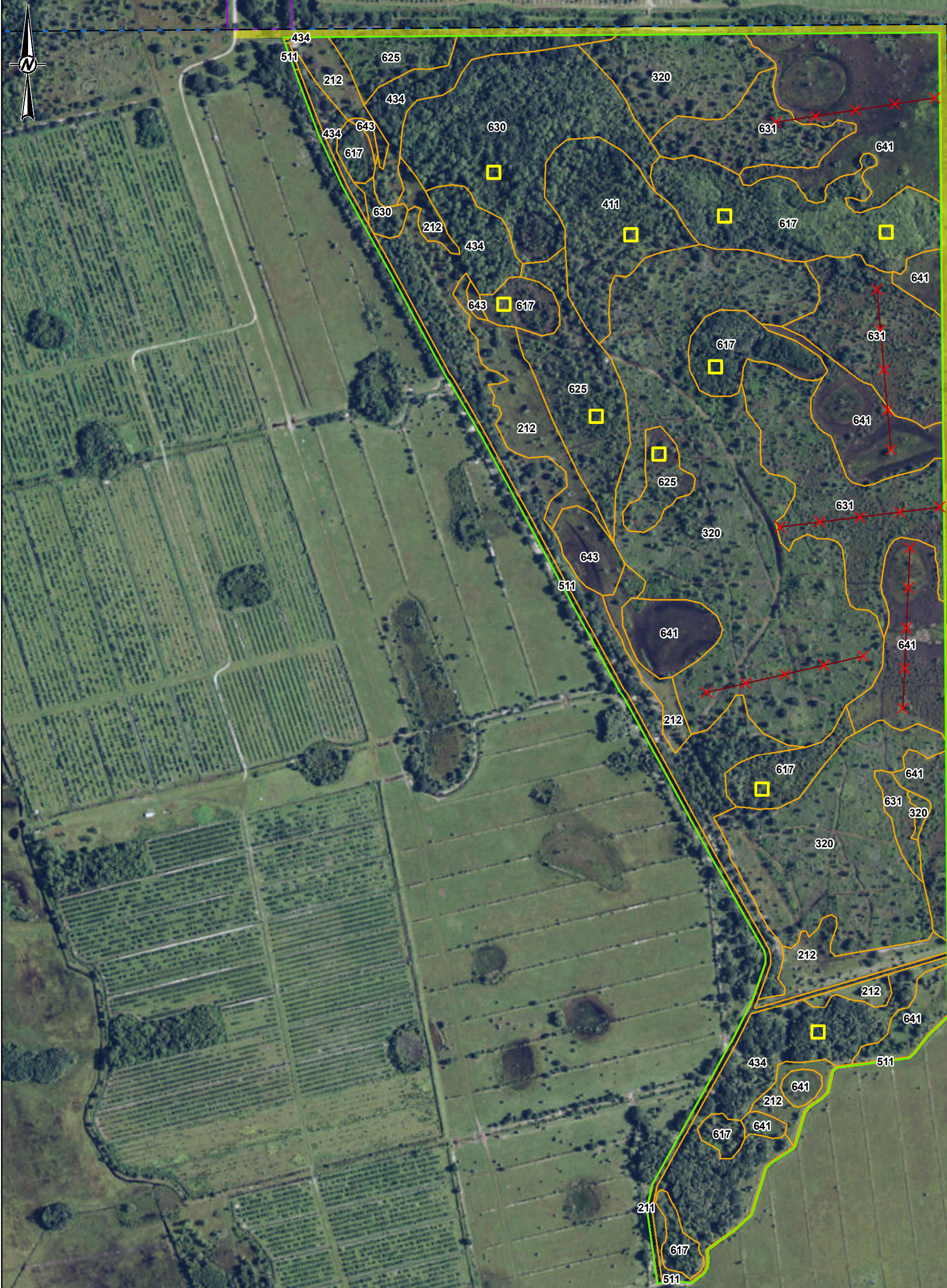
TITLE
USGS TOPOGRAPHIC MAP



PROJECT NO. 1414979 CONTROL B062 REV. 0

FIGURE 6

YYYY-MM-DD	2015-08-27
DESIGNED	GD
PREPARED	JW
REVIEWED	KAB
APPROVED	KAB



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

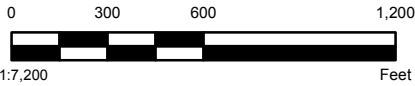
- Herbaceous Vegetation Monitoring Stations (25)
- 10m x 10m Canopy Monitoring Stations (10)
- 300m Herbaceous Vegetation Monitoring Transect (5)
- Certified Site Boundary
- FPL Owned Property
- Linear Facilities Corridor
- Mitigation Area (376.48 acres)
- Setback (50ft)
- Habitat Classification
 - 211 - Improved Pastures
 - 212 - Unimproved Pastures

REFERENCE(S)

MITIGATION AREA, GOLDBER ASSOCIATES INC., 2014-2015
LAND USE, SJRWMD, 2009

- 320 - Shrub And Brushland
- 411 - Pine Flatwoods
- 434 - Hardwood-Coniferous Mixed
- 511 - Ditches
- 617 - Mixed Wetland Hardwoods
- 625 - Hydric Pine Flatwoods
- 630 - Wetland Forested Mixed
- 631 - Wetland Shrub
- 641 - Freshwater Marshes
- 643 - Wet Prairies
- 646 - Treeless Hydric Savanna
- 740 - Disturbed Land

MITIGATION AREA LAND USE		
FLUCFCS CODE	HABITAT DESCRIPTION	ACREAGE
212	Unimproved Pastures	22.75
320	Shrub and Brushland	98.10
411	Pine Flatwoods	13.48
434	Hardwood-Coniferous Mixed	54.23
511	Ditches	6.90
617	Mixed Wetland Hardwoods	35.00
625	Hydric Pine Flatwoods	18.97
630	Wetland Forested Mixed	25.63
631	Wetland Scrub	41.92
641	Freshwater Marshes	55.55
643	Wet Prairies	3.95
GRAND TOTAL		376.48



CLIENT
FPL

PROJECT
OKEECHOBEE SCA

TITLE
MITIGATION AREA MONITORING LOCATIONS



YYYY-MM-DD	2015-08-04
DESIGNED	JW
PREPARED	JW
REVIEWED	KAB
APPROVED	KAB

APPENDIX A

UMAM FUNCTIONAL ASSESSMENT

WETLAND IMPACT SITES

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center		Application Number		Assessment Area Name or Number Citrus and Pasture Ditches: 1, 2N (511), 2S, 3, 4, 5, 6, 7, 8, 9(511), A, B, C (511), D(511), E, F, G, H, I-J(511), L, N(511), AA, AB(511)	
FLUCCs code 511 (Citrus Grove and Pasture Ditches)		Further classification (optional)		Impact or Mitigation Site? Impact	
				Assessment Area Size 27.36 acres	
Basin/Watershed Name/Number Upper St. John's / HUC 3080101		Affected Waterbody (Class)		Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Irrigation/drainage ditches within active citrus groves and pasture. Connect to forested wetlands and other drainage ditches, eventually flowing off site to the south and east.					
Assessment area description Ditches within citrus groves and pastures, dominated by a variety of native and nuisance/exotic species such as Peruvian primrose willow (<i>Ludwigia peruviana</i>), cattail (<i>Typha latifolia</i>), piedmont primrose willow (<i>Ludwigia arcuata</i>), creeping primrose willow (<i>L. repens</i>), torpedo grass (<i>Panicum repens</i>), pickerelweed (<i>Pontederia cordata</i>), marsh pennywort (<i>Hydrocotyle umbellata</i>), soft rush (<i>Juncus effusus</i>), and spike rush (<i>Eleocharis</i> sp.).					
Significant nearby features Citrus groves, access roads, pasture, transmission line ROW		Uniqueness (considering the relative rarity in relation to the regional landscape.) Not rare in relation to regional landscape			
Functions Wildlife habitat, pasture land, and citrus groves.		Mitigation for previous permit/other historic use N/A			
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) Wading birds, herpetofauna, mammals, etc.		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) Potential, use by wading birds such as white ibis (SSC), wood stork (E), little blue heron (SSC), snowy egret (SSC) and tricolor heron (SSC).			
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Observation/signs of white-tailed deer, feral hogs, armadillo, opossum, raccoon, coyote, great blue heron, cattle egret					
Additional relevant factors:					
Assessment conducted by: M. Arrants, K. Bullock, A. Zions, C. Brookshire				Assessment date(s): Dec-14	

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center	Application Number	Assessment Area Name or Number Citrus and Pasture Ditches: 1, 2N (511), 2S, 3, 4, 5, 6, 7, 8, 9(511), A, B, C (511), D(511), E, F, G, H, I-J(511), L, N(511), AA, AB(511)
Impact or Mitigation Impact	Assessment conducted by: Arrants, Bullock, Zions, Brookshire	Assessment date: Dec-14

Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10) Condition is optimal and fully supports wetland/surface water functions	Moderate(7) Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal (4) Minimal level of support of wetland/surface water functions	Not Present (0) Condition is insufficient to provide wetland/surface water functions
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.500(6)(a) Location and Landscape Support w/o pres or current 6 with	Location and landscape support variable is reduced due to ditching and access roads in citrus groves, fencing and active pastures. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to location within citrus groves; b) Invasive exotic species = 7, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by conversion to agriculture; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited benefit; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to clearing of native habitat and surrounding agricultural landuse; f) Hydrologically connected areas downstream of assessment area = 5, drainage ditches provide connections; g) Dependency of downstream areas on assessment area = 6, moderate benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current 4 with	The water environment score is reduced due to man-made nature of citrus irrigation ditches and pasture drainage ditches. Individual parameter scores: a) water levels and flows = 4, altered due to land clearing, ditching; b) water level indicators = 4, artificial drainage ditches; c) soil moisture = 4, consistent with expected; d) soil erosion or deposition = 4, moderate erosion; e) evidence of fire history = N/A; f) vegetation community zonation = 4, typical of assessment area, some edge effect and upland encroachment; g) hydrologic stress on vegetation = 4, some upland and transitional species encroachment; h) use by animal species with specific hydrological requirements = 4, reduced due to surrounding altered landscape/altered hydrology; i) vegetative species tolerant of and associated with water quality degradation = 4, minimal; j) direct observation of water quality = 4, typical of assessment area; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current 4 with	The community structure variable is reduced from disturbance due to citrus operation, cattle, and ditch maintenance. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 4, mixture of exotic and native species; b) invasive exotics or other invasive plant species = 4, significant coverage of exotic/nuisance species; c) regeneration and recruitment = 4, recruitment impacted by surrounding citrus grove landuse and maintenance; d) age & size distribution = 4, typical of assessment area type, impacted due to maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 4, slightly reduced due to maintenance on edges; g) land management practices = 4, reduced due to routine maintenance; h) topographic features = 4, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20) current or w/o pres 0.47 with

If preservation as mitigation, Preservation adjustment factor = Adjusted mitigation delta =

For impact assessment areas FL = delta x acres = 0.47 x 19.52 acres = 9.17 credits ; 0.10 ac of temporary impact restored in-situ
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Delta = [with-current] 0.47

If mitigation Time lag (t-factor) = Risk factor =

For mitigation assessment areas RFG = delta/(t-factor x risk) =
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PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center		Application Number		Assessment Area Name or Number Linear Facilities Corridor Ditches- Wetlands AD, S, SR60	
FLUCCs code 511		Further classification (optional)		Impact or Mitigation Site? Impact	
Assessment Area Size 3.35 acres					
Basin/Watershed Name/Number Upper St. John's / HUC 3080101		Affected Waterbody (Class)		Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Roadside ditches adjacent to SR 60 and ditches adjacent to Site access road (226th Court), connect to forested wetlands outside of ROW					
Assessment area description Maintained roadside ditches adjacent to SR 60 and ditches adjacent to Site access road. Vegetative community dominated by a mixture of nuisance/exotic and native species such as Peruvian primrose willow (<i>Ludwigia peruviana</i>), water lettuce (<i>Pistia stratiotes</i>), bushy broomsedge (<i>Andropogon glomeratus</i>), wax myrtle (<i>Myrica cerifera</i>), cattail (<i>Typha latifolia</i>), groundsel tree (<i>Baccharis halimifolia</i>).					
Significant nearby features SR 60		Uniqueness (considering the relative rarity in relation to the regional landscape.) Not rare in relation to regional landscape			
Functions Wildlife habitat, drainage, and storage.		Mitigation for previous permit/other historic use N/A			
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) Wading birds, herpetofauna		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) American alligator (T S/A), and potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), or tricolor heron (SSC).			
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): American alligator, great egret					
Additional relevant factors:					
Assessment conducted by: M. Arrants, K. Bullock, A. Zions, C. Brookshire		Assessment date(s): Dec-14			

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center	Application Number	Assessment Area Name or Number Linear Facilities Corridor Ditches- Wetlands AD, S, SR60
Impact or Mitigation Impact	Assessment conducted by: Arrants, Bullock, Zions, Brookshire	Assessment date: Dec-14

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current	with	Location and landscape support variable is reduced due to location of excavated ditch adjacent to roadways. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 4, reduced due to disturbance from maintenance mowing/herbicide, surrounding development; b) Invasive exotic species = 5, moderate coverage; c) Wildlife access to and from outside = 5, decreased due to limitations imposed by surrounding developed areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, little benefit, artificial drainageway; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding development and clearing of native habitat; f) Hydrologically connected areas downstream of assessment area = 5, artificial drainage feature; g) Dependency of downstream areas on assessment area = 4, minimal benefit to downstream areas.
	5		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current	with	The water environment score is reduced due to proximity of roadway, maintenance and herbicide application, artifical hydroperiod resulting from excavation of drainage ditch within surrounding disturbed landscape, and adjacent development. Individual parameter scores: a) water levels and flows = 3 artifical nature of excavated ditch; b) water level indicators = 3, altered hydroperiod due to to excavated ditch; c) soil moisture = 3, consistent with expected; 3) soil erosion or deposition = 5, erosion from roadway, adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 4, artifical system, significant upland species encroachment; g) hydrologic stress on vegetation = 3, upland and transitional species prevalent; h) use by animal species with specific hydrological requirements = 3, due to surrounding altered landscape/altered hydrology; i) vegetative species tolerant of and associated with water quality degradation = 3, some indication of high nutrients, cattails and exotic species; j) direct observation of water quality = 3, evidence of elevated nutrient input due to nuisance/exotic vegetation; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
	5		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current	with	The community structure variable is reduced due to moderate coverage of exotic/nuisance species, mowing, maintenance, herbicide application, and excavated, artifical nature of drainage ditches. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 5, maintenance typically removes shrub/canopy stratum, non-desirable wetland species present; b) invasive exotics or other invasive plant species = 5, moderate coverage of exotic/nuisance species; c) regeneration and recruitment = 5, artifical system, recruitment impacted by surrounding development and maintenance; d) age & size distribution = 3, typical of artifical drainage ditch, impacted due to maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, somewhat reduced due to maintenance and herbicide; g) land management practices = 4, due to alteration of community structure by routine maintenance; h) topographic features = 5, artifical excavated system; i) siltation or algal growth in submerged aquatic plant communities = N/A
	5		

Score = sum of above scores/30 (if uplands, divide by 20)		
current		with
or w/o pres	0.50	

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.5 x 0.47 ac. = 0.24 credits ; 0.01 ac. temporary impact restored in-situ

Delta = [with-current]
0.5

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center		Application Number		Assessment Area Name or Number C (617), D (617), AB (617), 2-N (617), and 9 (617)	
FLUCCs code 617 (Citrus Grove Mixed Wetland Hardwoods)		Further classification (optional)		Impact or Mitigation Site? Impact	Assessment Area Size 6.84 acres
Basin/Watershed Name/Number Upper St. John's / HUC 3080101		Affected Waterbody (Class)		Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Mixed hardwood wetlands connect to citrus grove irrigation/drainage ditches.					
Assessment area description Ditches that connect to mixed wetland hardwoods supporting a variety of primarily native species of vegetation, including blackgum (<i>Nyssa biflora</i>), red maple (<i>Acer rubrum</i>), wax myrtle (<i>Myrica cerifera</i>), dahoon holly (<i>Ilex cassine</i>), and cabbage palm (<i>Sabal palmetto</i>). Understories are vegetated by, coastal plain willow (<i>Salix caroliniana</i>), wax myrtle (<i>Myrica cerifera</i>), Peruvian primrose willow (<i>Ludwigia peruviana</i>), swamp fern (<i>Blechnum serrulatum</i>), and royal fern (<i>Osmunda regalis</i>).					
Significant nearby features Citrus groves, pastures, transmission line ROW		Uniqueness (considering the relative rarity in relation to the regional landscape.) Not rare in relation to regional landscape			
Functions Wildlife habitat, irrigation, drainage, and storage		Mitigation for previous permit/other historic use N/A			
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) Wading birds, herpetofauna, mammals, etc.		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) Possible occasional use by wading birds such as white ibis (SSC), wood stork (E), little blue heron (SSC), snowy egret (SSC), and tricolor heron (SSC), as well as foraging by American alligator (S/A).			
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): White-tailed deer, feral pig, marsh rabbit, armadillo, raccoon, American alligator, softshell turtle					
Additional relevant factors:					
Assessment conducted by: M. Arrants, K. Bullock, A. Zions		Assessment date(s): Nov-14			

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center	Application Number	Assessment Area Name or Number C (617), D (617), AB (617), 2-N (617), and 9 (617)
Impact or Mitigation Impact	Assessment conducted by: Arrants, Bullock, Zions, Brookshire	Assessment date: Dec-14

Scoring Guidance
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current	with	Location and landscape support variable is reduced due to ditching and access roads in citrus groves, fencing and adjacency to active pastures. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to location within citrus groves; b) Invasive exotic species = 7, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by conversion to agriculture; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited benefit; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to clearing of native habitat and surrounding agricultural landuse; f) Hydrologically connected areas downstream of assessment area = 5, drainage ditches provide connections; g) Dependency of downstream areas on assessment area = 6, moderate benefit to downstream areas.
	6		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current	with	The water environment score is slightly reduced due to location adjacent to citrus groves and alteration of drainage patterns (rim ditching). Individual parameter scores: a) water levels and flows = 5, altered due to land clearing, ditching; b) water level indicators = 6, somewhat reduced compared to typical; c) soil moisture = 5, consistent with expected; d) soil erosion or deposition = 6, minimal erosion; e) evidence of fire history = N/A; f) vegetation community zonation = 6, typical of assessment area, some edge effect and upland encroachment due to clearing; g) hydrologic stress on vegetation = 6, some upland and transitional species encroachment; h) use by animal species with specific hydrological requirements = 6, slightly reduced due to surrounding altered landscape/alterd hydrology; i) vegetative species tolerant of and associated with water quality degradation = 6, some exotic species present; j) direct observation of water quality = 6, some nutrient enrichment likely due to presence of nuisance/exotic vegetation, proximity of roadways and associated runoff; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
	6		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current	with	The community structure variable is slightly reduced from disturbance due to rim ditching and areas of exotic species encroachment. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 8, exotics present on edges of forested system, but interior dominated by native species; b) invasive exotics or other invasive plant species = 7, moderate coverage of exotic/nuisance species; c) regeneration and recruitment = 8, interior typical for assessment area; d) age & size distribution = 8, typical of assessment area type; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 8, slightly reduced due to rim ditching; g) land management practices = 7, reduced due to agricultural use and ditching; h) topographic features = 7, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A
	8		

Score = sum of above scores/30 (if uplands, divide by 20)	
current	
or w/o pres	with
0.67	

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.67 x 4.71 acres = 3.16 credits

Delta = [with-current]
0.67

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

MITIGATION AREA

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center		Application Number		Assessment Area Name or Number Ditches	
FLUCCs code 511		Further classification (optional)		Impact or Mitigation Site? Mitigation	
				Assessment Area Size 6.9 acres	
Basin/Watershed Name/Number Upper St. John's / HUC 03080101		Affected Waterbody (Class)		Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Excavated ditch system along perimeter of mitigation site, connects to Fort Drum Marsh Conservation Area through herbaceous and forested wetlands					
Assessment area description Ditch system located on the perimeter of the mitigation site. Vegetative community dominated by a mixture of nuisance/exotic and native species such as Peruvian primrose willow (<i>Ludwigia peruviana</i>), pickerelweed (<i>Pontederia cordata</i>), water lettuce (<i>Pistia stratiotes</i>), bushy broomsedge (<i>Andropogon glomeratus</i>), wax myrtle (<i>Myrica cerifera</i>), cattail (<i>Typha latifolia</i>), groundsel tree (<i>Baccharis halimifolia</i>).					
Significant nearby features Fort Drum Marsh Conservation Area, undeveloped uplands and wetlands, pasture, citrus groves, transmission line right-of-way		Uniqueness (considering the relative rarity in relation to the regional landscape.) Not rare in relation to regional landscape			
Functions Wildlife habitat, drainage, and storage.		Mitigation for previous permit/other historic use N/A			
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) Wading birds, forage fish, small mammals, herpetofauna		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) American alligator (T S/A), and potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), or tricolor heron (SSC).			
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): American alligator, great egret, little blue heron					
Additional relevant factors:					
Assessment conducted by: M. Arrants, K. Bullock, A. Zions, C. Brookshire		Assessment date(s): December 2014 through July 2015			

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center	Application Number	Assessment Area Name or Number Ditches
Impact or Mitigation Mitigation	Assessment conducted by: Arrants, Bullock, Zions, Brookshire	Assessment date: Dec 2014 through August 2015

Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support		Current: Location and landscape support variable is slightly reduced due to presence of invasive vegetation and adjacent pasture. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, due to surrounding habitats ; b) Invasive exotic species = 7, minimal coverage; c) Wildlife access to and from outside = 6, slightly decreased due to limitations imposed by adjacent cleared pastures; d) functions that benefit fish & wildlife downstream-distance or barriers = 6, some functions; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, slightly reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 6, connected through ditching to other ditches and wetlands; g) Dependency of downstream areas on assessment area = 6, some benefit to downstream areas.	
w/o pres or current	with	With: No change. Preservation of mitigation parcel will slightly increase location and landscape support variable, but the proximity of the perimeter ditch to the OCEC offsets the benefit to location and landscape support.	
6	6		
.500(6)(b)Water Environment (n/a for uplands)		Current: The water environment variable is reduced due to man-made excavated nature of the perimeter ditch, modifying natural water flow. Individual parameter scores: a) water levels and flows = 5, altered water level; b) water level indicators = 4, less than expected; c) soil moisture = 7, typical for community type; d) soil erosion or deposition = 6, some areas of moderate erosion; e) evidence of fire history = N/A; f) vegetation community zonation = 6, slightly altered due to minimal presence of invasives, upland species; g) hydrologic stress on vegetation = 6, some due to altered hydrologic regime; h) use by animal species with specific hydrological requirements = 5, due to lack of open water connection and resultant reduction in number of fish species; i) vegetative species tolerant of and associated with water quality degradation = 5, moderate; j) direct observation of water quality = 8, no discoloration, turbidity, or sheen; k) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.	
w/o pres or current	with	With: No change. The water environment variable may be slightly increased due to preservation and ongoing land management, but no specific hydrologic improvements are proposed, therefore the water environment variable score is same as current score.	
5	5		
.500(6)(c)Community structure		Current: The community structure variable is reduced due to presence of invasive species, excavated nature of ditches. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 5, mix of exotic and native species; b) invasive exotics or other invasive plant species = 5, moderate coverage; c) regeneration and recruitment = 5, slightly less than expected; d) age & size distribution = 5, less than expected; e) density and quality of coarse woody debris, snag, den, and cavity = 5, not adequate for system type; f) plant condition = 5, due to dead stems and low productivity; g) land management practices = 5, due to alteration of community structure; h) topographic features = 5, less than optimal; i) siltation or algal growth in submerged aquatic plant communities = N/A.	
1. Vegetation and/or 2. Benthic Community			
w/o pres or current	with	With: The community structure variable is slightly increased due to invasive exotic vegetation control and preservation of the mitigation parcel. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 6, mostly native species; b) invasive exotics or other invasive plant species = 6, some coverage; c) regeneration and recruitment = 6, mostly consistent with expected; d) age & size distribution = 6, slightly less than expected; e) density and quality of coarse woody debris, snag, den, and cavity = 6, mostly adequate for system type; f) plant condition = 6, improved due to improved hydrology in surrounding area; g) land management practices = 6, improved; h) topographic features = 5, less than optimal; i) siltation or algal growth in submerged aquatic plant communities = N/A.	
5	6		

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.53	0.57

Delta = [with-current]
0.04

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) = 1.03 (2 years)*
Risk factor = 1.25; TL x R = 1.2875

For impact assessment areas
FL = delta x acres =

For mitigation assessment areas
RFG = delta/(t-factor x risk) = 0.03

***USACE t-factor = 1.017; TL x R = 1.2713**

6.9 acres x 0.03 = 0.21 credits

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center		Application Number		Assessment Area Name or Number Forested Wetlands	
FLUCCs code 617 (Mixed Wetland Hardwoods), 625 (Hydric Pine), and 630 (Wetland Forested Mixed)		Further classification (optional)		Impact or Mitigation Site? Mitigation	Assessment Area Size 79.6 acres
Basin/Watershed Name/Number Upper St. John's / HUC 03080101		Affected Waterbody (Class)		Special Classification (i.e. OFW, AP, other local/state/federal designation of importance)	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Forested wetlands located in the interior of the mitigation parcel, hydrologically connected to Fort Drum Conservation Area					
Assessment area description Forested wetlands supporting a variety of primarily native species of vegetation, including red maple (<i>Acer rubrum</i>), pop ash (<i>Fraxinus caroliniana</i>), cabbage palm (<i>Sabal palmetto</i>), coastal plain willow (<i>Salix caroliniana</i>), blackgum (<i>Nyssa sylvatica</i>), live oak (<i>Quercus virginiana</i>), laurel oak (<i>Quercus laurifolia</i>), slash pine (<i>Pinus elliottii</i>), wax myrtle (<i>Myrica cerifera</i>), persimmon (<i>Diospyros virginiana</i>), American elm (<i>Ulmus alata</i>), dahoon holly (<i>Ilex cassine</i>), arrowhead (<i>Sagittaria lancifolia</i>), maidencane (<i>Panicum hemitomom</i>), fireflag (<i>Thalia geniculata</i>), Peruvian primrose willow (<i>Ludwigia peruviana</i>), swamp fern (<i>Blechnum serrulatum</i>), Brazilian pepper (<i>Schinus terebinthifolius</i>), sawgrass (<i>Cladium jamaicense</i>), and Virginia chain fern (<i>Woodwardia virginica</i>).					
Significant nearby features Fort Drum Marsh Conservation Area, undeveloped uplands and wetlands, pasture, citrus groves, transmission line right-of-way		Uniqueness (considering the relative rarity in relation to the regional landscape.) Not rare in relation to regional landscape			
Functions Wildlife habitat, water treatment and storage		Mitigation for previous permit/other historic use N/A			
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) Wading birds, herpetofauna		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) Likely occasional use by wading birds such as white ibis (SSC), wood stork (E), little blue heron (SSC), snowy egret (SSC), and tricolor heron (SSC), as well as foraging by American alligator (S/A).			
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Swallow-tailed kite, feral pig					
Additional relevant factors:					
Assessment conducted by: M. Arrants, K. Bullock, A. Zions, C. Brookshire		Assessment date(s): December 2014 through July 2015			

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center	Application Number	Assessment Area Name or Number Forested Wetlands
Impact or Mitigation Mitigation	Assessment conducted by: Arrants, Bullock, Zions, Brookshire	Assessment date: Dec 2014 through August 2015

Scoring Guidance
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	Current: Location and landscape support variable is slightly reduced due to presence of invasive vegetation and adjacent agricultural uses. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, slightly reduced due to adjacent agricultural landuse ; b) Invasive exotic species = 7, minimal coverage; c) Wildlife access to and from outside = 7, minimally decreased due to limitations imposed by adjacent agricultural landuse; proximity of Fort Drum Conservation Area provides benefit; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, some benefit to downstream systems; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, slightly reduced due to adjacent agricultural areas, fire suppression in adjacent natural uplands; f) Hydrologically connected areas downstream of assessment area = 7, connected through wetlands and ditches; g) Dependency of downstream areas on assessment area = 7, moderate benefit to downstream areas.	
	With: Location and landscape support variable increased slightly due to preservation of mitigation site and improved land management practices. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, increased due to improvement of surrounding habitats; b) Invasive exotic species = 8, decreased coverage due to invasive/exotic vegetation control; c) Wildlife access to and from outside = 8, due to improvement of surrounding habitats; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, due to improvement in surrounding habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 7; f) Hydrologically connected areas downstream of assessment area = 7, similar to existing condition; g) Dependency of downstream areas on assessment area = 7, similar to existing condition.	
w/o pres or current		with
7		8
.500(6)(b)Water Environment (n/a for uplands)	Current: The water environment score is slightly reduced due to historical hydrologic modifications resulting from ditching. Individual parameter scores: a) water levels and flows = 8, typical for community type; b) water level indicators = 8, lichen lines indicate regular seasonal inundation; c) soil moisture = 8, typical for community type; d) soil erosion or deposition = 8, minor areas of erosion, primarily due to wildlife (feral pig); e) evidence of fire history = N/A; f) vegetation community zonation = 7, typical, but slightly altered due to presence of invasives; g) hydrologic stress on vegetation = 8, none noted; h) use by animal species with specific hydrological requirements = 8, high quality forested wetlands provide suitable habitat; i) vegetative species tolerant of and associated with water quality degradation = 8, minimal; j) direct observation of water quality = 8, no discoloration, turbidity, or sheen; k) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.	
	With: No change. The water environment variable may be slightly increased due to preservation and ongoing land management, but no specific hydrologic improvements are proposed, therefore the water environment variable score is same as current score.	
w/o pres or current		with
8		8
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	Current: The community structure variable score reflects the dominance of desirable native wetland species and minimal presence of invasive exotic species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 8, dominated by native species; b) invasive exotics or other invasive plant species = 8, minimal coverage; c) regeneration and recruitment = 8, typical for assessment area; d) age & size distribution = 8, mixed age & size typical of community type; e) density and quality of coarse woody debris, snag, den, and cavity = 7, adequate for system type; f) plant condition = 9, no indication of poor health or low productivity; g) land management practices = 7, slightly reduced due to fire supression; h) topographic features = 8, typical for community type; i) siltation or algal growth in submerged aquatic plant communities = N/A.	
	With: The community structure variable is slightly increased due to invasive/exotic vegetation control and preservation of the mitigation site. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 9, dominated by native species; b) invasive exotics or other invasive plant species = 9, site to be managed to control invasive/exotic vegetation; c) regeneration and recruitment = 8, typical for assessment area; d) age & size distribution = 8, mixed age & size typical of community type; e) density and quality of coarse woody debris, snag, den, and cavity = 7, adequate for system type; f) plant condition = 9, no indication of poor health or low productivity; g) land management practices = 9, slightly increased due to preservation and use of prescribed fire; h) topographic features = 8, typical for community type; i) siltation or algal growth in submerged aquatic plant communities = N/A.	
w/o pres or current		with
8		9

Score = sum of above scores/30 (if uplands, divide by 20)	
current	with
0.77	0.83

Delta = [with-current]
0.06

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) = 1.03 (2 years)*
Risk factor = 1.25; T x R = 1.2875

For impact assessment areas
FL = delta x acres =

For mitigation assessment areas
RFG = delta/(t-factor x risk) = 0.047

*USACE t-factor = 1.017; T x R = 1.2713

79.6 acres x 0.047 = 3.74 credits

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center		Application Number		Assessment Area Name or Number Freshwater Marsh and Wetland Shrub	
FLUCCs code 631 and 641		Further classification (optional)		Impact or Mitigation Site? Mitigation	
				Assessment Area Size 97.47 acres	
Basin/Watershed Name/Number Upper St. John's / HUC 03080101		Affected Waterbody (Class)		Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Herbaceous and shrub wetlands located in the interior of the mitigation parcel, hydrologically connected to Fort Drum Conservation Area					
Assessment area description Areas of freshwater marshes are concentrated along the eastern edge of the mitigation area, contiguous with parcels of mixed wetland hardwoods and wetland shrubs. The herbaceous vegetative community is diverse, with dominant species including maidencane (<i>Panicum hemitomon</i>), St. John's wort (<i>Hypericum</i> spp.), and cordgrass (<i>Spartina bakeri</i>) and a variety of subdominant species such as pickerelweed (<i>Pontederia cordata</i>), arrowhead (<i>Sagittaria lancifolia</i>), buttonbush (<i>Cephananthus occidentalis</i>), redroot (<i>Lachnanthes caroliniana</i>), blue maidencane (<i>Amphicarpum muhlenbergianum</i>), and fireflag (<i>Thalia geniculata</i>). Shrub and canopy species along the edges and occasionally within the interior of freshwater marsh wetlands include wax myrtle (<i>Myrica cerifera</i>), dahoon holly (<i>Ilex cassine</i>), blackgum (<i>Nyssa sylvatica</i>), red maple (<i>Acer rubrum</i>), cabbage palm (<i>Sabal palmetto</i>), and coastal plain willow (<i>Salix caroliniana</i>). Wetland shrub habitat occurs within the east-central portion of the mitigation area, with a vegetative community dominated by a mixture of shrub and groundcover species and a scattered overstory of wetland trees. Common species include saw palmetto (<i>Serenoa repens</i>), fetterbush (<i>Lyonia lucida</i>), wax myrtle, St. John's wort, gallberry (<i>Ilex glabra</i>), redroot, carpet grass (<i>Axonopus fissifolius</i>), camphorweed (<i>Pluchea odorata</i>), maidencane, candyroot (<i>Polygala</i> sp.), bogbuttons (<i>Lachnocaulon</i> sp.), red maple, blackgum, dahoon holly, cabbage palm, slash pine (<i>Pinus elliotii</i>), and live oak (<i>Quercus virginiana</i>).					
Significant nearby features Fort Drum Marsh Conservation Area, undeveloped uplands and wetlands, pasture, citrus groves, transmission line right-of-way		Uniqueness (considering the relative rarity in relation to the regional landscape.) Not rare in relation to regional landscape			
Functions Wildlife habitat, water treatment and storage		Mitigation for previous permit/other historic use N/A			
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) Wading birds, herpetofauna		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) Possible occasional use by wading birds such as white ibis (SSC), wood stork (E), little blue heron (SSC), snowy egret (SSC), and tricolor heron (SSC).			
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Swallow-tailed kite, bald eagle, feral pig, southern cricket frog, little blue heron, white ibis, wild turkey					
Additional relevant factors: 					
Assessment conducted by: M. Arrants, K. Bullock, A. Zions, C. Brookshire		Assessment date(s): December 2014 through July 2015			

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center	Application Number	Assessment Area Name or Number Wetland Shrub and Freshwater Marsh
Impact or Mitigation Mitigation	Assessment conducted by: Arrants, Bullock, Zions, Brookshire	Assessment date: Dec 2014 through August 2015

Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10) Condition is optimal and fully supports wetland/surface water functions	Moderate(7) Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal (4) Minimal level of support of wetland/surface water functions	Not Present (0) Condition is insufficient to provide wetland/surface water functions
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.500(6)(a) Location and Landscape Support	Current: Location and landscape support variable is slightly reduced due to presence of invasive vegetation and adjacent agricultural uses. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, slightly reduced due to adjacent agricultural landuse ; b) Invasive exotic species = 7, minimal coverage; c) Wildlife access to and from outside = 7, minimally decreased due to limitations imposed by adjacent agricultural landuse; proximity of Fort Drum Conservation Area provides benefit; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, some benefit to downstream systems; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, slightly reduced due to adjacent agricultural areas, fire suppression in adjacent natural uplands; f) Hydrologically connected areas downstream of assessment area = 7, connected through wetlands and ditches; g) Dependency of downstream areas on assessment area = 7, moderate benefit to downstream areas.		
	With: Location and landscape support variable increased slightly due to preservation of mitigation site and improved land management practices. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, increased due to improvement of surrounding habitats; b) Invasive exotic species = 8, decreased coverage due to invasive/exotic vegetation control; c) Wildlife access to and from outside = 8, due to improvement of surrounding habitats; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, due to improvement in surrounding habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 7; f) Hydrologically connected areas downstream of assessment area = 7, similar to existing condition; g) Dependency of downstream areas on assessment area = 7, similar to existing condition.		
w/o pres or current	7	with	8
.500(6)(b)Water Environment (n/a for uplands)	Current: The water environment score is slightly reduced due to historical hydrologic modifications resulting from ditching and off road vehicle access pathways. Individual parameter scores: a) water levels and flows = 7, typical for community type; b) water level indicators = 7, typical seasonal inundation; c) soil moisture = 8, typical for community type; d) soil erosion or deposition = 7, some areas of erosion, primarily due to wildlife (feral pig) as well as off-road vehicle access; e) evidence of fire history = less than typical for community type; f) vegetation community zonation = 7, typical, but slightly altered due to presence of invasives; g) hydrologic stress on vegetation = 8, none noted; h) use by animal species with specific hydrological requirements = 8, high quality herbaceous and shrub wetlands provide suitable habitat; i) vegetative species tolerant of and associated with water quality degradation = 8, minimal; j) direct observation of water quality = 7, no discoloration, turbidity, or sheen; k) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.		
	With: No change. The water environment variable may be slightly increased due to preservation and ongoing land management, but no specific hydrologic improvements are proposed, therefore the water environment variable score is same as current score.		
w/o pres or current	7	with	7
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	Current: The community structure variable score reflects the dominance of desirable native wetland species and minimal presence of invasive exotic species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 8, dominated by native species; b) invasive exotics or other invasive plant species = 8, minimal coverage; c) regeneration and recruitment = 8, typical for assessment area; d) age & size distribution = 8, mixed age & size typical of community type; e) density and quality of coarse woody debris, snag, den, and cavity = 7, adequate for system type; f) plant condition = 9, no indication of poor health or low productivity; g) land management practices = 7, slightly reduced due to fire suppression; h) topographic features = 8, typical for community type; i) siltation or algal growth in submerged aquatic plant communities = N/A.		
	With: The community structure variable is slightly increased due to invasive/exotic vegetation control and preservation of the mitigation site. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 9, dominated by native species; b) invasive exotics or other invasive plant species = 9, site to be managed to control invasive/exotic vegetation; c) regeneration and recruitment = 8, typical for assessment area; d) age & size distribution = 8, mixed age & size typical of community type; e) density and quality of coarse woody debris, snag, den, and cavity = 7, adequate for system type; f) plant condition = 9, no indication of poor health or low productivity; g) land management practices = 9, slightly increased due to preservation and use of prescribed fire; h) topographic features = 8, typical for community type; i) siltation or algal growth in submerged aquatic plant communities = N/A.		
w/o pres or current	8	with	9

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.73	0.80

Delta = [with-current]
0.07

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) = 1.03 (2 years)*
Risk factor = 1.25; T x R = 1.2875

For impact assessment areas
FL = delta x acres =

For mitigation assessment areas
RFG = delta/(t-factor x risk) = 0.054

*USACE t-factor = 1.017; T x R = 1.2713

97.47 acres x 0.054 = 5.26 credits

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center		Application Number		Assessment Area Name or Number Wet Prairies	
FLUCCs code 643		Further classification (optional)		Impact or Mitigation Site? Mitigation	Assessment Area Size 3.95
Basin/Watershed Name/Number Upper St. John's / HUC 03080101		Affected Waterbody (Class)		Special Classification (i.e. OFW, AP, other local/state/federal designation of importance)	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Freshwater prairie wetland within and adjacent to unimproved pasture and mitigation area access pathway, connected to forested wetlands and shrub and brushland					
Assessment area description Approximately 4 acres of wet prairie occur adjacent to unimproved pasture along the western edge of the mitigation area. These are areas of hydric soil that support low-growing herbaceous wetland vegetation but typically are not inundated. Common species include yellow-eyed grass (<i>Xyris</i> sp.), St. Johns wort (<i>Hypericum</i> sp.), mermaidweed (<i>Proserpinaca pectinata</i>), bushy bluestem (<i>Andropogon glomeratus</i>), marsh pennywort (<i>Hydrocotyle umbellata</i>), blue maidencane (<i>Amphicarpum muhlenbergianum</i>), sedges (<i>Cyperus</i> sp.), and sundews (<i>Drosera</i> sp.).					
Significant nearby features Fort Drum Marsh Conservation Area, undeveloped uplands and wetlands, pasture, citrus groves, transmission line right-of-way		Uniqueness (considering the relative rarity in relation to the regional landscape.) Not rare in relation to regional landscape			
Functions Wildlife habitat, grazing, water treatment and storage		Mitigation for previous permit/other historic use N/A			
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) Wading birds, herpetofauna		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) Possible occasional use by wading birds such as sandhill crane (T), white ibis (SSC), little blue heron (SSC), snowy egret (SSC), and tricolor heron (SSC).			
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Swallow-tailed kite, feral pig					
Additional relevant factors:					
Assessment conducted by: M. Arrants, K. Bullock, A. Zions, C. Brookshire		Assessment date(s): December 2014 through July 2015			

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center	Application Number	Assessment Area Name or Number Wet Prairie
Impact or Mitigation Mitigation	Assessment conducted by: Arrants, Bullock, Zions, Brookshire	Assessment date: Dec 2014 through August 2015

Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10) Condition is optimal and fully supports wetland/surface water functions	Moderate(7) Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal (4) Minimal level of support of wetland/surface water functions	Not Present (0) Condition is insufficient to provide wetland/surface water functions
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.500(6)(a) Location and Landscape Support	Current: Location and landscape support variable is reduced due to adjacent improved pasture and access pathways. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, slightly reduced due to adjacent agricultural landuse ; b) Invasive exotic species = 8, minimal coverage; c) Wildlife access to and from outside = 6, minimally decreased due to limitations imposed by adjacent agricultural landuse; proximity of Fort Drum Conservation Area provides benefit; d) functions that benefit fish & wildlife downstream-distance or barriers = 6, moderate benefit to downstream systems; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, slightly reduced due to adjacent agricultural areas, fire suppression in adjacent natural uplands; f) Hydrologically connected areas downstream of assessment area = 5, limited connection to downstream wetlands and ditches; g) Dependency of downstream areas on assessment area = 6, moderate benefit to downstream areas.	
	With: Location and landscape support variable increased slightly due to preservation of mitigation site and improved land management practices. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, increased due to improvement of surrounding habitats; b) Invasive exotic species = 8, decreased coverage due to invasive/exotic vegetation control; c) Wildlife access to and from outside = 7, due to improvement of surrounding habitats; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, due to improvement in surrounding habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 7; f) Hydrologically connected areas downstream of assessment area = 5, similar to existing condition; g) Dependency of downstream areas on assessment area = 6, similar to existing condition.	
w/o pres or current	6	with
		7
.500(6)(b)Water Environment (n/a for uplands)	Current: The water environment score is reduced due to historical hydrologic modifications resulting from ditching, conversion to pasture, and off road vehicle access pathways. Individual parameter scores: a) water levels and flows = 7, typical for community type; b) water level indicators = 6, occasional seasonal inundation; c) soil moisture = 7, typical for community type; d) soil erosion or deposition = 6, some areas of erosion, primarily due to access pathways; e) evidence of fire history = 6, less than typical for community type; f) vegetation community zonation = 6, typical, but slightly altered due to upland species encroachment; g) hydrologic stress on vegetation = 7, none noted; h) use by animal species with specific hydrological requirements = 5; i) vegetative species tolerant of and associated with water quality degradation = 8, minimal; j) direct observation of water quality = 7, no discoloration, turbidity, or sheen; k) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.	
	With: No change. The water environment variable may be slightly increased due to preservation and ongoing land management, but no specific hydrologic improvements are proposed, therefore the water environment variable score is same as current score.	
w/o pres or current	6	with
		6
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	Current: The community structure variable score is slightly reduced due to conversion to unimproved pasture adjacent to wet prairies, access pathways, and minimal presence of invasive exotic species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 7, dominated by native species; b) invasive exotics or other invasive plant species = 7, minimal coverage; c) regeneration and recruitment = 8, typical for assessment area; d) age & size distribution = 7, mixed age & size typical of community type; e) density and quality of coarse woody debris, snag, den, and cavity = 7, typical for system type; f) plant condition = 7, some indication of low productivity within area adjacent to unimproved pasture; g) land management practices = 7, slightly reduced due to fire suppression; h) topographic features = 6, slightly reduced compared to typical for community type; i) siltation or algal growth in submerged aquatic plant communities = N/A.	
	With: The community structure variable is slightly increased due to invasive/exotic vegetation control and preservation of the mitigation site. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 9, dominated by native species; b) invasive exotics or other invasive plant species = 9, site to be managed to control invasive/exotic vegetation; c) regeneration and recruitment = 8, typical for assessment area; d) age & size distribution = 8, mixed age & size typical of community type; e) density and quality of coarse woody debris, snag, den, and cavity = 7, adequate for system type; f) plant condition = 9, no indication of poor health or low productivity; g) land management practices = 9, slightly increased due to preservation and use of prescribed fire; h) topographic features = 8, typical for community type; i) siltation or algal growth in submerged aquatic plant communities = N/A.	
w/o pres or current	7	with
		8

Score = sum of above scores/30 (if uplands, divide by 20)	
current	with
0.63	0.70

Delta = [with-current]
0.07

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) = 1.03 (2 years)*
Risk factor = 1.25; T x R = 1.2875

*USACE t-factor = 1.017; T x R = 1.2713

For impact assessment areas
FL = delta x acres =

For mitigation assessment areas
RFG = delta/(t-factor x risk) = 0.054

3.95 acres x 0.054 = 0.21 credits

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center		Application Number		Assessment Area Name or Number Upland Enhancement - Shrub and Brushland, Pine Flatwoods, Hardwood-Conifer Mixed Forest	
FLUCCs code Shrub and Brushland (320), Pine Flatwoods (411), Hardwood-Conifer Mixed Forest (434)		Further classification (optional)		Impact or Mitigation Site? Mitigation - Preservation	Assessment Area Size 165.81 acres
Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e. OFW, AP, other local/state/federal designation of importance) none			
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Native uplands adjacent to freshwater marsh, wetland shrub, and forested wetland systems.					
Assessment area description Native upland forest and shrub and brushland communities adjacent to wetland systems. Shrub and brushland (approximately 98 acres) is dominated by saw palmetto (<i>Serenoa repens</i>), with a variety of subdominant shrub species include gallberry (<i>Ilex glabra</i>), rusty lyonia (<i>Lyonia ferruginea</i>), fetterbush (<i>Lyonia lucida</i>), wax myrtle (<i>Myrica cerifera</i>), American beautyberry (<i>Callicarpa americana</i>), and running oak (<i>Quercus pumila</i>), as well as occasional trees including cabbage palm (<i>Sabal palmetto</i>), laurel oak (<i>Quercus laurifolia</i>), slash pine (<i>Pinus elliottii</i>), and persimmon (<i>Diospyros virginiana</i>). Areas of pine flatwoods (approximately 13.5 acres) are dominated by slash pine, with occasional laurel oak and an understory dominated by saw palmetto with additional shrub species include wax myrtle, gallberry, running oak, fetterbush, and rusty lyonia. A total of approximately 54 acres of mature upland hardwood-coniferous forest are located within the mitigation area, with canopy dominated by slash pine, cabbage palm, and live oak, with occasional water oak and laurel oak also present.					
Significant nearby features Freshwater marsh, wetland shrubs, forested wetlands within mitigation site; agricultural areas, transmission line ROW, and Fort Drum Marsh Conservation Area adjacent to site.		Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique			
Functions Wildlife habitat, water treatment, threatened and endangered species foraging		Mitigation for previous permit/other historic use no			
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) Gopher tortoise, bald eagle, white tailed deer, feral pig		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) Suitable habitat for gopher tortoise (T), Sherman's fox squirrel (SSC), and gopher tortoise burrow commensal species, including gopher frog (SSC), Florida mouse (SSC), and Eastern indigo snake (T).			
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Armadillo (<i>Dasypus novemcinctus</i>), feral pig (<i>Sus scrofa</i>), black vulture (<i>Coragyps atratus</i>), bald eagle (<i>Haliaeetus leucocephalus</i>), turkey (<i>Meleagris gallopavo</i>), swallow-tailed kite (<i>Elanoides forficatus</i>), red shouldered hawk (<i>Buteo lineatus</i>), red tailed hawk (<i>Buteo jamaicensis</i>).					
Additional relevant factors: Preservation of native upland habitat adjacent to wetlands will facilitate improvement in vegetative community, preserve threatened species habitat, and support regional conservation/restoration goals.					
Assessment conducted by: M. Arrants, K. Bullock, A. Zions, C. Brookshire		Assessment date(s): December 2014 through July 2015			

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name FPL Okeechobee Clean Energy Center	Application Number	Assessment Area Name or Number Upland Enhancement
Impact or Mitigation Mitigation	Assessment conducted by: Arrants, Bullock, Zions, Brookshire	Assessment date: Dec 2014 through August 2015

Scoring Guidance
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support w/o pres or current 7 with 7	No increase in location and landscape support variable for upland enhancement and preservation is proposed, although preservation of upland buffers coupled with enhancement activities will increase functions of wildlife habitat and native vegetation to surrounding landscape.
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 	Upland enhancement and preservation - N/A
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current 6 with 7	Proposed exotic vegetation control will enhance native vegetative communities. Preservation will ensure continued protection of threatened species habitat and wetland buffers in perpetuity.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.65	0.70

Delta = [with-current]
0.05

If preservation as mitigation,
Preservation adjustment factor = 0.6
Adjusted mitigation delta = 0.03

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres =

For mitigation assessment areas
RFG = delta x preservation adjustment factor = 0.03

165.81 acres x 0.03 = 4.97 credits

APPENDIX B
SITE PHOTOGRAPHS



Photograph 1. Unimproved pasture (FLUCFCS 212), southern portion of mitigation area



Photograph 2. Shrub and brushland (FLUCFCS 320), central portion of mitigation area



Photograph 3. Pine flatwoods (FLUCFCS 411), northern portion of mitigation area



Photograph 4. Mixed hardwood/conifer upland forest (FLUCFCS 434), located within the southern portion of mitigation area



Photograph 5. Ditch (FLUCFCS 511) along western edge of mitigation area



Photograph 6. Mixed wetland hardwood forest (FLUCFCS 617) dominated by pop ash (*Fraxinus caroliniana*), northeast portion of mitigation area



Photograph 7. Mixed wetland hardwoods (FLUCFCS 617) dominated by mixture of red maple (*Acer rubrum*) and blackgum (*Nyssa sylvatica*), west-central portion of mitigation area



Photograph 8. Hydric pine flatwoods (FLUCFCS 625), located in west-central portion of mitigation area



Photograph 9. Mixed hardwood/conifer wetland forest (FLUCFCS 630), western portion of mitigation area



Photograph 10. Wetland shrub (FLUCFCS 631), located in eastern portion of mitigation area



Photograph 11. Wetland shrub (FLUCFCS 631) with St. John's wort (*Hypericum* sp.) in foreground, eastern portion of mitigation area



Photograph 12. Freshwater marsh (FLUCFCS 641) located in northeastern portion of mitigation area



Photograph 13. Freshwater marsh (FLUCFCS 641) dominated by arrowhead (*Sagittaria lancifolia*), east-central portion of mitigation area



Photograph 14. Wet prairie (FLUCFCS 643) located in western portion of mitigation area