APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I:	BACKGROUND	INFORMATION

- A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):
- B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C.	PROJECT LOCATION AND BACKGROUND INFORMATION:
٠.	State: Florida County/parish/borough: Citrus City:
	Center coordinates of site (lat/long in degree decimal format): Lat. 28.960383° N, Long82.651150° W.
	Universal Transverse Mercator:
	Name of nearest waterbody: Crystal Bay
	Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Crystal Bay
	Name of watershed or Hydrologic Unit Code (HUC): Direct Runoff to the Gulf/03100207
	Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
	Check if other sites (e.g., offsite mitigation sites, disposal sites, etc) are associated with this action and are recorded on a
	different JD form.
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY)

- Office (Desk) Determination. Date: January 7, 2010.
- Field Determination. Date(s): October 26-29, November 2-6, 2009.

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the eview area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There Are and are not "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the H S

wate	ers of the U.S.
a. In	idicate presence of waters of U.S. in review area (check all that apply): 1
	TNWs, including territorial seas
	Wetlands adjacent to TNWs
\boxtimes	Relatively permanent waters ² (RPWs) that flow directly or indirectly into TNWs (Wetlands Y, Z, AA, AB, AO, AP,
	AQ, ZE)
	Non-RPWs that flow directly or indirectly into TNWs
\succeq	
\geq	Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs (Wetland AN)
	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
	Impoundments of jurisdictional waters
	Isolated (interstate or intrastate) waters, including isolated wetlands
b. Id	lentify (estimate) size of waters of the U.S. in the review area:
N.	on-wetland waters: linear feet: width (ft) and/or garage

Wetlands: 133.92 acres

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual Elevation of established OHWM (if known):

2. Non-regulated waters/wetlands (check if applicable):³

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

Supporting documentation is presented in Section III.F.

Project: <u>Progress Energy Florida, Inc. Levy Baseload Transmission Program</u>
Assessment Area: <u>Levy-Crystal River Energy Complex Transmission Line Wetlands 1-24, Y, Z, AA, AB, AN-BH, ZA-ZH</u>

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: Wetlands 1, 2, 4 through 23, AR, AS, AV through AZ, BA through BH, ZA through ZDA, and ZF through ZH are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW (Wetlands Y, Z, AA, AB, AO, AP, AQ, ZE)

(i) General Area Conditions:

Watershed size: 31,471.53 acres
Drainage area: 31,471.53 acres
Average annual rainfall: 52 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW. (Wetlands Y, Z, AA, AB, AP)

☑ Tributary flows through 2 tributaries before entering TNW. (Wetlands AO, ZE)

☐ Tributary flows through 4 tributaries before entering TNW. (Wetland AQ)

Project waters are 2-5 river miles from TNW.

Project waters are 1 or less river miles from RPW.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Project: <u>Progress Energy Florida, Inc. Levy Baseload Transmission Program</u>
Assessment Area: <u>Levy-Crystal River Energy Complex Transmission Line Wetlands 1-24, Y, Z, AA, AB, AN-BH, ZA-ZH</u>

Project waters are 2-5 aerial (straight) miles from TNW.

Project waters are 1 (or less) aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: N/A.

Identify flow route to TNW⁵: Wetlands Y, Z, AA, AB, and AP compose portions of a ditch/canal located along the north side of Power Line Road that flows westward into the Crystal River Energy Complex discharge canal that outfalls into Crystal Bay, a TNW. Wetlands AO and ZE are ditches within the transmission line right-of-way that flow south into the ditch/canal on the north side of Power Line Road, which flows westward into the Crystal River Energy Complex discharge canal that outfalls into Crystal Bay, a TNW. Wetland AQ is a ditch located along the south side of Power Line Road. The eastern portion of this ditch, near North Tallahassee Road, joins a canal/ditch that flows west and southwest to a perennial stream and several intermittent, artificial paths that flow west and joins wetlands abutting Crystal Bay.

ributary stream order, if known:
ributary Characteristics (check all that apply): ributary is: Natural Wetland AQ - Some portions south of Power Line Road outside of the project are appear natural. Artificial (man-made). Explain: The RPWs are man-made, culverted ditches/canals. Manipulated (man-altered). Explain:
ributary properties with respect to top of bank (estimate): Average width: 2.5 feet Average depth: 2.5 feet Average side slopes: Vertical (1:1 or less).
rimary tributary substrate composition (check all that apply): Silts Sands Concrete Cobbles Gravel Muck Bedrock Vegetation. Type/% cover: Herbaceous/50% Other. Explain:
ributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Stable - no erosion evident. resence of run/riffle/pool complexes. Explain: N/A. ributary geometry: Relatively straight ributary gradient (approximate average slope): 2 %
ow: ributary provides for: perennial and intermittent/seasonal flows stimate average number of flow events in review area/year: continuous - perennial and 6-10 events Describe flow regime: ther information on duration and volume:.
urface flow is: Confined. Characteristics:
ubsurface flow: Unknown. Explain findings: Dye (or other) test performed:
ributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): Clear, natural line impressed on the bank changes in the character of soil destruction of terrestrial vegetation shelving the presence of litter and debris destruction of terrestrial vegetation the presence of wrack line vegetation matted down, bent, or absent sediment sorting leaf litter disturbed or washed away scour sediment deposition multiple observed or predicted flow events water staining abrupt change in plant community other (list): Discontinuous OHWM. Explain: May be less evident where ditched.
Tr. GG Tr. Tr. Tr. FITT. Tr. Es. O. St. St.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW. ⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break. ⁷Ibid.

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program

Assessment Area: Levy-Crystal River Energy Complex Transmission Line Wetlands 1-24, Y, Z, AA, AB, AN-BH, ZA-ZH

			If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: oil or scum line along shore objects fine shell or debris deposits (foreshore) physical markings/characteristics tidal gauges other (list): Mean High Water Mark indicated by: survey to available datum; physical markings; vegetation lines/changes in vegetation types.
	(iii)	Cha	emical Characteristics: racterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.) Explain: Unknown. tify specific pollutants, if known:
	(iv)		logical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): Wetland fringe. Characteristics: Portions have freshwater marsh/wet prairie fringing wetlands. Habitat for: Federally Listed species. Explain findings: Fish/spawn areas. Explain findings: Other environmentally-sensitive species. Explain findings: Aquatic/wildlife diversity. Explain findings:
2.			eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW (Wetlands 3&24, Z, AB, AN, AU)
	(i)		Sical Characteristics: General Wetland Characteristics: Properties: Wetland size: 127.62 acres Wetland type. Explain: Emergent/forested Wetland quality. Explain: Fair based on their connection to larger overall forested wetland system. Project wetlands cross or serve as state boundaries. Explain:
		(b)	General Flow Relationship with Non-TNW: Flow is: Intermittent. Explain:
			Surface flow is: Confined Characteristics: Both confined (within ditch banks) and sheetflow (non-ditched areas).
			Subsurface flow: Unknown. Explain findings: Dye (or other) test performed:
		(c)	Wetland Adjacency Determination with Non-TNW: ☐ Directly abutting Wetlands 3&24, Z, AB, AP, AT, AU ☐ Not directly abutting Wetland AN ☐ Discrete wetland hydrologic connection. Explain: ☐ Ecological connection. Explain: ☐ Separated by berm/barrier. Explain: Wetland AN is separated from Wetland AO (a ditch that is an intermittent RPW) by a berm.
*		(d)	Proximity (Relationship) to TNW Project wetlands are 2-5 or less river miles from TNW. Project waters are 2-5 or less aerial (straight) miles from TNW. Flow is from: Wetland to navigable waters. Estimate approximate location of wetland as within the 100 - 500-year floodplain.
	(ii)	Cha	emical Characteristics: racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Water was moderately clear. ntify specific pollutants, if known:
	(iii	Bio	logical Characteristics. Wetland supports (check all that apply): Riparian buffer. Characteristics (type, average width):

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program

Assessment Area: Levy-Crystal River Energy Complex Transmission Line Wetlands 1-24, Y, Z, AA, AB, AN-BH, ZA-ZH

3.	Habitat fo Federa Fish/sp Other Aquati Characteristics of a	r: ally Listed spectors are as a construction of the construction	cover. Explain: emerger cies. Explain findings: xplain findings: . lly-sensitive species. Exp ersity. Explain findings: djacent to the tributary red in the cumulative anal are being considered in the	(if any) lysis:	
	•		J	to camatative analysis.	
	For each wetlan	na, specify the	e following:		•
	Directly a	buts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
	3&24	(Y)	3.67		
	Z	(Y)	0.85		
	AB	(Y)	11.39		
	AP	(Y)	15.07		
	AT	(Y)	52.77		
	AU	(Y)	10.68		
	AN	(N)	33 10		

Summarize overall biological, chemical and physical functions being performed: These wetlands provide hydrologic detention and attenuation while also filtering pollutants. These wetlands are also part of a larger network of wetlands and RPWs and non-RPWs that form a contiguous to semi-contiguous connection to TNWs in the region. As part of a larger system, these wetlands provide habitat, foraging, and refugia for wildlife utilization.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and
 other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

Project: <u>Progress Energy Florida, Inc. Levy Baseload Transmission Program</u>
Assessment Area: <u>Levy-Crystal River Energy Complex Transmission Line Wetlands 1-24, Y, Z, AA, AB, AN-BH, ZA-ZH</u>

2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:.

Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: Wetland AN is located adjacent to an intermittent RPW ditch that flows south into the ditch/canal located along the north side of Power Line Road that flows westward into the Crystal River Energy Complex discharge canal that outfalls into Crystal Bay, a TNW. This wetland provides hydrologic detention and attenuation while also filtering pollutants. This wetland is part of a larger network of wetlands and RPWs and non-RPWs that form a contiguous to semi-contiguous connection to TNWs in the region. As part of a larger system, this wetland provides habitat, foraging, and refugia for wildlife.

	TERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL AT APPLY):
1.	TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area: TNWs: linear feet width (ft), Or, acres. Wetlands adjacent to TNWs: acres.
2.	 RPWs that flow directly or indirectly into TNWs. (Wetlands Y, Z, AA, AB, AO, AP, AQ, ZE) Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Wetland Y has perennial flow, according to USGS NHD data. Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Wetlands Z, AA, AB, AO, AP, AQ, and ZE appear to have intermittent/seasonal flows per 2009 aerial imagery and field observations.
	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). 13.37 acres Other non-wetland waters: acres. Identify type(s) of waters: .
3.	Non-RPWs ⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. (Wetlands 3&24, Z, AB, AP, AT, AU) Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Based on review of aerial photography and field observations, Wetlands 3&24, Z, AB, AP, AT, AU directly abut intermittent/seasonal RPWs.
	Provide acreage estimates for jurisdictional wetlands in the review area: 87.36 acres

Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. (Wetland AN)

Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this

conclusion is provided at Section III.C.

D.

⁸See Footnote # 3.

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program Assessment Area: Levy-Crystal River Energy Complex Transmission Line Wetlands 1-24, Y, Z, AA, AB, AN-BH, ZA-ZH

Provide acreage estimates for jurisdictional wetlands in the review area: 33.19 acres

	6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
		Provide estimates for jurisdictional wetlands in the review area: acres.
	7.	Impoundments of jurisdictional waters. ⁹ As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional. Demonstrate that impoundment was created from "waters of the U.S.," or Demonstrate that water meets the criteria for one of the categories presented above (1-6), or Demonstrate that water is isolated with a nexus to commerce (see E below).
E.	DE SU	OLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, CGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECK ALL THAT APPLY): 10 which are or could be used by interstate or foreign travelers for recreational or other purposes. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce. which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain:
	Ide	entify water body and summarize rationale supporting determination:
F.		ovide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: Wetlands: acres. ON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers
		Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
		Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:. Other: (explain, if not covered above):
	fac	ovide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR tors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional gment (check all that apply):
		Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres
		ovide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such inding is required for jurisdiction (check all that apply):
		Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).

To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
 Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

	<u>Progress Energy Florida, Inc. Levy Baseload Transmission Program</u> ent Area: <u>Levy-Crystal River Energy Complex Transmission Line Wetlands 1-24, Y, Z, AA, AB, AN-BH, ZA-ZH</u>
	Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: 26.79 acres (Wetlands 1, 2, 4 through 23, AR, AS, AV through AZ, BA through BH, ZA through ZDA, and ZF ough ZH)
SECTIO	ON IV: DATA SOURCES.
and	PORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked requested, appropriately reference sources below):
X X	Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Data sheets prepared/submitted by or on behalf of the applicant/consultant.
(K38)	Office concurs with data sheets/delineation report.
	Office does not concur with data sheets/delineation report.
	Data sheets prepared by the Corps:
	Corps navigable waters' study:
\boxtimes	U.S. Geological Survey Hydrologic Atlas: USGS 2006; www.fgdl.org.
	USGS NHD data.
_	☐ USGS 8 and 12 digit HUC maps.
H	U.S. Geological Survey map(s). Cite scale & quad name:. USDA Natural Resources Conservation Service Soil Survey. Citation:
岁	National wetlands inventory map(s). Cite name: USFWS, HRC 2008; www.fgdl.org.
吊	State/Local wetland inventory map(s): State/Local wetland inventory map(s):
局	FEMA/FIRM maps: .
	100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
図	Photographs: Aerial (Name & Date): AerialExpress 2008.
4	or ☐ Other (Name & Date):
	Previous determination(s). File no. and date of response letter:
	Applicable/supporting case law: .
	Applicable/supporting scientific literature: .
\boxtimes	Other information (please specify): Florida Atlas & Gazetteer, 2006; Southwest Florida Water Management District land use/land
cove	er data, 2004.

B. ADDITIONAL COMMENTS TO SUPPORT JD:

APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):
B. DISTRICT OFFICE, FILE NAME, AND NUMBER:
C. PROJECT LOCATION AND BACKGROUND INFORMATION: State: Florida County/parish/borough: Citrus City: Center coordinates of site (lat/long in degree decimal format): Lat. 28.961017° N, Long82.621583° N. Universal Transverse Mercator: Name of nearest waterbody: Crystal Bay Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: None Name of watershed or Hydrologic Unit Code (HUC): Crystal River/03100207 Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. Check if other sites (e.g., offsite mitigation sites, disposal sites, etc) are associated with this action and are recorded on a different JD form.
D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): ☐ Office (Desk) Determination. Date: January 7, 2010. ☐ Field Determination. Date(s): October 13 - 15, 2009.
SECTION II: SUMMARY OF FINDINGS A. RHA SECTION 10 DETERMINATION OF JURISDICTION.
There Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:
B. CWA SECTION 404 DETERMINATION OF JURISDICTION.
There Are no "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs Non-RPWs that flow directly or indirectly into TNWs Wetlands directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs Impoundments of jurisdictional waters Isolated (interstate or intrastate) waters, including isolated wetlands
b. Identify (estimate) size of waters of the U.S. in the review area:

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual Elevation of established OHWM (if known):

linear feet:

Non-regulated waters/wetlands (check if applicable):³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: Wetlands X, CS K through CS M, and CS S through CS W are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs.

acres.

width (ft) and/or

Non-wetland waters:

Wetlands:

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: acres
Drainage area: acres

Average annual rainfall: inches Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through tributaries before entering TNW.

Project waters are river miles from TNW.

Project waters are river miles from RPW.

Project waters are aerial (straight) miles from TNW.
Project waters are aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

	Identify flow route to TNW ⁵ :
	Tributary stream order, if known:
(b)	General Tributary Characteristics (check all that apply): Tributary is: Natural Artificial (man-made). Explain: Manipulated (man-altered). Explain:
	Tributary properties with respect to top of bank (estimate): Average width: feet Average depth: feet Average side slopes: Pick List.
	Primary tributary substrate composition (check all that apply): Silts Sands Concrete Cobbles Gravel Muck Bedrock Vegetation. Type/% cover: Other. Explain:
	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:. Presence of run/riffle/pool complexes. Explain:. Tributary geometry: Pick List Tributary gradient (approximate average slope):
(c)	Flow: Tributary provides for: Pick List Estimate average number of flow events in review area/year: Describe flow regime: Other information on duration and volume:.
	Surface flow is: Pick List. Characteristics:
	Subsurface flow: Pick List. Explain findings: Dye (or other) test performed:
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil destruction of terrestrial vegetation the presence of wrack line sediment sorting sediment sorting sediment deposition destruction of terrestrial vegetation the presence of wrack line sediment sorting scour multiple observed or predicted flow events abrupt change in plant community other (list): Discontinuous OHWM. ⁷ Explain:
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: Oil or scum line along shore objects Fine shell or debris deposits (foreshore) Physical markings/characteristics Physical markings/characteristics Other (list): Mean High Water Mark indicated by: Survey to available datum; Physical markings; Vegetation lines/changes in vegetation types.
(iii) Cl	nemical Characteristics:

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

		Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Unknown. Identify specific pollutants, if known:
	(iv)	Biological Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): Wetland fringe. Characteristics: Habitat for: Federally Listed species. Explain findings: Fish/spawn areas. Explain findings: Other environmentally-sensitive species. Explain findings: Aquatic/wildlife diversity. Explain findings:
2.	Cha	aracteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)	Physical Characteristics: (a) General Wetland Characteristics: Properties: Wetland size: Wetland type. Explain: Wetland quality. Explain: Project wetlands cross or serve as state boundaries. Explain:
		(b) General Flow Relationship with Non-TNW: Flow is: Explain:
		Surface flow is: Pick List Characteristics: Both confined (within ditch banks) and sheetflow (non-ditched areas). Subsurface flow: Pick List. Explain findings: Dye (or other) test performed: (c) Wetland Adjacency Determination with Non-TNW: Directly abutting Not directly abutting Discrete wetland hydrologic connection. Explain: Ecological connection. Explain: Separated by berm/barrier. Explain:
		(d) Proximity (Relationship) to TNW Project wetlands are river miles from TNW. Project waters are aerial (straight) miles from TNW. Flow is from: Pick List. Estimate approximate location of wetland as within the Pick List floodplain.
	(ii)	Chemical Characteristics: Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Identify specific pollutants, if known:
	(iii)	Biological Characteristics. Wetland supports (check all that apply): Riparian buffer. Characteristics (type, average width): Vegetation type/percent cover. Explain:. Habitat for: Federally Listed species. Explain findings: Fish/spawn areas. Explain findings: Other environmentally-sensitive species. Explain findings: Aquatic/wildlife diversity. Explain findings:
3.	Cha	rracteristics of all wetlands adjacent to the tributary (if any)

3. Characteristics of all wetlands adjacent to the tributary (if any All wetland(s) being considered in the cumulative analysis:

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the Rapanos Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:.

Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

OF HIDIODICTIONAL EINDINGS THE SHOTECT WATERSAVETI ANDS ARE ICHECK

	TERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL AT APPLY):
1.	TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area: TNWs: linear feet width (ft), Or, acres. Wetlands adjacent to TNWs: acres.
2.	RPWs that flow directly or indirectly into TNWs. Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program

Asse	essm	ent Area: Levy-Crystal River Energy Complex Transmission Line Wetlands X, CS K through CS M, CS S through CS W
		Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
	3.	Non-RPWs ⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.
		Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
	4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
		Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
		Provide acreage estimates for jurisdictional wetlands in the review area:
	5. I	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
		Provide acreage estimates for jurisdictional wetlands in the review area:
	6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
		Provide estimates for jurisdictional wetlands in the review area: acres.
	7.	Impoundments of jurisdictional waters. ⁹ As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional. Demonstrate that impoundment was created from "waters of the U.S.," or Demonstrate that water meets the criteria for one of the categories presented above (1-6), or Demonstrate that water is isolated with a nexus to commerce (see E below).
E.	DE SU	PLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECK ALL THAT APPLY): 10 which are or could be used by interstate or foreign travelers for recreational or other purposes.

⁸See Footnote # 3.

from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Assessment Area: Levy-Crystal River Energy Complex Transmission Line Wetlands X, CS K through CS M, CS S through CS W which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain: Identify water body and summarize rationale supporting determination: Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: Wetlands: acres. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): if potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:. Other: (explain, if not covered above): Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet Lakes/ponds: Other non-wetland waters: acres. List type of aquatic resource: Wetlands: Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet, width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: 8.62 acres (Wetlands X, CS K through CS M, CS S through CS W) SECTION IV: DATA SOURCES. A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below): Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS 2006; www.fgdl.org. USGS NHD data. ☑ USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name:. USDA Natural Resources Conservation Service Soil Survey. Citation: National wetlands inventory map(s). Cite name: USFWS, HRC 2008; www.fgdl.org. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): AerialExpress 2008. or Other (Name & Date): Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature:

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program

Other information (please specify): Florida Atlas & Gazetteer, 2006; Southwest Florida Water Management District land use/land cover data, 2004.

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Site/Project Name	Application Number			Assessment Area Name or Number		
Progress Energy Florida, Inc Transmission Program/LCR 1					ands 17, 20/21, AA, AB, D, BH, CS T, ZE	
FLUCCs code	Further classifica	ation (optional)		Impact	t or Mitigation Site?	Assessment Area Size
511 - Ditches					Impact	14.68 acres (17=0.14, 20/21=2.35, AA=0.32, AB=4.39, AO=0.27, AQ=6.6, BA=0.03, BD=0.10, BH=0.22, CS T=0.19, ZE=0.07)
Basin/Watershed Name/Number Crystal River to St. Pete/03100207	Affected Waterbody (Cla	ss)	Special Classificati	ion (i.e.C	DFW, AP, other local/state/federa	designation of importance)
Geographic relationship to and hyd	rologic connection with	wetlands, other si	urface water, upla	nds		
Hydrologically connected to other value and cleared transmission line ROW		outside the trans	mission line ROW	. Surro	ounded by upland and	wetland forest, pasture,
Assessment area description						
Ditches within existing transmission (Ludwigia peruviana), and torpedo sp., Cyperus spp.), rushes (Juncus coinwort (Centella asiatica), smarth broomsedge (Andropogon glomera plain willow (Salix caroliniana), bea giganteus).	grass (<i>Panicum repens</i> s sp.), sawgrass (<i>Cladi</i> weed (<i>Polygonum punc</i> tus), capeweed (<i>Phyla</i>	s), as well as nativ um jamaicense), v tatum), musky bu nodiflora), golder	ve species such as vax myrtle (<i>Myrica</i> shmint (<i>Hyptis ala</i> arod (<i>Solidago car</i> abrella sedge (<i>Fui</i>	s white a cerife ata), do nadens rena pu	top sedge (<i>Dichromen</i> ra), sweetgum (<i>Liquid</i> gfennel (<i>Eupatorium</i> c is), finger grass (<i>Eustaumila</i>), and sugarcane	a sp.), sedges (Carex ambar styraciflua), apillifolium), bushy achys glauca), coastal e plumegrass (Erianthus
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)			
Existing transmission line ROW,	Crystal River Energy C	enter, roadways	Not unique			
Functions			Mitigation for pre	vious p	permit/other historic us	e
Widlife habitat, water conveyan	ce, flood attenuation, a	quifer recharge	N/A			
Anticipated Wildlife Utilization Base that are representative of the assemble found)			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)			
Wading birds, raccoon, fish, her	hibians and	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).				
Observed Evidence of Wildlife Utili	zation (List species dire	ectly observed, or	other signs such a	as traci	ks, droppings, casings	, nests, etc.):
		unad st	ork			
		wood st	UIK			
Additional relevant factors:					*************************************	
	,					
Assessment conducted by: M. Arrants, C. Cunningham, B. Me	inacka S Pizza K P.	llock	Assessment date 10/13/2009 throu	` '	/ne/2009	
pvi. Arranto, o. Guriniigham, b. Me	HIGGRE, J. RIZZU, R. BU	HOUR	110/10/2009 (1870)	அரா 11/	00/2000	•

Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCR Transmission Line				Application Number		Assessment Area	a Name or Number	
						FLUCFCS 511 - Wetlands 17, 20/21, AB, AO, AQ, BA, BD, BH, CS T, ZI		
				Assessment conducted by: M. Arrants, C. Cunningl Meinecke, S. Rizzo, K.		Assessment date: 10/13/09 through 11/06/09		
Scoring	a Guidance	1	Optimal (10)	Moderate(7)	I M	inimal (4)	Not Present	(0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface.			Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most Minimal le		evel of support of d/surface water unctions	Condition is insut provide wetland, water functi	s insufficient to etland/surface
transmission line ROW. Income somewhat reduced due to le coverage; c) Wildlife access developed areas; d) function artificial drainageways; e) Indevelopment and clearing contracts.			port variable is reduced due to ividual parameter scores: a) cation within cleared transmis to and from outside = 6, decres that benefit fish & wildlife do pacts to wildlife listed in Part finative habitat; f) Hydrologica pannect to adjacent areas; g) Distream areas.	Support to vision line RC eased due to bownstream-(1 by outside ally connected	widlife listed in Part DW; b) Invasive ex to limitations impos distance or barriers a land uses = 6, rec ad areas downstrea	t 1 by outside habi- otic species = 6, rr sed by surrounding s = 5, moderate be duced due to surro am of assessment	tats = 6 noderation nefit, unding area = 1	
within surrounding disturbed of excavated ditches; b) wate (n/a for uplands) (n/a for uplands) within surrounding disturbed of excavated ditches; b) wate (and uses; e) evidence of fire upland species encroachmen use by animal species with shydrology; i) vegetative specified in the contraction of			e is reduced due to artifical hy landscape. Individual paramer level indicators = 5, altered d; d) soil erosion or deposition history = N/A; f) vegetation c int; g) hydrologic stress on vegepecific hydrological requirements to be a control of and associated ligae; j) direct observation of vactic vegetation; K) existing we enetration = N/A.	eter scores: hydroperion 1 = 4, erosion community zo getation = 6 ents = 5, du d with water water quality	a) water levels ard due to to excavat n from ROW clears onation = 3, artificis, upland and transi e to surrounding al quality degradation = 4, some elevate	nd flows = 5, artific ted ditches; c) soil ance, roadways, a al system, significa tional species prev tered landscape/a n = 4, some indicated nutrients likely d	ial natu moistu djacent ant valent; h ltered tion of ue to	
artificial nature of drainage of or ground stratum = 5, main prevalent; b) invasive exotic c) regeneration and recruitm diminished hydroperiod; d) a maintanence; e) density and reduced due to maintenance.			riable is reduced due to mode litches. Individual parameter tenance typically removes shres or other invasive plant specient = 4, artificial system, recrige & size distribution = 5, typiquality of coarse woody debreand herbicide; g) land managance; h) topographic features mmunities = N/A	scores: a) prub/canopy sicies = 6, mouitment impical of artificis, snag, degement prac	lant community sp stratum, non-desira derate coverage of acted by surrounditial drainage ditch, n, and cavity = N/A ctices = 5, due to a	ecies in the canop able wetland specie f exotic/nuisance s ng development an some impact due to A; f) plant condition alteration of commu	y, shru es pecies nd to i = 6, inity	
Score - c···	m of above seem	es/30 (if	If preservation as mitig	action		For impact access	ement areas	
uplands, divide by 20) current br w/o pres with		Preservation adjustme Adjusted mitigation de	ment factor = FL = delta x acres = -0.53 x 0.08 = 0.04 (Wetland CS T)					
0.53		0						'
			If mitigation		<u> </u>	or mitigation asse	sement areas	
Delt	a = [with-currer	nt]	Time lag (t-factor) =		<u> </u>	or manyation asse	Somen dieds	
	-0.53	 	Risk factor =		RFG	= delta/(t-factor x	risk) =	
			J L					1

Site/Project Name Progress Energy Florida, Inc Transmission Program/LCR T	- I	nber	FLUCFCS 511 - Wet	Assessment Area Name or Number FLUCFCS 511 - Wetlands Y, Z, AP, AU, CS M, ZDA		
FLUCCs code 511 - Ditches	Further classification (optional)		Impact or Mitigation Site? Existing Condition	Assessment Area Size 3.1 acres (Y=0.22, Z=0.20, AP=1.3, AU=1.18, CS M=0.19,		
				ZDA=0.01)		
	Affected Waterbody (Class)	Special Classification	On (i.e.OFW, AP, other local/state/federa	al designation of importance)		
Crystal River to St. Pete/03100207			None			
Geographic relationship to and hydr	rologic connection with wetlands, other	er surface water, upla	nds			
Hydrologically connected to other w and cleared transmission line ROW	vetlands/surface waters outside the tra /	ansmission line ROW	. Surrounded by upland and	wetland forest, pasture,		
Assessment area description						
torpedo grass (<i>Panicum repens</i>), a sp.), sawgrass (<i>Cladium jamaicen</i> s	n line ROW vegetated with a mixture of swell as native species such as sugate), musky bushmint (<i>Hyptis alata</i>), sribomeratus), arrowhead (<i>Sagittaria land</i> ow (<i>Salix caroliniana</i>).	arcane plumegrass (E martweed (<i>Polygonur</i> cifolia), muhly grass	Erianthus giganteus), whiteto m punctatum), dogfennel (Ei (Muhlenbergia capillaris), go	p sedge (Dichromena upatorium capillifolium), oldenrod (Solidago		
Significant nearby features		Uniqueness (co landscape.)	onsidering the relative rarity in	relation to the regional		
Cleared transmis	ssion line ROW, US 19		Not unique			
Functions		Mitigation for pre	vious permit/other historic us	;e		
Widlife habitat, water conveyanc	ce, flood attenuation, aquifer recharge	,	N/A			
	ed on Literature Review (List of species ssment area and reasonably expected	to classification (E,	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)			
	ed deer, armadillo, various amphibian: erpetofauna	little blue heron (Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).			
Observed Evidence of Wildlife Utiliz	zation (List species directly observed,	or other signs such a	as tracks, droppings, casings	, nests, etc.):		
mosqu	uitofish, leopard frog, white-tailed deer,	, alligator, florida gar,	mourning dove, blue jay			
Additional relevant factors:						
Assessment conducted by:		Assessment date	e(s):			
M. Arrants, C. Cunningham, S. Rizz	ock 10/13/2009 throu	10/13/2009 through 11/06/2009				

Form 62-345.900(1), F.A.C. [effective date]

Site/Project Name Progress Energy Florida, Inc./Le Program/LCR Tran	•	Application Number		Assessment Area Name or Number FLUCFCS 511 - Wetlands Y, Z, AP, AU, CS M, ZDA		
Impact or Mitigation Existing Co		Assessment conducted by: M. Arrants, C. Cunningham, Davanzo, B. Meinecke, K.		Assessment date)
Scoring Guidance	Optimal (10)	Moderate(7)	BA:	nimal (4)	Not Present	· (n)
The scoring of each		Condition is less than	1911	iiiiiai (4)	Not Fresent	. (0)
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	optimal, but sufficient to maintain most wetland/surface waterfunctions	wetland	vel of support of /surface water unctions	Condition is insur provide wetland water functi	/surface
						
.500(6)(a) Location and Landscape Support w/o pres or current with 6 0	Individual parameter scores: disturbance from surroundin paragrass; c) Wildlife access landscape; d) functions that habitats; e) Impacts to wildlif cleared transmission line RC	port variable is somewhat redu a) Support to wildlife listed in g development; b) Invasive ex s to and from outside = 6, decr benefit fish & wildlife downstre e listed in Part 1 by outside lar bW; f) Hydrologically connected areas on assessment area = 6	Part 1 by o otic species eased due to am-distance and uses = 7, d areas down	utside habitats = 6 = 7, minimal cove to limitations impo e or barriers = 7, a , somewhat reducents stream of asses	6, reduced due to erage of wild taro a sed by surrounding areas adjacent to o ed due to surround sment area = 7; g)	and g cleared ther ding
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with	parameter scores: a) water development; b) water level deposition = 6, erosion noted assessment area; g) hydrolo hydrological requirements = degradation = 6, some indicasomewhat elevated nutrients	The water environment score is reduced somewhat due to surrounding cleared transmission line ROW. Individual parameter scores: a) water levels and flows = 8, typical of assessment area, slightly reduced due to adjacent development; b) water level indicators = 7; c) soil moisture = 8, consistent with expected; d) soil erosion or deposition = 6, erosion noted; e) evidence of fire history = N/A; f) vegetation community zonation = 6, typical of dissessment area; g) hydrologic stress on vegetation = 7, minimal; h) use by animal species with specific hydrological requirements = 6, foraging habitat; i) vegetative species tolerant of and associated with water quality degradation = 6, some indication of high nutrients, exotic species; j) direct observation of water quality = 7, somewhat elevated nutrients evident due to algal growth and nuisance/exotic vegetation; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.				
1. Vegetation and/or 2. Benthic Community w/o pres or current with 0	parameter scores: a) plant c maintenance typically remov or other invasive plant speci- recruitment = 7, area within t ROW maintenance; e) densi 7, typical of assessment are- alteration of community struc-	riable is slightly reduced due to community species in the canories shrub/canopy stratum, nones = 7, moderate coverage of transmission line ROW is mainty and quality of coarse woody a, somewhat reduced due to moture by routine maintenance; tion or algal growth in submergation.	by, shrub, o desirable w paragrass, v tained; d) a debris, sna naintenance h) topograp	r ground stratum = vetland species pro- wild taro, rattlebox ge & size distributing, den, and cavity r; g) land manager hic features = 7, ty	7, transmission li esent; b) invasive c; c) regeneration a tion = 6, altered du y = N/A; f) plant co ment practices = 7 ypical of system, a	ne exotics and e to ndition = , due to
Score = sum of above scores/30 (if	If propoposion on military	vation		For impact coses	ement erees	
uplands, divide by 20) current br w/o pres 0.57 0	If preservation as mitig Preservation adjustme Adjusted mitigation de	nt factor =	FL =	For impact assess delta x acres = -0		
	If mitigation				3	1
Delta = [with-current]	Time lag (t-factor) =		F	or mitigation asse	ssment areas	
-0.57		RFG	= delta/(t-factor x	risk) =		

Site/Project Name	Application Numbe	lumber Assessment Area Name or Number			or Number	
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCR Transmission Line					FLUCFCS 534 - Wetland AM	
FLUCCs code	Further classifica	tion (optional)		Impac	et or Mitigation Site?	Assessment Area Size
534 - Reservoirs < 10 acres					Existing Condition	0.18 acres
Basin/Watershed Name/Number Affect	ted Waterbody (Class	s)	Special Classification	on (i.e.C	DFW, AP, other local/state/federal	designation of importance)
Direct Runoff to Gulf/03100207		***************************************			None	
Geographic relationship to and hydrolog	ic connection with	wetlands, other s	urface water, upla	nds		
Located within the Crystal River Energy or surface waters.	Complex property,	north and west o	f the existing subs	station	. No hydrologic connec	tion to other wetlands
Assessment area description						
herbaceous species including Peruvian (Cyperus spp.), bristlegrass (Setaria sp	Wetlands AI and AM are isolated retention areas that retain runoff water from the adjacent car wash and roadways. Vegetation consists of herbaceous species including Peruvian primrosewillow (<i>Ludwigia peruviana</i>), anglestem primrosewillow (<i>Ludwigia leptocarpa</i>), flatsedges (<i>Cyperus</i> spp.), bristlegrass (<i>Setaria</i> spp.), annual saltmarsh aster (<i>Symphyotrichum subulatum</i>), Virginia buttonweed (<i>Diodia virginiana</i>), sawgrass (<i>Cladium jamaicense</i>), spotflower (<i>Acmella</i> spp.), marsh mermaidweed (<i>Proserpinaca palustris</i>), and lizard's tail (<i>Saururus cernuus</i>).					
Significant nearby features			Uniqueness (co landscape.)	nsider	ing the relative rarity in	relation to the regional
Crystal River Energy Cor	mplex, Gulf of Mexic	со	Not unique			
Functions			Mitigation for pre-	vious į	permit/other historic use	
Water storage, foraging h	abitat for wading bi	rds	N/A			
Anticipated Wildlife Utilization Based on			Anticipated Utilization by Listed Species (List species, their legal			
that are representative of the assessme be found)	nt area and reason	ably expected to	classification (E, T, SSC), type of use, and intensity of use of the assessment area)			
Wading birds, various amph	fauna	Potential foraging by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), limpkin (SSC), wood stork (E).				
Observed Evidence of Wildlife Utilization	n (List species direc	ctly observed, or o	other signs such a	s tracl	ks, droppings, casings,	nests, etc.):
		none				
Additional relevant factors:		<u>.</u>				
Assessment conducted by:			Assessment date	e(s):		
S. Rizzo, T. Davanzo			10/29/2009			

Site/Project Name	Application Number Assessment Area Name or Nu			a Name or Number		
Progress Energy Florida, Inc./Lo	evy Baseload Transmission					
" Program/LCR Tran	-			FLUCFCS 534 - Wetland AM		IVI
Impact or Mitigation		Assessment conducted by:	-	Assessment date):	
Existing Co	ondition	S. Rizzo, T. Davanz	zo	10/2	28/09, 10/29/09	
Scoring Guidance	Optimal (10)	Moderate(7)	Mir	nimal (4)	Not Present	(0)
The scoring of each	Condition is optimal and	Condition is less than				
indicator is based on what would be suitable for the	fully supports	optimal, but sufficient to maintain most		vel of support of surface water	Condition is insur provide wetland	
type of wetland or surface	wetland/surface water functions	wetland/surface		nctions	water functi	ons
water assessed		waterfunctions				
.500(6)(a) Location and Landscape Support w/o pres or current with 4 0	Complex. Individual parame to location within plant; b) In- from outside = 4, decreased distance or barriers = 4, area to surrounding habitat loss; f	port variable is reduced due to teter scores: a) Support to wildly vasive exotic species = 4, Pendue to limitations imposed by as isolated; e) Impacts to wildlight f) Hydrologically connected are areas on assessment area = 4	life listed in F uvian primro plant; d) fun fe listed in P eas downstre	Part 1 by outside I sewillow dominan ctions that benefit art 1 by outside I arm of assessmer	habitats = 4, reduct; c) Wildlife accest fish & wildlife doverand uses = 4, reduct area = 4, isolate	ed due s to and nstream- ced due
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with	clearing associated with the to surrounding plant; b) wate expected; d) soil erosion or o community zonation = 8, mo by animal species with speci observed; i) vegetative spec consists of typical species; j)	e is reduced due to isolation fr existing plant. Individual para er level indicators = 4, not con deposition = 8, minimal erosion stly consistent with expected; iffic hydrological requirements = ies tolerant of and associated direct observation of water quave, wave energy, currents ar	meter scores sistent with e n; e) evidenc g) hydrologic = 4, potential with water q uality = N/A,	s: a) water levels expected; c) soil note of fire history = c stress on vegetal wading bird habituality degradation no water present;	and flows = 4, alternoisture = 4, drier N/A; f) vegetation ation = 4, apparentiat, but no wading n = 4, community g	than ; h) use birds enerally
1. Vegetation and/or 2. Benthic Community w/o pres or current with 0	of invasive species. Individustratum = 4, dominated by side, moderate coverage; c) regage & size distribution = 4, in woody debris, snag, den, an mowing; g) land management	tructure is dominated by herba ual parameter scores: a) plant ome undesirable wetland spec meneration and recruitment = 4 mpacted by application of herba d cavity = N/A; f) plant condition nt practices = 4, impacted by a ept for Wetland AC; i) siltation	community s lies; b) invas l, impacted b licides and m on = 4, impac application of	species in the can sive exotics or oth by application of h nowing; e) density cted by application f herbicides and m	nopy, shrub, or gro ner invasive plant s nerbicides and move and quality of coa n of herbicides and nowing; h) topogra	und species = ving; d) arse d phic
Score = sum of above scores/30 (iff	If preservation as mitig	nation		For impact assess	sment areas	
uplands, divide by 20)	Preservation adjustme			. J. Impact addes		
current br w/o pres with 0.40 0	Adjusted mitigation de	FL = delta x acres = -0.40 x 0 = 0				
	J					
	If mitigation		Fo	or mitigation asse	ssment areas	
Delta = [with-current]	Time lag (t-factor) =					
-0.40	-0.40 Risk factor =			= delta/(t-factor x	risk) =	

Site/Project Name	Application Numbe	mber Assessment Area Name or Number			or Number	
Progress Energy Florida, Inc				FLUCFCS 534 - We	etlands 1, AY, CS U	
Transmission Program/LCR T		<u> </u>				
FLUCCs code	Further classificat	tion (optional)		Impact	t or Mitigation Site?	Assessment Area Size
534 - Reservoirs < 10 acres	Stormy	water Ponds, Res	ervoirs	1	Existing Condition	1.35 acres (1=0.12, AY=1.04, CS-U=0.19)
Basin/Watershed Name/Number Crystal River to St. Pete/03100207	Affected Waterbody (Class	s)	Special Classificati	ion (i.e.O	PFW, AP, other local/state/federal	designation of importance)
Geographic relationship to and hydr	ologic connection with	wetlands, other s	urface water, upla	ands		
Isolated stormwater ponds/man-ma	de reservoirs. Surroun	ided by existing tr	ansmission line R	OW.		
Assessment area description						
Stormwater ponds/reservoirs surrounative species, including coastal plaglomeratus), broomsedge bluestem (Diodia virginiana), and water hysso	ain willow (Salix carolinia n (Andropogon virginicu	iana), cattail (<i>Typi</i>	<i>ha latifolia</i>), rushe <i>itella asiatica</i>), clir	es (<i>Jun</i> mbing a	ncus sp.), bushy brooms aster (<i>Aster carolinianu</i>	sedge (Andropogon m), buttonweed
Significant nearby features			Uniqueness (co landscape.)	onsideri	ing the relative rarity in	relation to the regional
Existing trans	mission line ROW		Not unique			
Functions			Mitigation for previous permit/other historic use			
Water storaç	ge, wildlife habitat				N/A	
Anticipated Wildlife Utilization Based that are representative of the asses be found)			· '	T, SSC	y Listed Species (List s C), type of use, and inte	
Wading birds, raccoon, vario	ous amphibians and her	petofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), and tricolored heron (SSC).			
Observed Evidence of Wildlife Utiliz	ation (List species direc	ctly observed, or o	other signs such a	as track	(s, droppings, casings,	nests, etc.):
	SÜ	x-lined racerunne	r, apple snails			
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
M. Arrants, C. Cunningham, S. Rizz	10/15/2009 through 11/5/2009					

Site/Project Name		Application Number Assessment Area Name or Num			
Progress Energy Florida, Inc./I Program/LCR Tra	•		FLUCFCS 53	4 - Wetlands 1, AY, CS U	
Impact or Mitigation Existing C	ondition	Assessment conducted by: M. Arrants, C. Cunningham, Davanzo, K. Bulloo		e: 09 through 11/5/09	
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	Condition is less than optimal, but sufficient to maintain most wetland/surface Minimal level of support of wetland/surface water functions		
.500(6)(a) Location and Landscape Support w/o pres or current with	ROW and roadways. Individually reduced due to disturbance species = 5, moderate cover imposed by surrounding devidownstream-distance or barroutside land uses = 6, reductions and seed to surround the surrounding devictions and surrounding deviations.	port variable is reduced due to dual parameter scores: a) Sup from maintenance mowing/her rage of cattail; c) Wildlife acce reloped areas and lack of hydr riers = 1, areas isolated from of ed due to surrounding develop on of assessment area = 1, no = 1, minimal benefit to downstr	port to wildlife listed in Part 1 bicide, surrounding developr ss to and from outside = 6, d ologic connection; d) function other habitats; e) Impacts to v oment and clearing of native hydrologic connection; g) De	by outside habitats = 5, ment; b) Invasive exotic ecreased due to limitations as that benefit fish & wildlife wildlife listed in Part 1 by habitat; f) Hydrologically	
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with	within surrounding cleared, in nature of excavated ponds; if with expected; d) soil erosion community zonation = 5, arti- deeper water reduce extent requirements = 7, foraging in tolerant of and associated w species; j) direct observation	e is reduced due to artifical hy mpacted areas. Individual parb) water level indicators = 4, un or deposition = 7, limited ero ificial system, reduced littoral z of expected emergent vegetat ioted, although lack of hydrolo ith water quality degradation = n of water quality = 5, elevated K) existing water quality data =	rameter scores: a) water lever pland excavated ponds; c) so so noted; e) evidence of fir cone; g) hydrologic stress on ion; h) use by animal species gic connection reduces utilize 5, some indication of high nin nutrients evident due to alga-	els and flows = 5, artificial bil moisture = 7, consistent e history = N/A; f) vegetation vegetation = 6, areas of s with specific hydrological ation; i) vegetative species utrients, cattails and exotic al growth and	
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current with 5	nature of ponds/reservoirs. ground stratum = 5, mainten prevalent; b) invasive exotic and recruitment = 4, artificial hydroperiod; d) age & size d coarse woody debris, snag, herbicide; g) land management	riable is reduced due to prese Individual parameter scores: a lance typically removes shrub, es or other invasive plant spec I system, recruitment impacted istribution = 4, typical of artific den, and cavity = N/A; f) plant ent practices = 5, due to altera tificial excavated system; i) silt	a) plant community species in canopy stratum, non-desirab ies = 6, moderate coverage of d by surrounding developmential ial stormwater pond system; condition = 6, reduced due to ation of community structure	n the canopy, shrub, or le wetland species of cattail; c) regeneration nt and diminished e) density and quality of o maintenance and by routine maintenance; h)	
Score = sum of above scores/30 (If preservation as mitig	aation.	For impact asset	ssment areas	
uplands, divide by 20) current or w/o pres 0.50 0	Preservation adjustme Adjusted mitigation de	ent factor =	FL = delta x acres = -		
<u></u>					
Delta = [with-current]	If mitigation Time lag (t-factor) =		For mitigation ass	essment areas	
-0.50	Risk factor =		RFG = delta/(t-factor :	k risk) =	
<u> </u>	J				

Site/Project Name Progress Energy Florida, Inc Transmission Program/LCR T		Application Numbe	ef	Ī	or Number etlands 3&24, 8, 11, 12, 12, AN, AQ, AW	
FLUCCs code 617 - Mixed Wetland Hardwood	Further classificat	tion (optional)		Impact or Mitigation Site? Impact	Assessment Area Size 29.97 acres (3&24=0.89, 8=0.3, 11=0.24, 12=0.14, 16=0.25, 18=0.26, 19=1.1, 22=5.84, AN=17.87, AQ=2.5, AW=0.58)	
Basin/Watershed Name/Number Crystal River to St. Pete/03100207	es)	Special Classification	on (i.e.ofw, AP, other local/state/federa	al designation of importance)		
Geographic relationship to and hydronic	rologic connection with	wetlands, other s	urface water, upla	nds		
Isolated forested wetlands adjacent	t to cleared transmission	n line ROW and u	upland forest.			
Assessment area description						
Forested wetlands vegetated with n palm (Sabal palmetto), red maple (cedar (Juniperus virginianus), and ((Salix caroliniana), and walter's vib (Muhlenbergia capillaris), marsh fle rotunidifolia), and dogfennel (Eupat	(Acer rubrum), blackgur sweet bay (Magnolia vir ournum (Viburnum obova eabane (Pluchea odorat	m (Nyssa sylvatic irginiana). Shrub ratum). Groundco	ca), pop ash (<i>Fraxi</i> species include wa over species include	inus caroliniana), swamp ba ax myrtle (<i>Myrica cerifera</i>), d de whitetop sedge (<i>Dichrome</i>	y (<i>Persea palustris</i>), red coastal plain willow ena sp.), muhly grass	
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)			
Existing transmissi	ion line ROW, roadways	s	Not unique			
Functions			Mitigation for prev	vious permit/other historic us		
Widlife habitat, water	r storage, aquifer rechar	rge	N/A			
Anticipated Wildlife Utilization Base that are representative of the asses be found)		•	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)			
Wading birds, raccoon, vario	ous amphibians and her	rpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).			
Observed Evidence of Wildlife Utiliz	zation (List species dire	ctly observed, or o	other signs such a	s tracks, droppings, casings	, nests, etc.):	
		mourning dove	∍, blue jay			
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
B. Meinecke, S. Rizzo, A, Davanzo, K. Bullock			11/2/09 through 11/5/09			

Sita/Brainet Name		Application Number		[Aaaaaamaat A	a Nama aa Niverta	
Site/Project Name Progress Energy Florida, Inc./L	evy Baseload Transmission	Application Number		Assessment Area Name or Number FLUCFCS 617 - Wetlands 3&24, 8, 11, 12,		
Program/LCR Trai	•			16, 18, 19, 22, AN, AQ, AW		
Impact or Mitigation		Assessment conducted by:		Assessment date:		
Impact	- Fill	B. Meinecke, S. Rizzo, A. Da	avanzo, K.	11/	2/09 - 11/5/09	
		Bullock		2,00 1,000		
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present	(0)
The scoring of each		Condition is less than	wiiiiiiai (4)		Not Flesent (0)	
indicator is based on what	Condition is optimal and fully supports	optimal, but sufficient to	Minimal le	vel of support of	Condition is insuf	fficient to
would be suitable for the	wetland/surface water	maintain most	wetland/surface water		provide wetland	
type of wetland or surface water assessed	functions	wetland/surface waterfunctions	functions		water function	ons
Water assessed		Waterfulletions			<u> </u>	
Location and landscape support variable is reduced somewhat due to location of wetland adjacent to translated Landscape Support Location and Landscape Support Location and landscape support variable is reduced somewhat due to location of wetland adjacent to translated Landscape Support Location and landscape support variable is reduced somewhat due to location of wetland adjacent to translated Landscape Support to wildlife listed in Part 1 by outside habitate access to and from outside = 7, decreased due to limitations imposed by surrounding agricultural areas an hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, moderate to translate to the provided Landscape; b) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape; b) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape; b) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape; b) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape; b) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape; d) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape; d) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape; d) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape; d) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape; d) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape and provided Landscape; d) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape; d) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape and provided Landscape; d) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape; d) Invasive exotic species = 9, minimal coverage; c) Well of the provided Landscape; d) Invasive exotic species = 9, minimal coverage; d) Invasive exotic species = 9, mini					s = 7, Wildlife ad lack of te reduced	
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 8	clearing and development; b) water level indicators = 8, consistent with expected; c) soil moisture = 8, consistent with expected; d) soil erosion or deposition = 8, minimal erosion; e) evidence of fire history = N/A; f) vegetation community zonation = 8, typical of assessment area; g) hydrologic stress on vegetation = 8, minimal species with specific hydrological requirements = 7, wading bird foraging habitat; i) vegetative species tolerant of and associated with water quality degradation = 8, community consists of typical species; j) direct observation of water quality = 8, none noted; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.					
.500(6)(c)Community structure The community structure variable reflects dominance by desirable native wetland canopy species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 9, dominated by desir native wetland and recruitment = 8, minor impact due to adjacent transmission line maintenance; d) age & size distribution = 9 typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition 10; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 9, typical for assessment area; i) siltation or algal growth in submerged aquality.						desirable neration n = 9, ition = ive
current with	plant communities = N/A	-, 1, -, 10, 00000011101			sabinorgod	qualio
9 0						
Score = sum of above scores/30 (if	If preservation as mitig	gation,		For impact assess	sment areas	
uplands, divide by 20) current	Preservation adjustme	ent factor =	<u> </u>	delta x acres = -0	80 × 0.76 = 0.64	
or w/o pres with				delta x acres = -u. and AN)	.00 x 0.70 = 0.01	
	Adjusted mitigation del	lta =	(
0.80 0			<u></u>	··		
	18 30 - 0					
	If mitigation		F	or mitigation asse	ssment areas	
Delta = [with-current]	Time lag (t-factor) =					
-0.80	Risk factor =		RFG	= delta/(t-factor x	risk) =	

Site/Project Name Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCR Transmission Line Impact or Mitigation Impact - Clearing		Application Number		Assessment Area Name or Number FLUCFCS 617 - Wetlands 3&24, 8, 11, 12 16, 18, 19, 22, AN, AQ, AW		
		Assessment conducted by: B. Meinecke, S. Rizzo, A. Davanzo, K. Bullock		Assessment date: 11/2/09 - 11/5/09		
				·		
Scoring Guic The scoring o ndicator is base would be suitabl type of wetland of water asses	f each d on what le for the or surface	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	1		Not Present (0) Condition is insufficier provide wetland/surfa water functions
	ocation and be Support with	landscape support variable of freshwater marsh/wetland so outside habitats = 4, reduce exotics associated with disturbutions that benefit fish & in Part 1 by outside land use	ociated with clearing the trans for wetland forests through los crub community. Individual pad due to clearing impacts; b) I urbance; c) Wildlife access to wildlife downstream-distance as = 4, reduced due to habitatied due to clearing impacts; g) instream areas.	is of contigue arameter sco nvasive exo and from out or barriers = loss; f) Hydi	ous forested parce ores: a) Support to tic species = 6, po tside = 4, reduced 4, limited benefit; rologically connect	els and conversion to a o wildlife listed in Part 1 stential encroachment of due to clearing impacts e) Impacts to wildlife lis ted areas downstream o
` ' ' '	er Environment uplands) with	clearing will impact the wate parameter scores: a) water erosion/sedimentation, and moisture = 4, altered from si impacts; e) evidence of fire stratum; g) hydrologic stress specific hydrological require associated with water quality	t; silt fencing will reduce tempor environment score due to er levels and flows = 4, altered o soil compaction; b) water leve oil compaction; d) soil erosion history = N/A; f) vegetation co son vegetation = 6, some strements = 6, decreased use dury degradation = 6, may have puality = N/A; K) existing water in = N/A.	osion, sedim due to clearin I indicators = or deposition mmunity zon ess from soil e to clearing potential enc	nentation, and soil ng impacts related = 4, altered from c on = 4, temporary on nation = 4, altered compaction, h) us i, i) vegetative spe roachment of nuis	compaction. Individual to use of heavy machin learing impacts; c) soil erosion from clearing due to removal of cano be by animal species wit cies tolerant of and ance/exotic species; j)
1. Vegeta	munity structure stion and/or Community with 5	functional value compared to species in the canopy, shrult invasive plant species = 6, precruitment = 6, the herbace distribution = 4, impacted for reduced due to clearing imp practices = 4, due to alterati	overt the system to a freshwate of the existing forested system by or ground stratum = 4, candotential encroachment of exoceous and shrub stratum species om clearing; e) density and quacts; f) plant condition = 4, region of community structure by a or algal growth in submerged	 Individual opy stratum relatics associates will eventeality of coarseduced due to clearing; h) 	parameter scores removed; b) invasted with disturband ually regenerate a se woody debris, so o clearing impacts topographic feati	: a) plant community sive exotics or other ce; c) regeneration and nd recruit; d) age & size snag, den, and cavity = ; g) land management ures = 4, atypical for
	bove scores/30 (iivide by 20) with 0.50	If preservation as miti Preservation adjustme Adjusted mitigation de	ent factor =	(Wet (Wet (Wet	For impact asses delta x acres = -0 tland 19); -0.30 x 2 tland 22); -0.30 x 3 tland AN); total of FL of 3.44	0.30 x 0.79 = 0.24 2.89 = 0.87 7.75 = 2.33
		If mitigation		F	For mitigation asse	essment areas
Delta = [w	ith-current]	Time lag (t-factor) = Risk factor =		RFG = delta/(t-factor x risk) =		risk) =

Site/Project Name		Application Numbe	l l		Assessment Area Name of	sessment Area Name or Number	
Progress Energy Florida, Inc./Levy Baseload					FLUCFCS 630 - Wetlands AT, AZ, ZA, ZB,		
Transmission Program/LCR Tra	nsmission Line	<u> </u>			ZC, ZD, ZE,	ZF, ZG, ZH	
FLUCCs code 630 - Mixed Hardwood/Conifer Wetla	Further classifica	ition (optional)		Impac	et or Mitigation Site?	Assessment Area Size 25.5 acres (AT=22.94, AZ=0.28, ZA=1.29, ZB=0.01, ZC=0.10, ZD=0.45, ZE=0.15, ZF=0.09, ZG=0.11, ZH=0.08)	
Basin/Watershed Name/Number Af	fected Waterbody (Clas	.e)	Special Classificati	on (i.e.(NEW AP other local/state/federal	designation of importance)	
Crystal River to St. Pete/03100207			Opedial Classificati	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) None			
Geographic relationship to and hydrol	ogic connection with	wetlands, other s	urface water, upla	ınds			
Primarily isolated forested wetlands, s transmission line ROW and upland fo				he trar	ismission line ROW. Si	urrounded by cleared	
Assessment area description							
Forested wetlands vegetated with mix (Ilex cassine), cabbage palm (Sabal p American elm (Ulmus americana), sla palustris), red cedar (Juniperus virgir wax myrtle (Myrica cerifera), coastal maidenfern (Thelypteris sp.) and saw	palmetto), red maple ash pine (<i>Pinus elliot</i> nianus), persimmon (plain willow (<i>Salix ca</i>	(Acer rubrum), iri tii), blackgum (Ny (Diospyros virginia roliniana), and wa	onwood (<i>Carpinus</i> ssa sylvatica), po anus), and sweet l	caroli p ash bay (<i>N</i>	iniana), sweetgum (Liqu (Fraxinus caroliniana), lagnolia virginiana). Sh	uidambar styraciflua), swamp bay (Persea rub species include	
Significant nearby features			Uniqueness (co landscape.)	nsider	ring the relative rarity in	relation to the regional	
Cleared transmissior	າ line ROW, roadway	rs	Not unique				
Functions			Mitigation for pre	vious	permit/other historic use	· · · · · · · · · · · · · · · · · · ·	
Widlife habitat, water s	torage, aquifer recha	irge	N/A				
Anticipated Wildlife Utilization Based that are representative of the assess be found)			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Wading birds, raccoon, various amphibians and herpetofauna			Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).				
Observed Evidence of Wildlife Utilizat	tion (List species dire	ectly observed, or	other signs such a	as trac	ks, droppings, casings,	nests, etc.):	
		blue ja	ay				
Additional relevant factors:							
Assessment conducted by:			Assessment date	e(s):			
S. Rizzo, A. Davanzo, K. Bullock			10/13/2009 through 11/06/2009				

Form 62-345.900(1), F.A.C. [effective date]

Site/Project Name		Application Number		Assessment Are	a Name or Number	
Progress Energy Florida, Inc./Le	evy Baseload Transmission	Application Number		FLUCFCS 630 - Wetlands AT, AZ, ZA, ZB,		
Program/LCR Tran	-			ZC, ZD, ZE, ZF, ZG, ZH		
Impact or Mitigation		Assessment conducted by:	Assessment date:		9:	
Impact -	Fill	S. Rizzo, A. Davanzo, K.	Bullock	10/2	29/09 - 11/6/09	
ŧ						
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	inimal (4)	Not Present	(0)
The scoring of each	Condition is optimal and	Condition is less than				
indicator is based on what	fully supports	optimal, but sufficient to		evel of support of	Condition is insuff provide wetland/s	
would be suitable for the type of wetland or surface	wetland/surface water	maintain most wetland/surface	wetland/surface water functions		water function	
water assessed	functions	waterfunctions			Water is not a	
	Location and landscape supp	port variable is reduced due to	location ac	diacent to cleared	transmission line.	
.500(6)(a) Location and		a) Support to wildlife listed in		•		lue to
Landscape Support		Invasive exotic species = 9, r				outside
1		 limitations imposed by surrogeneemed by surr				lue to
) Impacts to wildlife listed in Pa				
w/o pres or current with	surrounding habitat loss; f) F	lydrologically connected areas	downstrea	m of assessment	area = 5, minimal	
		ependency of downstream are	eas on asse	essment area = 7,	moderate benefit to	
7 0	downstream areas.					
	The water environment score	e is slightly reduced due to adj	acent clear	ing and roadways.	. Individual parame	eter
.500(6)(b)Water Environment	,	flows = 8, slightly altered due t				
(n/a for uplands)		c) soil moisture = 8, consister				
		nding clearing; e) evidence of type; g) hydrologic stress on v	•		•	
		e by animal species with speci				
w/o pres or		e species tolerant of and associ				
current with		direct observation of water qu			ting water quality da	ata =
8 0	N/A; I) water depth wave, wa	ave energy, currents and light	penetration	i = N/A.		
, , , , , , , , , , , , , , , , , , ,				·····	·	
.500(6)(c)Community structure						
		riable score reflects a high qua	-		•	
		ommunity species in the canop nvasive exotics or other invasi		-	•	
Vegetation and/or See this Community		for assessment area, slightly re				
2. Benthic Communitý	size distribution = 8, typical o	of system; e) density and quali	ty of coarse	woody debris, sn	ag, den, and cavity	= 9; f)
w/o pres or	1	nanagement practices = 7, due				
current with	adjacent native uplands; h) t submerged aquatic plant cor	opographic features = 8, typic	ai for asses	ssment area; i) silta	ation or algal growth	ı ın
9 0	Submerged aquatic plant col	mmumucs = N/A				
	<u> </u>					
Score = sum of above scores/30 (if	If preservation as mitig	gation,		For impact asses	sment areas	
uplands, divide by 20)	Preservation adjustme			delta x acres = -0	.80 x 0.23 = 0.18	
current				tiand AZ); -0.80 x (
pr w/o pres with	Adjusted mitigation de	lta =		tland ZA); total of (FL of 0.28	u.36 acres and	
0.80			iolai	1 5 01 0.20		
;	·		<u> </u>			
	If mitigation		F	or mitigation asse	essment areas	
Delta = [with-current]	Time lag (t-factor) =	•	<u> </u>			
	+		REG	i = delta/(t-factor x	risk) =	
-0.80	Risk factor =				,	

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission		FLUCFCS 630 - Wetlands AT, AZ, ZA, ZB,
Program/LCR Transmission Line		ZC, ZD, ZE, ZF, ZG, ZH
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Clearing	S. Rizzo, A. Davanzo, K. Bullock	10/29/09 - 11/6/09

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	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

Loss of canopy species associated with clearing the transmission line ROW would reduce the location and landscape support variable for wetland forests through loss of contiguous forested parcels and conversion to a freshwater marsh/wetland scrub community. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 4, reduced due to clearing impacts; b) Invasive exotic species = 6, potential encroachment of exotics associated with disturbance; c) Wildlife access to and from outside = 4, reduced due to clearing impacts; d) functions that benefit fish & wildlife downstream-distance or barriers = 4, limited benefit; e) Impacts to wildlife listed in Part 1 by outside land uses = 4, reduced due to habitat loss; f) Hydrologically connected areas downstream of assessment area = 4, reduced due to clearing impacts; g) Dependency of downstream areas on assessment area = 4, reduced benefit to downstream areas.

.500(6)(b)Water Environment (n/a for uplands)

v/o pres or current

with

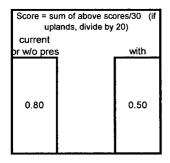
Clearing the canopy will impact the water environment variable, converting the forested system to a freshwater marsh/wetland scrub habitat: silt fencing will reduce temporary turbidity impacts to adjacent wetlands. Canopy clearing will impact the water environment score due to erosion, sedimentation, and soil compaction. Individual parameter scores: a) water levels and flows = 4, altered due to clearing impacts related to use of heavy machinery, erosion/sedimentation, and soil compaction; b) water level indicators = 4, altered from clearing impacts; c) soil moisture = 4, altered from soil compaction; d) soil erosion or deposition = 4, temporary erosion from clearing impacts; e) evidence of fire history = N/A; f) vegetation community zonation = 4, altered due to removal of canopy stratum; q) hydrologic stress on vegetation = 6, some stress from soil compaction; h) use by animal species with specific hydrological requirements = 6, decreased use due to clearing; i) vegetative species tolerant of and associated with water quality degradation = 6, may have potential encroachment of nuisance/exotic species; j) direct observation of water quality = N/A; K) existing water quality data = N/A; I) water depth wave, wave energy, currents and light penetration = N/A.

.500(6)(c)Community structure

- 1. Vegetation and/or 2. Benthic Community
- v/o pres or with current

9

Clearing the canopy will convert the system to a freshwater marsh/wetland scrub community with significant loss of functional value compared to the existing forested system. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 4, canopy stratum removed; b) invasive exotics or other invasive plant species = 6, potential encroachment of exotics associated with disturbance; c) regeneration and recruitment = 6, the herbaceous and shrub stratum species will eventually regenerate and recruit; d) age & size distribution = 4, impacted from clearing; e) density and quality of coarse woody debris, snag, den, and cavity = 4, reduced due to clearing impacts; f) plant condition = 4, reduced due to clearing impacts; g) land management practices = 4, due to alteration of community structure by clearing; h) topographic features = 4, atypical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A.



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

For impact assessment areas
For impact assessment areas FL = delta x acres = -0.30 x 8.52 = 2.56 (Wetland AT); -0.30 x 0.04 = 0.01 (Wetland AZ); -0.30 x 0.44 = 0.13 (Wetland ZA); -0.30 x 0.09 = 0.03 (Wetland ZC); -0.30 x 0.20 = 0.06 (Wetland ZD); -0.30 x 0.06 = 0.02 (Wetland ZE); -0.30 x 0.04 = 0.01 (Wetland ZG); total of 9.39 acres and total FL of 2.82

Delta = [with-current	i]
-0.30	

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

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

Site/Project Name		Application Number	umber Assessment Area Name or Number		or Number	
Progress Energy Florida, Inc./l Transmission Program/LCR Tra				FLUCFCS 631 - W	/etlands AK and AL	
FLUCCs code	Further classifica	ition (optional)		Impact or Mitigation Site?	Assessment Area Size	
631 - Wetland Scrub				Impact	1 acre (AK=0.47; AL= 0.53)	
Basin/Watershed Name/Number A	ffected Waterbody (Clas	is)	Special Classification	ecial Classification (i.e.OFW, AP, other local/state/federal designation of importance)		
Direct Runoff to Gulf/03100207				None		
Geographic relationship to and hydro	ologic connection with	wetlands, other si	urface water, upla	nds		
Located within the Crystal River Ener waters.	rgy Complex property,	, west of the existi	ng substation. No	hydrologic connection to other	er wetlands or surface	
Assessment area description						
Wetlands AK and AL are shrub wetlands that appear to have been previously forested but are now logged, due to presence of logs, branches similar debris within the wetlands. Vegetation consists of a mixture of shrub and herbaceous species including Carolina willow (Salix carolinia cabbage palm (Sabal palmetto), common buttonbush (Cephalanthus occidentalis), Carolina ash (Fraxinus caroliniana), cattail (Typha spp.), arrowhead (Sagittaria spp.), sweetscent (Pluchea odorata), flatsedges (Cyperus spp.), Virginia buttonweed (Diodia virginiana), spotflower (Acmella spp.), Peruvian primrosewillow (Ludwigia peruviana), lateflowering thoroughwort (Eupatorum serotinum), sawgrass (Cladium jamaicense), groundsel tree (Baccharis halimifolia), and plumegrass (Erianthus spp.).					low (Salix caroliniana), ttail (Typha spp.), ana), spotflower ss (Cladium	
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)			
Crystal River Energy Complex, Gulf of Mexico			Not unique			
Functions			Mitigation for pre-	vious permit/other historic use)	
Water storage, foragin	g habitat for wading b	irds	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)			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)			
Wading birds, various amphibians and herpetofauna			Potential foraging by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), limpkin (SSC), wood stork (E).			
Observed Evidence of Wildlife Utiliza	ation (List species dire	ctly observed, or o	other signs such a	s tracks, droppings, casings,	nests, etc.):	
					•	
		none		•		
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
S. Rizzo, T. Davanzo			10/29/2009			

Site/Project Name		Application Number		Assessment Area Name or Number		
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCR Transmission Line				FLUCFCS 631 - Wetlands AK and AL		
Impact or Mitigation		Assessment conducted by:		Assessment date	e :	
Impact - Fill		S. Rizzo, T. Davanzo		10/29/2009		
		1				
Scoring Guidance The scoring of each	Optimal (10)	Moderate(7) Condition is less than		nimal (4)	Not Present	t (O)
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	optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support wetland/surface water functions		Condition is insu provide wetland water functi	/surface
.500(6)(a) Location and Landscape Support w/o pres or current with 4 0	Complex. Individual parame to location within plant; b) Inv from outside = 4, decreased distance or barriers = 4, area to surrounding habitat loss; f	port variable is reduced due to ter scores: a) Support to wildly vasive exotic species = 6, Pendue to limitations imposed by as isolated; e) Impacts to wildlight) Hydrologically connected are areas on assessment area = 4	ife listed in F uvian primro plant; d) fun fe listed in P eas downstre	Part 1 by outside I sewillow present; ctions that benefi Part 1 by outside I eam of assessmer	habitats = 4, reduc c) Wildlife access t fish & wildlife dov and uses = 4, redu nt area = 4, isolate	ed due to and vnstream- ced due
The water environment score is reduced due to isolation from other wetlands, location within plant, and la clearing/logging. Individual parameter scores: a) water levels and flows = 4, altered due to surrounding parameter level indicators = 4, not consistent with expected; c) soil moisture = 4, drier than expected; d) soil expected indicators = 8, minimal erosion; e) evidence of fire history = N/A; f) vegetation community zonation = 4, at pore indicators = 4, potential wading bird habitat, but no wading birds observed; i) vegetative subtraction of and associated with water quality degradation = 4, community generally consists of typical specific direct observation of water quality = N/A, no water present; K) existing water quality data = N/A; i) water of the water environment score is reduced due to isolation from other wetlands, location within plant, and la clearing/logging. Individual parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding parameter scores: a) water levels and flows = 4, altered due to surrounding param					e to surrounding plexpected; d) soil entry zonation = 4, all pecies with specified; i) vegetative spirits of typical species	ant; b) rosion or rered due c recies ies; j)
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current with The vegetative community structure is reduced due to presence of exotic species Peruvian primrosewillor clearing/logging. Individual parameter scores: a) plant community species in the canopy, shrub, or ground expected by logging; b) invasive exotics or other invasive plant species = 6, moderate coverage; c) regeneration and recruitment = 4, impacted by logging; d) age & size distribution = 4, impacted by logging; and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 4, impacted by logging; h) topographic features = 6, mostly consistent very expected; i) siltation or algal growth in submerged aquatic plant communities = N/A.						stratum ; e) y logging;
	·				,	
Score = sum of above scores/30 (if	If preservation as mitig	ation,		For impact assess	sment areas	
uplands, divide by 20) current pr w/o pres with	Preservation adjustme			delta x acres = -0. and AK)	.40 x 0.03 = 0.01	
0.40 0	Adjusted mitigation del	ta =	(***	and AN		
<u> </u>	• 					
	If mitigation		Fo	or mitigation asse	ssment areas	
Delta = [with-current]	Time lag (t-factor) =					
-0.40	Risk factor =		RFG :	RFG = delta/(t-factor x risk) =		

Site/Project Name	Application Number			Assessment Area Name or Number			
Progress Energy Florida, Inc				FLUCFCS 631 - Wetlands 3&24, AN, AP, AR,			
Transmission Program/LCR T	ransmission Line				AS,	AV	
FLUCCs code	tion (optional)		Impac	t or Mitigation Site?	Assessment Area Size		
						33.42 acres (3&24=2.78,	
631 - Wetland Scrub					Impact	AN=15.32, AP=13.77,	
					AR=0.47, AS=0.98,		
				<u> </u>		AV=0.10)	
	Affected Waterbody (Clas-	s)	Special Classificati	ation (i.e.OFW, AP, other local/state/federal designation of importance)			
Crystal River to St. Pete/03100207					None		
Geographic relationship to and hydronic	rologic connection with	wetlands others	urface water unla	nds			
Coographic relationship to and riyer	ologic conficction with	wedands, other s	ariace water, upia	iido			
Primarily isolated systems within ex	isting cleared transmiss	sion line ROW; so	ome connections to	o adja	cent wetlands within the	ROW.	
Assessment area description							
Scrub wetlands dominated by a mix							
groundsel tree (Baccharis halimifoli virginiana), laurel oak (Quercus lau							
(Diospyros virginiana), pop ash (Fr							
nuisance/exotic species cattail (Typ							
species such as sawgrass (Cladiun glomeratus),goldenrod (Solidago s				ıs), bu	ishy broomsedge (Andr	opogon	
giorneratus),golderirod (Solidago s	p.), yellowtops (riavein	a sp.), and lobella	· · · · · · · · · · · · · · · · · · ·	neidor	ing the relative rarity in	rolation to the regional	
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)				
Cleared transmission line ROW, Crystal River Energy Center, roadways			Not unique				
Functions	Mitigation for previous permit/other historic use						
Widlife habitat, water storage, aquifer recharge			N/A				
Anticipated Wildlife Utilization Base that are representative of the asses					by Listed Species (List s		
be found)	classification (E, T, SSC), type of use, and intensity of use of the assessment area)						
Wading birds, raccoon, vario	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).						
Observed Evidence of Wildlife Utiliz	zation (List species dire	ctly observed, or	ther signs such a	s trac	ks, droppings, casings,	nests, etc.):	
i							
		mourning dove, I	eopara trog				
Additional relevant factors:							
Assessment conducted by:	***		Assessment date	e(s):			
B. Meinecke, S. Rizzo,A. Davanzo, K. Bullock			10/29/09 - 11/5/09				

Site/Project Name Progress Energy Florida, Inc./Levy Baseload Transmission		Application Number		Assessment Area Name or Number FLUCFCS 631 - Wetlands 3&24, AN, AP,		
Program/LCR Transmission Line				AR, AS, AV		
Impact or Mitigation		Assessment conducted by:		Assessment date	:	
Impact - Fill		B. Meinecke, S. Rizzo, A. Da	vanzo, K.	10/2	9/09 - 11/5/09	
		Bullock				
Specing Cuidance	Ontimal (40)	I Bandoreto(7) I	B.A.:	nim al (4)	Not Decomb (0)	
Scoring Guidance The scoring of each	Optimal (10)	Moderate(7) Condition is less than	Minimal (4)		Not Present (0)	
indicator is based on what	Condition is optimal and	li de la companya de		vel of support of	Condition is insufficient to	
would be suitable for the	fully supports	maintain most	surface water	provide wetland/surface		
type of wetland or surface	wetland/surface water	wetland/surface	_		water functions	
water assessed	functions waterfunctions					
						
.500(6)(a) Location and Landscape Support w/o pres or current with 6 0	Individual parameter scores: surrounding clearing; b) Inva 6, decreased due to limitation downstream-distance or barr outside land uses = 6, reduc	port variable is reduced due to a) Support to wildlife listed in sive exotic species = 4, signific ns imposed by surrounding lan- riers = 2, areas isolated from ot ed due to surrounding habitat la drologic connection; g) Depend areas.	Part 1 by or cant covera d clearing; ther habitats oss; f) Hydr	utside habitats = 6 ge; c) Wildlife acc d) functions that b s; e) Impacts to wi ologically connect	i, reduced due to ess to and from outside = enefit fish & wildlife Idlife listed in Part 1 by led areas downstream of	
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 0	b) water level indicators = 6, erosion or deposition = 6, mo community zonation = 6, mo animal species with specific and associated with water qu	eter scores: a) water levels and typical of assessment area; c) oderate erosion from adjacent I derate upland species encroac hydrological requirements = 5, allity degradation = 6, some sp = N/A; K) existing water quality	soil moistu anduses; e hment; g) h poor wildlife ecies indica	re = 6, typical of a) evidence of fire l ydrologic stress o e habitat; i) vegeta ative of high nutrie	ssessment area; d) soil nistory = N/A; f) vegetation in vegetation = 6; h) use by ative species tolerant of ents, eg. cattail; j) direct	
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	parameter scores: a) plant or nuisance/exotic species, rou significant coverage; c) rege altered due to ROW mainten	riable is reduced due to periodic ommunity species in the canop tine ROW maintenance; b) inv neration and recruitment = 6, in lance of ROW; e) density and of	y, shrub, or asive exotion pacted by quality of co	ground stratum = cs or other invasiv mowing; d) age 8 arse woody debris	66, prevalence of re plant species = 5, size distribution = 5, s, snag, den, and cavity =	
w/o pres or		educed due to ROW maintenan				
current with		earing of adjacent native uplan th in submerged aquatic plant			o, typical for assessment	
6 0	arca, ij sination or algar grow	iai iii submergeu aqualic plant		.3 → IVA		
Score = sum of above scores/30 (if	If preservation as mitig	eation	Г	For impact assess	ement areas	
uplands, divide by 20)	l		<u> </u>	i or impact assess	oment aleas	
current	Preservation adjustme	nt factor =	 FL =	delta x acres = -0.	60 x 0.31 = 0.19	
or w/o pres with	A -1:	11-	1	and AN)		
0.60	Adjusted mitigation del	ita =				
0.00						
	- 					
	If mitigation		F	or mitigation asse	ssment areas	
Delta = [with-current]	Time lag (t-factor) =			. 57 magazion essessimina areas		
İ				= delta/(t-factor x		

Site/Project Name		Application Number		Assessment Area Name or Number			
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCR Transmission Line				FLUCFCS 631 -	Wetlands 15 and 23		
FLUCCs code	Further classifica	tion (optional)		Impact or Mitigation Site?	Assessment Area Size		
631 - Wetland Scrub				Existing Condition	1.41 acres (15=0.01, 23=1.40)		
Basin/Watershed Name/Number	Affected Waterbody (Clas	s)	Special Classification	On (i.e.OFW, AP, other local/state/federa	al designation of importance)		
Crystal River to St. Pete/03100207				None			
Geographic relationship to and hyd	rologic connection with	wetlands, other s	urface water, upla	nds			
Isolated systems within existing cle	ared transmission line f	ROW					
Assessment area description							
Scrub wetlands dominated by a mix (Myrica cerifera), dahoon holly (Ile. and buttonbush (Cephalanthus occ jamaicense), dogfennel (Eupatoriu	c cassine), laurel oak (d identalis). Groundcove	Q <i>uercus laurifolia</i> er species include), cabbage palm (creeping primrose nena sp.), and ma	Sabal palmetto), pop ash (F. e willow (Ludwigia repens), s ersh fleabane (Pluchea odora	raxinus caroliniana), sawgrass (Cladium ata).		
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)				
Existing transmission line ROW, roadways			Not unique				
Functions			Mitigation for previous permit/other historic use				
Widlife habitat, water	r storage, aquifer recha	rge		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)			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
raccoon, various amphibians and herpetofauna			Potential but unlikely use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).				
Observed Evidence of Wildlife Utili:	zation (List species dire	ctly observed, or	other signs such a	s tracks, droppings, casings	, nests, etc.):		
		none obse	erved				
Additional relevant factors:							
Assessment conducted by:			Assessment date	e(s):			
B. Meinecke, K. Bullock			11/4-5/2009				

Site/Project Name		Application Number		sessment Area	Name or Number			
Progress Energy Florida, Inc./Levy Baseload Transmission		- Aprilation 1000		FLUCFCS 631 - Wetlands 15 and 23				
Program/LCR Transmission Line Impact or Mitigation		Assessment conducted by:		Assessment date:				
1 '	Existing Condition				11/4-5/09			
Existing Condition		B. Meinecke, K. Bullock 11/4-5/09						
Scoring Guidance	Optimal (10)	Moderate(7)	Minim	nimal (4) Not Present (0)		(0)		
The scoring of each	Condition is optimal and	Condition is less than						
indicator is based on what would be suitable for the	fully supports	optimal, but sufficient to maintain most	Minimal level of support of wetland/surface water		Condition is insuf provide wetland			
type of wetland or surface	wetland/surface water functions	wetland/surface			water function			
water assessed	iunctions	waterfunctions						
<u></u>	 							
	Location and landscape supp	port variable is reduced due to	location adjace	ent to roads an	nd cleared transmis	ssion		
.500(6)(a) Location and		cores: a) Support to wildlife lis	•					
Landscape Support) Invasive exotic species = 8, r tions imposed by surrounding	_					
	benefit fish & wildlife downsti	ream-distance or barriers = 4,	no connection t	to other habitat	ts; e) Impacts to w	ildlife		
w/o pres or current with	•	nd uses = 6, reduced due to su area = 3, no hydrologic connec	-			ed areas		
7 0	assessment area = 3, little b		stiono, g/ Deper	nachoy of aom	notrodin dredo on			
, I , I , I								
The water environment score is reduced due to impacts from landclearing, ditching, and ROW maintenance.						e.		
.500(6)(b)Water Environment Individual parameter scores: a) water levels and flows = 6, altered due to clearing, ditching; b) water (n/a for uplands) indicators = 7, typical of assessment area; c) soil moisture = 7, typical of assessment area; d) soil en						or		
(tha for uplands)	adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation							
		s encroachment; g) hydrologic	•					
w/o pres or	1'''	ments = 5, poor wildlife habitat S. willow: i) direct observation of	. , 🛡	*				
w/o pres or water quality degradation = 6, willow; j) direct observation of water quality = N/A; K) existing water of current with N/A; I) water depth wave, wave energy, currents and light penetration = N/A.				ga.a. qua, a				
6 0								
1								
.500(6)(c)Community structure The community structure variable is slightly reduced due to limited species diversity, dominance by coastal plain willow, and routine ROW maintenance. Individual parameter scores: a) plant community species in the canopy,								
	i i	•		•	•			
shrub, or ground stratum = 7, dominance by native species, limited diversity; b) invasive exotics or other invasive 1. Vegetation and/or plant species = 8, minimal coverage; c) regeneration and recruitment = 8, somewhat impacted by ROW								
Benthic Community		e & size distribution = 7, typica woody debris, snag, den, and				. ,		
w/o pres or		newhat by ROW maintenance;						
current with native uplands; h) topographic features = 7, typical of assessment area; i) siltation or algal growth in submerged								
7 0	aquatic plant communities =	N/A						
								
Score = sum of above scores/30 (if uplands, divide by 20)			For	r impact assess	sment areas			
current	Preservation adjustme	ent factor =	E1 _ J-11	to v por ^	67 40 = 0			
or w/o pres with	Adjusted mitigation de	lta =	rt = delt	ta x acres = -0.	.U. XU - U			
0.67		J	<u> </u>					
	<u></u> _		•	<u> </u>				
	If mitigation		For n	nitigation asses	ssment areas			
Delta = [with-current]	Time lag (t-factor) =							
-0.67	Risk factor =		RFG = de	= delta/(t-factor x risk) =				

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

Site/Project Name		Application Number	:r		Assessment Area Name or Number			
Progress Energy Florida, Inc., Transmission Program/LCR Tr					FLUCFCS 64	1 - Wetland AJ		
FLUCCs code	Further classifica	ation (optional)		Impac	et or Mitigation Site?	Assessment Area Size		
641 - Freshwater Marshes					Existing Condition	0.05 acres		
Basin/Watershed Name/Number A	Affected Waterbody (Clas		Special Classification	on (i.e.C	DFW, AP, other local/state/federal	designation of importance)		
Direct Runoff to Gulf/03100207			None					
Geographic relationship to and hydro	ologic connection with	wetlands, other si	urface water, upla	nds				
Located within the Crystal River Ene waters.	ergy Complex property	, north of the exist	ing substation. No	o hydr	ologic connection to oth	ner wetlands or surface		
Assessment area description								
Wetland AC is an isolated depression areas that retain water from surroun sawgrass (Cladium jamaicense), flathydrocotyle umbellata), Virginia bu (Polygonum spp.).	iding parking lots. Veg atsedges (<i>Cyperus</i> spr	getation consists o p.), creeping primr	of herbaceous spectosewillow (<i>Ludwig</i> (<i>Desmodium</i> spp	cies in gia rep o.), bed	cluding torpedograss (<i>F</i> eens), manyflower mars dstraw (<i>Galium</i> spp.), ar	Panicum repens), hpennywort nd smartweed		
Significant nearby features			Uniqueness (co landscape.)	nsider	ring the relative rarity in	relation to the regional		
Crystal River Energy	ico			Not unique				
Functions			Mitigation for pre-	vious į	permit/other historic use	;		
Water storage, foragir	ng habitat for wading b	oirds	N/A					
Anticipated Wildlife Utilization Based			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the					
be found)	SMEIIL AIRA ANG IRASOI	nabiy expected to	assessment area		o), type or use, and inte	HISILY OF USE OF THE		
Wading birds, various ar	mphibians and herpeto	ofauna	heron (SSC), sno	owy eg	ading birds such as whi gret (SSC), tricolored he C), wood stork (E).			
Observed Evidence of Wildlife Utiliza	ation (List species dire	ectly observed, or o	other signs such a	is traci	ks, droppings, casings,	nests, etc.):		
		chipping sp	, parrow					
		., .						
Additional relevant factors:								
Assessment conducted by:			TAssessment date	e(s)·				
S. Rizzo, T. Davanzo			Assessment date(s): 10/28/09, 10/29/09					

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

Site/Project Name		Application Number	I	Assessment Area	a Name or Numbe	r		
Progress Energy Florida, Inc./Lo Program/LCR Tran	= -				S 641 - Wetland A			
Impact or Mitigation		Assessment conducted by:		Assessment date	2:			
Existing Co	ondition	S. Rizzo, T. Davanz	zo	10/2	8/09, 10/29/09			
Sporing Guidance	Ontimal (40)	Moderate/7)	241	aimal (4)	Not Dece	(0)		
Scoring Guidance The scoring of each	Optimal (10)	Moderate(7) Condition is less than	IVIII	nimal (4)	Not Present	t (U)		
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	optimal, but sufficient to maintain most wetland/surface waterfunctions	wetland/	vel of support of surface water nctions	Condition is insu provide wetland water functi	/surface		
	T							
.500(6)(a) Location and Landscape Support w/o pres or current with 4 0	Complex. Individual parame to location within plant; b) Invoutside = 4, decreased due t distance or barriers = 4, area to surrounding habitat loss; f	ape support variable is reduced due to location of wetlands within Crystal River Energy parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 4, reduced ont; b) Invasive exotic species = 4, torpedograss dominant; c) Wildlife access to and from ed due to limitations imposed by plant; d) functions that benefit fish & wildlife downstream = 4, areas isolated; e) Impacts to wildlife listed in Part 1 by outside land uses = 4, reduced at loss; f) Hydrologically connected areas downstream of assessment area = 4, isolated; g istream areas on assessment area = 4, areas isolated and provide no benefit.						
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 4	clearing associated with the to surrounding plant; b) wate expected; d) soil erosion or community zonation = 4, alte 4, apparent; h) use by anima no wading birds observed; i) community generally consist	environment score is reduced due to isolation from other wetlands, location within plant, and land sociated with the existing plant. Individual parameter scores: a) water levels and flows = 4, altered during plant; b) water level indicators = 4, not consistent with expected; c) soil moisture = 4, drier than b) soil erosion or deposition = 8, minimal erosion; e) evidence of fire history = N/A; f) vegetation zonation = 4, altered due to application of herbicides and mowing; g) hydrologic stress on vegetation; h) use by animal species with specific hydrological requirements = 4, potential wading bird habitat, boirds observed; i) vegetative species tolerant of and associated with water quality degradation = 4, generally consists of typical species; j) direct observation of water quality = N/A, no water present; K) ter quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.						
1. Vegetation and/or 2. Benthic Community w/o pres or current with 4 0	of exotic species torpedogra: ground stratum = 4, dominat species = 4, moderate cover mowing; d) age & size distril coarse woody debris, snag, of mowing; g) land managemen	community structure is dominated by herbaceous wetland species, and is reduced due to press torpedograss. Individual parameter scores: a) plant community species in the canopy, shrub = 4, dominated by some undesirable wetland species; b) invasive exotics or other invasive platerate coverage; c) regeneration and recruitment = 4, impacted by application of herbicides and stribution = 4, impacted by application of herbicides and mowing; e) density and quality ebris, snag, den, and cavity = N/A; f) plant condition = 4, impacted by application of herbicides and mowing; h) topographic n made except for Wetland AC; i) siltation or algal growth in submerged aquatic plant communications.						
Score = sum of above scores/30 (if uplands, divide by 20) current br w/o pres with	If preservation as mitig Preservation adjustme Adjusted mitigation del	nt factor =		For impact assess				
0.40		<u>.</u>	<u> </u>					
	If mitigation					I		
Delta = [with-current]	If mitigation Time lag (t-factor) =		Fo	or mitigation asse	ssment areas			
•	Risk factor =		RFG:	= delta/(t-factor x	risk) =			
-0.40 Risk factor =								

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

Site/Project Name		Application Number	er Assessment Area Name or Num			or Number		
Progress Energy Florida, Inc./Lev Transmission Program/LCR Trans				FLUCFCS 641 - Wetlands 2, 19, AZ, BB, BC, BE, BF, BG, C				
FLUCCs code	Further classifica	ition (optional)		Impac	t or Mitigation Site?	Assessment Area Size		
641 - Freshwater Marshes					Impact	17.52 acres (2=2.86, 19=1.97, Z=0.65, AU=9.5, AX=0.44, AZ=0.18, BB=0.21, BC=0.37, BE=0.37, BF=0.64, BG=0.05, CS W=0.28)		
Basin/Watershed Name/Number Affect	ted Waterbody (Clas	ss)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)					
Crystal River to St.					None	. ,		
Pete/03100207	·		1					
Geographic relationship to and hydrolog	gic connection with	wetlands, other s	surface water, upla	ands				
Primarily isolated wetlands within cleare	ed transmission line	e ROW. Wetland	AU connects to d	litch a	djacent to Powerline R	oad.		
Assessment area description								
Freshwater marsh wetlands within trans predominantly native wetland species in (Quercus laurifolia), sweetgum (Liquida (Diospyros virginiana), buttonbush (Ce include sawgrass (Cladium jamaicense sugarcane plumegrass (Erianthus gigal broomsedge (Andropogon glomeratus) (Fuirena scirpoides), coinwort (Centella capeweed (Phyla nodiflora), signalgras	ncluding a sparse of ambar styraciflua), phalanthus occider), cattail (Typha lainteus), whitetop se, finger grass (Eusia asiatica), redtop p	canopy/shrub laye cabbage palm (S ntalis), and coast tifolia), muhly gra edge (Dichromena tachys glauca), m panicum (Panicur	er comprised of a reabal palmetto), gral plain willow (Sass (Muhlenbergia asp.), spotflower (narsh pennywort (Imrigidulum), erynghyptis alata).	mixture ounds lix car capilla Spilan Hydrod go (Er	e of dahoon holly (llex sel tree (Baccharis halisoliniana). Dominant graris), dogfennel (Eupatithes sp.), sedges (Cylcotyle umbellata), dwayngium sp.), goldenroo	cassine), laurel oak mifolia), persimmon oundcover species orium capillifolium), perus sp.), bushy ff umbrella grass d (Solidago sp.),		
Significant nearby features			Uniqueness (co landscape.)	nsider	ing the relative rarity ir	relation to the regional		
Cleared transmission line ROW, road	ways, Crystal Rive	r Energy Center	Not unique					
Functions			Mitigation for previous permit/other historic use					
Widlife habitat, water stor	age, aquifer recha	rge	N/A					
Anticipated Wildlife Utilization Based or that are representative of the assessme to be found)			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)					
Wading birds, raccoon, various a	imphibians and he	rpetofauna		SSC),	e by wading birds such snowy egret (SSC), tri wood stork (E).			
Observed Evidence of Wildlife Utilization	n (List species dire	ectly observed, or	other signs such	as trac	cks, droppings, casings	s, nests, etc.):		
,		mourning	dove					
Additional relevant factors:								
Assessment conducted by:		,	Assessment date	e(s).				
M. Arrants, B. Meinecke, S. Rizzo, K. B	uliock		10/15/2009 - 11/4/2009					

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

Site/Project Name Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCR Transmission Line			Application Number		Assessment Area Name or Number FLUCFCS 641 - Wetlands 2, 19, Z, AU, AX AZ, BB, BC, BE, BF, BG, CS W		
Impact or Mitigation	npact - F		Assessment conducted by: M. Arrants, B. Meinecke, S Bullock	. Rizzo, K.	Assessment date		
Scoring Guidance		Optimal (10)	Moderate(7)	l Mi	nimal (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 le wetland	evel of support of /surface water unctions	Condition is insuffi- provide wetland/s water function	cient to urface
.500(6)(a) Location and Landscape Support w/o pres or current v	d R si o th w with o	ROW. Individual parameter urrounding development; b) outside = 6, decreased due to hat benefit fish & wildlife dow wildlife listed in Part 1 by outs connected areas downstream	port variable is reduced due to scores: a) Support to wildlife Invasive exotic species = 6, o limitations imposed by surrownstream-distance or barriers side land uses = 6, reduced on of assessment area = 4, limitsment area = 4, little benefit to	e listed in Pa moderate co bunding clea = 5, limited lue to surrou ited hydrolo	nt 1 by outside hal overage; c) Wildlife ared ROW, industr connection to othe anding habitat loss gic connections; g	bitats = 6, reduced de e access to and from ial landuses; d) func er habitats; e) Impac ; f) Hydrologically	lue to n tions
.500(6)(b)Water Environm (n/a for uplands) w/o pres or current v	The water environment score is reduced due to impacts from landclearing, ditching, adjacent industrial landuses, and roadways. Individual parameter scores: a) water levels and flows = 6, altered due to clearing, ditching; b) water level indicators = 7, typical of assessment area; c) soil moisture = 7, typical of assessment area; d) soil erosion or deposition = 6, erosion from clearing, adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 6, moderate upland species encroachment; g) hydrologic stress on vegetation = 6; h) use b animal species with specific hydrological requirements = 6, marginal wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 7, moderate coverage of willow; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.						
.500(6)(c)Community structure The community structure variable is reduced due to routine ROW maintenance. Individual parameter scores: a plant community species in the canopy, shrub, or ground stratum = 6; b) invasive exotics or other invasive plant species = 8, minimal coverage; c) regeneration and recruitment = 6, impacted by ROW maintenance, ditching; age & size distribution = 6, typical of system, reduced due to ROW maintenance; e) density and quality of coars woody debris, snag, den, and cavity = 6; f) plant condition = 6, extent and health of native species impacted by ROW maintenance; g) land management practices = 6, clearing of adjacent native uplands; h) topographic features = 6, reduced compared to typical assessment area; i) siltation or algal growth in submerged aquatic placement in the community structure variable is reduced due to routine ROW maintenance. Individual parameter scores: a plant community species in the canopy, shrub, or ground stratum = 6; b) invasive exotics or other invasive plant species = 8, minimal coverage; c) regeneration and recruitment = 6, impacted by ROW maintenance; e) density and quality of coars woody debris, snag, den, and cavity = 6; f) plant condition = 6, extent and health of native species impacted by ROW maintenance; e) density and quality of coars woody debris, snag, den, and cavity = 6; f) plant condition = 6, extent and health of native species impacted by ROW maintenance; e) density and quality of coars woody debris, snag, den, and cavity = 6; f) plant condition = 6, extent and health of native species impacted by ROW maintenance; e) density and quality of coars woody debris, snag, den, and cavity = 6; f) plant condition = 6, extent and health of native species impacted by ROW maintenance; e) density and quality of coars woody debris, snag, den, and cavity = 6; f) plant condition = 6, extent and health of native species impacted by ROW maintenance.							plant ng; d) parse by
Score = sum of above scores/ uplands, divide by 20) current or w/o pres	30 (if with	If preservation as mitig Preservation adjustment Adjusted mitigation del	nt factor =		For impact asses delta x acres = -0 land AZ)		
Delta = [with-current]		If mitigation Time lag (t-factor) =		F	or mitigation asse	essment areas	
-0.60		Risk factor =		RFG	= delta/(t-factor x	risk) =	

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

Site/Project Name		Application Numbe	er .		Assessment Area Name	or Number	
Progress Energy Florida, Inc./Le Transmission Program/LCR Tran			,			lands 4, 5, 6, 7, 9, 10, 4, AT	
FLUCCs code 641 - Freshwater Marshes	Further classifica	ition (optional)		Impact	t or Mitigation Site?	Assessment Area Size 31.44 acres (4=0.01, 5=0.03, 6=0.42, 7=0.01, 9=0.22, 10=0.14, 13=0.64, 14=0.14, AT=29.83)	
Basin/Watershed Name/Number Affe Crystal River to St. Pete/03100207	ected Waterbody (Clas	38)	Special Classificati	ation (i.e.OFW, AP, other local/state/federal designation of importance) None			
Geographic relationship to and hydrolo Hydrologically connected to other wetla roadways, and cleared transmission lin Assessment area description	ands/surface waters		,		rounded by upland and	wetland forest,	
Freshwater marsh wetlands within tran include sawgrass (Cladium jamaicense (Dichromena sp.), bushy broomsedge grass (Fuirena scirpoides), coinwort (C (Solidago sp.), blue maidencane (Amp coastal plain willow (Salix caroliniana),	e), muhly grass (Mu (Andropogon glome Centella asiatica), re phicarpum muhlenbe	uhlenbergia capilla eratus), arrowhea edtop panicum (Pi ergianum), and se	aris), sugarcane p ad (Sagittaria lanci Panicum rigidulum) edges (Cyperus s	olumegr ifolia), y), dogfe sp., Car	rass (<i>Erianthus gigante</i> yellowtops (<i>Flaveria s</i> ennel (<i>Eupatorium capi</i> rex sp.). Common shru	eus), whitetop sedge b.), dwarf umbrella illifolium), goldenrod	
Significant nearby features		Uniqueness (co landscape.)	onsideri	ng the relative rarity in	relation to the regional		
Existing transmission line ROW, road	lways, Crystal River	r Energy Center	Not unique				
Functions			Mitigation for previous permit/other historic use				
Widlife habitat, water sto			N/A				
Anticipated Wildlife Utilization Based o that are representative of the assessmit to be found)				T, SSC	y Listed Species (List s C), type of use, and inte		
Wading birds, raccoon, various a	amphibians and hei	rpetofauna		(SSC), s	e by wading birds such snowy egret (SSC), tric wood stork (E).	, ,,	
Observed Evidence of Wildlife Utilization	on (List species dire	ectly observed, or	other signs such	as trac	ks, droppings, casings	, nests, etc.):	
	black	k vulture, red taile	d hawk, blue jay				
Additional relevant factors:							
Assessment conducted by:			Assessment date(s):				
B. Meinecke, S. Rizzo, A. Davanzo, K.	Bullock		11/2-4/09				

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

Site/Project Name		Application Number		Assessment Area	a Name or Number			
Progress Energy Florida, Inc./Lo	evy Baseload Transmission			FLUCFCS 641 -	Wetlands 4, 5, 6, 7,	9, 10,		
Program/LCR Tran	nsmission Line				13, 14, AT			
Impact or Mitigation		Assessment conducted by:		Assessment date	· ·			
l '		B. Meinecke, S. Rizzo, A. Da	avanzo K	/ lococomonic dance				
Impact -	- Fill	Bullock	avarizo, 14.		11/2-4/09			
		Bancon						
Scoring Guidance	Optimal (10)	Moderate(7)	NA:	nimal (4)	Not Present (0)		
The scoring of each	Optimal (10)	Condition is less than	14(1	iliniai (4)	Not Flesent (<u> </u>		
indicator is based on what	Condition is optimal and	optimal, but sufficient to	Minimal le	vel of support of	Condition is insuffic	rient to		
would be suitable for the	fully supports	maintain most		/surface water	provide wetland/su			
type of wetland or surface	wetland/surface water	wetland/surface		inctions	water function			
water assessed	functions	waterfunctions				-		
	•							
.500(6)(a) Location and Landscape Support w/o pres or current with 7 0	ROW. Individual parameter cleared ROW; b) Invasive ex decreased due to limitations downstream-distance or barridue to clearing, roadways; f)	port variable is slightly reduced scores: a) Support to wildlife I sotic species = 7, minimal cove imposed by clearing, roadway riers = 7; e) Impacts to wildlife Hydrologically connected area ency of downstream areas on	listed in Par erage; c) Wi s, developn listed in Par as downstre	t 1 by outside hab Idlife access to an nent; d) functions t t 1 by outside land am of assessmen	itats = 7, reduced du lid from outside = 7, that benefit fish & will d uses = 7, slightly re t area = 3, typically	ie to Idlife educed		
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 0	(n/a for uplands) (n/a for upla							
500(6)(c)Community structure These freshwater marshes support a diverse community of native wetland vegetation, although routine ROW maintenance reduces the community structure variable. Individual parameter scores: a) plant community spring the canopy, shrub, or ground stratum = 7, dominated by desirable native wetland species, ROW maintenance reduces extent of canopy species; b) invasive exotics or other invasive plant species = 6, moderate coverage regeneration and recruitment = 7, somewhat impacted by ROW maintenance; d) age & size distribution = 8, of system; e) density and quality of coarse woody debris, snag, den, and cavity = 7; f) plant condition = 8; g) management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h topographic features = 7; typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A								
Score = sum of above scores/30 (if	If preservation as mitig	ation,		For impact assess				
uplands, divide by 20)	Preservation adjustme	nt factor =,	1	delta x acres = -0.				
current	(Wetland 9); -0.67 x 0.23 = 0.16							
pr w/o pres with	Adjusted mitigation del	ta =		and AT); total of 0	.31 acres and			
0.67 0			total	FL of 0.21				
	J							
	0626							
	If mitigation		For mitigation assessment area					
Delta = [with-current]	Time lag (t-factor) =		To magation assessment aleas					
	1							
-0.67	Risk factor =		RFG	= delta/(t-factor x	risk) =			

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

Site/Project Name		Application Numbe	г	Α	ssessment Area Name	or Number	
Progress Energy Florida, Inc Transmission Program/LCR 1	•			FLUCFCS 643 - Wetlands X, AB, CS V			
FLUCCs code	Further classifica	ition (optional)		Impact	or Mitigation Site?	Assessment Area Size	
643 - Wet Prairie				E	7.88 acres (X=0.43, AB=7.00, CS L=0.03, CS S=0.32, CS V=0.10)		
Basin/Watershed Name/Number Crystal River to St. Pete/03100207	Affected Waterbody (Clas	ss)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) None				
Geographic relationship to and hyd	rologic connection with	wetlands, other su	ırface water, uplaı	nds	***		
Primarily isolated wet prairie wetlar	nds within cleared transi	mission line ROW	. Wetland AB cor	nnects to	o drainage ditch adjace	ent to Powerline Road.	
Assessment area description					-		
Wet prairie wetlands, infrequently in groundcover species include suga muhly grass (<i>Muhlenbergianum</i> species fleabane (<i>Pluchea odorata</i>)	rcane plumegrass (<i>Eria</i> b.), musky mint (<i>Hyptis a</i>	nthus giganteus), alata), bushy broo	signalgrass (<i>Urod</i> msedge (<i>Andropo</i>	chloa sp ogon glo	o.), maidencane (<i>Panio</i> meratus), capeweed (cum hemitomon), Phyla nodiflora), and	
Significant nearby features			Uniqueness (co landscape.)	onsiderin	g the relative rarity in	relation to the regional	
Cleared transmiss	rs			Not unique			
Functions			Mitigation for pre	evious pe	ermit/other historic use)	
Widlife habitat, wate	er storage, aquifer recha	rge	N/A				
Anticipated Wildlife Utilization Base that are representative of the asset be found)		•	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Wading birds, raccoon, vari	ous amphibians and he	rpetofauna		(SSC), s	by wading birds such nowy egret (SSC), tric ood stork (E).		
Observed Evidence of Wildlife Utili	zation (List species dire	ectly observed, or o	other signs such a	as tracks	, droppings, casings,	nests, etc.):	
	apple snails, catb	oird, gopher tortois	e burrow within W	Vetland (CS-S		
Additional relevant factors:		 					
			•				
Assessment conducted by:			Assessment date	e(s):			
M. Arrants, C. Cunningham, S. Riz	10/14-28/09						

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

Site/Project Name Progress Energy Florida, Inc./Le Program/LCR Trar		Application Number		Assessment Area Name or Number FLUCFCS 643 - Wetlands X, AB, CS L, CS S, CS V			
Impact or Mitigation Existing Co		Assessment conducted by: M. Arrants, C. Cunningham, Davanzo, K. Bulloc		Assessment date			
Seering Cuidenes	Ontime (40)	Moderate (7)		-i1/4)	Ned Decemb	(0)	
Scoring Guidance The scoring of each	Optimal (10)	Moderate(7) Condition is less than	IVII	nimal (4)	Not Present	(U)	
indicator is based on what	Condition is optimal and fully supports	optimal, but sufficient to	Minimal le	vel of support of	Condition is insuf	ficient to	
would be suitable for the	wetland/surface water	maintain most		/surface water	provide wetland/		
type of wetland or surface water assessed	functions	wetland/surface waterfunctions	πι	ınctions	water function	ons	
water appeared		Waterrandiene			1		
.500(6)(a) Location and Landscape Support w/o pres or current with 6 0	industrial landuses. Individ reduced due to surrounding and from outside = 6, decrea functions that benefit fish & v Impacts to wildlife listed in P Hydrologically connected are	port variable is reduced due to ual parameter scores: a) Sup development; b) Invasive exot ased due to limitations impose wildlife downstream-distance of art 1 by outside land uses = 6, as downstream of assessmer downstream areas on assessmer	port to wildli ic species = d by surrour r barriers = reduced du at area = 2, l	fe listed in Part 1 7, moderate cover ding roadways ar 5, limited connect to surrounding limited hydrologic	by outside habitats erage; c) Wildlife and industrial areas; ion to other habitat habitat loss; f) connections, typica	= 6, ccess to d) s; e)	
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 6	to clearing, ditching; b) water level indicators = 5, less than typical of assessment area; c) soil moisture = 6, reduced due to ditching; d) soil erosion or deposition = 7, minimal erosion from surrounding landuse; e) evidence of fire history = N/A; f) vegetation community zonation = 6, moderate upland species encroachment; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 5, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 8, none noted; j) direct observation of water quality = N/A; K) existing water quality data = N/A; I) water depth wave, wave energy, currents and light						
1. Vegetation and/or 2. Benthic Community w/o pres or current with 6	parameter scores: a) plant c significant coverage of facult coverage; c) regeneration ar maintenance of ROW; e) de = 6, reduced due to ROW m structure by clearing of adjace	riable is reduced due to margir ommunity species in the canop tative species; b) invasive exc and recruitment = 6, impacted b nsity and quality of coarse woo aintenance; g) land managem cent native uplands; h) topogra submerged aquatic plant comr	by, shrub, o otics or othe y mowing; d ody debris, s ent practice aphic feature	r ground stratum = r invasive plant sp l) age & size distri snag, den, and cav s = 6, due to alten es = 5, less than t	= 6, limited diversity becies = 8, minimal bution = 6, altered vity = N/A; f) plant of ation of community	due to condition	
Score = sum of above scores/30 (if	If preservation as mitig	ation		For impact assess	sment areas		
uplands, divide by 20)	Preservation adjustme			,p.soc accoo			
current	1 10001 valion adjustine		FL =	delta x acres = -0	$.60 \times 0 = 0$		
or w/o pres with	Adjusted mitigation de	lta =					
0.00	J						
	If mitigation				<u>-</u>		
Delta = [with-current]	Time lag (t-factor) =		L F	or mitigation asse	ssment areas		
-0.60	Risk factor =		RFG	= delta/(t-factor x	risk) =		

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

Site/Project Name		Application Number	er	Asses	ssment Area Name	or Number	
Progress Energy Florida, Inc Transmission Program/LCR T	•	·			FLUCFCS 643	- Wetland CS K	
FLUCCs code	Further classifica	ition (optional)		Impact or M	itigation Site?	Assessment Area Size	
643 - Wet Prairie				Existi	Existing Condition 6.89 acres		
Basin/Watershed Name/Number Crystal River to St. Pete/03100207	Affected Waterbody (Clas	ss)	Special Classificati	ON (i.e.OFW, A	P, other local/state/federa	l designation of importance)	
Geographic relationship to and hydr	rologic connection with	wetlands, other s	urface water, upla	nds			
Hydrologically isolated from other w	etlands. Surrounded b	y upland forest, p	asture, and cleare	d transmiss	ion line ROW		
Assessment area description							
Isolated wet prairie vegetated with r (<i>Salix caroliniana</i>), wax myrtle (<i>Myr</i> laurel oak (<i>Quercus laurifolia</i>) along	rica cerifera), and Walte	•		•		•	
Significant nearby features			Uniqueness (co landscape.)	nsidering th	e relative rarity in	relation to the regional	
Cleared transmission line I	d pasture			Not unique			
Functions		Mitigation for pre	vious permi	t/other historic us	e		
Widlife habitat, water	storage, aquifer recha	rge	N/A				
Anticipated Wildlife Utilization Base that are representative of the asses be found)		,	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Wading birds, raccoon, white tails and he	ed deer, armadillo, vario erpetofauna	ous amphibians		SSC), snow	y egret (SSC), tric	as white ibis (SSC), colored heron (SSC),	
Observed Evidence of Wildlife Utiliz	ation (List species dire	ectly observed, or	other signs such a	as tracks, dr	oppings, casings,	nests, etc.):	
		Catbird, appl	e snails				
Additional relevant factors:							
					•		
Assessment conducted by:			Assessment date	e(s):			
M. Arrants, C. Cunningham, K. Bul	10/13/2009						

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

Site/Project Name		Application Number		Assessment Area	a Name or Number	
Progress Energy Florida, Inc./L	• •			FLUCFCS	643 - Wetland CS I	<
Program/LCR Trail Impact or Mitigation	nsmission Line	Assessment conducted by:		Assessment date	j.	
Existing Co	andition	M. Arrants, C. Cunningham, I				
- Existing Of	matton	IVI. Arrants, C. Currinigham, I	N. BUROCK		10/13/2009	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (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 le wetland	vel of support of /surface water inctions	Condition is insuffi provide wetland/s water function	cient to urface
.500(6)(a) Location and Landscape Support w/o pres or current with 7 0	line. Individual parameter so to disturbance from cattle; b) = 8, slightly decreased due to connection; d) functions that habitats; e) Impacts to wildlif- loss; f) Hydrologically connections	port variable is reduced somew cores: a) Support to wildlife liste I Invasive exotic species = 9, mo imitations imposed by surrou benefit fish & wildlife downstrede listed in Part 1 by outside lancted areas downstream of asseareas on assessment area = 0.	ed in Part 1 sinimal cove Inding agric am-distanc d uses = 8, Issment are	by outside habita erage; c) Wildlife a cultural areas and e or barriers = 0, slightly reduced of ea = 0, no hydrolog	ats = 8, slightly reduct access to and from of lack of hydrologic area isolated from of due to surrounding h gic connection; g)	ced due outside ther
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 7	Individual parameter scores: the surrounding areas and di moisture = 8, consistent with history = N/A; f) vegetation of hydrologic stress on vegetati = 7, ephermal habitat; i) veget community consists of typical	e is slightly reduced due to impa a) water levels and flows = 8, rought conditions; b) water level expected; d) soil erosion or de community zonation = 6, somewion = 7, not apparent; h) use by etative species tolerant of and a al species; j) direct observation depth wave, wave energy, curre	slight alterations and indicators apposition = what altered animal speassociated of water qu	ations in water level = 8, consistent v 4, erosion from ca 1 - upland species 1 ecies with specific 1 with water quality 1 ality = 8, none no	rel due to artificial na with expected; c) soi uttle; e) evidence of encroachment; g) hydrological require degradation = 8, ted; K) existing wate	iture of I fire ements
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current with	scores: a) plant community s wetland species; b) invasive recruitment = 7, somewhat in density and quality of coarse to drought; g) land managem native uplands; h) topograph	riable is slightly reduced due to species in the canopy, shrub, or exotics or other invasive plant inpacted by diminished hydrope woody debris, snag, den, and hent practices = 7, due to altera	r ground sta : species = eriod; d) aga cavity = N/ ation of corr	ratum = 9, domina 9, minimal covera e & size distributio A; f) plant conditio nmunity structure l	ated by desirable nat age; c) regeneration on = 8, typical of sys on = 8, slightly reduc	ive and tem; ej ed due
8 0	-aquatic plant communities =		ssment are	a, if situation of a	gal growth in subme	
8 0		N/A				
8 0 Score = sum of above scores/30 (if uplands, divide by 20) current or w/o pres with		N/A pation, nt factor =		For impact asses:	sment areas	
Score = sum of above scores/30 (if uplands, divide by 20) current	If preservation as mitig	N/A pation, nt factor =		For impact assess	sment areas	
8 0 Score = sum of above scores/30 (if uplands, divide by 20) current or w/o pres with	If preservation as mitig	N/A pation, nt factor =	FL =	For impact asses: delta x acres = -0	sment areas .73 x 0 = 0	
8 0 Score = sum of above scores/30 (if uplands, divide by 20) current or w/o pres with	If preservation as mitig Preservation adjustme Adjusted mitigation del	N/A pation, nt factor =	FL =	For impact assess	sment areas .73 x 0 = 0	



1018 Thomasville Road Suite 200-C Tallahassee, FL 32303 850-224-8207 fax 850-681-9364 www.fnai.org November 30, 2009

Stacy Rizzo Golder Associates, Inc. 6026 NW 1st Place Gainesville, FL 32607

Dear Ms. Rizzo.

Thank you for your request for information from the Florida Natural Areas Inventory (FNAI). We have compiled the following information for your project area.

Project:

Proposed Citrus Substation - Crystal River Energy Complex

Date Received:

November 24, 2009

Location:

Citrus County

Element Occurrences

A search of our maps and database indicates that currently we have several Element Occurrences mapped within the vicinity of the study area (see enclosed map and element occurrence table). Please be advised that a lack of element occurrences in the FNAI database is not a sufficient indication of the absence of rare or endangered species on a site.

The Element Occurrences data layer includes occurrences of rare species and natural communities. The map legend indicates that some element occurrences occur in the general vicinity of the label point. This may be due to lack of precision of the source data, or an element that occurs over an extended area (such as a wide ranging species or large natural community). For animals and plants, Element Occurrences generally refer to more than a casual sighting; they usually indicate a viable population of the species. Note that some element occurrences represent historically documented observations which may no longer be extant.

Likely and Potential Rare Species

In addition to documented occurrences, other rare species and natural communities may be identified on or near the site based on habitat models and species range models (see enclosed Biodiversity Matrix Report). These species should be taken into consideration in field surveys, land management, and impact avoidance and mitigation.

FNAI habitat models indicate areas, which based on land cover type, offer suitable habitat for one or more rare species that is known to occur in the vicinity. Habitat models have been developed for approximately 300 of the rarest species tracked by the Inventory, including all federally listed species.

FNAI species range models indicate areas that are within the known or predicted range of a species, based on climate variables, soils, vegetation, and/or slope. Species range models have been developed for approximately 340 species, including all federally listed species.



Florida Resources and Environmental Analysis Center

Institute of Science and Public Affairs The Florida State University The FNAI Biodiversity Matrix Geodatabase compiles Documented, Likely, and Potential species and natural communities for each square mile Matrix Unit statewide.

Florida Scrub-jay Survey – U.S. Fish and Wildlife Service

This survey was conducted by staff and associates of the Archbold Biological Station from 1992 to 1996. An attempt was made to record all scrub-jay (*Aphelocoma coerulescens*) groups, although most federal lands were not officially surveyed. Each map point represents one or more groups.

This data layer indicates that there are potential scrub-jay populations on or very near your site. For additional information:

Fitzpatrick, J.W., B. Pranty, and B. Stith, 1994, Florida scrub jay statewide map, 1992-1993. U. S. Fish and Wildlife Service Report, Cooperative Agreement no. 14-16-004-91-950.

The Inventory always recommends that professionals familiar with Florida's flora and fauna should conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.

Please visit www.fnai.org/trackinglist.cfm for county or statewide element occurrence distributions and links to more element information.

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

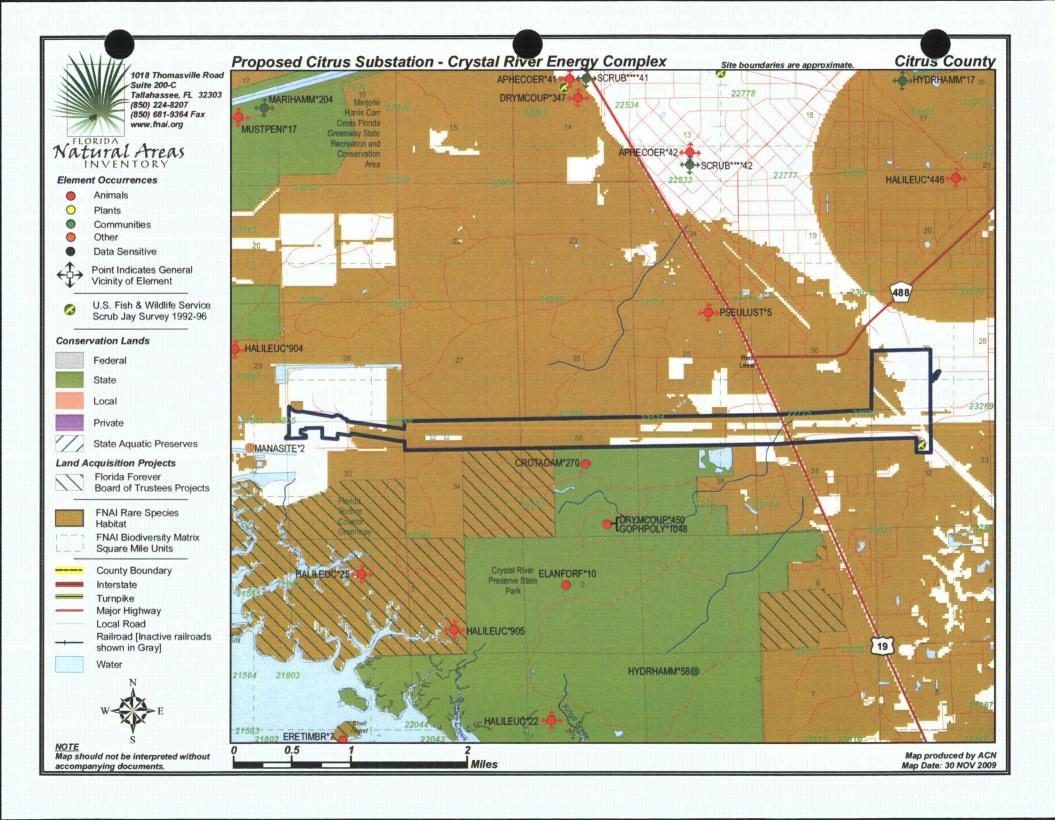
Information provided by this database may not be published without prior written notification to the Florida Natural Areas Inventory, and the Inventory must be credited as an information source in these publications. FNAI data may not be resold for profit.

Thank you for your use of FNAI services. If I can be of further assistance, please give me a call at (850) 224-8207.

Sincerely, Alicia C. Newberry

Alicia C. Newberry Data Services Coordinator

Encl





Florida Natural Areas Inventory



ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR Proposed Citrus Substation - Crystal River Energy Complex

INVEN			Global	State	Federal	State	Observatio	n	
Map Label	Scientific Name	Common Name			Status		Date	Description	EO Comments
APHECOER*42	Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT	1981-02-21	GRASSY PALMETTO SCRUB	1981-02-21: 11 SCRUB JAYS
MARIHAMM*204	Maritime hammock		G3	S2	N	N	2004	SMALL REMNANT SURROUNDED BY ESTUARINE TIDAL MARSH.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1991-10-10) (U05FNA02FLUS). REMNANT DOMINATED BY SABAL PALMETTO WITH PINUS ELLIOTTII, QUERCUS VIRGINIANA, JUNIPERUS SILICICOLA, DICHROMENA COLORATA, MYRIC
HYDRHAMM*17	Hydric hammock -		G4	S4	N	N	2004		2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1991-11-12) (U05FNA02FLUS). DOMINATED BY SABAL PALMETTO AND ACER RUBRUM.
SCRUB****42	Scrub		G2	S2	N	N	2004	GRASSY PALMETTO SCRUB	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1981-02-21) (U05FNA02FLUS). OCCURRENCE AT SITE
SCRUB****41	Scrub		G2	S2	N	N	1981-02-21	PALMETTO SCRUB, SCATTERED PALMS	OCCURRENCE AT SITE
ERETIMBR*7	Eretmochelys imbricata	Hawksbill	G3	S1	LE	LE	1997-04-02	Coastal hammock island.	1997-04-02: One adult turtle found dead, decomposing (U97MAI01FLUS).
HYDRHAMM*58	Hydric hammock		G4	S4	N	N	1997-04-07	This hammock is deep in the woods. Crystal River marshes and swamps are its south and west border. The north and east edges are flatwoods and sandhills, also within the preserve.	1997-04-07: Completely canopied by mature trees reaching over 100 feet; understory and ground layer fairly open from lack of light; succession dominated by light gaps; enormous, clearly old growth. Hammock is interspersed with shallow running streams and
MANASITE*2	Manatee Aggregation Site		GNR	SNR	N	N	1988	WARM-WATER EFFLUENT INTO GULF OF MEXICO (CRYSTAL BAY).	UP TO 5 MANATEES UTILIZE THIS AREA FOR SHORT PERIODS OF COOL WEATHER; MOST HEAVILY IN SPRING AS INDIVIDUALS DISPERSE NORTHWARD FROM CRYSTAL RIVER.
DRYMCOUP*347	Drymarchon couperi	Eastern Indigo Snake	G3	S 3	LT	LT	1973-10	No general description given	MUSEUM SPECIMEN: S. CHRISTMAN, OCT 1973, UF.
APHECOER*41	Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT	1981-02-21	PALMETTO SCRUB, SCATTERED PINES	1981-02-21: 2 SCRUB JAYS



Florida Natural Areas Inventory



ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR Proposed Citrus Substation - Crystal River Energy Complex

INVENT	ORY		Global	State	Federal	State	Observation	1	
Map Label	Scientific Name	Common Name	Rank	Rank	Status	Listing	Date	Description	EO Comments
MUSTPENI*17	Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S 3	N	N	1975-03-23	Coastal hammock.	1975-03-23: S.P. Christman, DEP, observation. Observed for several minutes as emerged from holes in hollow logs and ground in "peek-a-boo" fashion. See Fla. Game and Fresh Water Fish Comm., Cross Florida Barge Canal Restudy RepWildl. Study. Vol. IV, Ap
GOPHPOLY*1048	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	1997-04-08	Planted slash pine; includes some relic sandhill planted with slash pine and turkey oak (NW1/4 of section 2 T18SR16E).	1997-04-08: One individual sighted on dirt road in NW1/4 section 1 T18SR16E (S. Blitch et al.). 1995-1997: S. Blitch made several sightings of tortoises at three different locations within element occurrence boundaries (see attached map).
CROTADAM*270	Crotalus adamanteus	Eastern Diamondback Rattlesnake	G4	S3	N	N	1996	Planted pine.	1996: S. Blitch observed one individual once or twice near state buffer preserve's shop.
ELANFORF*10	Elanoides forficatus	Swallow-tailed Kite	G5	S2	N	N	1995-SPRING	No general description given	1995 Spring: One pair nested in planted slash pine (S. Blitch).
DRYMCOUP*450	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	1996-XX-XX	Planted slash pine and pine flatwoods (T17SR16E sec. 35); oak hammock and pasture (T18SR16E Sec. 1) (S. Blitch); mature slash pine plantation (G. Maidhoff).	1995-1996: Individuals observed at four different locations by S. Blitch (no specific dates). 1995-02-21: One snake observed by Ms. Yulee Commander basking in fire trail (U95MAI02).
HALILEUC*904	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	2003	No general description given	Nest status 1995-2003: Continuously active. (U03FWC01FLUS). Previous data (note different format) Nest; 1995: Produced 1 young; 1994: Produced 2 young; 1993: Produced 2 young; 1999: No data; 1991: Active, productivity unknown; 1990: Produced 1 young; 198
HALILEUC*22	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	1991	No general description given	Nest status 1999-2003: Inactive - 2003; Unknown/not assessed - 2002, 2001, 2000, 1999; Status 1995-98: Inactive - 1998, 1997, 1996, 1995; (U03FWC01FLUS). Previous data (note different format) NEST: 1995: GONE; 1994: INACTIVE; 1993: INACTIVE; 1992: NO DAT



Florida Natural Areas Inventory



ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR Proposed Citrus Substation - Crystal River Energy Complex

INVENTORY		Global State Federal State Observation					n			
Map Label	Scientific Name	Common Name	Rank	Rank	Status	Listing	Date	Description	EO Comments	
HALILEUC*446	Haliaeetus leucocephalus	Bald Eagle	G5	\$3	PS	N	2003	No general description given	Nest status 1995-2003: Continuously active. (U03FWC01FLUS). Previous data (note different format) NEST: 1995: PRODUCED 1 YOUNG; 1994: GONE; 1993: PRODUCED 2 YOUNG; 1992-87: NO DATA; 1982-1986 ACTIVE; FLEDGED YOUNG 1982-1983, 1985.	
HALILEUC*905	Haliaeetus leucocephalus	Bald Eagle	G 5	S3	PS	N	2003	No general description given	Nest status 1995-2003: Continuously active. (U03FWC01FLUS). Previous data (note different format) Nest; 1995: Produced 1 young; 1994: Produced 1 young; 1999: No data; 1991: Produced 1 young; 1990: No data; 1989: Produced 1 young;	
HALILEUC*25	Haliaeetus leucocephalus	Bald Eagle	G 5	S 3	PS	N	1991	No general description given	Nest status 1999-2003: Inactive - 2003; Unknown/not assessed - 2002, 2001, 2000, 1999; Status 1995-98: Inactive - 1998, 1997, 1996, 1995; (U03FWC01FLUS). Previous data (note different format) NEST: 1995-93: GONE; 1992: NO DATA; 1991: ACTIVE, PRODUCTIVITY	
PSEULUST*5	Pseudobranchus striatus Iustricolus	Gulf Hammock Dwarf Siren	G5T1	S1	N	N	1951-03-15	1951: habitat not described by N (1951) (A51NEI02FLUS).	Neill 1951-03-15: W. T. Neill collected at least eight adults (paratypes, ERA-WTN 14218-14225) (A51NEI02FLUS, B92MOL01FLUS).	



Florida Natural Areas Inventory **Biodiversity Matrix Report**



Natural Areas				18	51.
INVENTORY Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 21805					
Likely					
Drymarchon couperi Manatee aggregation site Ursus americanus floridanus	Eastern Indigo Snake Florida Black Bear	G3 GNR G5T2	S3 SNR S2	LT N N	LT N .LT*
Potential					
Podomys floridanus Rallus longirostris scottii Spigelia loganioides Trichechus manatus	Gulf Sturgeon Scott's Seaside Sparrow Wagner's Spleenwort Loggerhead Green Turtle Marian's Marsh Wren Rafinesque's Big-eared Bat Godfrey's Swampprivet Gopher Tortoise Cooley's Water-willow Corkwood Florida Long-tailed Weasel Southeastern Bat Gulf Salt Marsh Mink Gulf Salt Marsh Snake Pinewood Dainties Florida Mouse Florida Clapper Rail Pinkroot Manatee	G3T2 G4T3Q GNA G3 G3 G5T3 G3G4 G2 G3 G5T3 G4T4 G4T2 G3 G5T3? G2Q G2	\$2 \$3 \$1 \$3 \$2 \$3 \$2 \$3 \$2 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3	L N N T L N N N N N N N N N N N N N N N	SSZTESZETETZZZZESZEE
Matrix Unit ID: 22046 Likely					
Drymarchon couperi Mesic flatwoods Ursus americanus floridanus	Eastern Indigo Snake Florida Black Bear	G3 G4 G5T2	S3 S4 S2	LT N N	LT N LT*
Potential					
Aimophila aestivalis Asplenium heteroresiliens Corynorhinus rafinesquii Forestiera godfreyi Gopherus polyphemus Justicia cooleyi Leitneria floridana Mustela frenata peninsulae Myotis austroriparius Neovison vison halilimnetes Phyllanthus leibmannianus ssp. platylepis Podomys floridanus Sciurus niger shermani	Bachman's Sparrow Wagner's Spleenwort Rafinesque's Big-eared Bat Godfrey's Swampprivet Gopher Tortoise Cooley's Water-willow Corkwood Florida Long-tailed Weasel Southeastern Bat Gulf Salt Marsh Mink Pinewood Dainties Florida Mouse Sherman's Fox Squirrel	G3 GNA G3G4 G2 G3 G5T3 G5T3 G4T2 G3 G5T3	\$3 \$1 \$2 \$2 \$3 \$2 \$3 \$3 \$3 \$3 \$2 \$3 \$3	Z Z Z Z E Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	N N N LE LT LT N N N LE LS LS

initions: Documented - Rare species and natural communities documented on or near this site.

Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years. Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity. Potential - This site lies within the known or predicted range of the species listed.

1018 Thomasville Road Suite 200-C Tallahassee, FL 32303 (850) 224-8207 (850) 681-9364 Fax

Florida Natural Areas Inventory Biodiversity Matrix Report



Natural Areas				18	51/10
INVENTORY Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Spigelia loganioides	Pinkroot	G2Q	S2	N	, LE
Matrix Unit ID: 22288					
Documented					
Crotalus adamanteus	Eastern Diamondback Rattlesnake	G4	S3	N	N
Likely					
Drymarchon couperi Ursus americanus floridanus	Eastern Indigo Snake Florida Black Bear	G3 G5T2	S3 S2	LT N	LT LT*
Potential			·		•
Aimophila aestivalis Asplenium heteroresiliens Corynorhinus rafinesquii Forestiera godfreyi Gopherus polyphemus Justicia cooleyi Leitneria floridana Mustela frenata peninsulae Myotis austroriparius Neovison vison halilimnetes Phyllanthus leibmannianus ssp. platylepis Podomys floridanus Sciurus niger shermani Spigelia loganioides	Bachman's Sparrow Wagner's Spleenwort Rafinesque's Big-eared Bat Godfrey's Swampprivet Gopher Tortoise Cooley's Water-willow Corkwood Florida Long-tailed Weasel Southeastern Bat Gulf Salt Marsh Mink Pinewood Dainties Florida Mouse Sherman's Fox Squirrel Pinkroot	G3 GNA G3G4 G2 G3 G5T3 G5T3 G4T2 G3 G5T3 G2Q	S3 S1 S2 S2 S3 S2 S3 S3 S3 S3 S2 S3 S2 S3	X	N N N E L E L E L E L E L E L E L E L E
Matrix Unit ID: 22531 Likely					* *
Drymarchon couperi Mesic flatwoods Ursus americanus floridanus	Eastern Indigo Snake Florida Black Bear	G3 G4 G5T2	S3 S4 S2	LT N N	LT N LT*
Potential					
Aimophila aestivalis Asplenium heteroresiliens Corynorhinus rafinesquii Forestiera godfreyi Gopherus polyphemus Justicia cooleyi Leitneria floridana Matelea floridana Mustela frenata peninsulae Myotis austroriparius Neovison vison halilimnetes Phyllanthus leibmannianus ssp. platylepis Podomys floridanus Pseudobranchus striatus lustricolus Sciurus niger shermani	Bachman's Sparrow Wagner's Spleenwort Rafinesque's Big-eared Bat Godfrey's Swampprivet Gopher Tortoise Cooley's Water-willow Corkwood Florida Spiny-pod Florida Long-tailed Weasel Southeastern Bat Gulf Salt Marsh Mink Pinewood Dainties Florida Mouse Gulf Hammock Dwarf Siren Sherman's Fox Squirrel	G3 GNA G3G4 G2 G3 G2 G5T3 G3G4 G5T3 G4T2 G3 G5T1 G5T3	S3 S1 S2 S2 S3 S2 S3 S2 S3 S3 S2 S3 S3 S2 S3 S3 S3 S3 S3 S3 S3 S3 S3 S3 S3 S3 S3	ZZZZZZZZZZZZZZZZZ	N N N E T E T E N N N E S N S

nitions: Documented - Rare species and natural communities documented on or near this site.

Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.

Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.

Potential - This site lies within the known or predicted range of the species listed.



Florida Natural Areas Inventory **Biodiversity Matrix Report**



Natural Areas				18	51 0
INVENTORY Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Spigelia loganioides Stilosoma extenuatum	Pinkroot Short-tailed Snake	G2Q G3	S2 S3	N N	LE LT
Matrix Unit ID: 22775					
Likely					
Drymarchon couperi Heterodon simus Mesic flatwoods Ursus americanus floridanus	Eastern Indigo Snake Southern Hognose Snake Florida Black Bear	G3 G2 G4 G5T2	S3 S2 S4 S2	LT N N N	LT N N LT*
Potential					
Aimophila aestivalis Asplenium heteroresiliens Corynorhinus rafinesquii Forestiera godfreyi Gopherus polyphemus Justicia cooleyi Leitneria floridana Matelea floridana Mustela frenata peninsulae Myotis austroriparius Phyllanthus leibmannianus ssp. platylepis Podomys floridanus Pseudobranchus striatus lustricolus Sciurus niger shermani Spigelia loganioides Stilosoma extenuatum	Bachman's Sparrow Wagner's Spleenwort Rafinesque's Big-eared Bat Godfrey's Swampprivet Gopher Tortoise Cooley's Water-willow Corkwood Florida Spiny-pod Florida Long-tailed Weasel Southeastern Bat Pinewood Dainties Florida Mouse Gulf Hammock Dwarf Siren Sherman's Fox Squirrel Pinkroot Short-tailed Snake	G3 GNA G3G4 G2 G3 G2 G5T3 G3G4 G4T2 G3 G5T1 G5T3 G2Q G3	\$3 \$1 \$2 \$2 \$3 \$2 \$3 \$2 \$3 \$2 \$3 \$2 \$3 \$2 \$3 \$2 \$3 \$2 \$3 \$3 \$2 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3	N N N N E N N N N N N N N N N N N N N N	N N N L T L T L N N L S N S L T L
Matrix Unit ID: 23022 Likely					
Aphelocoma coerulescens Drymarchon couperi Heterodon simus Mesic flatwoods	Florida Scrub-jay Eastern Indigo Snake Southern Hognose Snake	G2 G3 G2 G4	S2 S3 S2 S4	LT LT N N	LT LT N N
Potential			(
Agrimonia incisa Aimophila aestivalis Asplenium heteroresiliens Corynorhinus rafinesquii Forestiera godfreyi Gopherus polyphemus Justicia cooleyi Leitneria floridana Matelea floridana Mustela frenata peninsulae Myotis austroriparius Notophthalmus perstriatus	Incised Groove-bur Bachman's Sparrow Wagner's Spleenwort Rafinesque's Big-eared Bat Godfrey's Swampprivet Gopher Tortoise Cooley's Water-willow Corkwood Florida Spiny-pod Florida Long-tailed Weasel Southeastern Bat Striped Newt	G3 G3 GNA G3G4 G2 G3 G2 G3 G2 G5T3 G3G4 G2G3	\$2 \$3 \$1 \$2 \$2 \$3 \$2 \$3 \$2 \$3 \$3 \$2 \$3	N N N N N N LE N N N N N	

finitions: Documented - Rare species and natural communities documented on or near this site.

Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.

Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity. Potential - This site lies within the known or predicted range of the species listed.



Florida Natural Areas Inventory **Biodiversity Matrix Report**



NATUTAL ATEAS					
INVENTORY		Global	State	Federal	State
Scientific Name	Common Name	Rank	Rank	Status	Listing
Phyllanthus leibmannianus ssp. platylepis	Pinewood Dainties	G4T2	S2	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Matrix Unit ID: 23023					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Mesic flatwoods	G	G4	S4	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Leitneria floridana	Corkwood	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Phyllanthus leibmannianus ssp. platylepis		G4T2	S2	N	LE
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

initions: Documented - Rare species and natural communities documented on or near this site. Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years. Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity. Potential - This site lies within the known or predicted range of the species listed.

GLOBAL AND STATE RANKS

Florida Natural Areas Inventory (FNAI) defines an **element** as any rare or exemplary component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave, or other ecological feature. FNAI assigns two ranks to each element found in Florida: the **global rank**, which is based on an element's worldwide status, and the **state rank**, which is based on the status of the element within Florida. Element ranks are based on many factors, including estimated number of occurrences, estimated abundance (for species and populations) or area (for natural communities), estimated number of adequately protected occurrences, range, threats, and ecological fragility.

GLOBAL RANK DEFINITIONS

G1	Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
G2	Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
<i>G3</i>	Either very rare and local throughout its range (21-100 occurrences or less than 10,0000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
G4	Apparently secure globally (may be rare in parts of range).
G5	Demonstrably secure globally.
G#?	Tentative rank (e.g., G2?)
<i>G#G#</i>	Range of rank; insufficient data to assign specific global rank (e.g., G2G3)
<i>G#T</i> #	Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1)
G#Q	Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q)
G#T#Q	Same as above, but validity as subspecies or variety is questioned.
GH	Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker)
GNA	Ranking is not applicable because element is not a suitable target for conservation (e.g. as for hybrid species)
GNR	Not yet ranked (temporary)
GNRTNR	Neither the full species nor the taxonomic subgroup has yet been ranked (temporary)
GX	Believed to be extinct throughout range
GXC	Extirpated from the wild but still known from captivity/cultivation
GU	Unrankable. Due to lack of information, no rank or range can be assigned (e.g., GUT2).

STATE RANK DEFINITIONS

Definition parallels global element rank: substitute "S" for "G" in above global ranks, and "in Florida" for "globally" in above global rank definitions.

FEDERAL AND STATE LEGAL STATUSES (U.S. Fish and Wildlife Service – USFWS) PROVIDED BY FNAI FOR INFORMATION ONLY.

For official definitions and lists of protected species, consult the relevant state or federal agency.

FEDERAL LEGAL STATUS

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

- LE Listed as Endangered Species in the List of Endangered and Threatened Wildlife and Plants under the provisions of the Endangered Species Act. Defined as any species which is in danger of extinction throughout all or a significant portion of its range.
- LE,XN A non essential experimental population of a species otherwise Listed as an Endangered Species in the List of Endangered and Threatened Wildlife and Plants. LE,XN for Grus americana (Whooping crane), Federally listed as XN (Non essential experimental population) refers to the Florida experimental population only. Federal listing elsewhere for Grus americana is LE.
- **PE** Proposed for addition to the List of Endangered and Threatened Wildlife and Plants as Endangered Species.
- LT Listed as Threatened Species, defined as any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
- LT,PDL Species currently listed Threatened but has been proposed for delisting.
- **PT** Proposed for listing as Threatened Species.
- C Candidate Species for addition to the list of Endangered and Threatened Wildlife and Plants, Category 1. Federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.
- **SAT** Threatened due to similarity of appearance to a threatened species.
- SC Species of Concern, species is not currently listed but is of management concern to USFWS.
- N Not currently listed, nor currently being considered for addition to the List of Endangered and Threatened Wildlife and Plants.

FLORIDA LEGAL STATUSES (Florida Fish and Wildlife Conservation Commission – FFWCC/ Florida Department of Agriculture and Consumer Services – FDACS)

Animals: Definitions derived from "Florida's Endangered Species and Species of Special Concern, Official Lists" published by Florida Fish and Wildlife Conservation Commission - FFWCC, 1 August 1997, and subsequent updates.

- LE Listed as Endangered Species by the FFWCC. Defined as a species, subspecies, or isolated population which is so rare or depleted in number or so restricted in range of habitat due to any man-made or natural factors that it is in immediate danger of extinction or extirpation from the state, or which may attain such a status within the immediate future
- LT Listed as Threatened Species by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future.
- LT* Indicates that a species has LT status only in selected portions of its range in Florida. LT* for Ursus americanus floridanus (Florida black bear) indicates that LT status does not apply in Baker and Columbia counties and in the Apalachicola National Forest. LT* for Neovison vison pop. 1 (Southern mink, South Florida population) state listed as Threatened refers to the Everglades population only (Note: species formerly listed as Mustela vison mink pop. 1. Also, priorly listed as Mustela evergladensis).
- LS Listed as Species of Special Concern by the FFWCC, defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification,

environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species.

LS* Indicates that a species has LS status only in selected portions of its range in Florida. LS* for Pandion haliaetus (Osprey) state listed as LS (Species of Special Concern) in Monroe County only.

PE Proposed for listing as Endangered.PT Proposed for listing as Threatened.

PS Proposed for listing as a Species of Special Concern.

Not currently listed, nor currently being considered for listing.

Plants: Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or please visit: http://DOACS.State.FL.US/PI/Images/Rule05b.pdf

LE Listed as Endangered Plants in the Preservation of Native Flora of Florida Act. Defined as species of plants native to the state that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue, and includes all species determined to be endangered or threatened pursuant to the Federal Endangered Species Act of 1973, as amended.

PE Proposed by the FDACS for listing as Endangered Plants.

LT Listed as Threatened Plants in the Preservation of Native Flora of Florida Act. Defined as species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in such number as to cause them to be endangered. LT* indicates that a species has LT status only in selected portions of its range in Florida

PT Proposed by the FDACS for listing as Threatened Plants.

Not currently listed, nor currently being considered for listing.

1018 Thomasville Road Suite 200-C Tallahassee, FL 32303 (850) 224-8207 (850) 681-9364 Fax www.fnai.org

Natural Areas INVENTORY





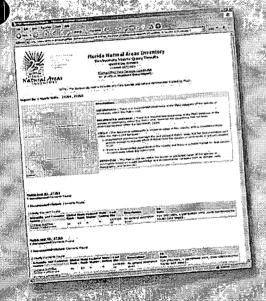


FOR IMMEDIATE RELÉASE

FNAI's Biodiversity Matrix Online

The Biodiversity Matrix Map Server is a new screening tool from ENAI that provides immediate, free access to rare species occurrence information statewide. This tool allows you to zoom to your site of interest and create a report listing documented, likely, and potential occurrences of rare species and natural communities.

The FNAI Biodiversity Matrix offers built-in interpretation of the likelihood of species occurrence for each 1-square-mile Matrix Unit across the state. The report includes a site map and list of species and natural communities by occurrence status: Documented, Documented-Historic, Likely, and Potential.

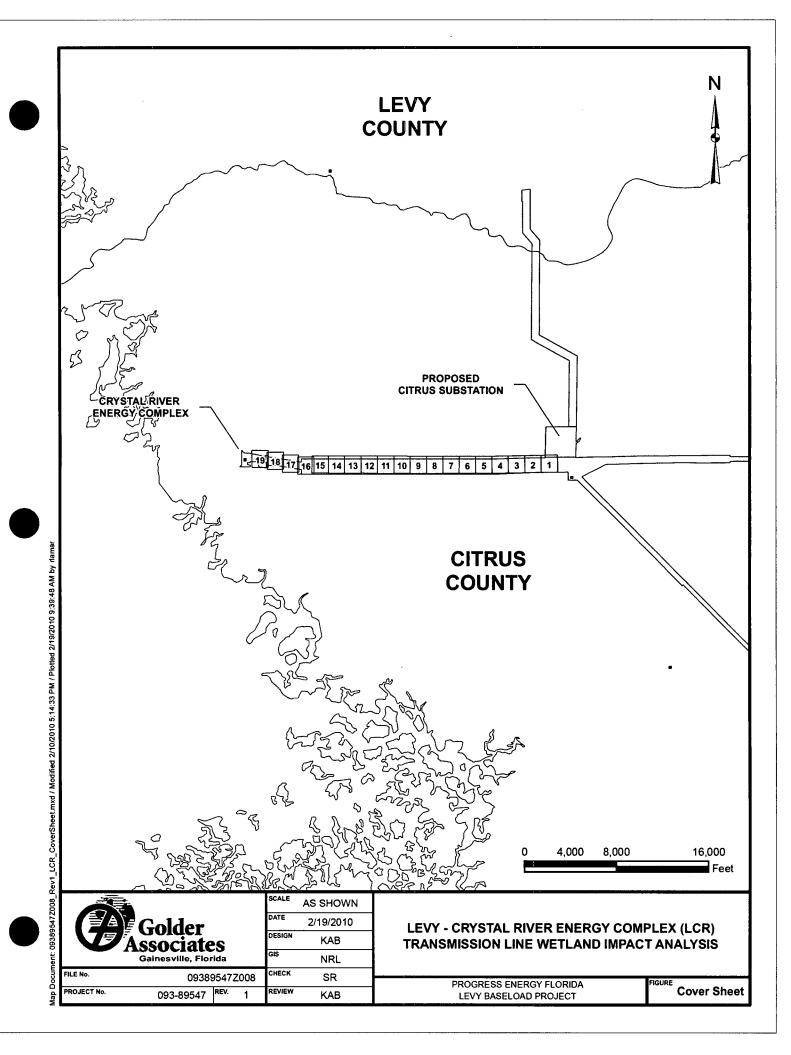


Try it today:

www.fnail.org/biointro.cfm

Please note: FNAI will continue to offer our Standard Data Report service as always. The Standard Data Report offers the most comprehensive information available on rare species, natural communities, conservation lands, and other natural resources.

LEVY – CRYSTAL RIVER ENERGY COMPLEX (LCR)
TRANSMISSION LINE WETLAND IMPACT ANALYSIS
FIGURES





AS SHOWN 2/19/2010

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Gainesville, Florida

093-89547 REV.

09389547Z004

LEVY - CRYSTAL RIVER ENERGY COMPLEX (LCR)

TRANSMISSION LINE WETLAND IMPACT ANALYSIS

1 of 19

PROGRESS ENERGY FLORIDA

LEVY BASELOAD PROJECT





LCR Pad Locations

Substation Property

Surveyed Wetland Boundaries

- 3. Pad Locations, Access Roads, Patrick Engineering, 2010.

400 100 200 Feet

See wetland survey for acreage of wetlands. For impact acreages see attached tables.



Structure Pad Wetland Fill Impacts

FILE No.	09389547Z004				
PROJECT No.	093-89547	REV.	1		

SCALE	AS SHOWN
DATE	2/19/2010
DESIGN	KAB
GIS	NRL
CHECK	SR
REVIEW	KAB

LEVY - CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE WETLAND IMPACT ANALYSIS

> PROGRESS ENERGY FLORIDA LEVY BASELOAD PROJECT



LCR Pad Locations

Substation Property

REFERENCES

- Wetland boundaries, MACTEC, 2010.
 Wetland impacts, Golder Associates Inc., 2010.
 Pad Locations, Access Roads, Patrick Engineering, 2010.

100 400 200 Feet

NOTES

See wetland survey for acreage of wetlands. For impact acreages see attached tables.



Structure Pad Wetland Fill Impacts

FILE No.	0938	9547Z004
PROJECT No.	093-89547	REV. 1

	SCALE	AS SHOWN
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	REVIEW	KAB

Forested Wetland Clearing Impacts Surveyed Wetland Boundaries

> LEVY - CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE WETLAND IMPACT ANALYSIS

> > PROGRESS ENERGY FLORIDA LEVY BASELOAD PROJECT





LCR Pad Locations

Substation Property

Forested Wetland Clearing Impacts

Surveyed Wetland Boundaries

REFERENCES

- Wetland boundaries, MACTEC, 2010.
 Wetland impacts, Golder Associates Inc., 2010.
 Pad Locations, Access Roads, Patrick Engineering, 2010.

100 400 200 Feet

NOTES

See wetland survey for acreage of wetlands. For impact acreages see attached tables.



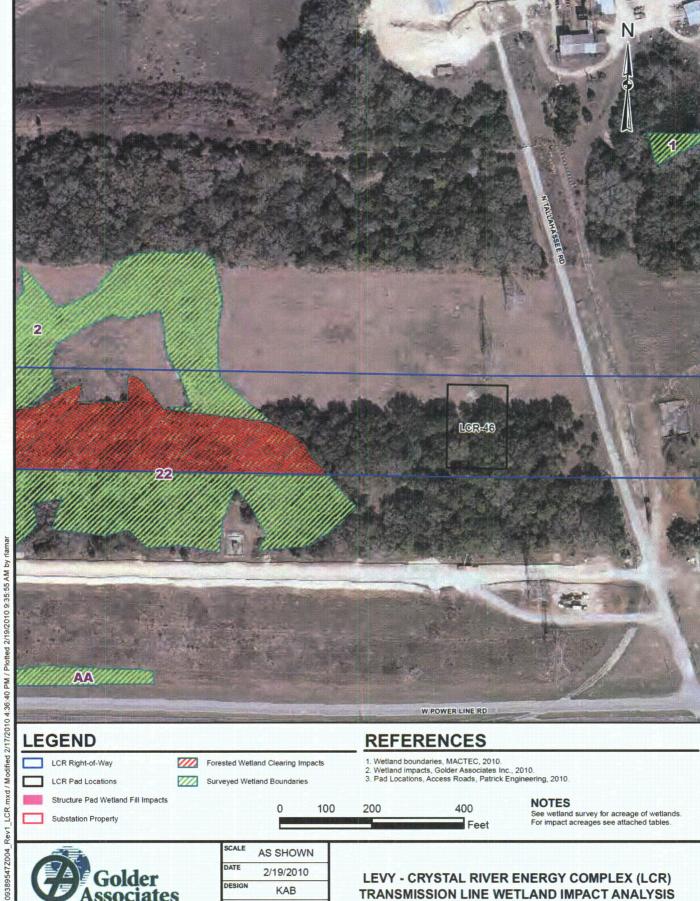
Structure Pad Wetland Fill Impacts

FILE No. 09389547Z004 093-89547 REV. PROJECT No.

SCALE	AS SHOWN
DATE	2/19/2010
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REVIEW	KAB

LEVY - CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE WETLAND IMPACT ANALYSIS

> PROGRESS ENERGY FLORIDA LEVY BASELOAD PROJECT





REFERENCES

- Wetland boundaries, MACTEC, 2010.
 Wetland impacts, Golder Associates Inc., 2010.
- 3. Pad Locations, Access Roads, Patrick Engineering, 2010.

100 200 400 Feet

NOTES

See wetland survey for acreage of wetlands. For impact acreages see attached tables.



09389547Z004

093-89547 REV.

	SCALE	AS SHOWN
	DATE	2/19/2010
	DESIGN	KAB
	GIS	NRL
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	REVIEW	KAB

Forested Wetland Clearing Impacts

Surveyed Wetland Boundaries

LEVY - CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE WETLAND IMPACT ANALYSIS

> PROGRESS ENERGY FLORIDA LEVY BASELOAD PROJECT

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FILE No.



LCR Pad Locations

Substation Property

Surveyed Wetland Boundaries

100 400 200 Feet

NOTES

See wetland survey for acreage of wetlands. For impact acreages see attached tables.



Structure Pad Wetland Fill Impacts

FILE No.	09389547Z004	
PROJECT No.	093-89547	REV. 1

SCALE	AS SHOWN
DATE	2/19/2010
DESIGN	KAB
GIS	NRL
CHECK	SR
REVIEW	KAB

LEVY - CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE WETLAND IMPACT ANALYSIS

> PROGRESS ENERGY FLORIDA LEVY BASELOAD PROJECT



7 of 19

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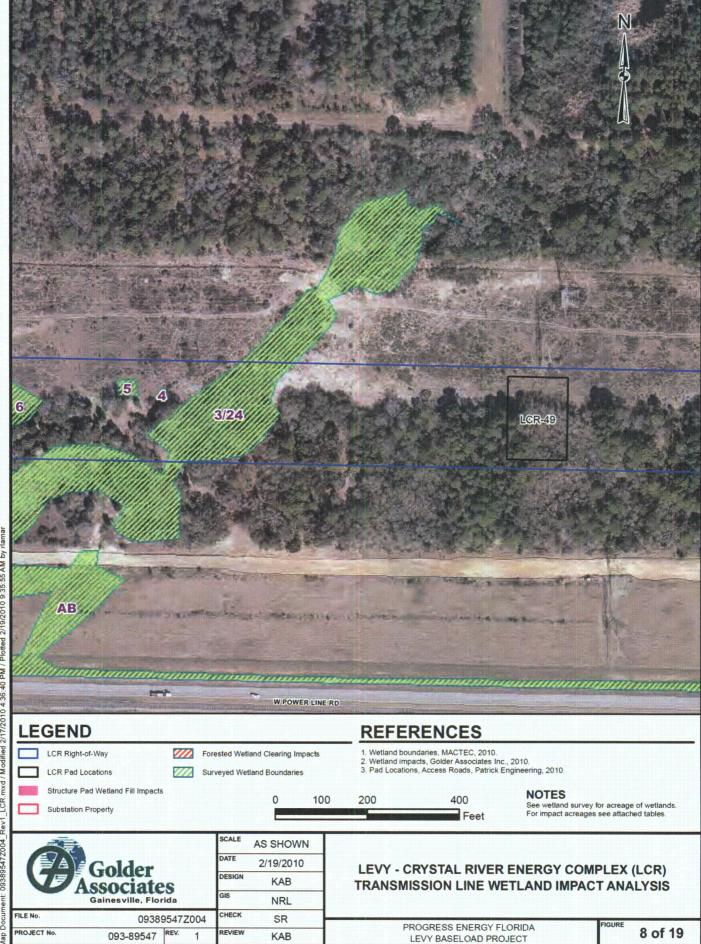
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093-89547 REV.

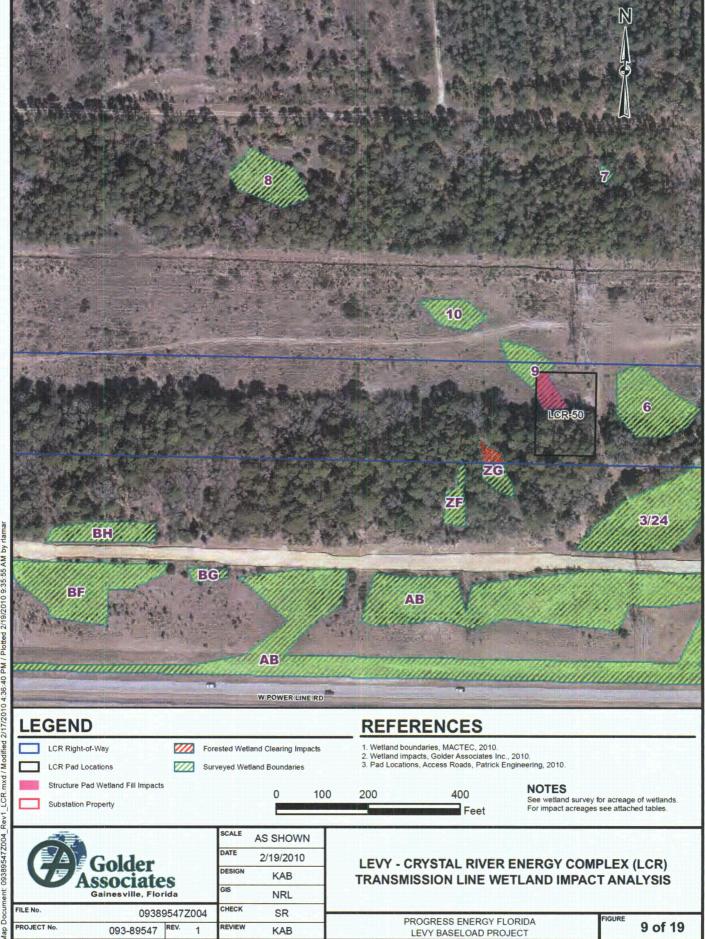
REVIEW

KAB

LEVY BASELOAD PROJECT



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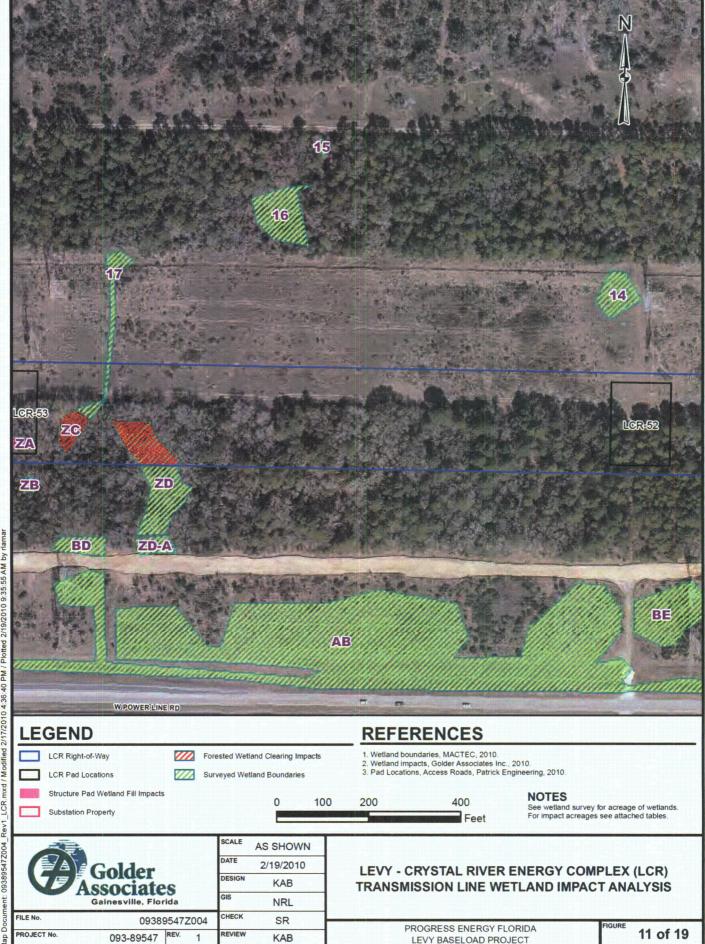
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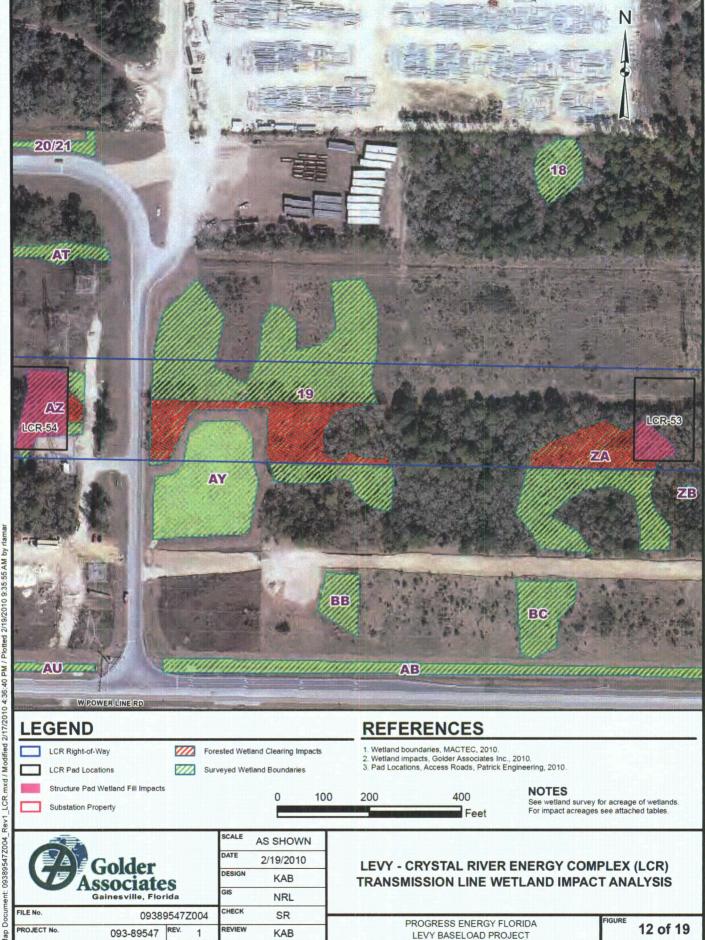
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LEVY BASELOAD PROJECT

LCR



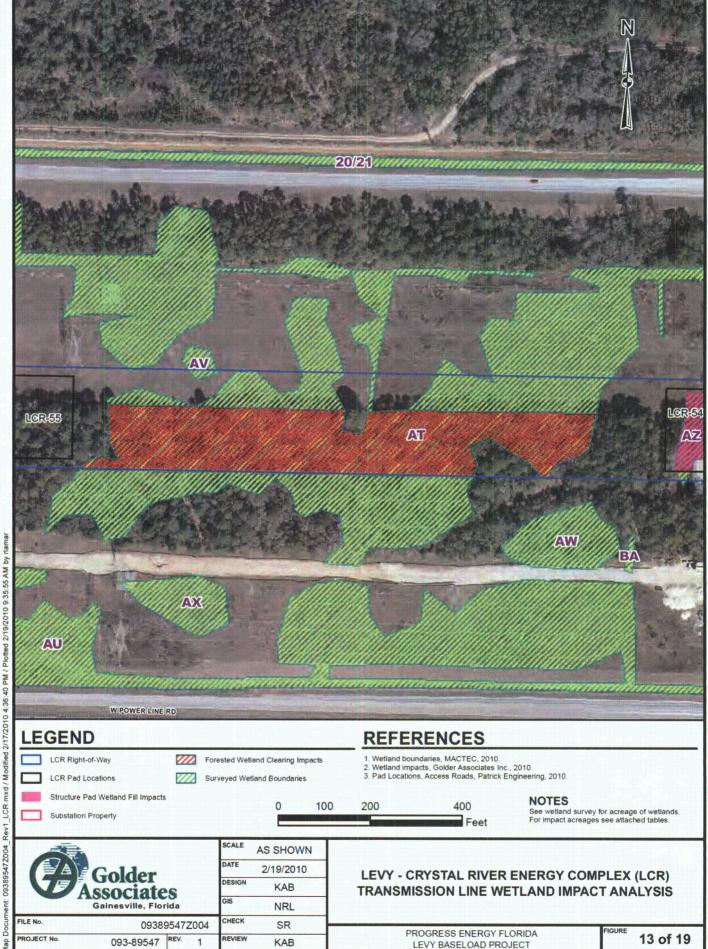
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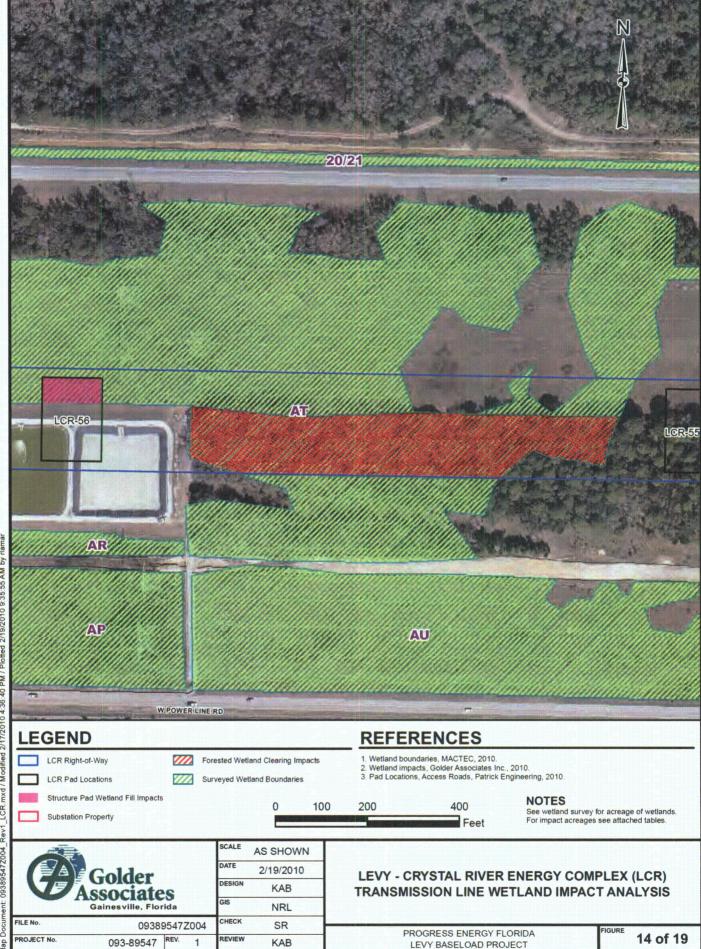
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LEVY BASELOAD PROJECT

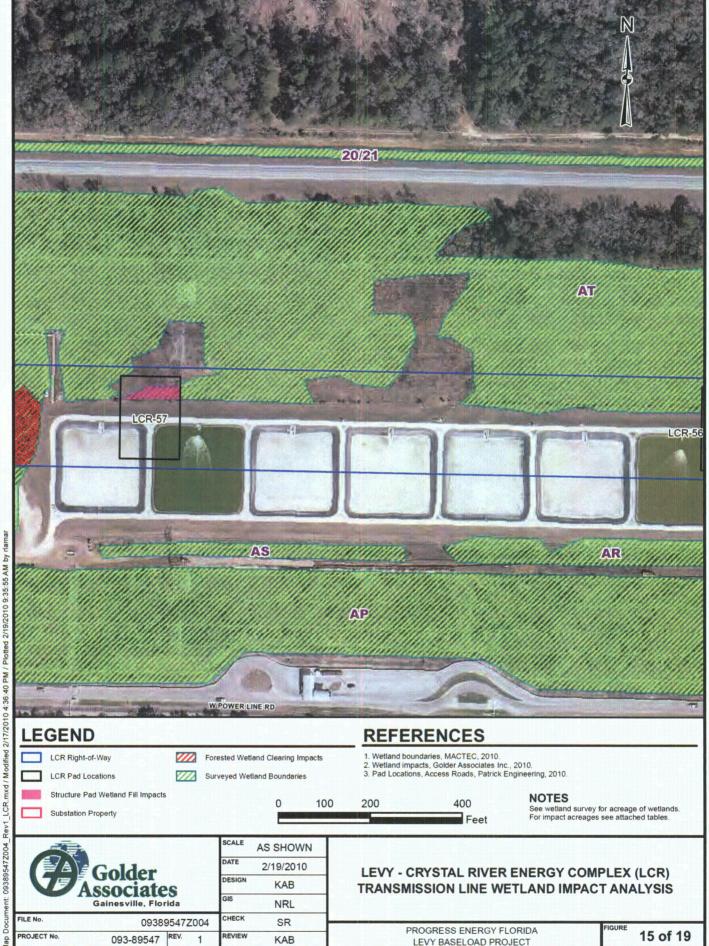
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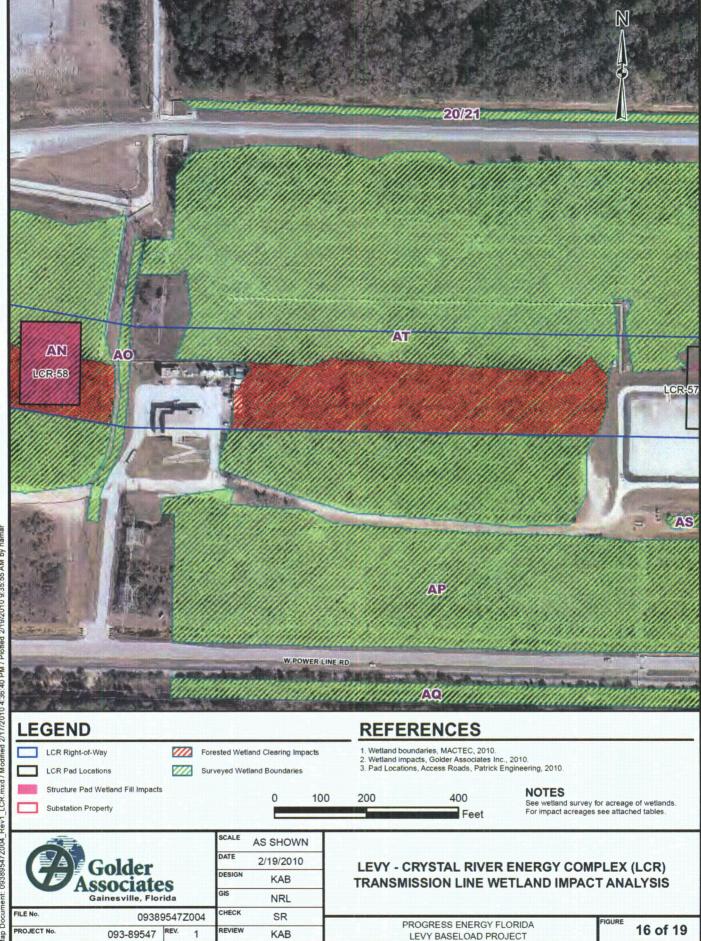
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LEVY BASELOAD PROJECT

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LCR Right-of-Way

LCR Pad Locations

Substation Property

Forested Wetland Clearing Impacts

Surveyed Wetland Boundaries

REFERENCES

- Wetland boundaries, MACTEC, 2010.
 Wetland impacts, Golder Associates Inc., 2010.
 Pad Locations, Access Roads, Patrick Engineering, 2010.

100 200 400 Feet

NOTES

See wetland survey for acreage of wetlands. For impact acreages see attached tables.



Structure Pad Wetland Fill Impacts

09389547Z004 PROJECT No. 093-89547 REV.

	SCALE	AS SHOWN				
	DATE	2/19/2010				
	DESIGN	KAB				
	GIS	NRL				
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	REVIEW	KAB				

LEVY - CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE WETLAND IMPACT ANALYSIS

> PROGRESS ENERGY FLORIDA LEVY BASELOAD PROJECT

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LCR Right-of-Way

LCR Pad Locations

Substation Property

Forested Wetland Clearing Impacts

Surveyed Wetland Boundaries

REFERENCES

- 1. Wetland boundaries, MACTEC, 2010.
- Wetland impacts, Golder Associates Inc., 2010.
 Pad Locations, Access Roads, Patrick Engineering, 2010.

100 400 200 Feet

See wetland survey for acreage of wetlands. For impact acreages see attached tables.



Structure Pad Wetland Fill Impacts

FILE No.	09389547Z004				
PROJECT No.	093-89547	REV. 1			

SCALE	AS SHOWN				
DATE	2/19/2010				
DESIGN	KAB				
GIS	NRL				
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LEVY - CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE WETLAND IMPACT ANALYSIS

> PROGRESS ENERGY FLORIDA LEVY BASELOAD PROJECT

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LCR Right-of-Way

LCR Pad Locations

Substation Property

Forested Wetland Clearing Impacts

Surveyed Wetland Boundaries

REFERENCES

- Wetland boundaries, MACTEC, 2010.
 Wetland impacts, Golder Associates Inc., 2010.
 Pad Locations, Access Roads, Patrick Engineering, 2010.

100 200 400 Feet

NOTES

See wetland survey for acreage of wetlands. For impact acreages see attached tables.



Structure Pad Wetland Fill Impacts

FILE No. 09389547Z004 093-89547 REV.

	SCALE	AS SHOWN				
	DATE	2/19/2010				
	DESIGN	KAB				
	GIS	NRL				
	CHECK	SR				
	REVIEW	KAB				

LEVY - CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE WETLAND IMPACT ANALYSIS

> PROGRESS ENERGY FLORIDA LEVY BASELOAD PROJECT

FIGURE 19 of 19 LEVY - CRYSTAL RIVER ENERGY COMPLEX (LCR)
TRANSMISSION LINE WETLAND IMPACT ANALYSIS
TABLES





Progress Energy Florida Levy Baseload Project LCR Pads Wetland Impacts

Structure ID	Wetland ID	FLUCFCS Code	FLUCFCS Definition	Impact Acreage	Total Impact Acreage	UMAM	Mitigation Credits	Total Mitigation Credits
LCR-43	CS-T	511	Ditches	0.08	80.0	0.53	0.04	0.04
LCR-47	22	617	Mixed Wetland Hardwoods	0.00*	0.00*	0.80	0.00*	0.00*
LCR-50	9	641	Freshwater Marshes	0.08	0.08	0.67	0.05	0.05
LCR-53	ZA	630	Wetland Forested Mixed	0.13	0.13	0.80	0.10	0.10
LCR-54	AZ AZ	630 641	Wetland Forested Mixed Freshwater Marshes	0.23 0.11	0.34	0.80	0.18 0.07	0.25
LCR-56	AT	641	Freshwater Marshes	0.16	0.16	0.67	0.11	0.11
LCR-57	AT	641	Freshwater Marshes	0.07	0.07	0.67	0.05	0.05
L'CR-58	AN	617	Mixed Wetland Hardwoods	0.33	0.53	0.80	0.26	0.38
	AN	631	Wetland Shrub	0.20		0.60	0.12	
LCR-59	AN AN	617 631	Mixed Wetland Hardwoods Wetland Shrub	0.43 0.11	0.54	0.80	0.34 0.07	0.41
LCR-60	AK	631	Wetland Shrub	0.03	0.03	0.40	0.01	0.01

Totals

1.96

* Impact Acreage or Mitigation Credits < 0.005



1.40





Progress Energy Florida Levy Baseload Project LCR Forested Wetland Clearing Impacts

Wetland ID	FLUCFCS Code	FLUCFCS Definition	Clearing Impact Acreage	Total Clearing Impact Acreage	UMAM	Functional Loss / Acre (UMAM)	Mitigation Credits	Total Mitigation Credits
19	617	Mixed Wetland Hardwoods	0.79	0.79	0.80	0.30	0.24	0.24
22	617	Mixed Wetland Hardwoods	2.89	2.89	0.80	0.30	0.87	0.87
AN	617	Mixed Wetland Hardwoods	7.75	7.75	0.80	0.30	2.33	2.33
AT	630	Wetland Forested Mixed	8.52	8.52	0.80	0.30	2.56	2.56
AZ	630	Wetland Forested Mixed	0.04	0.04	0.80	0.30	0.01	0.01
ZA	630	Wetland Forested Mixed	0.44	0.44	0.80	0.30	0.13	0.13
ZC	630	Wetland Forested Mixed	0.09	0.09	0.80	0.30	0.03	0.03
ZD	630	Wetland Forested Mixed	0.20	0.20	0.80	0.30	0.06	0.06
ZE	630	Wetland Forested Mixed	0.06	0.06	0.80	0.30	0.02	0.02
ZF	630	Wetland Forested Mixed	0.00*	0.00*	0.80	0.30	0.00*	0.00*
ZG	630	Wetland Forested Mixed	0.04	0.04	0.80	0.30	0.01	0.01
		Totals		20.82				6.26

^{*} Impact Acreage or Mitigation Credits < 0.005





Progress Energy Florida Levy Baseload Project LCR Wetland Impact Summary

	Acreage (Fill)	Acreage (Clearing)	Mitigation Credits	
Pads	1.96		1.40	
Roads	-	-	_	
Right-of-Way Clearing	_	20.82	6.26	
Total	1.96	20.82	7.66	

