Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands 37 - 43

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: **Polk** City: **Kathleen**
Center coordinates of site (lat/long in degree decimal format): Lat. **28.163425°** N, Long. **-82.039909°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Hillsborough River and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Channelized Stream/03100205**
☐ 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: **December 15, 2009.**
☒ Field Determination. Date(s): **September 29-30, 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 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 U.S.**

   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]

   ☐ TNWs, including territorial seas
   ☐ Wetlands adjacent to TNWs
   ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetlands 37, 42)**
   ☐ Non-RPWs that flow directly or indirectly into TNWs
   ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetlands 38, 40, 42)**
   ☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs **(Wetland 41)**
   ☐ 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:**
   Non-wetland waters: **220 (total)** linear feet: **21 (total)** width (ft) and/or acres.
   Wetlands: **6.28** 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]

   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **Wetlands 39 and 43 are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs.**

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[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.

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands 37 - 43

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 waterbody[4] 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 37, 42)

(i) General Area Conditions:
Watershed size: **2,920 acres**
Drainage area: **2,920 acres**
Average annual rainfall: **52** inches
Average annual snowfall: **0** inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through **3** tributaries before entering TNW.

Project waters are **10-15** river miles from TNW.
Project waters are **2-5** river miles from RPW.
Project waters are **5-10** aerial (straight) miles from TNW.
Project waters are **2-5** 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]: **Wetlands 37 and 42 consist of first order intermittent RPWs that flow southwest and join together, and flow south into Blackwater Creek. Blackwater Creek flows west, joining the Hillsborough River, a TNW.**
Tributary stream order, if known: **First.**

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on review of aerial photography, most of the stream bed appears to be channelized.**

Tributary properties with respect to top of bank (estimate):
Average width: **3** feet
Average depth: **2** feet
Average side slopes: **Vertical (1:1 or less).**

Primary tributary substrate composition (check all that apply):
☐ Silts ☒ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☒ Vegetation. Type/% cover: **Herbaceous/50%**
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: **N/A.**
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2 %**

(c) Flow:
Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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 ☒ the presence of litter and debris
☐ changes in the character of soil ☐ destruction of terrestrial vegetation
☐ shelving ☐ 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.[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: ☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects ☐ survey to available datum;
☐ fine shell or debris deposits (foreshore) ☐ physical markings;
☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.
☐ tidal gauges
☐ other (list): .

[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.
[6] A 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.
[7] Ibid.

(iii) Chemical Characteristics:
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: **Cypress domes; freshwater marsh in transmission line right of way.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW (Wetlands 38, 40, 41, 42)**

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **6.08** acres
Wetland type. Explain: **Freshwater marshes, cattle pond.**
Wetland quality. Explain: **Fair; impacted by cattle grazing and trampling.**
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. Explain: **Wetlands 38, 40, and 42 directly abut first order intermittent RPWs that join together to the west and flow west-southwest to Blackwater Creek. Blackwater Creek flows west, joining the Hillsborough River, a TNW.**

Surface flow is: **Overland sheetflow**
Characteristics: **Overland sheetflow to intermittent RPWs.**

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
☒ Directly abutting **(Wetlands 38, 40, and 42 directly abut intermittent streams.)**
☒ Not directly abutting
☒ Discrete wetland hydrologic connection. Explain: **Wetland 41 is connected to a mixed forested wetland by a ditch, and the mixed forested wetland is connected to the intermittent RPW through a ditch.**
☐ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW
Project wetlands are **10-15** river miles from TNW.
Project waters are **5-10** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent and forested wetland/95%.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: **4**
Approximately (**6.08**) 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)
Wetland 38 – Y	**0.58**		
Wetland 40 – Y	**1.42**		
Wetland 41 – N	**1.04**		
Wetland 42 – Y	**3.04**		

Summarize overall biological, chemical and physical functions being performed: **Wetlands 38, 40, 41, and 42 provide hydrologic detention and attenuation while also filtering pollutants. These wetlands are part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, these wetlands provide habitat, foraging, and refugia for wildlife.**

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: .

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: .

3. **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 41 provides hydrologic detention and attenuation while also filtering pollutants. This wetland is part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, these wetlands provide habitat, foraging, and refugia for wildlife, and in combination with adjacent wetlands, could have a significant effect on the physical, chemical, and biological integrity of the Hillsborough River.**

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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 37, 42)**
   ☐ 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: **According to USGS NHD data, Wetlands 37 and 42 contain intermittent streams.**

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   ☒ Tributary waters: **220 (total)** linear feet **21 (total)** 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 38, 40, 42)**
   ☒ 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: **Wetlands 38 and 40 directly abut streams located outside of the review area that are classified as intermittent. Freshwater marsh wetlands within Wetland 42 directly abut the intermittent RPW delineated as Wetland 42 within the review area.**

   Provide acreage estimates for jurisdictional wetlands in the review area: **5.14** acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. (Wetland 41)**
   ☒ 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: **1.04** 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).

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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 width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

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: **1.58** acres. **(Wetlands 39, 43)**

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.

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[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.***

- ☐ 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: .
- ☒ 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: .

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands 44 - 56

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

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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: **Polk** City: **Kathleen**
Center coordinates of site (lat/long in degree decimal format): Lat. **28.144043° N, Long. -82.041935° W**.
Universal Transverse Mercator:
Name of nearest waterbody: **Hillsborough River and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Channelized Stream/03100205**
☐ 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: **December 15, 2009.**
☒ Field Determination. Date(s): **September 30 – October 1, 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 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 U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): [1]
☐ TNWs, including territorial seas
☐ Wetlands adjacent to TNWs
☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetland 45, 49/49A, 54)**
☐ Non-RPWs that flow directly or indirectly into TNWs
☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetland 45, 54)**
☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs **(Wetland 51)**
☐ 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:
Non-wetland waters: **440 (total)** linear feet: **18 (total)** width (ft) and/or acres.
Wetlands: **1.78** 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]
☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands 44, 46, 47/47A, 50/50A, 53, 55 and 56 are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs.**

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[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.

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands 44 - 56**

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 waterbody[4] 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 (Wetland 45, 49/49A, 54)**

(i) **General Area Conditions:**
Watershed size: **2,572 acres**
Drainage area: **2,572 acres**
Average annual rainfall: **52** inches
Average annual snowfall: **0** inches

(ii) **Physical Characteristics:**
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through 3 tributaries before entering TNW.

Project waters are 10-15 river miles from TNW.
Project waters are 2-5 river miles from RPW.
Project waters are 10-15 aerial (straight) miles from TNW.
Project waters are 2-5 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]: **Wetlands 45, 49/49A, and 54 consist of first order intermittent RPWs that flow southwest and joins Blackwater Creek, a RPW. Blackwater Creek flows west, joining the Hillsborough River, a TNW.**
Tributary stream order, if known: **First.**

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on review of aerial photography, some of the stream beds appears to be channelized.**

Tributary properties with respect to top of bank (estimate):
Average width: **3** feet
Average depth: **2** feet
Average side slopes: **Vertical (1:1 or less)**.

Primary tributary substrate composition (check all that apply):
☐ Silts ☒ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☒ Vegetation. Type/% cover: **Herbaceous/50%**
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: **N/A.**
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2%**

(c) Flow:
Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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
☐ shelving
☒ vegetation matted down, bent, or absent
☐ leaf litter disturbed or washed away
☒ sediment deposition
☐ water staining
☐ other (list):
☒ the presence of litter and debris
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☐ sediment sorting
☐ scour
☐ multiple observed or predicted flow events
☐ abrupt change in plant community
☐ 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
☐ tidal gauges
☐ other (list):
☐ Mean High Water Mark indicated by:
☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

[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.
[6] A 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.
[7] Ibid.

(iii) Chemical Characteristics:
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: **Cypress domes; freshwater marsh in transmission line right of way**.
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW (Wetlands 45, 51, 54)**

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **1.59** acres
Wetland type. Explain: **Freshwater marsh and mixed forested wetlands.**
Wetland quality. Explain: **Fair; most areas impacted by cattle grazing and trampling.**
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. Explain: **Freshwater marsh wetlands within Wetlands 45 and 54 directly abut an intermittent RPW and Wetland 51 is hydrologically connected through adjacent wetlands and a ditch to an intermittent RPW. The intermittent RPWs flow southwest into Blackwater Creek, which flows west to the Hillsborough River, a TNW.**

Surface flow is: **Overland sheetflow**
Characteristics:

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
☒ Directly abutting **(Wetlands 45 and 54)**
☒ Not directly abutting
☒ Discrete wetland hydrologic connection. Explain: **Wetland 51 is connected to the intermittent RPW through a ditch. The intermittent RPW flows southwest into Blackwater Creek, which flows west to the Hillsborough River.**
☐ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW
Project wetlands are **10-15** river miles from TNW.
Project waters are **10-15** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):
☒ Riparian buffer. Characteristics (type, average width): **forested wetland, 150 feet.**
☒ Vegetation type/percent cover. Explain: **emergent and forested wetland/95%.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

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3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: **3**
Approximately (**1.59**) 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)
Wetland 45 – Y	**1.02**		
Wetland 51 – N	**0.10**		
Wetland 54 – Y	**0.47**		

Summarize overall biological, chemical and physical functions being performed: **Wetlands 45, 51, and 54 provide hydrologic detention and attenuation while also filtering pollutants. These wetlands are part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, these wetlands provide habitat, foraging, and refugia for wildlife.**

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: .

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:

3. **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 51 provides hydrologic detention and attenuation while also filtering pollutants. This wetland is part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, these wetlands provide habitat, foraging, and refugia for wildlife, and in combination with adjacent wetlands, could have a significant effect on the physical, chemical, and biological integrity of the Hillsborough River.**

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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 45, 49/49A, 54)**
☐ 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: **According to USGS NHD data, the RPWs at Wetlands 45, 49/49A, and 54 are intermittent.**

Provide estimates for jurisdictional waters in the review area (check all that apply):
☒ Tributary waters: **440 (total)** linear feet **18 (total)** 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 45, 54)**
☒ 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: **Freshwater marsh wetlands within Wetlands 45 and 54 directly abut intermittent RPWs delineated as Wetlands 45 and 54 within the review area.**

Provide acreage estimates for jurisdictional wetlands in the review area: **1.49 acres.**

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. (Wetland 51)**
☒ 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: **0.10** 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).

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

Project: <u>Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines</u>
Assessment Area: <u>Polk-Hillsborough-Pinellas Transmission Line Wetlands 44 - 56</u>

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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 <u>solely</u> 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 <u>sole</u> 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 width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

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: **0.67** acres. **(Wetlands 44, 46, 47/47A, 50/50A, 53, 55 and 56)**

<u>SECTION IV: DATA SOURCES.</u>

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:.

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[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.*

- ☐ 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: .
- ☒ 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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands 57 - 68**

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: **Polk** City: **Kathleen**
Center coordinates of site (lat/long in degree decimal format): Lat. **28.12763° N, Long. -82.039918° W.**
Universal Transverse Mercator:
Name of nearest waterbody: **Hillsborough River and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Intermittent Ditch/03100205**
☐ 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: **December 16, 2009.**
☒ Field Determination. Date(s): **October 1-2 & 5-7, 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetlands 62, 65)**
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetlands 61, 65)**
      ☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs **(Wetlands 57, 58, 60, 68)**
      ☐ 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:**
      Non-wetland waters: **200 (total)** linear feet: **12 (total)** width (ft) and/or acres.
      Wetlands: **2.37** 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]

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[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.

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands 59, 63, 64, 66, and 67 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 waterbody[4] 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 62, 65)

(i) General Area Conditions:
Watershed size: **2,318** acres
Drainage area: **2,318** acres
Average annual rainfall: **52** inches
Average annual snowfall: **0** inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through 2 tributaries before entering TNW.

Project waters are 10-15 river miles from TNW.
Project waters are 2-5 river miles from RPW.
Project waters are 10-15 aerial (straight) miles from TNW.

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

Project waters are 2-5 aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: N/A.

Identify flow route to TNW[5]: Wetlands 62 and 65 consist of first order intermittent non-RPWs that join together and flow west through a channelized ditch into Blackwater Creek. Blackwater Creek flows west, joining the Hillsborough River, a TNW.
Tributary stream order, if known: First.

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: Based on review of aerial photography, most of the stream bed appears to be channelized.

Tributary properties with respect to top of bank (estimate):
Average width: 3 feet
Average depth: 2 feet
Average side slopes: Vertical (1:1 or less).

Primary tributary substrate composition (check all that apply):
☐ Silts ☒ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☒ Vegetation. Type/% cover: Herbaceous/50%
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Stable - no erosion evident.
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry: Relatively straight
Tributary gradient (approximate average slope): 2 %

(c) Flow:
Tributary provides for: Intermittent but not seasonal flow
Estimate average number of flow events in review area/year: 6-10
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: Confined. Characteristics: .

Subsurface flow: Unknown. 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 ☒ the presence of litter and debris
☐ changes in the character of soil ☐ destruction of terrestrial vegetation
☐ shelving ☐ 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.[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: ☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects ☐ survey to available datum;
☐ fine shell or debris deposits (foreshore) ☐ physical markings;

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[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.
[6] A 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.
[7] Ibid.

☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.
☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:
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: Freshwater marsh in transmission line right of way; few patches of mixed forested wetlands and upland hardwood-conifer forests, but mostly residential.
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW (Wetlands 57, 58, 60, 61, 65, 68)

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **2.33** acres
Wetland type. Explain: **Freshwater marsh and mixed forested wetland.**
Wetland quality. Explain: **Fair; surrounded by residential area.**
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. Explain: .

Surface flow is: **Overland sheetflow**
Characteristics: Overland sheetflow to non-RPW.

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
☒ Directly abutting **(Wetlands 61 and 65 directly abut an intermittent RPW.)**
☒ Not directly abutting
☐ Discrete wetland hydrologic connection. Explain:
☒ Ecological connection. Explain: **Wetlands 57, 58, 60, and 68 are adjacent to mixed forested wetlands, which are adjacent to intermittent RPWs outside of the review area.**
☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW
Project wetlands are **10-15** river miles from TNW.
Project waters are **10-15** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent and forested wetland/95%.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
   All wetland(s) being considered in the cumulative analysis: **6**
   Approximately (**2.33**) 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)
Wetland 57 - N	**0.17**		
Wetland 58 – N	**0.76**		
Wetland 60 – N	**0.44**		
Wetland 61 – Y	**0.20**		
Wetland 65 – Y	**0.33**		
Wetland 68 – N	**0.43**		

Summarize overall biological, chemical and physical functions being performed: **Wetlands 57, 58, 60, 61, 65, and 68 provide hydrologic detention and attenuation while also filtering pollutants. These wetlands are part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, these wetlands provide some habitat, foraging, and refugia for wildlife.**

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: .

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: Due to the distance from the Hillsborough River and because the non-RPWs are intermittent, it is not expected that the non-RPWs (Wetlands 62 and 65) and adjacent wetlands (including Wetland 61) have a significant effect on the chemical, physical, or biological integrity of the Hillsborough River.

3. **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: **Wetlands 57, 58, 60, and 68 provide hydrologic detention and attenuation while also filtering pollutants. These wetlands are part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, these wetlands provide some habitat, foraging, and refugia for wildlife, and in**

combination with adjacent wetlands, could have a significant effect on the physical, chemical, and biological integrity of the Hillsborough River.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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 62, 65)**
   - ☐ 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: **According to USGS NHD data, the RPWs at Wetlands 62 and 65 are intermittent.**

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   - ☒ Tributary waters: **200 (total)** linear feet **12 (total)** 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 61, 65)**
   - ☒ 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: **According to aerial photography, Wetland 61 directly abuts an intermittent RPW located outside of the review area. Freshwater marsh wetlands within Wetland 65 directly abut the intermittent RPW delineated as Wetland 65 within the review area.**

   Provide acreage estimates for jurisdictional wetlands in the review area: **0.53** acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. (Wetlands 57, 58, 60, 68)**
   - ☒ 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: **1.80** 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.

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[8]See Footnote # 3.

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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

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: **0.8** acres. **(Wetlands 59, 63, 64, 66, and 67)**

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.

[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.***

- ☐ 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: .
☒ 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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands 69 - 73**

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: **Polk** City: **Kathleen**
Center coordinates of site (lat/long in degree decimal format): Lat. **28.112127° N, Long. -82.039574° W.**
Universal Transverse Mercator:
Name of nearest waterbody: **Hillsborough River and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Kathleen Drain/03100205**
☐ 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: **December 17, 2009.**
☒ Field Determination. Date(s): **October 7, 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetlands 69, 72)**
   - ☐ 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:**
   Non-wetland waters: **215 (total)** linear feet: **16 (total)** width (ft) and/or **0.05** acres.
   Wetlands: 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]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **Wetlands 70, 71, and 73 are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs.**

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[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 waterbody[4] 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 69, 72)**

   (i) **General Area Conditions:**
   Watershed size: **3,972** acres
   Drainage area: **3,972** acres
   Average annual rainfall: **52** inches
   Average annual snowfall: **0** inches

   (ii) **Physical Characteristics:**
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through 2 tributaries before entering TNW.

   Project waters are 10-15 river miles from TNW.
   Project waters are 2-5 river miles from RPW.
   Project waters are 10-15 aerial (straight) miles from TNW.
   Project waters are 2-5 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]: **Wetland 69 is a ditch that flows east to an intermittent RPW. The intermittent RPW flows west and joins Blackwater Creek. Wetland 72 is a first order intermittent RPW that flows west and also joins Blackwater Creek. Blackwater Creek flows west, joining the Hillsborough River, a TNW.**
Tributary stream order, if known: **First.**

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☒ Artificial (man-made). Explain: **Wetland 69 is a roadside ditch that runs along Deeson Road.**
☒ Manipulated (man-altered). Explain: **Based on review of aerial photography, most of the stream bed of the intermittent RPW of Wetland 72 appears to be channelized.**

Tributary properties with respect to top of bank (estimate):
Average width: **6** feet
Average depth: **2** feet
Average side slopes: **Vertical (1:1 or less)**.

Primary tributary substrate composition (check all that apply):
☐ Silts ☒ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☒ Vegetation. Type/% cover: **Herbaceous/50%**
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: **N/A.**
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2%**

(c) Flow:
Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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
☐ shelving
☒ vegetation matted down, bent, or absent
☐ leaf litter disturbed or washed away
☒ sediment deposition
☐ water staining
☐ other (list):
☒ the presence of litter and debris
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☐ sediment sorting
☐ scour
☐ multiple observed or predicted flow events
☐ abrupt change in plant community
☐ 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
☐ tidal gauges
☐ other (list):
☐ Mean High Water Mark indicated by:
☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

[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.
[6] A 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.
[7] Ibid.

(iii) Chemical Characteristics:
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: **Freshwater marsh in transmission line right of way; few patches of mixed forested wetlands and upland hardwood-conifer forests, but mostly residential.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: acres
Wetland type. Explain: .
Wetland quality. Explain: .
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**
Characteristics:.

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 **Pick List** river miles from TNW.
Project waters are **Pick List** 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. 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:

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: .

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:

3. **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: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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 69, 72)**
   ☐ 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: **According to USGS NHD data, the RPW at Wetland 72 is intermittent. Based on aerial photography and field observations, Wetland 69 (ditch) is also intermittent.**

Provide estimates for jurisdictional waters in the review area (check all that apply):
☒ Tributary waters: **215 (total)** linear feet **16 (total)** width (ft), **0.05** 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 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: acres.

5. **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: 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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

[8]See Footnote # 3.
[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.***

☐ 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.

F. 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

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: **2.1** acres. **(Wetlands 70, 71, and 73)**

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

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands 69 - 73**

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands 74A - 78

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: **Polk** City: **Kathleen**
Center coordinates of site (lat/long in degree decimal format): Lat. **28.098607° N, Long. -82.039499° W.**
Universal Transverse Mercator:
Name of nearest waterbody: **Hillsborough River and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Channelized Stream/03100205**
☐ 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: **December 17, 2009.**
☒ Field Determination. Date(s): **October 8, 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   ☐ TNWs, including territorial seas
   ☐ Wetlands adjacent to TNWs
   ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetlands 74A, 74B, 75)**
   ☒ Non-RPWs that flow directly or indirectly into TNWs **(Wetland 78)**
   ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetland 76)**
   ☐ 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:**
   Non-wetland waters: **285 (total)** linear feet: **16 (total)** width (ft) and/or acres.
   Wetlands: **0.25** 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]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands 74C and 77 are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs.**

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[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.

Project: <u>Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines</u>
Assessment Area: <u>**Polk-Hillsborough-Pinellas Transmission Line Wetlands 74A - 78**</u>

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 waterbody[4] 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 74A, 74B, 75, 78)**

   (i) General Area Conditions:
   Watershed size: **3,296** acres
   Drainage area: **3,296** acres
   Average annual rainfall: **52** inches
   Average annual snowfall: **0** inches

   (ii) Physical Characteristics:
   (a) <u>Relationship with TNW:</u>
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through 2 tributaries before entering TNW.

   Project waters are 10-15 river miles from TNW.
   Project waters are 1-2 river miles from RPW.
   Project waters are 10-15 aerial (straight) miles from TNW.
   Project waters are 1-2 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]: **Wetlands 74A and 74B is a first order intermittent RPW that flows west-northwest and joins Blackwater Creek. Wetland 75 is an intermittent ditch, and Wetland 78 is non-RPW (ditch) that flows north, connecting to Wetland 75. Wetland 75 joins the intermittent RPW of Wetlands 74A and 74B. The intermittent RPW flows west-northwest and joins Blackwater Creek. Blackwater Creek flows west and joins the Hillsborough River, a TNW.**
Tributary stream order, if known: **First.**

(b) General Tributary Characteristics (check all that apply):
Tributary is:
☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on review of aerial photography, most of the stream beds appear to be channelized.**

Tributary properties with respect to top of bank (estimate):
Average width: **3** feet
Average depth: **2** feet
Average side slopes: **Vertical (1:1 or less)**.

Primary tributary substrate composition (check all that apply):
☐ Silts ☒ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☒ Vegetation. Type/% cover: **Herbaceous/50%**
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: **N/A.**
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2%**

(c) Flow:
Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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
☐ shelving
☒ vegetation matted down, bent, or absent
☐ leaf litter disturbed or washed away
☒ sediment deposition
☐ water staining
☐ other (list):
☒ the presence of litter and debris
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☐ sediment sorting
☐ scour
☐ multiple observed or predicted flow events
☐ abrupt change in plant community
☐ 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
☐ Mean High Water Mark indicated by:
☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

---

[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.
[6] A 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.
[7] Ibid.

☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:
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: **Freshwater marsh in transmission line right of way; few patches of mixed forested wetlands and upland hardwood-conifer forests, but mostly residential.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW (Wetland 76)**

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **0.12** acres
Wetland type. Explain: **Freshwater marsh.**
Wetland quality. Explain: **Fair; surrounded by residential area.**
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. Explain: .

Surface flow is: **Overland sheetflow**
Characteristics: **Overland sheetflow to RPW.**

Subsurface flow: **Unknown**. 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 **10-15** river miles from TNW.
Project waters are **10-15** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent/95%.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: **1**
Approximately (**0.12**) 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)
Wetland 76 - N	**0.12**		

Summarize overall biological, chemical and physical functions being performed: **Wetland 76 provides hydrologic detention and attenuation while also filtering pollutants. This wetland is part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, this wetland provides some habitat, foraging, and refugia for wildlife.**

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: **Wetland 78 provides hydrologic detention and attenuation while also filtering pollutants. This wetland is part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, this wetland provides some habitat, foraging, and refugia for wildlife, and in combination with adjacent wetlands, could have a significant effect on the physical, chemical, and biological integrity of the Hillsborough River.**

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:

3. **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:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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 74A, 74B, 75)**
   ☐ 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: **According to USGS NHD data, the RPWs at Wetlands 74A and 74B are intermittent. Based on field observations, the RPW at Wetland 75 is intermittent.**

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   ☒ Tributary waters: **180 (total)** linear feet **12 (total)** width (ft), **0.08** acres.
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs. (Wetland 78)**
   ☒ 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: **105** linear feet **4** width (ft), **0.05** acres.
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. (Wetland 76)**
   ☒ 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: **According to aerial photography, Wetland 76 directly abuts an intermittent RPW (Wetland 75).**

   Provide acreage estimates for jurisdictional wetlands in the review area: **0.12** acres.

5. **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: 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).

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands 74A - 78**

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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 width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

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: **0.03** acres. **(Wetlands 74C and 77)**

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: .

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[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.*

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
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- ☒ 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: .
- ☒ 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: .

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands 79 – 90, 99, 119 - 129

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: **Polk, Hillsborough** City: **Kathleen area**
Center coordinates of site (lat/long in degree decimal format): Lat. **28.08257° N**, Long. **-82.052787° W (Wetlands 79-90, 99).**
Lat. **28.081626°N**, Long. **-82.140627°W (Wetlands 119-129).**
Universal Transverse Mercator:
Name of nearest waterbody: **Hillsborough River and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Blackwater Creek/03100205**

☐ 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: **December 18, 2009.**
☒ Field Determination. Date(s): **October 12-13, 20-21, 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetlands 79, 80, 119, 126, 127, 128)**
      ☒ Non-RPWs that flow directly or indirectly into TNWs **(Wetlands 124, 125)**
      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetlands 119, 120, 126, 127, 128, 129)**
      ☐ 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:**
      Non-wetland waters: **892 (total)** linear feet: **76 (total)** width (ft) and/or acres.
      Wetlands: **6.53** 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]

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[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.

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands 79 – 90, 99, 119 - 129**

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands 81 through 90, 99, and 121 through 123 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 waterbody[4] 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 (Intermittent RPWs at Wetlands 80, 119, 126, 127, and 128; intermittent non-RPWs at Wetlands 124 and 125)**

(i) **General Area Conditions:**
Watershed size: **19,729** acres
Drainage area: **19,729** acres
Average annual rainfall: **52** inches
Average annual snowfall: **0** inches

(ii) **Physical Characteristics:**
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through 2 tributaries before entering TNW.

Project waters are 5-10 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 waters are **5-10** 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:

Identify flow route to TNW[5]: **Wetland 80 is an intermittent RPW that flows north and joins Blackwater Creek. Wetlands 119 and 126 consist of intermittent RPWs that flow north and join together into another intermittent RPW that flows north and joins Blackwater Creek. Wetlands 124 and 125 are intermittent non-RPWs that flow north and join the intermittent RPW of Wetland 126. Wetlands 127 and 128 are part of the same intermittent RPW, which flows north into two intermittent RPWs, and joins Blackwater Creek. Blackwater Creek flows west and joins the Hillsborough River, a TNW.**
Tributary stream order, if known: **First.**

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on review of aerial photography, portions of the intermittent RPWs and intermittent non-RPWs have been channelized.**

Tributary properties with respect to top of bank (estimate):
Average width: **8** feet
Average depth: **3** feet
Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

☐ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: **Herbaceous/50%**	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: **N/A.**
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2%**

(c) Flow:
Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ 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.[7] Explain: .

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[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.
[6] A 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.
[7] Ibid.

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) Chemical Characteristics:
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: **Freshwater marsh in transmission line right of way.**
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW (Wetlands 119, 120, 126, 127, 128, 129)

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **6.32** acres
Wetland type. Explain: **Freshwater marsh**.
Wetland quality. Explain: **Fair; wetland surrounded by pasture or residential.**
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. Explain: .

Surface flow is: **Overland sheetflow**
Characteristics: **Overland sheetflow to RPW.**

Subsurface flow: **Unknown**. 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 **5-10** river miles from TNW.
Project waters are **5-10** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was mostly clear.**
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: **emergent/95%**
- ☐ Habitat for:

☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
All wetland(s) being considered in the cumulative analysis: **6**
Approximately (**6.32**) 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)
Wetland 119 – Y	**0.21**		
Wetland 120 – Y	**0.14**		
Wetland 126 – Y	**2.47**		
Wetland 127 – Y	**0.46**		
Wetland 128 – Y	**0.16**		
Wetland 129 – Y	**2.88**		

Summarize overall biological, chemical and physical functions being performed: **Wetlands 119, 120, and 126 through 129 provide hydrologic detention and attenuation while also filtering pollutants. These wetlands are part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, these wetlands provide some habitat, foraging, and refugia for wildlife.**

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: Wetlands 124 and 125 are intermittent non-RPWs (ditches) that flow north **and join the intermittent RPW of Wetland 126, which flows north into another intermittent RPW that flows north and joins Blackwater Creek. Wetlands 124 and 125 provide hydrologic detention and attenuation while also filtering pollutants. These wetlands are part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, these wetlands provide some habitat, foraging, and refugia for wildlife, and in combination with adjacent wetlands, could have a significant effect on the physical, chemical, and biological integrity of the Hillsborough River.**

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:

3. **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:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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 79, 80, 119, 126, 127, 128)**
   ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: **Wetland 79 is perennial, 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: **According to USGS NHD data, Wetland 80, 119, 126, 127, and 128 are intermittent.**

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   ☒ Tributary waters: **692 (total)** linear feet **64 (total)** width (ft).
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs. (Wetlands 124, 125)**
   ☒ 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: **200 (total)** linear feet **12 (total)** 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 119, 120, 126, 127, 128, 129)**
   ☒ 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, Wetlands 119, 120, 126, 127, 128, 129 directly abut intermittent RPWs. Wetland 120 directly abuts the intermittent RPW delineated as Wetland 119 in the review area, and Wetland 129 directly abuts the intermittent RPW delineated as Wetland 128 in the review area.**

   Provide acreage estimates for jurisdictional wetlands in the review area: **6.32** acres.

5. **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: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

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[8]See Footnote # 3.

☐ 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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

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: **1.94** acres. **(Wetlands 81 through 90, 99, 121 through 123)**

SECTION IV: DATA SOURCES.

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[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.***

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands 79 – 90, 99, 119 - 129**

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: .
- ☒ 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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands 91 - 94, 100 - 104**

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: **Hillsborough** City: **Kathleen area**
Center coordinates of site (lat/long in degree decimal format): Lat. **28.082327° N**, Long. **-82.07067° W (Wetlands 91-94)**
Lat. **28.082092°N**, Long. **-82.094479°W (Wetlands 100-104).**
Universal Transverse Mercator:
Name of nearest waterbody: **Hillsborough River and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Itchepackasassa Creek/03100205**
☐ 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: **December 18, 2009.**
☒ Field Determination. Date(s): **October 13-14, 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetland 93)**
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetlands 91, 92, 94)**
      ☐ 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:**
      Non-wetland waters: **100** linear feet: **15** width (ft) and/or acres.
      Wetlands: **1.86** 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]

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[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.

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands 100 through 104 are not jurisdictional because they are stormwater retention ponds that 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 waterbody[4] 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 (Intermittent RPW at Wetlands 91, 92)**

   (i) **General Area Conditions:**
   Watershed size: **10,034** acres
   Drainage area: **10,034** acres
   Average annual rainfall: **52** inches
   Average annual snowfall: **0** inches

   (ii) **Physical Characteristics:**
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through **3** tributaries before entering TNW.

   Project waters are **10-15** river miles from TNW.
   Project waters are **1 (or less)** river miles from RPW.
   Project waters are **5-10** aerial (straight) miles from TNW.

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

Project waters are 1 (or less) aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW[5]: **The intermittent RPW at Wetlands 91 and 92 flows north to a canal, which flows southwest into the Itchepackasassa Creek. The Itchepackasassa Creek flows north into Blackwater Creek, and the Blackwater Creek flows west to the Hillsborough River, a TNW.**
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: **3** feet
Average depth: **3** feet
Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

☐ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: **Herbaceous/50%**	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable – no erosion evident.**
Presence of run/riffle/pool complexes. Explain: **N/A.**
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): **2%**

(c) Flow:
Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ 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.[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:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.

[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.
[6] A 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.
[7] Ibid.

☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: **Water was mostly clear.**
Identify specific pollutants, if known: .

(iv) Biological Characteristics. Channel supports (check all that apply):
☐ Riparian corridor. Characteristics (type, average width): .
☒ Wetland fringe. Characteristics: **Freshwater marsh in transmission line right of way.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW (Wetlands 91, 92)

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **1.72** acres
Wetland type. Explain: **Freshwater marsh.**
Wetland quality. Explain: **Fair; surrounded by pasture.**
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. Explain: .

Surface flow is: **Overland sheetflow**
Characteristics: **Overland sheetflow to RPW.**

Subsurface flow: **Unknown**. 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 **10-15** river miles from TNW.
Project waters are **5-10** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was mostly clear.**
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: **emergent/95%**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **2**
Approximately (**1.72**) 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)
Wetland 91 – Y	**0.46**		
Wetland 92 – Y	**1.26**		

Summarize overall biological, chemical and physical functions being performed: **Wetlands 91 and 92 provide hydrologic detention and attenuation while also filtering pollutants. These wetlands are part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, these wetlands provides some habitat, foraging, and refugia for wildlife.**

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:

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:

3. **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:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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. (Wetland 93 and intermittent RPW at Wetlands 91, 92))**

☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: **Wetland 93 is a perennial RPW, Itchepackasassa Creek, which, according to USGS NHD data, 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: **The RPW at Wetlands 91 and 92 is intermittent, according to USGS NHD data. This intermittent RPW is located outside of the review area.**

Provide estimates for jurisdictional waters in the review area (check all that apply):

☒ Tributary waters: **100** linear feet **15** 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 91, 92, 94)**

☒ 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: **Wetland 94 directly abuts Itchepackasassa Creek, based on aerial photography and field observations.**

☒ 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: **Wetlands 91 and 92 directly abut an intermittent RPW, based on aerial photography and field observations.**

Provide acreage estimates for jurisdictional wetlands in the review area: **1.8** acres.

5. **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: 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).

[8]See Footnote # 3.

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

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands 91 - 94, 100 - 104**

E. **ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. **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 width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

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: **0.93** acres. **(Wetlands 100 - 104)**

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: .

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[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.*

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands 91 - 94, 100 - 104**

- ☒ 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: .
- ☒ 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: .

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands 95 - 98

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: **Hillsborough** City: **Kathleen area**
Center coordinates of site (lat/long in degree decimal format): Lat. **28.08257° N, Long. -82.052787° W.**
Universal Transverse Mercator:
Name of nearest waterbody: **Hillsborough River and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Midway Road Drain/03100205**
☐ 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: **December 18, 2009.**
☒ Field Determination. Date(s): **October 14, 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 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 U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): [1]
☐ TNWs, including territorial seas
☐ Wetlands adjacent to TNWs
☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetlands 95/95A, 97, 98)**
☐ Non-RPWs that flow directly or indirectly into TNWs
☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetland 95/95A)**
☐ 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:
Non-wetland waters: **300 (total)** linear feet: **32 (total)** width (ft) and/or acres.
Wetlands: **0.92** 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]
☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetland 96 is not jurisdictional because it is hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs.**

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[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.

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands 95 - 98**

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 waterbody[4] 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 (Intermittent ditches at Wetlands 95/95A, 97)

(i) General Area Conditions:
Watershed size: **2,405** acres
Drainage area: **2,405** acres
Average annual rainfall: **52** inches
Average annual snowfall: **0** inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through 4 tributaries before entering TNW.

Project waters are 10-15 river miles from TNW.
Project waters are 1 (or less) river miles from RPW.
Project waters are 5-10 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:

[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]: **The intermittent ditches at Wetlands 95/95A and 97 flow north to a ditch that flows west into the East Canal. The East Canal flows north and becomes the Itchepackasassa Creek, which flows north to the Blackwater Creek. The Blackwater Creek flows west and joins the Hillsborough River, a TNW.**
Tributary stream order, if known: **First.**

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☒ Artificial (man-made). Explain: **Both are man-made ditches made to drain freshwater marsh wetlands.**
☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: **3** feet
Average depth: **2** feet
Average side slopes: **Vertical (1:1 or less)**.

Primary tributary substrate composition (check all that apply):

☐ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: **Herbaceous/50%**	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable – no erosion evident.**
Presence of run/riffle/pool complexes. Explain: **N/A.**
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2%**

(c) Flow:
Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ 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.[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:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

[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.
[6] A 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.
[7] Ibid.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: **Water was mostly clear.**
Identify specific pollutants, if known: .

(iv) Biological Characteristics. Channel supports (check all that apply):
☐ Riparian corridor. Characteristics (type, average width): .
☒ Wetland fringe. Characteristics: **Freshwater marsh in transmission line right of way.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW (Freshwater marsh wetlands abutting intermittent ditch in Wetland 95/95A)

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **0.81** acres
Wetland type. Explain: **Freshwater marsh.**
Wetland quality. Explain: **Fair; ditched.**
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. Explain: .

Surface flow is: **Overland sheetflow**
Characteristics: **Overland sheetflow to intermittent ditch.**

Subsurface flow: **Unknown**. 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 **10-15** river miles from TNW.
Project waters are **5-10** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was mostly clear.**
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: **emergent/95%**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: **1**

Approximately (**0.81**) 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)
Wetland 95/95A – Y	**0.81**		

Summarize overall biological, chemical and physical functions being performed: **Wetland 95/95A provides hydrologic detention and attenuation while also filtering pollutants. This wetland is part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, this wetland provides some habitat, foraging, and refugia for wildlife.**

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:

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:

3. **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:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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 95/95A, 97, 98)**
   ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: **Wetland 98 is perennial, based on field observations, USGS NHD data, and the Florida Atlas & Gazetteer.**

☒ 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 95/95A and 97 are intermittent ditches, based on field observations.**

Provide estimates for jurisdictional waters in the review area (check all that apply):
☒ Tributary waters: **300 (total)** linear feet **32 (total)** 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. (Wetland 95/95A)**
☒ 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: **Freshwater marsh wetlands within Wetland 95/95A directly abut an intermittent ditch.**

Provide acreage estimates for jurisdictional wetlands in the review area: **0.81** acres.

5. **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: 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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.

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[8]See Footnote # 3.
[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.***

- ☐ 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: .

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.

F. 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 width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

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: **0.08** acres. **(Wetland 96)**

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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands 95 - 98**

☐ Applicable/supporting scientific literature: .
☒ 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:

Project: <u>Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines</u>
Assessment Area: <u>Polk-Hillsborough-Pinellas Transmission Line Wetlands 106 - 118</u>

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: **Hillsborough** City: **Kathleen area**
Center coordinates of site (lat/long in degree decimal format): Lat. **28.081919°** N, Long. **-82.111798°** W
Universal Transverse Mercator:
Name of nearest waterbody: **Hillsborough River and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **East Canal/03100205**
☐ 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: **December 18, 2009.**
☒ Field Determination. Date(s): **October 19-20, 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 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 U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): [1]
☐ TNWs, including territorial seas
☐ Wetlands adjacent to TNWs
☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetlands 110A, 112A/112B, 118)**
☐ Non-RPWs that flow directly or indirectly into TNWs
☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetlands 111, 112A/112B)**
☐ 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:
Non-wetland waters: **360 (total)** linear feet: **50 (total)** width (ft) and/or acres.
Wetlands: **0.9** 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]
☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: **Wetlands 106 through 109 and 113 through 117 are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs.**

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[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.

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands 106 - 118

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 waterbody[4] 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 (Intermittent RPW at Wetlands 110A, 112A/112B, 118)**

   (i) General Area Conditions:
   Watershed size: **6,696** acres
   Drainage area: **6,696** acres
   Average annual rainfall: **52** inches
   Average annual snowfall: **0** inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through 2 tributaries before entering TNW.

   Project waters are 5-10 river miles from TNW.
   Project waters are 1 (or less) river miles from RPW.
   Project waters are 5-10 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:

[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]: **Wetland 118 is the East Canal. Wetland 112A/112B is an intermittent RPW that flows northwest into East Canal. Wetland 110A is an intermittent ditch that flows south and west along Knights Griffin Road. At Knights Griffin Road, it flows west and joins East Canal that flows north into Blackwater Creek. The Blackwater Creek flows west to the Hillsborough River, a TNW.**
Tributary stream order, if known: **First**.

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **All or portions of the intermittent RPWs have been channelized.**

Tributary properties with respect to top of bank (estimate):
Average width: **10** feet .
Average depth: **3** feet
Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):
☐ Silts ☒ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☒ Vegetation. Type/% cover: **Herbaceous/50%**
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable – no erosion evident.**
Presence of run/riffle/pool complexes. Explain: **N/A.**
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2%**

(c) Flow:
Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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
☐ shelving
☒ vegetation matted down, bent, or absent
☐ leaf litter disturbed or washed away
☒ sediment deposition
☐ water staining
☐ other (list):
☒ the presence of litter and debris
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☐ sediment sorting
☐ scour
☐ multiple observed or predicted flow events
☐ abrupt change in plant community
☐ 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
■ Mean High Water Mark indicated by:
☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

[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.
[6] A 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.
[7] Ibid.

☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: **Water was mostly clear.**
Identify specific pollutants, if known: .

(iv) Biological Characteristics. Channel supports (check all that apply):
☐ Riparian corridor. Characteristics (type, average width): .
☒ Wetland fringe. Characteristics: **Freshwater marsh in transmission line right of way.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW (Wetlands 111, 112A/112B)

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **0.81** acres
Wetland type. Explain: **Freshwater marsh.**
Wetland quality. Explain: **Fair; surrounded by pasture.**
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. Explain: .

Surface flow is: **Overland sheetflow**
Characteristics: **Overland sheetflow to RPW.**

Subsurface flow: **Unknown**. 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 **5-10** river miles from TNW.
Project waters are **5-10** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was mostly clear.**
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: **emergent/95%**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

Project: <u>Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines</u>
Assessment Area: <u>Polk-Hillsborough-Pinellas Transmission Line Wetlands 106 - 118</u>

All wetland(s) being considered in the cumulative analysis: **2**
Approximately (**0.81**) 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)
Wetland 111 – Y	**0.03**		
Wetland 112A/112B – Y	**0.78**		

Summarize overall biological, chemical and physical functions being performed: **Wetlands 111 and 112A/112B provide hydrologic detention and attenuation while also filtering pollutants. These wetlands are part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, these wetlands provides some habitat, foraging, and refugia for wildlife.**

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:

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:

3. **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:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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 110A, 112A/112B, 118)**

☐ 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: **The RPWs at Wetlands 110A, 112A/112B, and 118 are intermittent, according to USGS NHD data.**

Provide estimates for jurisdictional waters in the review area (check all that apply):

☒ Tributary waters: **360 (total)** linear feet **50 (total)** 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 111, 112A/112B)**

☒ 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: **Wetlands 111 and 112A/112B are contiguous and directly abut an intermittent RPW, based on aerial photography and field observations.**

Provide acreage estimates for jurisdictional wetlands in the review area: **0.81** acres.

5. **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: 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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

---

[8] See Footnote # 3.
[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.***

☐ 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: .

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.

F. 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

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: 2.77 acres. **(Wetlands 106 through 109 and 113 through 117)**

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: .
☒ 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: .

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetland 130

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: **Polk** City: **Kathleen area**
Center coordinates of site (lat/long in degree decimal format): Lat. **28.079777° N**, Long. **-82.16011° W.**
Universal Transverse Mercator:
Name of nearest waterbody: **Hillsborough River and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **none**
Name of watershed or Hydrologic Unit Code (HUC): **Two Hole Branch/03100205**
☐ 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: **December 18, 2009.**
☒ Field Determination. Date(s): **October 22, 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):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (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:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: 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]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetland 130 is not jurisdictional because it is hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs.**

---

[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.

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetland 130**

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 waterbody[4] 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 Pick List tributaries before entering TNW.

Project waters are Pick List river miles from TNW.
Project waters are Pick List river miles from RPW.
Project waters are Pick List aerial (straight) miles from TNW.
Project waters are Pick List 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: Pick List
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 ☐ the presence of litter and debris
☐ changes in the character of soil ☐ destruction of terrestrial vegetation
☐ shelving ☐ 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.[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: ☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects ☐ survey to available datum;
☐ fine shell or debris deposits (foreshore) ☐ physical markings;
☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.
☐ tidal gauges
☐ other (list):

(iii) Chemical 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.
[6] A 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.
[7] Ibid.

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain:
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. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size: acres
Wetland type. Explain:.
Wetland quality. Explain:.
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: Pick List. 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 Pick List river miles from TNW.
Project waters are Pick List 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. 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:

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: .

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:.

3. **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:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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:

   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: acres.

5. **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: 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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

Identify water body and summarize rationale supporting determination: .

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[8]See Footnote # 3.
[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.***

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.

F. 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

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: **0.01** acres. **(Wetland 130)**

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: .
☒ 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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetland 130**

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands 131, 132, DJ and DL through EH**

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.078489°** N, Long. **-82.194152°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Hillsborough River and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Hollomans Branch/03100205**
☒ 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: **December 22, 2009.**
☒ Field Determination. Date(s): **October 19-22, 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 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 U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): [1]

☐ TNWs, including territorial seas
☐ Wetlands adjacent to TNWs
☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetlands 131, DM, DZ and EG: 0.32 acres total)**
☐ Non-RPWs that flow directly or indirectly into TNWs
☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetlands 132, DO, DY and EH: 3.22 acres total)**
☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs **(EA, ED, and EEa: 1.63 acres total)**
☐ 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:
Non-wetland waters: linear feet: width (ft) and/or acres.
Wetlands: **Wetlands 131, 132, DM, DO, DY, DZ, EA, ED, EEa, EG, and EH totaling 5.17 acres of Waters of the U.S.**

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

[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).

2. **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 DL, DN, DP, DQ, DS, DT, DU, DV, DX, EB, EC and EF are not jurisdictional because they are artificial stormwater ponds that are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs. Wetlands DJ, DR and DW are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs. These wetlands are isolated and are not expected to have any significant effects on the physical, chemical or biological integrity of the Hillsborough River TNW or its tributaries.**

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 waterbody[4] 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: **8,824.2 acres**
Drainage area: **8,824.2 acres**
Average annual rainfall: 52 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.

---

[3] Supporting documentation is presented in Section III.F.
[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

☒ Tributary flows through **2 and 4** tributaries before entering TNW.

Project waters are **5-10** river miles from TNW.
Project waters are **1 or less** river miles from RPW.
Project waters are **5-10** 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 TNW[5]: **Based on a desktop review one perennial RPW (Wetland DM) and three intermittent RPWs (Wetlands 131, DZ and EG) cross the project boundaries. These RPWs flow directly or indirectly to the Hillsborough River, a TNW.**
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural **Some portions appear natural and others appear ditched.**
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on a review of aerial photography, portions of the stream appear to be ditched.**

Tributary 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).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☒ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: Herbaceous/50%	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2 %**

(c) Flow:
Tributary provides for: **Pick List perennial and intermittent flows**
Estimate average number of flow events in review area/year: **continuous and 6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ 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.[7] Explain: **May be less evident where ditched.**

[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.
[6] A 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.
[7] Ibid.

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) Chemical Characteristics:

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: **May provide foraging areas for wood storks.**
- ☐ Fish/spawn areas. Explain findings: .
- ☐ Other environmentally-sensitive species. Explain findings: .
- ☒ Aquatic/wildlife diversity. Explain findings: **Somewhat diverse due to variety of systems that the RPWs traverse, but surrounded by a lot of agricultural lands.**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size: **1.63 acres total (Wetlands EA, ED, and EEa)**
Wetland type. Explain: **Emergent/forested**
Wetland quality. Explain: **Fair to good based on their location within or connected to larger overall forested wetland stream system.**
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Perrenial and intermittent flow**. Explain: **Based on a desktop review one perennial RPW (Wetland DM) and three intermittent RPWs (Wetlands 131, DZ and EG) cross the project boundaries. These RPWs flow directly or indirectly to the Hillsborough River, a TNW. Wetlands EA, ED and EEa are all adjacent to an intermittent RPW and connected to it via ditches, culverts and roadside swales. Wetlands 132, DO, DY and EH directly abut intermittent RPWs that flow directly or indirectly into the Hillsborough River TNW.**

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 132, DO, DY and EH: 3.22 acres total)**

☒ Not directly abutting
☒ Discrete wetland hydrologic connection. Explain: **Wetlands EA, ED, and EEa (1.63 acres total) are located adjacent to an intermittent RPW and connected to it via ditches, culverts and roadside swales**
☐ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **5-10** river miles from TNW.
Project waters are **5-10** 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) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent and forested wetland/95%.**
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **11 - Wetlands 131, 132, DM, DO, DY, DZ, EA, ED, EEa, EG , and EH totaling 5.17 acres are being classified as adjacent to or abutting an RPW.**

Approximately **11 wetlands totaling (5.17 acres)** are being considered in the cumulative analysis **(Wetlands 131, 132, DM, DO, DY, DZ, EA, ED, EEa, EG , and EH)**

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland 131 (Y- RPW itself)	**0.04**	**Wetland EA (N)**	**0.03**
Wetland 132 (Y)	**0.45**	**Wetland ED (N)**	**0.17**
Wetland DM (Y- RPW itself)	**0.05**	**Wetland EEa (N)**	**1.43**
Wetland DO (Y)	**0.71**	**Wetland EG (Y- RPW itself)**	**0.06**
Wetland DY (Y)	**0.11**	**Wetland EH (N)**	**1.95**
Wetland DZ (Y- RPW itself)	**0.17**		

Summarize overall biological, chemical and physical functions being performed: **Wetlands 131, 132, DM, DO, DY, DZ, EA, ED, EEa, EG , and EH 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 the Hillsborough River. As part of a larger system, these wetlands provide some 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:

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands 131, 132, DJ and DL through EH

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: .

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:.

3. **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: **Wetlands EA, ED, and EEa (1.63 acres total) are located adjacent to an intermittent RPW and connected to it via ditches, culverts and roadside swales. These wetlands are expected to have a significant effect on the physical, chemical and biological integrity of the Hillsborough River TNW, and therefore have a significant nexus with the Hillsborough River TNW.**

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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: **Based on a desktop review one perennial RPW (Wetland DM) crosses the project boundaries. This RPW flows directly or indirectly to the Hillsborough River, a TNW per the USGS National Hydrography Dataset (last updated May 2006).**
☒ 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: **Three intermittent RPWs (Wetlands 131, DZ and EG) also cross the project boundaries. These RPWs flow directly or indirectly to the Hillsborough River, a TNW per the USGS National Hydrography Dataset (last updated May 2006).**

Provide estimates for jurisdictional waters in the review area (check all that apply):
☒ Tributary waters: **DM (0.05 acres), 131 (0.04acres), DZ (0.17acres), EG (0.06 acres): approx. 100, 100, 210, 100 linear feet by approx. 6, 15, 24, 10 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: **Based on a desktop review one perennial RPW (Wetland DM) and three intermittent RPWs (Wetlands 131, DZ and EG) cross the project boundaries. These RPWs flow directly or indirectly to the Hillsborough River, a TNW per the USGS National Hydrography Dataset (last updated May 2006). Wetlands**

[8]See Footnote # 3.

132, DO, DY and EH directly abut intermittent RPWs that flow directly or indirectly into the Hillsborough River TNW.

Provide acreage estimates for jurisdictional wetlands in the review area: **Wetlands 132, DO, DY and EH: 3.22 acres total**

5. **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 jurisdictional. Data supporting this conclusion is provided at Section III.C. **Based on a desktop review one perennial RPW (Wetland DM) and three intermittent RPWs (Wetlands 131, DZ and EG) cross the project boundaries. These RPWs flow directly or indirectly to the Hillsborough River, a TNW per the USGS National Hydrography Dataset (last updated May 2006). Wetlands EA, ED and EEa are all located adjacent to an intermittent RPW and connected to it via ditches, culverts and roadside swales.**

Provide acreage estimates for jurisdictional wetlands in the review area: **Wetlands EA, ED, and EEa: 1.63 acres total**

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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

[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.***

☐ 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). **Stormwater retention ponds DL, DN, DP, DQ, DS, DT, DU, DV, DX, EB, EC and EF and Wetlands DJ, DR and DW are isolated from the nearest RPW and TNW and are not expected to have any significant effects on the physical, chemical or biological integrity of the Hillsborough River TNW. Therefore they are being classified as isolated.**

☐ 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres

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: **Stormwater retention ponds DL, DN, DP, DQ, DS, DT, DU, DV, DX, EB, EC and EF and Wetlands DJ, DR and DW: 2.43 acres total**

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: .
☒ 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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands A - II**

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: **Pinellas and Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.071411°** N, Long. **-82.621979°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Double Branch Creek and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Double Branch Bay**
Name of watershed or Hydrologic Unit Code (HUC): **Double Branch/03100206**

☒ 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 20, 2010.**
☒ Field Determination. Date(s): **September 21-25, 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 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 U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): [1]

☐ TNWs, including territorial seas
☐ Wetlands adjacent to TNWs
☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetland S)**
☐ Non-RPWs that flow directly or indirectly into TNWs
☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetlands H, J, K and V)**
☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs **(With a Significant Nexus: Wetlands W and X, With no Significant Nexus: Wetlands A, B, C, D, E, F, N, U)**
☐ 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:

Non-wetland waters: linear feet: width (ft) and/or acres.
Wetlands: **Wetlands H, J, K, S,V, W and X, totaling 3.33 acres of Waters of the U.S.**

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]

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[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.

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands G, I , L, M, P, R and T are not jurisdictional because they are artificial stormwater ponds that are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs. Wetlands O, Q, Y, Z, AA, BB, CC, DD, EE, FF, GG, HH and II are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs. Also, Wetlands A, B, C, D, E, F, N and U are not expected to have a significant nexus with Double Branch Creek due to their distance and isolation from the Creek and its tributaries. Uplands, roads and development also separate them from the nearest RPW.**

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 waterbody[4] 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: **17,230.3acres**
   Drainage area: **17,230.3 acres**
   Average annual rainfall: 52 inches
   Average annual snowfall: 0 inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through 1 tributary before entering TNW.

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

Project waters are Pick List 5-10 river miles from TNW.
Project waters are 1 (or less) river miles from RPW.
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 TNW[5]: **Based on a desktop review, Wetlands H, J and K are hydrologically connected through wetlands to an unnamed perrenial tributary and Wetland V to an unnamed intermittent tributary that flow into Double Branch Creek, a TNW. Wetlands W and X appear to have either a directly hydrologic connection or an indirect hydrologic connection through shallow groundwater flows to an unnamed, intermittent tributary that flows into Double Branch Creek, a TNW.**
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on a review of aerial photography, portions of the stream bed appear to be ditched and culverted.**

Tributary 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).**

Primary tributary substrate composition (check all that apply):
☒ Silts ☒ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☒ Muck
☐ Bedrock ☒ Vegetation. Type/% cover: Herbaceous/50%
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2 %**

(c) Flow:
Tributary provides for: **Pick List perennial and intermittent flows**
Estimate average number of flow events in review area/year: **continuous and 6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined.** Characteristics: .

Subsurface flow: **Unknown.** 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 ☒ the presence of litter and debris
☐ changes in the character of soil ☐ destruction of terrestrial vegetation
☐ shelving ☐ 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.[7] Explain: **May be less evident where ditched.**

[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.
[6] A 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.
[7] Ibid.

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) Chemical Characteristics:
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: May provide foraging areas for wood storks.
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☒ Aquatic/wildlife diversity. Explain findings: Diverse due to larger overall forested wetland systems surrounding the RPWs

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **14.64** acres
Wetland type. Explain: Emergent.
Wetland quality. Explain: **Fair to good based on their location within or connected to larger overall forested wetland systems.**
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Perennial and Intermittent flow**. 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 H, J and K directly abut a perennial stream. Wetland V directly abuts an intermittent stream.)**
☒ Not directly abutting
☒ Discrete wetland hydrologic connection. Explain: **Wetlands W and X appear to have either a directly hydrologic connection or an indirect hydrologic connection through shallow groundwater flows to an unnamed, intermittent tributary that flows into Double Branch Creek, a TNW.**
☐ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **5-10** river miles from TNW.
Project waters are **2-5** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent and forested wetland/95%.**
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **15 wetlands are being classified as adjacent to or abutting RPWs.**

Approximately **15 wetlands totaling (14.64 acres)** 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)
Wetland A (N)	**3.87**	**Wetland J (Y)**	**0.98**
Wetland B (N)	**2.99**	**Wetland K (Y)**	**0.04**
Wetland C (N)	**0.26**	**Wetland N (N)**	**1.77**
Wetland D (N)	**0.51**	**Wetland S (Y- S is an RPW)**	**0.13**
Wetland E (N)	**0.23**	**Wetland U (N)**	**0.36**
Wetland F (N)	**1.32**	**Wetland V (Y)**	**0.60**
Wetland H (Y)	**0.05**	**Wetland W (N)**	**0.71**
		Wetland X (N)	**0.82**

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 non-RPWs that form a contiguous to semi-contiguous connection to TNWs in the region. As part of a larger system, these wetlands provide some 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: .

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:.

3. **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: **Due to the distance from Double Branch Creek and the nearest RPW that flows into Double Branch Creek, Wetlands A, B, C, D, E, F, N and U are not expected to have a significant effect on the physical, chemical or biological integrity of Double Branch Creek. Wetlands W and X are in close proximity to a perennial RPW that flows into Double Branch Creek and may be connected to this RPW through shallow groundwater flows. Therefore Wetlands W and X are expected to have a significant physical, chemical and biological effect on Double Branch Creek.**

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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: **Per the USGS- National Hydrography Data Set (NHD) last updated May 2006: Perennial RPW streams flow directly abutting wetlands H, J and K and continues south directly or indirectly into the Double Branch Creek TNW. Wetland S is a perennial RPW that flows directly or indirectly into the Double Branch Creek TNW.**
   ☒ 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: **An intermittent stream RPW flows through Wetland V per the same USGS NHD.**

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   ☒ Tributary waters: **188, 126 and 77** linear feet **21.5, 25 and an unknown** 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. **These include wetlands H, J, K and V.**
   ☒ 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 H, J and K directly abut a perennial stream that flows directly or indirectly into the Double Branch Creek TNW per the USGS National Hydrography Dataset.**

   ☒ 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: **Wetland V directly abuts an intermittent stream that flows directly or indirectly into the Double Branch Creek per the USGS National Hydrography Dataset.**
   Provide acreage estimates for jurisdictional wetlands in the review area: **0.60 acres (Wetland V).**

[8]See Footnote # 3.

5. **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: **1.53 acres (Wetlands W and X).**

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. **ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. **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). **Wetlands G, I, L, M, P, R and T consist of stormwater retention ponds that are isolated from the nearest RPW and TNW and are not expected to have any significant effects on the physical, chemical or biological integrity of any TNW, therefore they are being classified as isolated. Wetlands O, Q, Y, Z, AA, BB, CC, DD, EE, FF, GG, HH and II are isolated from the nearest RPW and TNW and are not expected to have any significant effects on the physical, chemical or biological integrity of any TNW, therefore they are being classified as isolated.**

☒ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **Wetlands A, B, C, D, E, F, N and U are adjacent to a perennial stream and an intermittent stream, but are separated from them by considerable amounts of uplands, development and roads, therefore they are being classified as isolated.**
☐ Other: (explain, if not covered above): .

[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.***

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands A - II**

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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

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: G, I, L, M, P, R, T, O, Q, Y, Z, AA, BB, CC, DD, EE, FF, GG, HH and II, A, B, C, D, E, F, N and U = 20.68 acres total.**

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: .
☒ 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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands JJ - MM**

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.087355°** N, Long. **-82.577428°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Lower Rocky Creek and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Lower Rocky Creek**
Name of watershed or Hydrologic Unit Code (HUC): **Slough/03100206**
☒ 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: **December 18, 2009.**
☒ Field Determination. Date(s): **September 24, 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (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 **(Wetland JJ)**
      ☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs **(With a Significant Nexus: KK and LL)**
      ☐ 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:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: **Wetlands JJ, KK and LL, totaling 1.01 acres of Waters of the U.S.**

   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).
[3] Supporting documentation is presented in Section III.F.

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands JJ - MM**

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetland MM is not jurisdictional because it is an artificial stormwater pond that is 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 waterbody[4] 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: **790.7 acres**
Drainage area: **790.7 acres**
Average annual rainfall: 52 inches
Average annual snowfall: 0 inches

(ii) **Physical Characteristics:**
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through 4 tributaries before entering TNW.

Project waters are **Pick List** 5-10 river miles from TNW.
Project waters are **Pick List** 2-5 river miles from RPW.
Project waters are **2-5** aerial (straight) miles from TNW.

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

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 TNW[5]: **Based on a desktop review, Wetland JJ is hydrologically connected through wetlands to an unnamed intermittent tributary that flow into Lower Rocky Creek, a TNW. Wetlands KK and LL appear to have either a directly hydrologic connection or an indirect hydrologic connection through shallow groundwater flows to the unnamed, intermittent tributary that flows into Lower Rocky Creek, a TNW.**
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural **Some portions appear natural and others appear ditched.**
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on a review of aerial photography, portions of the stream appear to be ditched and culverted.**

Tributary 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).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☒ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: Herbaceous/50%	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2 %**

(c) Flow:
Tributary provides for: **Pick List perennial and intermittent flows**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined.** Characteristics: .

Subsurface flow: **Unknown.** 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	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ 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.[7] Explain: **May be less evident where ditched.**

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;

[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.
[6] A 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.
[7] Ibid.

☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.
☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:
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: **May provide foraging areas for wood storks.**
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings: **Diverse due to larger overall forested wetland systems surrounding the RPW**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **1.01** acres
Wetland type. Explain: Emergent.
Wetland quality. Explain: **Fair based on their location within or connected to larger overall forested wetland systems but poor due to infestation with exotic water primrose and air potato and location immediately adjacent to a highway, commercial development and plant nursery- high nutrients and fertilizer runoff.**
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. 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 **(Wetland JJ directly abuts an intermittent stream.**
☒ Not directly abutting
☒ Discrete wetland hydrologic connection. Explain: **Wetlands KK and LL appear to have either a directly hydrologic connection or an indirect hydrologic connection through shallow groundwater flows to an unnamed, intermittent tributary that flows into Lower Rocky Creek, a TNW.**
☐ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **5-10** river miles from TNW.
Project waters are **2-5** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent and forested wetland/95%.**

☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
All wetland(s) being considered in the cumulative analysis: **3 wetlands are being classified as adjacent to or abutting RPWs. One stormwater pond is being classified as isolated.**
Approximately **3 wetlands totaling (1.01 acres)** 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)
Wetland JJ (Y)	**0.08**		
Wetland KK (N)	**0.51**		
Wetland LL (N)	**0.42**		

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 some 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: .

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:.

3. **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: **Wetlands KK and LL are in close proximity to an intermittent RPW that flows into Lower Rocky Creek and**

may be connected to this RPW through shallow groundwater flows. Therefore Wetlands KK and LL are expected to have a significant physical, chemical and biological effect on Lower Rocky Creek.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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:

   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. **This includes Wetland JJ.**
   ☐ 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: **Wetland JJ (the overall larger wetland) directly abuts an intermittent stream that flows directly or indirectly into the Lower Rocky Creek per the USGS National Hydrography Dataset.**
   Provide acreage estimates for jurisdictional wetlands in the review area: **Wetland JJ = 0.08** acres.

5. **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. **Wetlands KK and LL are in close proximity to an intermittent RPW that flows into Lower Rocky Creek and may be connected to this RPW through shallow groundwater flows. Therefore Wetlands KK and LL are expected to have a significant physical, chemical and biological effect on Lower Rocky Creek.**

   Provide acreage estimates for jurisdictional wetlands in the review area: **0.93 acres (Wetlands KK and LL).**

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[8]See Footnote # 3.

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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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). **Wetland MM is a stormwater retention pond that is isolated from the nearest RPW and TNW and is not expected to have any significant effects on the physical, chemical or biological integrity of any TNW. Therefore it is being classified as isolated.**

☐ 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

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: .

[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.***

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands JJ - MM**

☒ Wetlands: **Stormwater retention pond MM = 0.30 acres.**

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: .
- ☒ 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: .

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands NN - YY

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.092021°** N, Long. **-82.564609°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Lower Rocky Creek and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Lower Rocky Creek**
Name of watershed or Hydrologic Unit Code (HUC): **Lower Rocky Creek/03100206**
☒ 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: **December 18, 2009.**
☒ Field Determination. Date(s): **September 25-29, 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 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 U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): [1]

☐ TNWs, including territorial seas
☐ Wetlands adjacent to TNWs
☐ Relatively permanent waters[2] (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 QQ, UU/VV, WW and XX)**
☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs **(With a Significant Nexus: Wetlands NN, OO and PP)**
☐ 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:

Non-wetland waters: linear feet: width (ft) and/or acres.
Wetlands: **Wetlands NN, OO, PP, QQ, UU/VV, WW, XX totaling 4.94 acres of Waters of the U.S.**

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]

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[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.

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands RR, SS, TT and YY are not jurisdictional because they are artificial stormwater ponds that 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 waterbody[4] 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: **7,400.1 acres**
   Drainage area: **7,400.1 acres**
   Average annual rainfall: 52 inches
   Average annual snowfall: 0 inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through 4 tributaries before entering TNW.

   Project waters are **Pick List** 5-10 river miles from TNW.
   Project waters are **Pick List** 2-5 river miles from RPW.
   Project waters are **2-5** aerial (straight) miles from TNW.

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

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 TNW[5]: **Based on a desktop review, Wetland QQ, UU/VV, WW and XX are hydrologically connected through wetlands to an unnamed intermittent tributary that flow into Lower Rocky Creek, a TNW. Wetlands NN, OO and PP appear to have either a directly hydrologic connection or an indirect hydrologic connection through shallow groundwater flows to the unnamed, intermittent tributary that flows into Lower Rocky Creek, a TNW.**
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural **Some portions appear natural and others appear ditched.**
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on a review of aerial photography, portions of the stream appear to be ditched and culverted.**

Tributary 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).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☒ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: Herbaceous/50%	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2 %**

(c) Flow:
Tributary provides for: **Pick List perennial flows**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ 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.[7] Explain: **May be less evident where ditched.**

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
☐ High Tide Line indicated by: ☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects ☐ survey to available datum;

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[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.
[6] A 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.
[7] Ibid.

☐ fine shell or debris deposits (foreshore)
☐ physical markings/characteristics
☐ tidal gauges
☐ other (list):
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:
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: **May provide foraging areas for wood storks.**
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings: **Diverse due to larger overall forested wetland systems surrounding the RPW**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **4.94 acres (Wetlands NN, OO, PP, QQ, UU/VV, WW and XX)**
Wetland type. Explain: **Emergent**
Wetland quality. Explain: **Fair to good based on their location within or connected to larger overall forested wetland systems.**
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Perrenial flow**. 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 QQ, UU/VV, WW and XX directly abut a perrenial stream.)**
☒ Not directly abutting
☒ Discrete wetland hydrologic connection. Explain: **Wetlands NN, OO and PP appear to have either a directly hydrologic connection or an indirect hydrologic connection through shallow groundwater flows to an unnamed, intermittent tributary that flows into Lower Rocky Creek, a TNW.**
☐ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are 5-10 river miles from TNW.
Project waters are 2-5 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent and forested wetland/95%.**
☐ Habitat for:

☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
All wetland(s) being considered in the cumulative analysis: **8 wetlands are being classified as adjacent to or abutting RPWs.**
Approximately **8 wetlands totaling (4.94 acres)** are being considered in the cumulative analysis **(Wetlands NN, OO, PP, QQ, UU/ VV, WW and XX)**

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland NN (N)	**0.50**	**Wetlands UU/VV (Y)**	**0.82**
Wetland OO (N)	**2.27**	**Wetland WW (Y)**	**0.43**
Wetland PP (N)	**0.25**	**Wetland XX (Y)**	**0.14**
Wetland QQ (Y)	**0.60**		

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 some 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: .

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:.

3. **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: **Wetlands NN, OO and PP are in close proximity to a perennial RPW that flows into Lower Rocky Creek and may be connected to this RPW through shallow groundwater flows. Therefore Wetlands NN, OO and PP are expected to have a significant physical, chemical and biological effect on Lower Rocky Creek.**

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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: **A perennial stream RPW flows directly through Wetland UU/VV and directly or indirectly into the Lower Rocky Creek TNW per the USGS National Hydrography Dataset (last updated May 2006). It is included in the boundaries and acreage of Wetland UU/VV (RPW + UU/VV = 0.82 acres total).**
   ☐ 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:

   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 QQ, UU/VV, WW andXX directly abut a perennial stream that flows directly or indirectly into the Lower Rocky Creek per the USGS National Hydrography Dataset- last updated May 2006**

   ☐ 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: **1.99 acres (Wetlands QQ, UU/VV, WW andXX).**

5. **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 jurisdictional. Data supporting this conclusion is provided at Section III.C. **Wetlands NN, OO and PP are in close proximity to a perennial RPW that flows into Lower Rocky Creek and may be connected to this RPW through shallow groundwater flows. Therefore Wetlands NN, OO and PP are expected to have a significant physical, chemical and biological effect on Lower Rocky Creek.**

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[8]See Footnote # 3.

Provide acreage estimates for jurisdictional wetlands in the review area: **3.02 acres (Wetlands NN, OO and PP).**

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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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). **Wetlands RR, SS, TT and YY are stormwater retention ponds that are isolated from the nearest RPW and TNW and are not expected to have any significant effects on the physical, chemical or biological integrity of the Lower Rocky Creek or any other TNW. Therefore they are being classified as isolated.**

☐ 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres

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[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.***

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: **Total of 1.53 acres (Stormwater retention ponds RR, SS, TT and YY)**

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: .
- ☒ 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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands ZZ - AG**

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.093347°** N, Long. **-82.550108°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Lower Rocky Creek and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Lower Rocky Creek**
Name of watershed or Hydrologic Unit Code (HUC): **Halfmoon Lake Drain/03100206**
☒ 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: **December 18, 2009.**
☒ Field Determination. Date(s): **September 29, 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Stream portion of Wetland AB)**
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetland AB)**
      ☐ 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:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: **Wetland AB totaling 1.16 acres of Waters of the U.S.**

   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]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **Wetlands ZZ, AD, AE, AF and AG are not jurisdictional because they are artificial stormwater ponds that are**

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[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.

hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs. Wetland AC is not jurisdictional because it is separated from the nearest RPW and TNW by expansive uplands and residential development and is not expected to have any significant effects on the physical, chemical or biological integrity of the Lower Rocky Creek TNW.

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 waterbody[4] 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: **743.8 acres**
   Drainage area: **743.8 acres**
   Average annual rainfall: 52 inches
   Average annual snowfall: 0 inches

   (ii) **Physical Characteristics:**
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through 4 tributaries before entering TNW.

   Project waters are Pick List 5-10 river miles from TNW.
   Project waters are Pick List 2-5 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 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 TNW[5]: **Based on a desktop review, Wetland AB directly abuts and flows into to an unnamed perrenial tributary that flows into Lower Rocky Creek, a TNW.**
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural **Some portions appear natural and others appear ditched.**
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on a review of aerial photography, portions of the stream appear to be ditched and culverted.**

Tributary 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).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☒ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: Herbaceous/50%	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2 %**

(c) Flow:
Tributary provides for: **Pick List perennial flows**
Estimate average number of flow events in review area/year: **Continuous flow all year- perrenial**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ 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.[7] Explain: **May be less evident where ditched.**

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.

[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.
[6] A 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.
[7] Ibid.

☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:
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: **May provide foraging areas for wood storks.**
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings: **Diverse due to larger overall forested wetland systems surrounding the RPW**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **1.16 acres (Wetland AB)**
Wetland type. Explain: **Emergent**
Wetland quality. Explain: **Fair to good based on its location within and connected to larger overall forested wetland and stream systems.**
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Perrenial flow**. 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 AB abuts a perrenial stream.**
☐ Not directly abutting
☐ Discrete wetland hydrologic connection. Explain:
☐ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are 5-10 river miles from TNW.
Project waters are 2-5 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent and forested wetland/95%.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **1 wetland is being classified as abutting an RPW. 5 stormwater retention ponds are being classified as isolated and one Wetland ditch is being classified as isolated.**

Approximately **1 wetland totaling (1.16 acres)** is being considered in the cumulative analysis **(Wetland AB)**

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland AB (Y)	**1.16**		

Summarize overall biological, chemical and physical functions being performed: **Wetland AB and its associated perennial stream 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 some 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: .

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:.

3. **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:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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: **A perennial stream RPW flows directly through Wetland AB and directly or indirectly into the Lower Rocky Creek TNW per the USGS National Hydrography Dataset (last updated May 2006). It is included in the boundaries and acreage of Wetland AB (1.16 acres total).**
☐ 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:

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: **Wetland AB directly abuts a perennial stream that flows directly or indirectly into the Lower Rocky Creek per the USGS National Hydrography Dataset- last updated May 2006**

☐ 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: **1.16 acres (Wetland AB).**

5. **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.

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[8]See Footnote # 3.

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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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). **Wetlands ZZ, AD, AE, AF and AG are stormwater retention ponds that are isolated from the nearest RPW and TNW and are not expected to have any significant effects on the physical, chemical or biological integrity of the Lower Rocky Creek or any other TNW. Therefore they are being classified as isolated. Wetland ditch AC connects to one very small off-site isolated forested wetland, but neither of these wetlands have any hydrologic connection to an RPW or TNW and are separated from the nearest RPW by extensive uplands and residential development. Wetland AC is not expected to have any significant effect on the physical, chemical or biological integrity of the Lower Rocky Creek TNW or any other TNW, and therefore is considered isolated.**

☐ 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres

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: **Total of 1.14 acres (Stormwater retention ponds ZZ, AD, AE, AF and AG and wetland ditch AC)**

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[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.***

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands ZZ - AG**

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: .
- ☒ 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: .

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands AH - AK

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.096756°** N, Long. **-82.541431°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Lower Rocky Creek and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Lower Rocky Creek**
Name of watershed or Hydrologic Unit Code (HUC): **Lake Le Clare Drain/03100206**

☒ 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: **December 20, 2009.**
☒ Field Determination. Date(s): **September 30, 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):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (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:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands:

   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]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **Stormwater retention ponds AH, AJ, AK and stormwater management ditch AI are not jurisdictional because they are artificial stormwater ponds and a ditch that are hydrologically isolated from TNWs and RPWs that flow**

[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.

directly or indirectly into TNWs. They are not expected to have any significant effects on the physical, chemical or biological integrity of the Lower Rocky Creek TNW.

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 waterbody[4] 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 Pick List river miles from TNW.
   Project waters are Pick List river miles from RPW.
   Project waters are aerial (straight) miles from TNW.
   Project waters are aerial (straight) 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 waters cross or serve as state boundaries. Explain:.

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:

Primary tributary substrate composition (check all that apply):
☐ Silts ☐ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☐ Vegetation. Type/% cover: Herbaceous/50%
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:.
Presence of run/riffle/pool complexes. Explain:.
Tributary geometry:
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:. Characteristics: .

Subsurface flow:. 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 ☐ the presence of litter and debris
☐ changes in the character of soil ☐ destruction of terrestrial vegetation
☐ shelving ☐ 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.[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: ☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects ☐ survey to available datum;
☐ fine shell or debris deposits (foreshore) ☐ physical markings;
☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.
☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:

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[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.
[6] A 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.
[7] Ibid.

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. Characteristics 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:
Characteristics: Both confined (within ditch banks) and sheetflow (non-ditched areas).

Subsurface flow: 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:
Estimate approximate location of wetland as within the 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. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: Approximately ----is 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:

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: .

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:.

3. **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:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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:

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. **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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

---

[8]See Footnote # 3.
[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.***

- ☐ 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: .

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.

F. 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). **Wetlands AH, AJ and AK and stormwater management ditch AI are isolated from the nearest TNW and are not expected to have any significant effects on the physical, chemical or biological integrity of the Lower Rocky Creek or any other TNW. Therefore they are being classified as isolated.**

- ☐ 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 width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres

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: **Total of 2.61 acres (Wetlands AH, AJ and AK and stormwater management ditch AI)**

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): .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands AH - AK**

- ☐ 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: .
- ☒ 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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands AL - AO**

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.103506°** N, Long. **-82.532761°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Brushy Creek, Lower Rocky Creek and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Lower Rocky Creek**
Name of watershed or Hydrologic Unit Code (HUC): **Drainage ditches/03100206**
☒ 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: **December 20, 2009.**
☒ Field Determination. Date(s): **October 1, 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** "*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): [1]
- ☐ TNWs, including territorial seas
- ☐ Wetlands adjacent to TNWs
- ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetland ditch AN)**
- ☐ Non-RPWs that flow directly or indirectly into TNWs
- ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetlands AM and AO)**
- ☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs **(With a Significant Nexus: Wetland AL)**
- ☐ 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:
Non-wetland waters: linear feet: width (ft) and/or acres.
Wetlands: **Wetlands AL, AM, AN and AO, totaling 3.04 acres of Waters of the U.S.**

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]
☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain:

[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.

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands AL - AO**

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 waterbody[4] 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: **770.4 acres**
Drainage area: **770.4 acres**
Average annual rainfall: 52 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through 4 tributaries before entering TNW.

Project waters are Pick List 5-10 river miles from TNW.
Project waters are Pick List 1 or less river miles from RPW.
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.

[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]: **Based on a desktop review, Wetlands AM, AN and AO are are hydrologically connected to an unnamed intermittent tributary that flows into Brushy Creek and then into Lower Rocky Creek, a TNW. Wetland AL has a directly hydrologic connection to the unnamed, intermittent tributary that flows into Brushy Creek and then Lower Rocky Creek, a TNW.**
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural **Some portions appear natural and others appear ditched.**
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on a review of aerial photography, portions of the stream appear to be ditched and culverted.**

Tributary 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)**.

Primary tributary substrate composition (check all that apply):
☒ Silts ☒ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☒ Muck
☐ Bedrock ☒ Vegetation. Type/% cover: Herbaceous/50%
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2 %**

(c) Flow:
Tributary provides for: **Pick List intermittent flows**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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
☐ shelving
☒ vegetation matted down, bent, or absent
☐ leaf litter disturbed or washed away
☒ sediment deposition
☐ water staining
☐ other (list):
☒ the presence of litter and debris
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☐ sediment sorting
☐ scour
☐ multiple observed or predicted flow events
☐ abrupt change in plant community
☒ Discontinuous OHWM.[7] Explain: **May be less evident where ditched.**

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.

[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.
[6] A 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.
[7] Ibid.

(iii) Chemical Characteristics:
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: **May provide foraging areas for wood storks.**
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings: **Diverse due to larger overall forested wetland systems surrounding the RPW**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **3.04** acres
Wetland type. Explain: Emergent.
Wetland quality. Explain: **Fair based on their location within or connected to larger overall forested wetland stream system.**
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. 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 **(Wetland AM, AN and AO directly abut an intermittent stream.**
☒ Not directly abutting
☒ Discrete wetland hydrologic connection. Explain: **Wetland AL appears to have a directly hydrologic connection through a culvert to an unnamed, intermittent tributary that flows into Brushy Creek and then into Lower Rocky Creek, a TNW.**
☐ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **5-10** river miles from TNW.
Project waters are **2-5** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent and forested wetland/95%.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
All wetland(s) being considered in the cumulative analysis: **4 wetlands are being classified as adjacent to or abutting RPWs.**
Approximately **4 wetlands totaling (3.04 acres)** 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)
Wetland AL (N)	**0.89**		
Wetland AM (Y)	**1.94**		
Wetland AN (Y)	**0.02**		
Wetland AO (Y)	**0.19**		

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 some 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: .

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:.

3. **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 AL is in close proximity to an intermittent RPW that flows into Brushy Creek and then Lower Rocky Creek and is connected to this RPW through a culvert. Therefore Wetlands AL is expected to have a significant physical, chemical and biological effect on Lower Rocky Creek.**

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands AL - AO**

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: **Wetland AN and a portion of Wetland AM consist of RPWs that flow at least seasonally. They were observed flowing in the field in October and have ordinary high water marks. The RPW on the west side of Wetland AM is evident as a drainage ditch on the USGS National Hydrography Dataset- last updated May 2006.**

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   ☒ Tributary waters: **125 and 215** linear feet and **7 and 4** 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. **This includes Wetlands AM and AO.**
   ☐ 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: **Wetlands AM and AO directly abut intermittent streams that flow directly or indirectly into the Brushy Creek and then into Lower Rocky Creek per the USGS National Hydrography Dataset.**
   Provide acreage estimates for jurisdictional wetlands in the review area: **Wetlands AM and AO = 2.13** acres.

5. **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. **Wetland AL is in close proximity to, and connected through a culvert to an intermittent RPW that flows into Brushy Creek and then Lower Rocky Creek, a TNW. Therefore Wetlands AL is expected to have a significant physical, chemical and biological effect on Lower Rocky Creek.**

   Provide acreage estimates for jurisdictional wetlands in the review area: **0.89 acres (Wetland AL).**

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.

[8]See Footnote # 3.

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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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 <u>solely</u> 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 <u>sole</u> 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

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:

SECTION IV: DATA SOURCES.

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[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.***

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands AL - AO**

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: .
- ☒ 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: .

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands AP – AS, AW

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.107719°** N, Long. **-82.519676°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Brushy Creek, Lower Rocky Creek and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Lower Rocky Creek**
Name of watershed or Hydrologic Unit Code (HUC): **Brushy Creek/03100206**
☒ 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: **December 20, 2009.**
☒ Field Determination. Date(s): **October 1, 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (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 **(Wetland AQ)**
      ☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs **(With a Significant Nexus: Wetlands AR and AS)**
      ☐ 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:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: **Wetlands AQ, AR and AS totaling 0.42 acres of Waters of the U.S.**

   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]

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[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.

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands AP – AS, AW**

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands AP and AW are not jurisdictional because they are artificial stormwater ponds that 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 waterbody[4] 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: **5,145.4** acres
Drainage area: **5,145.4** acres
Average annual rainfall: 52 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through 4 tributaries before entering TNW.

Project waters are Pick List 5-10 river miles from TNW.
Project waters are Pick List 2-5 river miles from RPW.
Project waters are 2-5 aerial (straight) miles from TNW.

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

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 TNW[5]: **Based on a desktop review, Wetland AQ is hydrologically connected to Brushy Creek and then into Lower Rocky Creek, a TNW. Wetlands AR and AS appear to have either a directly hydrologic culvert connection or an indirect hydrologic connection through shallow groundwater flows to Brushy Creek and which then flows into Lower Rocky Creek, a TNW.**
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural **Some portions appear natural and others appear ditched.**
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on a review of aerial photography, portions of the stream appear to be ditched and culverted.**

Tributary 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).

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☒ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: Herbaceous/50%	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry: Relatively straight
Tributary gradient (approximate average slope): **2 %**

(c) Flow:
Tributary provides for: Pick List **perennial flows**
Estimate average number of flow events in review area/year: **continuous flow- perennial**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: Confined. Characteristics: .

Subsurface flow: Unknown. 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	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ 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.[7] Explain: **May be less evident where ditched.**

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;

[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.
[6] A 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.
[7] Ibid.

☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.
☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:
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: **May provide foraging areas for wood storks.**
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings: **Diverse due to larger overall forested wetland systems surrounding the RPW**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **0.42 acres (Wetlands AQ, AR and AS)**
Wetland type. Explain: **Emergent and forested**
Wetland quality. Explain: **Fair to good based on their location within or connected to larger overall forested wetland stream system.**
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Perrenial flow**. 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 AQ directly abuts a perrenial stream.**
☒ Not directly abutting
☒ Discrete wetland hydrologic connection. Explain: **Wetlands AR and AS appear to have either a directly hydrologic culvert connection or an indirect hydrologic connection through shallow groundwater flows to Brushy Creek a perennial tributary that flows into Lower Rocky Creek, a TNW.**
☐ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **5-10** river miles from TNW.
Project waters are **2-5** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent and forested wetland/95%.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: **3 wetlands are being classified as adjacent to or abutting RPWs. 3 wetlands totaling (0.41 acres)** are being considered in the cumulative analysis **(AQ, AR and AS)**

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland AQ (Y)	**0.28**		
Wetland AR (N)	**0.001**		
Wetland AS (N)	**0.13**		

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 some 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: .

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:.

3. **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: **Wetlands AR and AS are in close proximity and connected via culverts to a perennial RPW (Brushy Creek) that flows into Lower Rocky Creek, A TNW. Therefore Wetlands wetlands AR and AS are expected to have a significant physical, chemical and biological effect on Lower Rocky Creek, a TNW.**

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands AP – AS, AW

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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: **A perennial stream RPW (Brushy Creek) flows directly through Wetland AQ and then directly or indirectly into the Lower Rocky Creek TNW per the USGS National Hydrography Dataset (last updated May 2006). This small portion of Brushy Creek is included in the boundaries and acreage of wetland AQ (0.28 acres total).**
   ☐ 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:

   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 AQ directly abuts a perennial stream (Brushy Creek) that flows directly or indirectly into the Lower Rocky Creek per the USGS National Hydrography Dataset- last updated May 2006**

   ☐ 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: **0.28 acres (Wetland AQ).**

5. **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. **Wetlands AR and AS are in close proximity to a perennial RPW (Brushy Creek) that flows into Lower Rocky Creek and are connected to this RPW through culverts and shallow groundwater flows. Therefore Wetlands AR and AS are expected to have a significant physical, chemical and biological effect on Lower Rocky Creek TNW.**

   Provide acreage estimates for jurisdictional wetlands in the review area: **0.13 acres (Wetlands AR and AS).**

[8] See Footnote # 3.

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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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). **Wetlands AP and AW are stormwater retention ponds that are isolated from the nearest RPW and TNW and are not expected to have any significant effects on the physical, chemical or biological integrity of the Lower Rocky Creek or any other TNW. Therefore they are being classified as isolated.**

☐ 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres

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).

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[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.***

- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: **Total of 0.30 acres (Stormwater retention ponds AP and AW)**

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: .
- ☒ 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: .

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands AT-1/AT-2 – AV, AX - BF

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.116993°** N, Long. **-82.491455°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Drainage Canal then Brushy Creek then Lower Rocky Creek and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Lower Rocky Creek**
Name of watershed or Hydrologic Unit Code (HUC): **Drainage Canal/03100206**
☒ 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: **December 21, 2009.**
☒ Field Determination. Date(s): **October 1-5, 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetlands AT-1/AT-2, AU and AY)**
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetland AZ, BA, BC, BD and BE)**
      ☐ 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:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: **Wetlands AT-1/AT-2, AU, AY AZ, BA, BC, BD and BE totaling 4.30 acres of Waters of the U.S.**

   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]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands AV and BF are not jurisdictional because they are artificial stormwater ponds that are**

[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.

hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs. Wetlands AX and BBa are also 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 waterbody[4] 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: **2,844.3** acres
Drainage area: **2,844.3** acres
Average annual rainfall: 52 inches
Average annual snowfall: 0 inches

(ii) **Physical Characteristics:**
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through 4 tributaries before entering TNW.

Project waters are Pick List 5-10 river miles from TNW.
Project waters are Pick List 2-5 river miles from RPW.
Project waters are 2-5 aerial (straight) miles from TNW.
Project waters are 1 (or less) aerial (straight) 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 waters cross or serve as state boundaries. Explain: N/A.

Identify flow route to TNW[5]: **Based on a desktop review, Wetlands AT-1/AT-2 and AU are portions of a major drainage canal that flows into Brushy Creek and then into Lower Rocky Creek, a TNW. Wetland AY is a portion of a roadside ditch that flows south through a wetland to the same major drainage canal that flows into Brushy Creek and then into Lower Rocky Creek, a TNW.**
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural **Some portions of Brushy Creek appear natural and others appear ditched.**
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **The RPW drainage canal appears man-made.**

Tributary 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).

Primary tributary substrate composition (check all that apply):
☒ Silts ☒ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☒ Muck
☐ Bedrock ☒ Vegetation. Type/% cover: Herbaceous/50%
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry: Relatively straight
Tributary gradient (approximate average slope): **2 %**

(c) Flow:
Tributary provides for: Pick List **perennial and intermittent flows**
Estimate average number of flow events in review area/year: **continuous flow- perennial and 6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: Confined. Characteristics: .

Subsurface flow: Unknown. 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
☐ shelving
☒ vegetation matted down, bent, or absent
☐ leaf litter disturbed or washed away
☒ sediment deposition
☐ water staining
☐ other (list):
☒ the presence of litter and debris
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☐ sediment sorting
☐ scour
☐ multiple observed or predicted flow events
☐ abrupt change in plant community
☒ Discontinuous OHWM.[7] Explain: **May be less evident where ditched.**

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
☐ Mean High Water Mark indicated by:
☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

[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.
[6] A 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.
[7] Ibid.

☐ other (list):

(iii) Chemical Characteristics:
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: **Drainage canal provides foraging areas for wood storks.**
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings: **Moderately diverse due to larger overall forested wetland systems surrounding the downstream Brushy Creek RPW.**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **Wetlands AT-1/AT-2, AU, AY AZ, BA, BC, BD and BE totaling 4.30 acres**
Wetland type. Explain: **Emergent and forested**
Wetland quality. Explain: **Fair to good based on their location within or connected to larger overall forested wetland stream system.**
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Perrenial flow**. 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 AZ, BA, BC, BC, BD and BE directly abuts a perrenial stream).**
☐ Not directly abutting
☐ Discrete wetland hydrologic connection. Explain:
☐ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **5-10** river miles from TNW.
Project waters are **2-5** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent and forested wetland/95%.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **4 wetlands are being classified as directly abutting RPWs that drain directly or indirectly into TNWs (Wetlands AZ, BA, BC, BD and stormwater retention area BE). 3 wetlands are being classified as RPWs (Wetlands AT-1/AT-2, AU and AY).**

Approximately **7 wetlands totaling 4.30 acres** are being considered in the cumulative analysis (**Wetlands AT-1/AT-2, AU, AY AZ, BA, BC, BD and BE).**

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland AT-1/AT-2 (Y- it is an RPW)	**0.22**		
Wetland AU (Y- it is an RPW)	**0.02**		
Wetland AY(Y- it is an RPW)	**0.02**		
Wetland AZ (Y)	**0.15**		
Wetland BA (Y)	**0.41**		
Wetland BC (Y)	**0.47**		
Wetland BD (Y)	**2.76**		
Wetland BE (Y)	**0.25**		

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 some 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:

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:.

3. **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: **Wetlands AR and AS are in close proximity and connected via culverts to a perennial RPW (Brushy Creek)**

that flows into Lower Rocky Creek, a TNW. Therefore Wetlands AR and AS are expected to have a significant physical, chemical and biological effect on Lower Rocky Creek, a TNW.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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: **A perennial stream RPW (drainage ditch- Wetlands AT-1/AT-2 and AU) flows directly into Brushy Creek another RPW and then into the Lower Rocky Creek TNW per the USGS National Hydrography Dataset (last updated May 2006).**
   ☒ 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: **RPW Roadside ditch AY may have intermittent, seasonal flows based on the fact that it is connected to larger forested wetlands upstream and downstream and flows into a major drainage ditch RPW that appears to be perennial based on its size and amount of flow observed in October 2009.**

   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 AZ, BA, BC, BD and BE directly abut a perennial stream (a drainage ditch) that flows directly or indirectly into Brushy Creek and then into the Lower Rocky Creek TNW per the USGS National Hydrography Dataset- last updated May 2006**

   ☐ 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: **Wetlands AZ, BA, BC, BD and stormwater retention area BE = 4.04 acres. Jurisdictional wetland RPWs AT-1/AT-2, AU and AY within the project area = 0.26 acres.**

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

[8]See Footnote # 3.

☐ 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 jurisdictional. 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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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). **Wetlands AV and BF are stormwater retention ponds that are isolated from the nearest RPW and TNW and are not expected to have any significant effects on the physical, chemical or biological integrity of the Lower Rocky Creek or any other TNW. Therefore they are being classified as isolated. Wetlands AX and BBa are isolated from the nearest RPW and TNW and are not expected to have any significant effect on the physical, biological or chemical integrity of any TNW, therefore they are being considered isolated. They are separated by extensive uplands, roads and residential development from the nearest RPW.**

☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:.
☐ Other: (explain, if not covered above): .

[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.***

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands AT-1/AT-2 – AV, AX - BF**

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 width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres

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: **Total of 0.80 acres of isolated wetlands (Stormwater retention ponds AV and BF and Wetlands AX and BBa)**

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: .
- ☒ 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: .

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands BG - BL

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.119480° N**, Long. **-82.473467° W**.
Universal Transverse Mercator:
Name of nearest waterbody: **Brushy Creek, Lower Rocky Creek and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Lower Rocky Creek**
Name of watershed or Hydrologic Unit Code (HUC): **Lake Drainage Ditch/03100206**
☒ 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: **December 20, 2009.**
☒ Field Determination. Date(s): **October 5-6, 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 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (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 **(Wetland BH)**
      ☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs **(With a Significant Nexus: Wetland BI)**
      ☐ 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:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: **Wetlands BH and BI totaling 0.61 acres of Waters of the U.S.**

   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).
[3] Supporting documentation is presented in Section III.F.

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetland BK is not jurisdictional because it is an artificial stormwater pond that is hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs. Wetland ditch BG, and wetlands BJ and BL are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs. These areas are isolated and are not expected to have any significant effects on the physical, chemical or biological integrity of the Lower Rocky Creek TNW.**

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 waterbody[4] 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: **1,478.0** acres
   Drainage area: **1,478.0** acres
   Average annual rainfall: 52 inches
   Average annual snowfall: 0 inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through 5 tributaries before entering TNW.

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

Project waters are 10-15 river miles from TNW.
Project waters are 1 or less river miles from RPW.
Project waters are **5-10** 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 TNW[5]: **Based on a desktop review, Wetland BH is hydrologically connected to Brushy Creek indirectly through a perrenial RPW stream and and then through drainage ditches into Brushy Creek and then Lower Rocky Creek, a TNW. Wetland BI may have an indirect hydrologic connection through shallow groundwater flows to this same perennial RPW that Wetland BH is connected to.**
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural **Some portions appear natural and others appear ditched.**
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on a review of aerial photography, portions of the stream appear to be ditched and culverted.**

Tributary 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).

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☒ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: Herbaceous/50%	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry: Relatively straight
Tributary gradient (approximate average slope): **2 %**

(c) Flow:

Tributary provides for: Pick List **perennial and intermittent flows**
Estimate average number of flow events in review area/year: **continuous - perennial and intermittent 6-10 flow events**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: Confined. Characteristics: .

Subsurface flow: Unknown. 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	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ 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.[7] Explain: **May be less evident where ditched.**

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

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[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.
[6] A 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.
[7] Ibid.

- ☐ 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) Chemical Characteristics:

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: **May provide foraging areas for wood storks.**
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings: **Diverse due to larger overall forested wetland systems surrounding the RPW**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size: **0.61 acres (Wetlands BH and BI)**
Wetland type. Explain: **Emergent/forested- wetland scrub FLUCFCS code 631**
Wetland quality. Explain: **Fair to good based on their location within or connected to larger overall forested wetland stream system.**
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Perrenial and intermittent flow**. 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 **(Wetland BH directly abuts a perrenial stream).**
☒ Not directly abutting
☒ Discrete wetland hydrologic connection. Explain: **Wetland BI appears to have an indirect hydrologic connection through shallow groundwater flows to an unnamed perennial RPW which flows into a perennial drainage canal then into Brushy Creek, a perennial tributary that flows into Lower Rocky Creek, a TNW.**
☐ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **10-15** river miles from TNW.
Project waters are **5-10** 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) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent and forested wetland/95%.**
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **2 wetlands are being classified as adjacent to or abutting RPWs (Wetlands BH and BI). 1 stormwater retention pond is being classified as isolated (Stormwater retention pond BK).** 2 wetlands and 1 wetland ditch are being classified as isolated (Wetlands BG, BJ and BL).
Approximately **3 wetlands totaling (0.42 acres)** are being considered in the cumulative analysis **(BH and BI)**

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland BH (Y)	**0.30**		
Wetland BI (N)	**0.31**		

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 some 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: .

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:.

3. **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: **Wetlands BH is in close proximity to a an unnamed perennial RPW that flows into another perennial drainage canal RPW which flows into another perennial RPW named Brushy Creek and then into Lower Rocky Creek, A TNW. Therefore Wetland BI is expected to have a significant physical, chemical and biological effect on Lower Rocky Creek, a TNW.**

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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: **An unnamed perennial stream RPW flows into a perennial drainage canal which flows into another perennial RPW (Brushy Creek) which flows directly or indirectly into the Lower Rocky Creek TNW per the USGS National Hydrography Dataset (last updated May 2006).**
   - ☐ 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:

   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: **Wetland BH directly abuts an unnamed perennial stream that flows indirectly into the Lower Rocky Creek per the USGS National Hydrography Dataset- last updated May 2006**
     - ☐ 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: **0.30 acres (Wetland BH).**

5. **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. **Wetland BI is in close proximity to an unnamed perennial RPW that flows into indirectly into Lower Rocky Creek. Wetland BI may be connected to this unnamed RPW through shallow groundwater**

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[8] See Footnote # 3.

flows. Therefore Wetland BI is expected to have a significant physical, chemical and biological effect on Lower Rocky Creek TNW.

Provide acreage estimates for jurisdictional wetlands in the review area: **0.31 acres (Wetland BI).**

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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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). **Wetland BK is a stormwater retention pond that is isolated from the nearest RPW and TNW and is not expected to have any significant effects on the physical, chemical or biological integrity of the Lower Rocky Creek or any other TNW. Wetland ditch BG and wetlands BJ and BL are therefore being classified as isolated.**

☐ 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 width (ft).
☐ Lakes/ponds: acres.

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[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.***

- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres

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: **Total of 1.30 acres (Stormwater retention pond BK, wetland ditch BG and wetlands BJ and BL)**

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: .
- ☒ 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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands BM - BP**

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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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.119595°** N, Long. **-82.463429°** W.
Universal Transverse Mercator:
Name of nearest waterbody: Chapman Lake or Sweetwater Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **None**
Name of watershed or Hydrologic Unit Code (HUC): **Chapman Lake Outlet/03100206**
☒ 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: **December 20, 2009.**
☒ Field Determination. Date(s): **October 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 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):** [1]
   ☐ TNWs, including territorial seas
   ☐ Wetlands adjacent to TNWs
   ☐ Relatively permanent waters[2] (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:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands:

   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]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **Wetlands BM, BN, BO and BP are not jurisdictional because they are hydrologically isolated from TNWs and**

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[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.

RPWs that flow directly or indirectly into TNWs. They are not expected to have any significant effects on the physical, chemical or biological integrity of any 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 waterbody[4] 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: 52 inches
Average annual snowfall: 0 inches

(ii) **Physical Characteristics:**
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through --- tributaries before entering TNW.

Project waters are Pick List river miles from TNW.
Project waters are Pick List river miles from RPW.
Project waters are aerial (straight) miles from TNW.
Project waters are aerial (straight) 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 waters cross or serve as state boundaries. Explain: N/A.

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:

Primary tributary substrate composition (check all that apply):
- ☐ Silts
- ☐ Sands
- ☐ Concrete
- ☐ Cobbles
- ☐ Gravel
- ☐ Muck
- ☐ Bedrock
- ☐ Vegetation. Type/% cover: Herbaceous/50%
- ☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:.
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry:
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:. Characteristics: .

Subsurface flow:. 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
  - ☐ the presence of litter and debris
  - ☐ changes in the character of soil
  - ☐ destruction of terrestrial vegetation
  - ☐ shelving
  - ☐ 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.[7] Explain: **May be less evident where ditched.**

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) Chemical Characteristics:

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[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.
[6] A 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.
[7] Ibid.

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. Characteristics 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:
Characteristics: Both confined (within ditch banks) and sheetflow (non-ditched areas).

Subsurface flow: 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:
Estimate approximate location of wetland as within the 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. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: Approximately ----is 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:

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: .

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:.

3. **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:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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:

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. **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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

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[8]See Footnote # 3.
[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.***

☐ 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: .

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.

F. 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). **Wetlands BM, BN, BO and BP are isolated from the nearest TNW and are not expected to have any significant effects on the physical, chemical or biological integrity of Lower Rocky Creek, Sweetwater Creek, the Hillsborough River or any other TNWs. Therefore they are being classified as isolated.**

☐ 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres

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: **Total of 4.51 acres (Wetlands BM, BN, BO and BP)**

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): .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands BM - BP**

☐ 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: .
☒ 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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands BQ - BT**

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.119750°** N, Long. **-82.448853°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Thirteen Mile Creek and tributaries, then Cypress Creek, then the Hillsborough River**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Thirteen Mile Creek/03100205**
☒ 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: **December 20, 2009.**
☒ Field Determination. Date(s): **October 6-7, 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (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 **(Wetland BS)**
      ☐ 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:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: **Wetland BS totaling 2.72 acres of Waters of the U.S.**

   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]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **Wetland BR is not jurisdictional because it is an artificial stormwater pond that is hydrologically isolated**

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[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.

from TNWs and RPWs that flow directly or indirectly into TNWs. Wetlands BQ and BT are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs. These wetlands are isolated and are not expected to have any significant effects on the physical, chemical or biological integrity of the Thirteen Mile Creek, Cypress Creek or the Hillsborough River TNW.

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 waterbody[4] 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: **1,686.7** acres
   Drainage area: **1,686.7** acres
   Average annual rainfall: 52 inches
   Average annual snowfall: 0 inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through 3 tributaries before entering TNW.

   Project waters are 5-10 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 waters are **5-10** 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 TNW[5]: **Based on a desktop review Wetland BS directly abuts an unnamed perennial tributary stream that flows into the Thirteen Mile Creek RPW which flows into Cypress Creek RPW and then through wetlands to the Hillsborough River, a TNW.**
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural **Some portions appear natural and others appear ditched.**
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on a review of aerial photography, portions of the stream appear to be ditched.**

Tributary 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).

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☒ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: Herbaceous/50%	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry: Relatively straight
Tributary gradient (approximate average slope): **2 %**

(c) Flow:
Tributary provides for: Pick List **perennial flows**
Estimate average number of flow events in review area/year: **perennial**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: Confined. Characteristics: .

Subsurface flow: Unknown. 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	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ 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.[7] Explain: **May be less evident where ditched.**

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;

[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.
[6] A 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.
[7] Ibid.

☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.
☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:
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: **May provide foraging areas for wood storks.**
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings: **Diverse due to larger overall forested wetland systems surrounding the RPW**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **2.72 acres (Wetland BS)**
Wetland type. Explain: **Emergent/forested- wetland scrub FLUCFCS code 631**
Wetland quality. Explain: **Fair to good based on their location within or connected to larger overall forested wetland stream system.**
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Perrenial flow**. 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 **(Wetland BS directly abuts a perennial stream).**
☐ Not directly abutting
☐ Discrete wetland hydrologic connection. Explain:
☐ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **5-10** river miles from TNW.
Project waters are **5-10** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent and forested wetland/95%.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
All wetland(s) being considered in the cumulative analysis: **1 wetland is being classified as adjacent to or abutting an RPW (Wetland BS). 1 stormwater retention pond (BR) and 2 wetlands are being classified as isolated (Wetlands BQ and BT).**
Approximately **1 wetlands totaling (2.72 acres)** is being considered in the cumulative analysis **(Wetland BS)**

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland BS (Y)	**2.72**		

Summarize overall biological, chemical and physical functions being performed: **Wetland BS provides hydrologic detention and attenuation while also filtering pollutants. This wetland is 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, this wetland provides some 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: .

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:.

3. **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:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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: **An unnamed perennial RPW flows into the Thirteen Mile Creek perennial RPW which flows into the Cypress Creek RPW and then through wetlands to the Hillsborough River TNW per the USGS National Hydrography Dataset (last updated May 2006).**
   ☐ 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:

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   ☒ Tributary waters: **approx. 110 linear feet by approx. 58 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: **Wetland BS directly abuts an unnamed perennial stream that flows into the Thirteen Mile Creek perennial RPW which flows into the Cypress Creek RPW and then through wetlands to the Hillsborough River TNW per the USGS National Hydrography Dataset (last updated May 2006).**

   ☐ 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: **2.72 acres (Wetland BS).**

5. **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.**

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[8]See Footnote # 3.

☐ 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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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). **Stormwater retention pond BR and Wetlands BQ and BT are isolated from the nearest RPW and TNW by extensive uplands and residential development and are not expected to have any significant effects on the physical, chemical or biological integrity of the Hillsborough River TNW. Therefore they are being classified as isolated.**

☐ 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres

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: **Total of 0.80 acres (Stormwater retention pond BR and Wetlands BQ and BT)**

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[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.***

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands BQ - BT**

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: .
- ☒ 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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands BU – BW, CA - CO**

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.114213°** N, Long. **-82.410250°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Cypress Creek and then the Hillsborough River**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Cypress Creek/03100205**
☒ 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: **December 21, 2009.**
☒ Field Determination. Date(s): **October 7-12, 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (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:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: **Total of 13.61 acres (Wetlands CA, CB, CCa, CD, CE, CF, CG, CH, CI, CK/CL, CM, CN and CO)**

   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]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands BU, BV, BW, and CJ are not jurisdictional because they are hydrologically isolated from TNWs and**

[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.

RPWs that flow directly or indirectly into TNWs. They are not expected to have any significant effects on the physical, chemical or biological integrity of any 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 waterbody[4] 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: **49,238.3** acres
   Drainage area: **49,238.3** acres
   Average annual rainfall: **52** inches
   Average annual snowfall: **0** inches

   (ii) **Physical Characteristics:**
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through **2** tributaries before entering TNW.

   Project waters are Pick List **5-10** river miles from TNW.
   Project waters are Pick List **1 or less** river miles from RPW.
   Project waters are **5-10** aerial (straight) miles from TNW.
   Project waters are **1 or less** aerial (straight) 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 waters cross or serve as state boundaries. Explain: **N/A.**

Identify flow route to TNW[5]:. **The RPW consist of a portion of the Cypress Creek perennial stream which flows through wetlands to the Hillsborough River TNW.**
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Cypress Creek is culverted to the south where it crosses under a narrow filled road along another transmission line easement.**

Tributary properties with respect to top of bank (estimate):
Average width: feet **2.5**
Average depth: feet **2.5**
Average side slopes: **Vertical (1:1 or less).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☒ Muck
☐ Bedrock	☐ Vegetation. Type/% cover: **Herbaceous/50%**	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:.
Presence of run/riffle/pool complexes. Explain: **N/A.**
Tributary geometry: **relatively straight**
Tributary gradient (approximate average slope): **2%**

(c) Flow:
Tributary provides for: **Pick List Perennial**
Estimate average number of flow events in review area/year: **perennial- continuous and 6-10**

Describe flow regime: .
Other information on duration and volume:.

Surface flow is:. Characteristics: **Confined** .

Subsurface flow:. Explain findings: **Unknown.**
☐ 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	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ 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.[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:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	

[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.
[6] A 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.
[7] Ibid.

☐ other (list):

(iii) Chemical Characteristics:
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: **May provide foraging habitat for wood storks.**
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings **Moderately diverse due to larger overall forested wetland systems nearby, adjacent and downstream.**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **Total of 13.61 acres (Wetlands CA, CB, CCa, CD, CE, CF, CG, CH, CI, CK/CL, CM, CN and CO)**

Wetland type. Explain: **Emergent and forested**
Wetland quality. Explain: **Fair to good based on their location within, adjacent to, or near larger overall forested wetland systems.**

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

(b) General Flow Relationship with Non-TNW:
Flow is: . Explain: **Perennial.**

Surface flow is: **Confined**
Characteristics: Both confined (within ditch banks) and sheetflow (non-ditched areas).

Subsurface flow: Explain findings: **Unknown.**
☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
☒ Directly abutting **(Wetlands CA, CB, CCa, CD, CE, CF and CN directly abut a perennial stream).**
☒ Not directly abutting
☒ Discrete wetland hydrologic connection. Explain: **(Wetlands CG, CH, CI, CK, CL, CM and CO appear to have a hydrologic connection through shallow groundwater flows to Cypress Creek RPW which flows through wetlands to the Hillsborough River TNW.)**
☒ Ecological connection. Explain: Wetlands **CG, CH, CI, CK, CL, CM and CO together with the surrounding wetlands of Cypress Creek may provide foraging habitat for listed wading birds.**
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **5-10** river miles from TNW.
Project waters are aerial **5-10** (straight) miles from TNW.
Flow is from: **Wetland to navigable waters.**
Estimate approximate location of wetland as within the floodplain. **100 - 500-year 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:. **Water was moderately clear**
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: **emergent and forested wetland/95%**
☐ Habitat for:

☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
All wetland(s) being considered in the cumulative analysis: Approximately 13 wetlands are being considered in the cumulative analysis **Total of 13.61 acres (Wetlands CA, CB, CCa, CD, CE, CF, CG, CH, CI, CK/CL, CM, CN and CO)**
For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
CA (Y)	**1.50**	**CH (N)**	**0.78**
CB (Y)	**0.20**	**CI (N)**	**1.03**
CCa (Y)	**0.98**	**CK/CL (N)**	**2.01**
CD (Y)	**2.05**	**CM (N)**	**1.97**
CE (Y)	**1.71**	**CN (Y)- RPW itself**	**0.03**
CF (Y)	**0.62**	**CO (N)**	**0.50**
CG (N)	**0.23**		

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 some 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: .

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:.

3. **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: **Wetlands CG, CH, CI, CK/CL, CM, CO are in close proximity to a perennial RPW that flows into Cypress Creek which flows through wetlands to the Hillsborough River TNW. Therefore these wetlands are expected to have a significant physical, chemical and biological effect on the Hillsborough River.**

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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: **Wetland CN (roadside ditch) is connected through culverts to wetlands to the south that connect to the Cypress Creek RPW. This ditch contains hydrophytic vegetation and hydric soils.**

Provide estimates for jurisdictional waters in the review area (check all that apply):

☒ Tributary waters: **95- Cypress Creek** linear feet **25-30- Cypress Creek** 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 CA, CB, CCa, CD, CE, CF directly abut a perennial Cypress Creek stream that flows through wetlands to the Hillsborough River per the USGS National Hydrography Dataset.**

☐ 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: **7.06 acres (Wetlands CA, CB, CCa, CD, CE, CF)**

5. 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. **Wetlands CG, CH, CI, CK/CL, CM, CO are in close proximity to a perennial RPW that flows into Cypress Creek which flows through wetlands to the Hillsborough River TNW. Therefore these wetlands are expected to have a significant physical, chemical and biological effect on the Hillsborough River.**

Provide acreage estimates for jurisdictional wetlands in the review area: **6.52 acres (CG, CH, CI, CK/CL, CM and CO)**

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[8]See Footnote # 3.

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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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). **Wetlands BU, BV, BW, and CJ are isolated from the nearest TNW and are not expected to have any significant effects on the physical, chemical or biological integrity of Lower Rocky Creek, Sweetwater Creek, the Hillsborough River or any other TNWs. Therefore they are being classified as isolated. BW is a stormwater retention pond. They are located over a half mile from the nearest RPW with no connection to it.**

☐ 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres

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[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.***

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands BU – BW, CA - CO**

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: **Total of 0.28 acres (Wetlands BU, BV, BW, and CJ)**

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: .
- ☒ 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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands BX and BZ**

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.119355°** N, Long. **-82.426702°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Cypress Creek, then the Hillsborough River**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Lake Hanna Outlet/03100205**
☒ 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: **December 21, 2009.**
☒ Field Determination. Date(s): **October 7, 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   ☐ TNWs, including territorial seas
   ☐ Wetlands adjacent to TNWs
   ☐ Relatively permanent waters[2] (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 **(Wetland BZ)**
   ☐ 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:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands: **Wetland BZ totaling 3.25 acres of Waters of the U.S.**

   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]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetland BX is not jurisdictional because it is an artificial stormwater pond that is hydrologically isolated**

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[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.

from TNWs and RPWs that flow directly or indirectly into TNWs. These wetland is isolated and is not expected to have any significant effects on the physical, chemical or biological integrity of the Cypress Creek RPW or the Hillsborough River TNW.

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 waterbody[4] 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: **8,274.1** acres
Drainage area: **8,274.1**acres
Average annual rainfall: 52 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through 3 tributaries before entering TNW.

Project waters are 5-10 river miles from TNW.
Project waters are 1 or less river miles from RPW.
Project waters are **5-10** aerial (straight) miles from TNW.

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

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 TNW[5]: **Based on a desktop review Wetland BZ directly abuts an unnamed intermittent tributary stream that flows into the Cypess Creek RPW which flows through wetlands to the Hillsborough River, a TNW.**
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural **Some portions appear natural and others appear ditched.**
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on a review of aerial photography, portions of the stream appear to be ditched.**

Tributary 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).

Primary tributary substrate composition (check all that apply):
☒ Silts ☒ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☒ Muck
☐ Bedrock ☒ Vegetation. Type/% cover: Herbaceous/50%
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2 %**

(c) Flow:
Tributary provides for: **Pick List intermittent flows**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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 ☒ the presence of litter and debris
☐ changes in the character of soil ☐ destruction of terrestrial vegetation
☐ shelving ☐ 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.[7] Explain: **May be less evident where ditched.**

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
☐ High Tide Line indicated by: ☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects ☐ survey to available datum;
☐ fine shell or debris deposits (foreshore) ☐ physical markings;
☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.

[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.
[6] A 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.
[7] Ibid.

☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:
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: **Diverse due to larger overall forested wetland systems surrounding the RPW**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **3.25 acres (Wetland BZ)**
Wetland type. Explain: **Emergent/forested- wetland scrub FLUCFCS code 631**
Wetland quality. Explain: **Fair to good based on its location within or connected to larger overall forested wetlands downstream.**
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **intermittent flow**. Explain: **Per USGS National Hydrographic Dataset- last updated May 2006**

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 **(Wetland BZ directly abuts an intermittent stream).**
☐ Not directly abutting
☐ Discrete wetland hydrologic connection. Explain:
☐ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **5-10** river miles from TNW.
Project waters are **5-10** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent and forested wetland/95%.**
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
All wetland(s) being considered in the cumulative analysis: **1 wetland is being classified as adjacent to or abutting an RPW (Wetland BZ). 1 stormwater retention pond (Wetland BX) is being classified as isolated.**
Approximately **1 wetlands totaling (3.25 acres)** is being considered in the cumulative analysis **(Wetland BZ)**

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland BZ (Y)	3.25		

Summarize overall biological, chemical and physical functions being performed: **Wetland BZ provides hydrologic detention and attenuation while also filtering pollutants. This wetland is 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, this wetland provides some 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: .

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:.

3. **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:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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: **An unnamed intermittent RPW flows into the Cypress Creek RPW and then through wetlands to the Hillsborough River TNW per the USGS National Hydrography Dataset (last updated May 2006).**

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   ☐ Tributary waters: (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: **Wetland BZ directly abuts an unnamed intermittent stream that flows into an unnamed intermittent RPW which flows into the Cypress Creek RPW and then through wetlands to the Hillsborough River TNW per the USGS National Hydrography Dataset (last updated May 2006).**

   Provide acreage estimates for jurisdictional wetlands in the review area: **3.25 acres (Wetland BZ).**

5. **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 jurisdictional. 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.

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[8]See Footnote # 3.

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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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). **Stormwater retention pond BX is isolated from the nearest RPW and TNW by extensive uplands and residential development and is not expected to have any significant effects on the physical, chemical or biological integrity of the Hillsborough River TNW. Therefore it is being classified as isolated.**

☐ 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres

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: **Total of 0.30 acres (Stormwater retention pond BX)**

SECTION IV: DATA SOURCES.

[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.***

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands BX and BZ**

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: .
- ☒ 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: .

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands CP and CQ

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.101757° N**, Long. **-82.386125° W**.
Universal Transverse Mercator:
Name of nearest waterbody: **Trout Creek and the Hillsborough River**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Trout Creek/03100205**
☒ 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: **December 21, 2009.**
☒ Field Determination. Date(s): **October 12, 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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (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 **(With a Significant Nexus: Wetland CP)**
      ☐ 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:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: **Wetland CP totaling 0.72 acres of Waters of the U.S.**

   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]

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[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.

Project: <u>Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines</u>
Assessment Area: <u>**Polk-Hillsborough-Pinellas Transmission Line Wetlands CP and CQ**</u>

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetland CQ is not jurisdictional because it is hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs. Wetland CQ is isolated and is not expected to have any significant effects on the physical, chemical or biological integrity of the Hillsborough River TNW.**

<u>SECTION III: CWA ANALYSIS</u>

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 waterbody[4] 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: **14,964.5** acres
Drainage area: **14,964.5** acres
Average annual rainfall: 52 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) <u>Relationship with TNW:</u>
☐ Tributary flows directly into TNW.
☒ Tributary flows through 1 tributary before entering TNW.

Project waters are **1-2** river miles from TNW.
Project waters are **1-2** 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 waters are **1-2** aerial (straight) miles from TNW.
Project waters are **1-2** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: N/A.

Identify flow route to TNW[5]: **Based on a desktop review, Wetland CP appears to be hydrologically connected to Trout Creek indirectly through culverts and adjacent wetlands. Trout Creek (a perennial RPW) and adjacent wetlands and a perrenial RPW SWFWMD ditch flow through wetlands to the Hillsborough River TNW. If nothing else Wetland CP is adjacent to an RPW which flows directly or indirectly to the Hillsborough River TNW.**

Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural **Some portions appear natural and others appear ditched.**
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: **Based on a review of aerial photography, portions of the stream/ditch appear to be ditched and culverted.**

Tributary 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)**.

Primary tributary substrate composition (check all that apply):
☒ Silts ☒ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☒ Muck
☐ Bedrock ☒ Vegetation. Type/% cover: Herbaceous/50%
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: N/A.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2 %**

(c) Flow:
Tributary provides for: **Pick List perennial flows**
Estimate average number of flow events in review area/year: **continuous - perennial**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. 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 ☒ the presence of litter and debris
☐ changes in the character of soil ☐ destruction of terrestrial vegetation
☐ shelving ☐ 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.[7] Explain: **May be less evident where ditched.**

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
☐ High Tide Line indicated by: ☐ Mean High Water Mark indicated by:

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[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.
[6] A 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.
[7] Ibid.

☐ oil or scum line along shore objects
☐ fine shell or debris deposits (foreshore)
☐ physical markings/characteristics
☐ tidal gauges
☐ other (list):

☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:
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: **May provide foraging areas for wood storks.**
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings: **Diverse due to larger overall forested wetland systems surrounding the Trout Creek RPW**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **0.72 acres (Wetland CP)**
Wetland type. Explain: **Emergent**
Wetland quality. Explain: **Fair to good based on their location within or connected to larger overall forested wetland system but poor due to high levels of exotic water primrose overgrowing the wetland.**
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Perrenial flow**. Explain: **Based on a desktop review, Wetland CP appears to be hydrologically connected to Trout Creek indirectly through culverts and adjacent wetlands. Trout Creek (a perennial RPW) and adjacent wetlands and a perrenial RPW SWFWMD ditch flow through wetlands to the Hillsborough River TNW. If nothing else Wetland CP is adjacent to an RPW which flows directly or indirectly to the Hillsborough River TNW.**

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
☒ Not directly abutting
☒ Discrete wetland hydrologic connection. Explain: .
☒ Ecological connection. Explain: .
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **1-2** river miles from TNW.
Project waters are **1-2** 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) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
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: **emergent wetland/95%.**
☐ Habitat for:
- ☐ Federally Listed species. Explain findings: .
- ☐ Fish/spawn areas. Explain findings: .
- ☐ Other environmentally-sensitive species. Explain findings: .
- ☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
All wetland(s) being considered in the cumulative analysis: **1 wetland is being classified as adjacent to an RPW with perennial flow(Wetland CP). 1** wetland is being classified as isolated (Wetlands CQ).
Approximately **1 wetland totaling (0.72 acres)** is being considered in the cumulative analysis **(CP)**

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland CP (N)	0.72		

Summarize overall biological, chemical and physical functions being performed: **This wetland provides hydrologic detention and attenuation while also filtering pollutants. This wetland is 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, this wetland provides some 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: .

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: **Based on a desktop review, Wetland CP appears to be hydrologically connected to Trout Creek indirectly through culverts and adjacent wetlands. Trout Creek (a perennial RPW) and adjacent wetlands and a perrenial RPW SWFWMD ditch flow through wetlands to the Hillsborough River TNW. If nothing else Wetland CP**

is adjacent to an RPW which flows directly or indirectly to the Hillsborough River TNW. Therefore Wetland CP is expected to have a significant physical, chemical and biological effect on the Hillsborough River, a TNW.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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: **Based on a desktop review, Trout Creek (a perennial RPW) and adjacent wetlands and a perrenial RPW SWFWMD ditch flow through wetlands to the Hillsborough River TNW per the USGS National Hydrography Dataset (last updated May 2006).**
   ☐ 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:

   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. **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. **Wetland BI is in close proximity to an unnamed perennial RPW that flows into indirectly into Lower Rocky Creek. Wetland BI may be connected to this unnamed RPW through shallow groundwater flows. Therefore Wetland BI is expected to have a significant physical, chemical and biological effect on Lower Rocky Creek TNW.**

   Provide acreage estimates for jurisdictional wetlands in the review area: **0.72 acres (Wetland CP).**

[8]See Footnote # 3.

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. **ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. **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). **Wetland CQ is isolated from the nearest RPW and TNW and is not expected to have any significant effects on the physical, chemical or biological integrity of the Hillsborough River or any other TNW. Wetland CQ is therefore being classified as isolated.**

- ☐ 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 width (ft).
- ☐ Lakes/ponds: acres.
- ☐ 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):

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[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.***

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands CP and CQ**

- ☐ 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: **0.11 acres (Wetland CQ)**

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: .
- ☒ 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: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands CR-DDa**

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.088765°** N, Long. **-82.350249°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Hillsborough River and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Hillsborough River/03100205**
☒ 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: **December 21, 2009.**
☒ Field Determination. Date(s): **October 12-14, 2009.**

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are** "*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 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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   ☒ TNWs, including territorial seas **(Wetland CT- the Hillsborough River)**
   ☒ Wetlands adjacent to TNWs **(CV, CW, CX, CY, CZ, DB, DC and DDa)**
   ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetlands CU, CS and DA)**
   ☐ 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:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands: **Total of 7.44 acres (Wetlands CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DDa)**

   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]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetland CR is a stormwater retention pond and is not jurisdictional because it is hydrologically isolated from**

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[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.

TNWs and RPWs that flow directly or indirectly into TNWs. Wetland CR is not expected to have any significant effects on the physical, chemical or biological integrity of any 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: **Hillsborough River including Wetland CT which is a portion of the Hillsborough River.**

Summarize rationale supporting determination: The Hillsborough River is a navigable waterway that is and has been used for interstate commerce and flows into Tampa Bay and then Waters of the Gulf of Mexico.

2. **Wetland adjacent to TNW**
Summarize rationale supporting conclusion that wetland is "adjacent": Wetlands **CV, CW, CX, CY, CZ, DB, DC and DDa are wetlands considered adjacent to the Hillsborough River TNW. Wetlands CV, CW, CX, CY and DB are directly connected to larger portions of their respective wetlands which directly abut the Hillsborough River. Wetlands CZ, DC and DDa are located adjacent to the Hillsborough River, but do not abut it. They are separated by a very short distances of uplands including one separated by a road and two separated by forested uplands. They may or may not have shallow groundwater flows to the TNW or its abutting wetlands, but they are in close enough proximity that they are expected to contribute to the physical, biological and chemical integrity of the Hillsborough River TNW. During a flood or storm event, they could easily carry nutrients or pollutants to the adjacent Hillsborough River TNW. They may also provide foraging areas for wading birds and wildlife in the area.**

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 waterbody[4] 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:**

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

(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through tributaries before entering TNW.

Project waters are Pick List river miles from TNW.
Project waters are Pick List 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:.

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: Cypress Creek is culverted to the south where it crosses under a narrow filled road along another transmission line easement.

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes:

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:
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:. Characteristics:

Subsurface flow:. 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	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ 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.[7] Explain: .

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[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.
[6] A 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.
[7] Ibid.

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) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain:
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. Characteristics 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:
Characteristics: Both confined (within ditch banks) and sheetflow (non-ditched areas).

Subsurface flow: 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: Wetlands .
  - ☐ 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: .
Estimate approximate location of wetland as within the 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: **emergent and forested wetland/95%**

☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

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

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: .

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:.

3. **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:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
☒ TNWs: **100 linear feet 140 width** (ft), Or, **0.41 acres.**
☒ Wetlands adjacent to TNWs: **6.79 acres. (Wetlands CV, CW, CX, CY, CZ, DB, DC and DDa)**

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: **Wetland ditch CS is a perennial ditch managed by the SWFWMD and is indicated as a perennial stream on the USGS National Hydrography Dataset- last updated May 2006. It flows directly into the Hillsborough River TNW.**

☒ 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: **Wetland RPW ditche CU flows directly into the Hillsborough River TNW as well, but appears to be intermittent in nature. Wetland RPW ditch DA connects two forested wetlands, the downstream of which directly abuts the Hillsborough River TNW. Wetland ditch DA appears to be an intermittent RPW. Both ditches are evident on aerial photographs and contained hydric vegetation and soils.**

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: **CS, CU, DA: 240, 150, 100** linear feet **CS, CU, DA: 20, 9, 6**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. **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.

[8]See Footnote # 3.

Project: <u>Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines</u>
Assessment Area: <u>Polk-Hillsborough-Pinellas Transmission Line Wetlands CR-DDa</u>

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. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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 <u>solely</u> on the "Migratory Bird Rule" (MBR). **Wetland CR is a stormwater retention pond isolated from the nearest TNW and is not expected to have any significant effects on the physical, chemical or biological integrity of the Hillsborough River TNW. Therefore it is being classified as isolated.**

☐ 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 <u>sole</u> 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 width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres

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: **Total of 0.32 acres (Stormwater retention pond CR)**

<u>SECTION IV: DATA SOURCES.</u>

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):

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[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.***

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands CR-DDa**

- ☒ 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: .
- ☒ 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: .

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Polk-Hillsborough-Pinellas Transmission Line Wetlands DE- DI and DK

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: **Hillsborough** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.264952°** N, Long. **-82.264952°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Flint Creek and tributaries**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Flint Creek and then the Hillsborough River**
Name of watershed or Hydrologic Unit Code (HUC): **Flint Creek/03100205**
☒ 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: **December 21, 2009.**
☒ Field Determination. Date(s): **October 15, 2009.**

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are** "*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: **Flint Creek and the Hillsborough River are navigable waterways and have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.**

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 U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☒ TNWs, including territorial seas **(Wetland DF- Flint Creek)**
      ☒ Wetlands adjacent to TNWs **(Wetland DE)**
      ☐ Relatively permanent waters[2] (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:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: **Total of 0.73 acres (Wetlands DE and DF)**

   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]

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[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.

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands DE- DI and DK**

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Stormwater retention pond DK and Wetlands DG, DH and DI are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs. They are not expected to have any significant effects on the physical, chemical or biological integrity of any 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: **Flint Creek TNW including Wetland DF which is a portion of the Flint Creek. The Flint Creek TNW flows into the Hillsborough River TNW.**

Summarize rationale supporting determination: **Flint Creek and the Hillsborough River are navigable waterways that are and/or have been used for interstate commerce. The Hillsborough River flows into Tampa Bay and then into the Gulf of Mexico.**

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": Wetland DE is adjacent to the Hillsborough River TNW and may have a shallow groundwater flow connection to it.

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 waterbody[4] 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.

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

☐ Tributary flows through tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.
Project waters are **Pick List** 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:.

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: Cypress Creek is culverted to the south where it crosses under a narrow filled road along another transmission line easement.

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: .

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:
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:. Characteristics:

Subsurface flow:. 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	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ 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.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

---

[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.
[6] A 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.
[7] Ibid.

☐ 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) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain:
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. Characteristics 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:
Characteristics: Both confined (within ditch banks) and sheetflow (non-ditched areas).

Subsurface flow: 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: Wetlands
  - ☐ 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: .
Estimate approximate location of wetland as within the 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. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: Approximately -- wetlands 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:

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: .

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:.

3. **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:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
☒ TNWs: **30 width (ft), by 100 feet length Or, 0.21 acres. (Wetland DF)**
☒ Wetlands adjacent to TNWs: **0.52 acres. (Wetland DE)**

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:

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. **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 jurisdictional. 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).

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

F. 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 <u>solely</u> on the "Migratory Bird Rule" (MBR). **Stormwater retention pond DK and wetlands DG, DH and DI are isolated from the nearest TNW and are not expected to have any significant effects on the physical, chemical or biological integrity of Flint Creek or the Hillsborough River TNWs. Therefore they are being classified as isolated.**

- ☐ 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 <u>sole</u> 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 width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres

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: **Total of 1.92 acres (Stormwater retention pond DK and Wetlands DG, DH and DI)**

<u>SECTION IV: DATA SOURCES.</u>

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.

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[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.*

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Polk-Hillsborough-Pinellas Transmission Line Wetlands DE- DI and DK**

☒ 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: .
☒ 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: .

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 51, 52, 93, 98, 118, S, DF

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
510 - Streams and Waterways		Existing Condition	0.78 acres (51=0.10, 52=0.15, 93=0.06, 98=0.07, 118=0.06, S=0.13, DF=0.21)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, pasture, and cleared transmission line ROW

Assessment area description

Streams and waterways vegetated with mixture of primarily native wetland species including maidencane (*Panicum hemitomon*), buttonbush (*Cephalanthus occidentalis*), sedges (*Cyperus* sp.), coastal plain willow (*Salix caroliniana*), live oak (*Quercus virginiana*), smartweed (*Polygonum punctatum*), pickerelweed (*Pontederia cordata*), wax myrtle (*Myrica cerifera*), cinnamon fern (*Osmunda cinnamomea*), sweetgum (*Liquidambar styraciflua*), red maple (*Acer rubrum*), and laurel oak (*Quercus laurifolia*). Occasional nuisance/exotic species including paragrass (*Urochloa mutica*), wild taro (*Colocasia esculenta*), and rattlebox (*Sesbania punicea*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water conveyance, flood attenuation, aquifer recharge	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, raccoon, fish, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

glossy ibis, white ibis, downy woodpecker, bluegill, mosquitofish, apple snails

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/09, 10/6/2009

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 51, 52, 93, 98, 118, S, DF
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact - Fill	M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/2009, 10/6/2009

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

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	7	0	Location and landscape support variable is somewhat reduced due to location within transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, slightly reduced due to disturbance from surrounding development; b) Invasive exotic species = 7, minimal coverage of wild taro and paragrass; c) Wildlife access to and from outside = 7, slightly decreased due to limitations imposed by surrounding cleared landscape; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, areas adjacent to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, somewhat reduced due to surrounding cleared transmission line ROW; f) Hydrologically connected areas downstream of assessment area = 8; g) Dependency of downstream areas on assessment area = 7, moderate benefit to adjacent areas.
.500(6)(b)Water Environment (n/a for uplands)	7	0	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 = 8, limited erosion noted; e) evidence of fire history = N/A; f) vegetation community zonation = 8, typical of assessment area; g) hydrologic stress on vegetation = 7, minimal; h) use by animal species with specific hydrological requirements = 7, foraging habitat; i) vegetative species tolerant of and associated with water quality degradation = 7, 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.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	7	0	The community structure variable is slightly reduced due to presence of exotic/nuisance species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 7, transmission line maintenance typically removes shrub/canopy stratum, non-desirable wetland species present; b) invasive exotics or other invasive plant species = 7, moderate coverage of paragrass, wild taro, rattlebox; c) regeneration and recruitment = 7, area within transmission line ROW is maintained; d) age & size distribution = 6, altered due to ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 7, typical of assessment area, somewhat reduced due to maintenance; g) land management practices = 7, due to alteration of community structure by routine maintenance; h) topographic features = 7, typical of system, altered due to ROW clearing; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.70	0

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

For impact assessment areas
FL = delta x acres = -0.70 x 0.02 - 0.01 (Wetland 93); -0.70 x 0.11 = 0.08 (Wetland DF); **total of 0.13 acres and total FL of 0.09**

Delta = [with-current]
-0.70

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 49/49A, CD, CT

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
510 - Streams	Hillsborough River (Wetland CT), unnamed streams/waterways	Existing Condition	2.51 acres (49/49A=0.05, CD=2.05, CT=0.41)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		Wetland CD and CT are OFWs

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, pasture, and cleared transmission line ROW

Assessment area description

Streams and waterways vegetated with mixture of primarily native wetland species including maidencane (*Panicum hemitomon*), fireflag (*Thalia geniculata*), sedges (*Cyperus* sp.), coastal plain willow (*Salix caroliniana*), smartweed (*Polygonum punctatum*), pickerelweed (*Pontederia cordata*), wax myrtle (*Myrica cerifera*), dogfennel (*Eupatorium capillifolium*), soft rush (*Juncus effusus*), royal fern (*Osmunda regalis*), sweetgum (*Liquidambar styraciflua*), red maple (*Acer rubrum*), bald cypress (*Taxodium distichum*), and laurel oak (*Quercus laurifolia*). Occasional nuisance/exotic species including water hyacinth (*Eichhornia crassipes*), primrose willow (*Ludwigia peruviana*), and rattlebox (*Sesbania punicea*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water conveyance, flood attenuation, aquifer recharge	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, raccoon, fish, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

anhinga, largemouth bass, bluegill, mosquitofish, pig frog, common yellowthroat, little blue heron, alligator

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, S. Rizzo, K. Bullock	9/30/09, 10/8&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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 49/49A, CD, CT
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact - Mitigation	J. Styer, S. Rizzo, K. Bullock	9/30/09, 10/8&13/2009

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

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	8	0	Location and landscape support variable is somewhat reduced due to location within transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 9, slightly reduced due to cleared transmission line ROW; b) Invasive exotic species = 8, minimal coverage of water hyacinth, primrose willow, and rattlebox; c) Wildlife access to and from outside = 8, slightly decreased due to limitations imposed by surrounding cleared landscape; d) functions that benefit fish & wildlife downstream-distance or barriers = 8, areas adjacent to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 8, slightly reduced due to surrounding cleared transmission line ROW; f) Hydrologically connected areas downstream of assessment area = 8; g) Dependency of downstream areas on assessment area = 8, signficant benefit to adjacent areas.
.500(6)(b)Water Environment (n/a for uplands)	8	0	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 = 8, limited erosion noted; e) evidence of fire history = N/A; f) vegetation community zonation = 8, typical of assessment area; g) hydrologic stress on vegetation = 9, minimal; h) use by animal species with specific hydrological requirements = 9, foraging habitat; i) vegetative species tolerant of and associated with water quality degradation = 7, 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.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	8	0	The community structure variable is slightly reduced due to presence of exotic/nuisance species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 7, transmission line maintenance typically removes shrub/canopy stratum, non-desirable wetland species present; b) invasive exotics or other invasive plant species = 8, minimal coverage of water hyacinth, water primrose, rattlebox; c) regeneration and recruitment = 7, area within transmission line ROW is maintained; d) age & size distribution = 7, altered due to ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 8, typical of assessment area, somewhat reduced due to maintenance; g) land management practices = 8, due to alteration of community structure by routine maintenance; h) topographic features = 8, typical of system, altered due to ROW clearing; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.80	0

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

For impact assessment areas
FL = delta x acres = -0.80 x 0.48 = 0.38 (Wetland CD); -0.80 x 0.02 = 0.02 (Wetland 49/49A); **total of 0.50 acres and total FL of 0.40**

Delta = [with-current]
-0.80

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 11, 27, 29, 32/33, 34, 44, 46, 47/47A, 50/50A, 53, 55, 59, 63, 64, 69, 75, 79, 80, 83, 84, 87, 99, 110A, 111, 115, 119, 121, 124, 125, 131, H, AC, AI, AN, AQ, AT1/AT2, AU, AY, BG, CN, CS, DJ, DM, DZ, EG

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
511		Existing Condition	3.17 acres (11=0.12, 27=0.02, 29=0.04, 32/33=0.07, 34=0.01, 44=0.02, 46=0.02, 47/47A=0.13, 50/50A=0.26, 53=0.02, 55=0.21, 59=0.15, 63=0.07, 64=0.02, 69=0.01, 75=0.06, 79=0.04, 80=0.07, 83=0.01, 84=0.01, 87=0.001, 99=0.02, 110A=0.03, 111=0.03, 115=0.09, 119=0.21, 121=0.02, 123=0.30, 124=0.08, 125=0.02, 131=0.04, H=0.05, AC=0.08, AI=0.02, AN=0.02, AQ=0.11, AT-1/AT-2=0.22, AU=0.02, AY=0.02, BG=0.01, CN=0.03, CS=0.07, DJ=0.04, DM=0.05, DZ=0.17, EG=0.06)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, pasture, and cleared transmission line ROW

Assessment area description

Ditches vegetated with primarily nuisance/exotic species such as cattail (*Typha latifolia*), water primrose (*Ludwigia peruviana*), torpedo grass (*Panicum repens*), Brazilian pepper (*Schinus terebinthifolius*), camphor tree (*Cinnamomea camphora*), hydrilla (*Hydrilla verticillata*), bahiagrass (*Paspalum notatum*), wild taro (*Colocasia esculenta*), Chinese tallow (*Sapium sebiferum*), paragrass (*Urochloa mutica*), alligatorweed (*Alternanthera philoxeroides*), water lettuce (*Eichhornia crassipes*), and rattlebox (*Sesbania* sp.). Additional native wetland and upland species occur within the ditches, including maidencane (*Panicum hemitomon*), sedges (*Cyperus* spp.), buttonweed (*Diodia virginiana*), pickerelweed (*Pontederia cordata*), smartweed (*Polygonum punctatus*), silverling (*Baccharis glomeruliflora*), bushy broomsedge (*Andropogon glomeratus*), smutgrass (*Sporobolus indicus*), tickseed sunflower (*Bidens alba*), coastal plain willow (*Salix caroliniana*), water hyssop (*Bacopa monnieri*), red maple (*Acer rubrum*), swamp fern (*Blechnum serrulatum*), marsh pennywort (*Hydrocotyle umbellata*), caesarweed (*Urena lobata*), cinnamon fern (*Osmunda cinnamomea*), laurel oak (*Quercus laurifolia*), capeweed (*Phyla nodiflora*), wax myrtle (*Myrica cerifera*), Virginia chain fern (*Woodwardia virginiana*), soft rush (*Juncus effusus*), dayflower (*Commelina difusa*), beakrushes (*Rhynchospora* spp.), dogfennel (*Eupatorium capillifolium*), creeping ludwigia (*Ludwigia repens*), meadow beauty (*Rhexia* sp.), yellow-eyed grass (*Xyris* sp.), leafflower (*Phyllanthus* sp.), goatweed (*Scoparia dulcis*), rushes (*Juncus* spp.), and duckweed (*Lemna minor*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, houses, pasture	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water conveyance, flood attenuation, aquifer recharge	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, raccoon, fish, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

green tree frog, leopard frog, great egret, garter snake, mosquitofish, sandhill crane, kestrel, snowy egret, armadillo, red-shouldered hawk, marsh hawk, largemouth bass, black racer

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/2009 through 10/22/2009

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line	-	Wetlands 11, 27, 29, 32/33, 34, 44, 46, 47/47A, 50/50A, 53, 55, 59, 63, 64, 69, 75, 79, 80, 83, 84, 87, 99, 110A, 111, 115, 119, 121, 124, 125, 131, H, AC, AI, AN, AQ, AT1/AT2, AU, AY, BG, CN, CS, DJ, DM, DZ, EG
Impact or Mitigation: Impact - Fill	Assessment conducted by: M. Arrants, J. Styer, S. Rizzo, K. Bullock	Assessment date: 9/25/09 through 10/22/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	4	0	Location and landscape support variable is reduced due to location of excavated ditches within surrounding cleared transmission line ROW, urban and/or agricultural development. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 4, reduced due to disturbance from maintenance mowing/herbicide, surrounding development; b) Invasive exotic species = 4, significant coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding developed areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 4, little benefit, artificial drainageways; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding development and clearing of native habitat; f) Hydrologically connected areas downstream of assessment area = 4, artificial drainage features, some of which connect to adjacent areas; g) Dependency of downstream areas on assessment area = 2, minimal benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	4	0	The water environment score is reduced due to artifical hydroperiod resulting from excavation of drainage ditches within surrounding disturbed landscape. Individual parameter scores: a) water levels and flows = 3, artificial nature of excavated ditches; b) water level indicators = 4, altered hydroperiod due to to excavated ditches; c) soil moisture = 6, consistent with expected; d) soil erosion or deposition = 4, erosion from livestock, roadways, adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 3, artificial system, significant upland species encroachment; g) hydrologic stress on vegetation = 6, upland and transitional species prevalent; h) use by animal species with specific hydrological requirements = 5, due to surrounding altered landscape/altered hydrology; i) vegetative species tolerant of and associated with water quality degradation = 3, indication of high nutrients, cattails and exotic species; j) direct observation of water quality = 3, high 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.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	4	0	The community structure variable is reduced due to significant coverage of exotic/nuisance species and excavated, artificial nature of drainage ditches. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 4, maintenance typically removes shrub/canopy stratum, non-desirable wetland species prevalent; b) invasive exotics or other invasive plant species = 6, significant coverage of exotic/nuisance species; c) regeneration and recruitment = 4, artificial system, recruitment impacted by surrounding development and diminished hydroperiod; d) age & size distribution = 4, typical of artificial drainage ditch, impacted due to maintanence; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, reduced due to maintenance and herbicide; g) land management practices = 5, due to alteration of community structure by routine maintenance; h) topographic features = 4, artificial excavated system; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.40	0

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

For impact assessment areas
FL = delta x acres = **-0.40 x 0.8 = 0.32** (See impact table for individual wetland impact acreage)

Delta = [with-current]
-0.40

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 5, 7-9, 25A/B, 37, 62, 65, 71, 72, 74A/B, 78, 86, 97, 112B, 128, A, Y, BB, CY, DA

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
511		Existing Condition	1.38 acres (5=0.03, 7=0.17, 8=0.03, 9=0.01, 25=0.03, 37= 0.01, 62=0.04, 65=0.03, 71=0.09, 72=0.04, 74A/B=0.02, 78=0.05, 86=0.05, 97=0.04, 112B=0.08, 128=0.16, A=0.1, Y=0.21, BB=0.03, CY=0.05, DA=0.11)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, pasture, and cleared transmission line ROW

Assessment area description

Ditches with nuisance/exotic species common, primarily torpedo grass (*Panicum repens*), water primrose (Ludwigia peruviana), paragrass (*Urochloa mutica*), and alligatorweed (*Alternanthera philoxeroides*). Additional native wetland and upland species occur within the ditches, including maidencane (*Panicum hemitomon*), fireflag (*Thalia geniculata*), sedges (*Cyperus* spp.), buttonweed (*Diodia virginiana*), grassy arrowhead (*Sagittaria graminea*), pickerelweed (*Pontederia cordata*), smartweed (*Polygonum punctatus*), cabbage palm (*Sabal palmetto*), maidenhair sedge (*Eleocharis* sp.), buttonbush (*Cephalanthus occidentalis*), silverling (*Baccharis glomeruliflora*), bushy broomsedge (*Andropogon glomeratus*), tickseed sunflower (*Bidens alba*), coastal plain willow (*Salix caroliniana*), water hyssop (*Bacopa monnieri*), red maple (*Acer rubrum*), swamp fern (*Blechnum serrulatum*), marsh pennywort (*Hydrocotyle umbellata*), caesarweed (*Urena lobata*), cinnamon fern (*Osmunda cinnamomea*), laurel oak (*Quercus laurifolia*), capeweed (*Phyla nodiflora*), wax myrtle (*Myrica cerifera*), laurel oak (*Quercus laurifolia*), Virginia chain fern (*Woodwardia virginiana*), soft rush (*Juncus effusus*), beakrushes (*Rhynchospora* spp.), dogfennel (*Eupatorium capillifolium*), creeping ludwigia (*Ludwigia repens*), meadow beauty (*Rhexia* sp.), yellow-eyed grass (*Xyris* sp.), leafflower (*Phyllanthus* sp.), and goatweed (*Scoparia dulcis*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water conveyance, flood attenuation, aquifer recharge	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, raccoon, fish, armadillo, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

leopard frog, mosquitofish, sandhill crane, snowy egret, red shouldered hawk, feral hog

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/2009 through 10/22/2009

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 5, 7-9, 25A/B, 37, 62, 65, 71, 72, 74A/B, 78, 86, 97, 112B, 128, A, Y, BB, CY, DA
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/2009 through 10/22/2009

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

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	6	0	Location and landscape support variable is reduced due to location of excavated ditches within surrounding cleared transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, somewhat reduced due to location within cleared transmission line ROW; b) Invasive exotic species = 6, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding developed areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, moderate benefit, artificial drainageways; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding development and clearing of native habitat; f) Hydrologically connected areas downstream of assessment area = 6, artificial drainage features connect to adjacent areas; g) Dependency of downstream areas on assessment area = 5, moderate benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	4	0	The water environment score is reduced due to artifical hydroperiod resulting from excavation of drainage ditches within surrounding disturbed landscape. Individual parameter scores: a) water levels and flows = 3, artificial nature of excavated ditches; b) water level indicators = 4, altered hydroperiod due to to excavated ditches; c) soil moisture = 6, consistent with expected; d) soil erosion or deposition = 4, erosion from livestock, roadways, adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 3, artificial system, significant upland species encroachment; g) hydrologic stress on vegetation = 6, upland and transitional species prevalent; h) use by animal species with specific hydrological requirements = 5, due to surrounding altered landscape/altered hydrology; i) vegetative species tolerant of and associated with water quality degradation = 3, indication of high nutrients, cattails and exotic species; j) direct observation of water quality = 3, high 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.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	5	0	The community structure variable is reduced due to moderate coverage of exotic/nuisance species and excavated, artificial nature of drainage ditches. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 5, maintenance typically removes shrub/canopy stratum, non-desirable wetland species prevalent; b) invasive exotics or other invasive plant species = 6, moderate coverage of exotic/nuisance species; c) regeneration and recruitment = 4, artificial system, recruitment impacted by surrounding development and diminished hydroperiod; d) age & size distribution = 5, typical of artificial drainage ditch, some impact due to maintanence; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, reduced due to maintenance and herbicide; g) land management practices = 5, due to alteration of community structure by routine maintenance; h) topographic features = 5, excavated system; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.50	0

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

For impact assessment areas
FL = delta x acres = **-0.50 x 0.16 = 0.08** (See impact table for individual wetland impact acreage)

Delta = [with-current]
-0.50

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetland CU

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
511		Existing Condition	0.06 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		Adjacent to OFW (tributary of Hillsborough River)

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, pasture, and cleared transmission line ROW

Assessment area description

Ditch vegetated with native wetland species including sweetgum (*Liquidambar styraciflua*), bald cypress (*Taxodium distichum*), coastal plain willow (*Salix caroliniana*), dogfennel (*Eupatorium capillifolium*), and netted chain fern (*Woodwardia aereolata*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water conveyance, flood attenuation, aquifer recharge	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, raccoon, white tailed deer, armadillo, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

none observed

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, K. Bullock	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 Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line	Application Number	Assessment Area Name or Number Wetland CU
Impact or Mitigation Existing Condition	Assessment conducted by: J. Styer, K. Bullock	Assessment date: 10/13/2009

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

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	7	0	Location and landscape support variable is slightly reduced due to location of ditches within surrounding cleared transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, reduced due to cleared ROW; b) Invasive exotic species = 7, moderate coverage; c) Wildlife access to and from outside = 7, slightly decreased due to surrounding cleared areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 7; e) Impacts to wildlife listed in Part 1 by outside land uses = 8, minimal impact due to clearing of ROW; f) Hydrologically connected areas downstream of assessment area = 7, connects to adjacent wetlands; g) Dependency of downstream areas on assessment area = 6, moderate benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	6	0	The water environment score is reduced due to artifical hydroperiod resulting from excavation of drainage ditches within surrounding disturbed landscape. Individual parameter scores: a) water levels and flows = 5, artificial nature of excavated ditches; b) water level indicators = 5, altered hydroperiod due to to excavated ditches; c) soil moisture = 7, consistent with expected; d) soil erosion or deposition = 8, minimal erosion; e) evidence of fire history = N/A; f) vegetation community zonation = 7, typical of assessment area; g) hydrologic stress on vegetation = 7, upland and transitional species prevalent; h) use by animal species with specific hydrological requirements = 5, due to surrounding altered landscape/altered hydrology; i) vegetative species tolerant of and associated with water quality degradation = 7 exotic species present; j) direct observation of water quality = 6, moderate nutrient enrichment likely due to presence of nuisance/exotic vegetation, transmission line ROW maintenance; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	6	0	The community structure variable is reduced due to moderate coverage of exotic/nuisance species and excavated, artificial nature of drainage ditches. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 4, maintenance typically removes shrub/canopy stratum, non-desirable wetland species prevalent; b) invasive exotics or other invasive plant species = 7, moderate coverage of exotic/nuisance species; c) regeneration and recruitment = 4, artificial system, recruitment impacted by ROW maintenance; d) age & size distribution = 6, typical of artificial drainage ditch, impacted due to maintanence; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 7, reduced due to maintenance and herbicide; g) land management practices = 6, minimal surrounding development, reduced due to routine maintenance; h) topographic features = 6, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.63	0

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

For impact assessment areas
FL = delta x acres = -0.63 x 0 = 0

Delta = [with-current]
-0.63

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands BM, HH, II

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
520	Lake Estes, Lake Hixon, and unnamed lake adjacent to Fairy Lake	Existing Condition	4.66 acres (BM=2.21, HH=1.66, II=0.79)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Lake Estes (Wetland BM), Hixon Lake (Wetland HH), and unnamed lake adjacent to Fairy Lake (Wetland II) - connect to adjacent forested wetlands

Assessment area description

Urban lakes surrounded by roadways and houses. Vegetative community along fringe of lake and littoral zone includes mixture of native and nuisance/exotic species, such as cattail (*Typha latifolia*), wild taro (*Colocasia esculenta*), torpedo grass (*Panicum repens*), primrose willow (*Ludiwigia peruviana*), cypress (*Taxodium ascendens*), live oak (*Quercus virginiana*), wax myrtle (Myrica cerifera), buttonbush (*Cephalanthus occidentalis*), elderberry (*Sambucus canadensis*), and Brazilian pepper (*Schinus terebinthifolius*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, houses	Not unique

Functions	Mitigation for previous permit/other historic use
Water storage, wildlife habitat, recreation	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, raccoon, osprey, red-shouldered hawk, sunfish, mosquitofish, various amphibians and herpetofauna	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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Mosquitofish, apple snails

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, K. Bullock	10/6/2009

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 Nuclear Plant - Transmission Lines/PHP Transmission Line	Application Number	Assessment Area Name or Number Wetlands BM, HH, II
Impact or Mitigation Existing Condition	Assessment conducted by: J. Styer, K. Bullock	Assessment date: 10/6/2009

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	6	0	Location and landscape support variable is somewhat reduced due to location of excavated stormwater ponds within transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, slightly reduced due to disturbance from surrounding development; b) Invasive exotic species = 8, minimal coverage of torpedo grass and primrose willow; c) Wildlife access to and from outside = 7, slightly decreased due to limitations imposed by surrounding cleared landscape and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, areas adjacent to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, somewhat reduced due to surrounding cleared transmission line ROW; f) Hydrologically connected areas downstream of assessment area = 6, typically limited hydrologic connection; g) Dependency of downstream areas on assessment area = 6, moderate benefit to adjacent areas.
.500(6)(b)Water Environment (n/a for uplands)	8	0	The water environment score is reduced due to artifical hydroperiod resulting from excavation of stormwater ponds/reservoirs within surrounding cleared transmission line ROW. Individual parameter scores: a) water levels and flows = 6, artificial nature of excavated ponds, typically no outflow; b) water level indicators = 6, upland excavated ponds; c) soil moisture = 8, consistent with expected; d) soil erosion or deposition = 8, limited erosion noted; e) evidence of fire history = N/A; f) vegetation community zonation = 5, artificial system, reduced littoral zone; g) hydrologic stress on vegetation = 7, minimal; h) use by animal species with specific hydrological requirements = 7, foraging noted, although lack of hydrologic connection reduces utilization; i) vegetative species tolerant of and associated with water quality degradation = 7, some indication of high nutrients, cattails and exotic species; j) direct observation of water quality = 7, 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.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	7	0	The community structure variable is reduced due to presence of exotic/nuisance species and excavated, artificial nature of stormwater ponds/reservoirs. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 7, maintenance typically removes shrub/canopy stratum, non-desirable wetland species prevalent; b) invasive exotics or other invasive plant species = 7, moderate coverage of torpedo grass, cattail, primrose willow; c) regeneration and recruitment = 7, artificial system, recruitment impacted by surrounding development and diminished hydroperiod; d) age & size distribution = 6, typical of artificial stormwater pond system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 7, typical of assessment area, somewhat reduced due to maintenance; g) land management practices = 6, due to alteration of community structure by routine maintenance; h) topographic features = 6, typical of excavated system; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.70	0

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

For impact assessment areas
FL = delta x acres = -0.70 x 0 = 0

Delta = [with-current]
-0.70

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 66-68, 73, 82, 90, 101-104, 113, 119, G, L, M, P, R, T, MM, PP, RR, SS, TT, YY, ZZ, AE-AH, AO, AP, AV, AW, BE, BW, BX, DL, DP, DT-DV, DX, EB, EC, EF

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
534	Stormwater Ponds, Reservoirs	Existing Condition	11.22 acres (66=0.09, 67=0.12, 68=0.43, 73=0.35, 82=0.08, 90=0.16, 101=0.12, 102=0.11, 103=0.15, 104=0.18, 113=0.24, 119=0.02, G=0.25, L=0.03, M=0.71, P=0.20, R=0.90, T=0.75, MM=0.30, PP=0.25, RR=0.76, SS=0.24, TT=0.27, YY=0.26, ZZ=0.74, AE=0.07, AF=0.05, AG=0.01, AH=0.74, AO=0.19, AP=0.03, AV=0.24, AW=0.27, BE=0.25, BW=0.05, BX=0.30, DL=0.17, DP=0.21, DT=0.21, DU=0.04, DV=0.12, DX=0.03, EB=0.10, EC=0.32, EF=0.11)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Stormwater ponds/man-made reservoirs, typically Isolated, occasionally connected through ditches to other wetlands/surface waters. Surrounded by roadways, pasture, residential areas.

Assessment area description

Stormwater ponds/reservoirs surrounded by roadways, houses, golf courses, and/or pasture, typically mowed/maintained/herbicided. Vegetative community dominated by nuisance/exotic species such as cattail (*Typha latifolia*), torpedo grass (*Panicum repens*), primrose willow (*Ludiwigia peruviana*), alligator weed (*Alternanthera philoxeroides*), as well as native species such as arrowhead (*Sagittaria lancifolia*), pickerelweed (*Pontederia cordata*), wax myrtle (*Myrica cerifera*), coastal plain willow (*Salix caroliniana*), sedges (*Cyperus* spp.), rushes (*Juncus* spp.), water hyssop (*Bacopa monnieri*), maidencane (*Panicum hemitomon*), smartweed (*Polygonum* sp.), and bushy broomsedge (*Andropogon glomeratus*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, houses, golf courses, pasture	Not unique

Functions	Mitigation for previous permit/other historic use
Water storage, wildlife habitat	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, raccoon, various amphibians and herpetofauna	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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

red shouldered hawk, red tailed hawk, great blue heron, great egret, anhinga, white ibis, mallard, leopard frog, sunfish, little blue heron, livestock (horses, goats), snowy egret, alligator, softshell turtle, cattle egret, eastern phoebe, mosquitofish

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/09 through 10/22/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 534 - Wetlands 66-68, 73, 82, 90, 101-104, 113, 119, G, L, M, P, R, T, MM, PP, RR, SS, TT, YY, ZZ, AE-AH, AO, AP, AV, AW, BE, BW, BX, DL, DP, DT-DV, DX, EB, EC, EF
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/09 through 10/22/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Comments
.500(6)(a) Location and Landscape Support	4	0	Location and landscape support variable is reduced due to location of excavated stormwater ponds within surrounding urban and/or agricultural development. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 4, reduced due to disturbance from maintenance mowing/herbicide, surrounding development; b) Invasive exotic species = 4, significant coverage of torpedo grass and cattail; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding developed areas and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 1, areas typically isolated from other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding development and clearing of native habitat; f) Hydrologically connected areas downstream of assessment area = 1, typically no hydrologic connection; g) Dependency of downstream areas on assessment area = 1, minimal benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	4	0	The water environment score is reduced due to artifical hydroperiod resulting from excavation of stormwater ponds/reservoirs within surrounding disturbed landscape. Individual parameter scores: a) water levels and flows = 3, artificial nature of excavated ponds, typically no outflow; b) water level indicators = 4, upland excavated ponds; c) soil moisture = 6, consistent with expected; d) soil erosion or deposition = 4, erosion from livestock, adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 3, artificial system, limited littoral zone; g) hydrologic stress on vegetation = 6, deep water zones preclude emergent vegetation; h) use by animal species with specific hydrological requirements = 5, due to lack of hydrologic connection; i) vegetative species tolerant of and associated with water quality degradation = 3, indication of high nutrients, cattails and exotic species; j) direct observation of water quality = 3, high 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.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	5	0	The community structure variable is reduced due to significant coverage of exotic/nuisance species and excavated, artificial nature of stormwater ponds/reservoirs. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 4, maintenance typically removes shrub/canopy stratum, non-desirable wetland species prevalent; b) invasive exotics or other invasive plant species = 6, significant coverage of torpedo grass, cattail, primrose willow; c) regeneration and recruitment = 4, artificial system, recruitment impacted by surrounding development and diminished hydroperiod; d) age & size distribution = 4, typical of artificial stormwater pond system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, reduced due to maintenance and herbicide; g) land management practices = 5, due to alteration of community structure by routine maintenance; h) topographic features = 4, artificial excavated system; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.43	0

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

For impact assessment areas
FL = delta x acres = **-0.43 x 0.74 = 0.32** (See impact table for individual wetland impact acreage)

Delta = [with-current]
-0.43

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 86, I, AD, AJ, AK, BK, BR, CR, DH, DK, DS

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
534	Stormwater Ponds, Reservoirs	Existing Condition	4.23 acres (86=0.08, I=0.05, AD=0.19, AJ=0.52, AK=1.33, BK=0.15, BR=0.67, CR=0.32, DH=0.11, DK=0.65, DS=0.16)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Stormwater ponds/man-made reservoirs, typically Isolated, occasionally connected through ditches to other wetlands/surface waters. Surrounded by roadways, pasture, residential areas.

Assessment area description

Stormwater ponds/reservoirs surrounded by roadways, houses, and/or pastures, typically mowed/maintained/herbicided. Vegetative community comprised of mixture of nuisance/exotic and native species such as cattail (*Typha latifolia*), water lettuce (*Pistia stratioides*), torpedo grass (*Panicum repens*), primrose willow (*Ludiwigia peruviana*), melaleuca (*Melaleuca quinquefolia*), Brazilian pepper (*Schinus terebinthifolius*), dogfennel (*Eupatorium capillifolium*), spatterdock (*Nuphar luteum*), water lotus (*Nelumbo lutea*), fragrant water lily (*Nyphaea odorata*), cinnamon fern (*Osmunda cinnamomea*), buttonweed (*Diodia virginiana*), alligator weed (*Alternanthera philoxeroides*), Virginia chain fern (*Woodwardia virginica*), arrowhead (*Sagittaria lancifolia*), soft rush (*Juncus effusus*), tickseed sunflower (Bidens alba), swamp fern (*Blechnum serrulatum*), dwarf umbrellagrass (*Fuirena scirpoidea*), silverling (Baccharis glomeruliflora), wax myrtle (*Myrica cerifera*), sedges (*Cyperus* spp.), dahoon holly (*Ilex cassine*), water hyssop (*Bacopa monnieri*), maidencane (*Panicum hemitomon*), smartweed (*Polygonum* sp.), and broomsedge bluestem (*Andropogon virginicus*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, houses	Not unique

Functions	Mitigation for previous permit/other historic use
Water storage, wildlife habitat	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, raccoon, various amphibians and herpetofauna	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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

mosquitofish, sandhill crane, largemouth bass, sunfish, tricolored heron, snowy egret, little blue heron, box turtle

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/09 through 10/22/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 534 - Wetlands 86, I, T, AD, AJ, AK, BK, BR, CR, DK, DH, DS
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact - Fill	M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/09 through 10/22/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	6	0	Location and landscape support variable is reduced due to location of excavated stormwater ponds within surrounding urban and/or agricultural development. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, somewhat reduced due to disturbance from surrounding development; b) Invasive exotic species = 7, some coverage of torpedo grass and cattail, Brazilian pepper and melaleuca; c) Wildlife access to and from outside = 6, somewhat decreased due to limitations imposed by surrounding developed areas and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 3, areas typically isolated from other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, somewhat reduced due to surrounding development and clearing of native habitat; f) Hydrologically connected areas downstream of assessment area = 3, typically no hydrologic connection; g) Dependency of downstream areas on assessment area = 3, minimal benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	5	0	The water environment score is reduced due to artifical hydroperiod resulting from excavation of stormwater ponds/reservoirs within surrounding cleared, impacted areas. Individual parameter scores: a) water levels and flows = 4, artificial nature of excavated ponds, typically no outflow; b) water level indicators = 4, upland excavated ponds; c) soil moisture = 7, consistent with expected; d) soil erosion or deposition = 7, limited erosion noted; e) evidence of fire history = N/A; f) vegetation community zonation = 5, artificial system, reduced littoral zone; g) hydrologic stress on vegetation = 6, areas of deeper water reduce extent of expected emergent vegetation; h) use by animal species with specific hydrological requirements = 7, foraging noted, although lack of hydrologic connection reduces utilization; i) vegetative species tolerant of and associated with water quality degradation = 5, some indication of high nutrients, cattails and exotic species; j) direct observation of water quality = 5, 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.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	5	0	The community structure variable is reduced due to presence of exotic/nuisance species and excavated, artificial nature of stormwater ponds/reservoirs. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 5, maintenance typically removes shrub/canopy stratum, non-desirable wetland species prevalent; b) invasive exotics or other invasive plant species = 7, moderate coverage of torpedo grass, cattail, primrose willow; c) regeneration and recruitment = 4, artificial system, recruitment impacted by surrounding development and diminished hydroperiod; d) age & size distribution = 4, typical of artificial stormwater pond system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, reduced due to maintenance and herbicide; g) land management practices = 5, due to alteration of community structure by routine maintenance; h) topographic features = 4, artificial excavated system; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.53	0

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

For impact assessment areas
FL = delta x acres = -0.53 x 0.08 = 0.04 (Wetland DK); -0.53 x 0.07 = 0.04 (Wetland CR); **total of 0.15 acres and total FL of 0.08**

Delta = [with-current]
-0.53

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 24, BF, BO, CX, UU/VV

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
534/533	Stormwater Ponds, Reservoirs <10 acres (534), <100 acres (533)	Existing Condition	2.79 acres (24=1.33, BF=0.15, BO=0.41, CX=0.48, UU/VV=0.42)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Stormwater ponds/man-made reservoirs, typically Isolated, occasionally connected through ditches to other wetlands/surface waters. Surrounded by roadways, pasture, residential areas.

Assessment area description

Stormwater ponds/reservoirs surrounded by roadways, houses, and/or pastures. Vegetative community comprised of mixture of primarily native species, such as maidencane (*Panicum hemitomon*), foxtail grass (*Setaria* sp.), climbing hempvine (*Mikania scandens*), dogfennel (*Eupatorium capillifolium*), lizard's tail (*Saururus cernuus*), meadow beauty (*Rhexia* sp.), soft rush (*Juncus effusus*), meadow beauty (Rhexia sp.), coinwort (*Hydrocotyle umbellata*), yellow-eyed grass (Xyris sp.), goldenrod (*Solidago* sp.), broomsedge bluestem (Andropogon virginicus), bighead rush (*Juncus megacephalus*), dwarf umbrellagrass (*Fuirena scirpoidea*), sedges (*Cyperus* sp.), and coastal plain willow (*Salix caroliniana*), as well as nuisance/exotic and native species such as torpedo grass (*Panicum repens*), primrose willow (*Ludiwigia peruviana*), alligatorweed (*Alternanthera philoxeroides*), and rattlebox (*Sesbania punicea*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, houses	Not unique

Functions	Mitigation for previous permit/other historic use
Water storage, wildlife habitat	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, raccoon, various amphibians and herpetofauna	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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

cattle egret, snowy egret, white ibis located to west of transmission line ROW near Wetland 24; leopard frog, mallard,

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/09 through 10/22/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 534/533 - Wetlands 24, BF, BO, CX, UU/VV
Impact or Mitigation	Assessment conducted by:	Assessment date:
Existing Condition	M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/09 through 10/22/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	7	0	Location and landscape support variable is somewhat reduced due to location of excavated stormwater ponds within transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, slightly reduced due to disturbance from surrounding development; b) Invasive exotic species = 8, minimal coverage of torpedo grass and primrose willow; c) Wildlife access to and from outside = 7, slightly decreased due to limitations imposed by surrounding cleared landscape and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, areas adjacent to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, somewhat reduced due to surrounding cleared transmission line ROW; f) Hydrologically connected areas downstream of assessment area = 6, typically limited hydrologic connection; g) Dependency of downstream areas on assessment area = 6, moderate benefit to adjacent areas.
.500(6)(b)Water Environment (n/a for uplands)	7	0	The water environment score is reduced due to artifical hydroperiod resulting from excavation of stormwater ponds/reservoirs within surrounding cleared transmission line ROW. Individual parameter scores: a) water levels and flows = 6, artificial nature of excavated ponds, typically no outflow; b) water level indicators = 6, upland excavated ponds; c) soil moisture = 8, consistent with expected; d) soil erosion or deposition = 8, limited erosion noted; e) evidence of fire history = N/A; f) vegetation community zonation = 5, artificial system, reduced littoral zone; g) hydrologic stress on vegetation = 7, minimal; h) use by animal species with specific hydrological requirements = 7, foraging noted, although lack of hydrologic connection reduces utilization; i) vegetative species tolerant of and associated with water quality degradation = 7, some indication of high nutrients, cattails and exotic species; j) direct observation of water quality = 7, 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.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	7	0	The community structure variable is reduced due to presence of exotic/nuisance species and excavated, artificial nature of stormwater ponds/reservoirs. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 7, maintenance typically removes shrub/canopy stratum, non-desirable wetland species prevalent; b) invasive exotics or other invasive plant species = 7, moderate coverage of torpedo grass, cattail, primrose willow; c) regeneration and recruitment = 7, artificial system, recruitment impacted by surrounding development and diminished hydroperiod; d) age & size distribution = 6, typical of artificial stormwater pond system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 7, typical of assessment area, somewhat reduced due to maintenance; g) land management practices = 6, due to alteration of community structure by routine maintenance; h) topographic features = 6, typical of excavated system; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.70	0

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

For impact assessment areas
FL = delta x acres = -0.70 x 0 = 0

Delta = [with-current]
-0.70

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 70, 71, 89, CZ

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
618 - Willow Shrub Marsh		Existing Condition	1.98 acres (70=0.06, 71=0.78, 89=0.39, CZ=0.75)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, pasture, and cleared transmission line ROW

Assessment area description

Shrub marsh dominated by coastal plain willow (*Salix caroliniana*), with subdominant species including elderberry (*Sambucus canadensis*), red maple (*Acer rubrum*), pond cypress (*Taxodium ascendens*), maidencane (*Panicum hemitomon*), primrose willow (Ludwigia spp.), water spangles (*Salvinia minima*), duckweed (*Lemna minor*), sedges (*Cyperus* spp., *Carex* spp.), brushy broomsedge (*Andropogon glomeratus*), goldenrod (*Solidago* sp.), blackberry (*Rubus* sp.), Virginia chain fern (*Woodwardia virginica*), caesarweed (*Urena lobata*), and climbing hemp vine (*Mikania scandens*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

red winged blackbird, mockingbird

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, S. Rizzo, K. Bullock	10/7/09 & 10/13/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 618 - Wetlands 70, 71, 89, CZ
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact - Fill	J. Styer, S. Rizzo, K. Bullock	10/7/09 & 10/13/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	6	0	Location and landscape support variable is reduced somewhat due to location of wetland adjacent to transmission line, residential, and agricultural areas. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to surrounding development; b) Invasive exotic species = 8, minimal coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding residential areas and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 3, area isolated from other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding habitat loss resulting from residential development; f) Hydrologically connected areas downstream of assessment area = 3, limited hydrologic connection; g) Dependency of downstream areas on assessment area = 3, minor benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	7	0	The water environment score is slightly reduced due to impacts from historical landclearing and conversion to residential and agricultural landuses. Individual parameter scores: a) water levels and flows = 8, slight alterations in water level due to developed nature of the surrounding areas; b) water level indicators = 8, consistent with expected; c) soil moisture = 8, consistent with expected; d) soil erosion or deposition = 4, erosion from grazing; e) evidence of fire history = N/A; f) vegetation community zonation = 6, somewhat altered - upland species encroachment; g) hydrologic stress on vegetation = 7, not apparent; h) use by animal species with specific hydrological requirements = 7, some wading bird foraging opportunities; 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 1. Vegetation and/or 2. Benthic Community	7	0	The community structure variable is slightly reduced due to presence of nuisance species and encroachment of upland species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 7, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 7, moderate coverage; c) regeneration and recruitment = 7, somewhat impacted by diminished hydroperiod; d) age & size distribution = 7, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 7; g) land 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 uplands, divide by 20)	
current or w/o pres	with
0.67	0

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

For impact assessment areas
FL = delta x acres = -0.67 x 0.15 = 0.10 (Wetland 71); -0.67 x 0.05 = 0.03 (Wetland 89); **total of 0.20 acres and total FL of 0.13**

Delta = [with-current]
-0.67

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands B, K, A/B

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
621 - Cypress		Existing Condition	3.07 acres (B=2.99, K=0.04, A/B = 18.29)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, roadways, and cleared transmission line ROW

Assessment area description

Forested cypress wetlands vegetated with mixture of native wetland species including cypress (*Taxodium ascendens*), laurel oak (*Quercus laurifolia*), red maple (*Acer rubrum*), slash pine (*Pinus elliottii*). Shrub species include wax myrtle (*Myrica cerifera*), groundsel tree (*Baccharis halimifolia*), and occasional Brazilian pepper (*Schinus terebinthifolius*). Groundcover species include cinnamon fern (*Osmunda cinnamomea*), swamp fern (*Blechnum serrulatum*), pickerelweed (*Pontederia cordata*), fireflag (*Thalia geniculata*), yellow-eyed grass (*Xyris* sp.), and paragrass (*Urochloa mutica*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, substation	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

mosquitofish, leopard frog, armadillo, alligator

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, K. Bullock	9/21-23/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 621 - Wetlands B, K, A/B
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact - Fill	J. Styer, K. Bullock	9/21-23/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	8	0	Location and landscape support variable is reduced somewhat due to location of wetland adjacent to transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, slightly reduced due to disturbance from cattle; b) Invasive exotic species = 9, minimal coverage; c) Wildlife access to and from outside = 8, slightly decreased due to limitations imposed by surrounding agricultural areas and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 0, area isolated from other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 8, slightly reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 0, no hydrologic connection; g) Dependency of downstream areas on assessment area = 0, no benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	8	0	The water environment score is slightly reduced due to impacts from historical landclearing and drought conditions. Individual parameter scores: a) water levels and flows = 8, slight alterations in water level due to artificial nature of the surrounding areas and drought conditions; b) water level indicators = 8, consistent with expected; c) soil moisture = 8, consistent with expected; d) soil erosion or deposition = 4, erosion from cattle; e) evidence of fire history = N/A; f) vegetation community zonation = 6, somewhat altered - upland species encroachment; g) hydrologic stress on vegetation = 7, not apparent; h) use by animal species with specific hydrological requirements = 7, ephermal 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 1. Vegetation and/or 2. Benthic Community	9	0	The community structure variable is slightly reduced due to encroachment of upland species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 9, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 9, minimal coverage; c) regeneration and recruitment = 7, somewhat impacted by diminished hydroperiod; d) age & size distribution = 8, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 8, slightly reduced due to drought; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 8, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.83	0

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

For impact assessment areas
FL = delta x acres = -0.83 x 0.01 = 0.01 (Wetland A/B); -0.83 x <0.005 = <0.005 (Wetland K); -0.83 x 0.16 = 0.13 (Wetland B); **total of 0.17 acres and total FL of 0.14**

Delta = [with-current]
-0.83

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

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

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 621 - Wetlands B, K, A/B
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact - Clearing	J. Styer, K. Bullock	9/21-23/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	8	5	Loss of canopy species associated with clearing the transmission line ROW would reduce the location and landscape support variable 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 = 5, 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 = 5, 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 = 5, reduced due to clearing impacts; g) Dependency of downstream areas on assessment area = 5, reduced benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	8	4	Clearing the canopy will negatively impact the water environment variable 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; g) 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; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	9	4	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. Functional value will increase as vegetative community becomes established through natural succession. 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 = 4, severely disturbed due to clearing; herbaceous and shrub stratum species will eventually regenerate; 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.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.83	0.43

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

For impact assessment areas
FL = delta x acres = -0.40 x 0.25 = 0.10 (Wetland B)

Delta = [with-current]
-0.40

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands E, XX, AQ, AR, AS, DE

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
630 - Mixed Hardwood/Conifer Wetland		Existing Condition	1.07 acres (E=0.23, XX=0.01, AQ=0.18, AR=0.001, AS=0.13, DE=0.52)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, roadways, golf course, and cleared transmission line ROW

Assessment area description

Forested wetlands vegetated with mixture of native wetland species including bald cypress (*Taxodium distichum*), laurel oak (*Quercus laurifolia*), red maple (*Acer rubrum*), blackgum (*Nyssa sylvatica*), pop ash (*Fraxinus caroliniana*), slash pine (*Pinus elliottii*). Shrub species include wax myrtle (*Myrica cerifera*), buttonbush (*Cephalanthus occidentalis*), and Brazilian pepper (*Schinus terebinthifolius*). Groundcover species include swamp fern (*Blechnum serrulatum*), maiden fern (*Thelypteris* sp.), blackberry (*Rubus* sp.), and caesarweed (*Urena lobata*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, golf course	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

red shouldered hawk, leopard frog, armadillo, bobcat

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, K. Bullock	9/21&29/09; 10/1&15/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 630 - Wetlands E, XX, AQ, AR, AS, DE
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact - Fill	J. Styer, K. Bullock	9/21&29/09; 10/1&15/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	7	0	Location and landscape support variable is reduced somewhat due to location of wetland adjacent to transmission line and golf course. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, slightly reduced due to surrounding development; b) Invasive exotic species = 7, some coverage by Brazilian pepper; c) Wildlife access to and from outside = 7, decreased due to limitations imposed by surrounding agricultural areas and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, moderate barriers due to surrounding development; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 8, hydrologic connections; g) Dependency of downstream areas on assessment area = 7, moderate benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	7	0	The water environment score is slightly reduced due to impacts from historical landclearing and development. Individual parameter scores: a) water levels and flows = 7, alterations in water level due to surrounding development; b) water level indicators = 8, consistent with expected; c) soil moisture = 8, consistent with expected; d) soil erosion or deposition = 5, erosion from digging, surrounding development; e) evidence of fire history = N/A; f) vegetation community zonation = 7, somewhat altered - upland species encroachment; g) hydrologic stress on vegetation = 7, some edge effect, reduced hydroperiod; h) use by animal 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 1. Vegetation and/or 2. Benthic Community	8	0	The community structure variable is slightly reduced due to presence of Brazilian pepper and encroachment of upland species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 9, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 7, moderate coverage of Brazilian pepper; c) regeneration and recruitment = 6, impacted by diminished hydroperiod, transmission line maintenance; d) age & size distribution = 8, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 8, slightly reduced due to altered hydroperiod; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 8, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	**with**
0.73	0

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

For impact assessment areas
FL = delta x acres = -0.73 x 0.12 = 0.09 (Wetland E); -0.73 x 0.03 = 0.02 (Wetland AQ); **total of 0.15 acres and total FL of 0.11**

Delta = [with-current]
-0.73

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

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

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 630 - Wetlands E, XX, AQ, AR, AS, DE
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact - Clearing	J. Styer, K. Bullock	9/21&29/09; 10/1&15/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	7	5	Loss of canopy species associated with clearing the transmission line ROW would reduce the location and landscape support variable 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 = 5, 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 = 5, 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 = 5, reduced due to clearing impacts; g) Dependency of downstream areas on assessment area = 5, reduced benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	7	4	Clearing the canopy will temporarily impact the water environment variable as the forested system is converted to a freshwater marsh/wetland scrub habitat. 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; g) 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; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	8	4	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. Functional value will increase as vegetative community becomes established through natural succession. 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 = 4, severely disturbed due to clearing; herbaceous and shrub stratum species will eventually regenerate; 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.

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

current or w/o pres	with
0.73	0.43

If preservation as mitigation,

Preservation adjustment factor =

Adjusted mitigation delta =

For impact assessment areas

FL = delta x acres = -0.30 x 0.10 = 0.03 (Wetland E)

Delta = [with-current]

-0.30

If mitigation

Time lag (t-factor) =

Risk factor =

For mitigation assessment areas

RFG = delta/(t-factor x risk) =

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 630 - Wetland A/B (Kathleen Substation property)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
630 - Mixed Forested Wetland		Impact	52.06 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Port Lonesome Ditches/03100205		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland areas surround the Kathleen Substation. Hydrologically connected to surrounding freshwater marshes and mixed forested wetlands, connecting to Green Swamp and Withlacoochee River through tributaries of Gator Creek.

Assessment area description

Forested mixed hardwood/conifer wetlands surrounding the existing substation area. Canopy dominated by pond cypress (*Taxodium ascendens*), laurel oak (*Quercus laurifolia*), slash pine (*Pinus elliottii*), red maple (*Acer rubrum*), American elm (*Ulmus americana*), water oak (*Quercus nigra*); shrub layer comprised of coastal plain willow (*Salix caroliniana*), wax myrtle (*Myrica cerifera*), silverling (*Baccharis glomeruliflora*), Brazilian pepper (*Schinus terebinthifolius*), buttonbush (*Cephalanthus occidentalis*); groundcover consists of Virginia chain fern (*Woodwardia virginica*), royal fern (*Osmunda regalis*), sawgrass (Cladium jamaicense), broomsedge bluestem (*Andropogon virginicus*), coinwort (*Centalla asiatica*), and marsh pennywort (*Hydrocotyle umbellata*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Kathleen Substation and transmission line ROW, US 98	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, raccoon, white tailed deer, armadillo, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Black racer, green tree frog, leopard frog, black vulture

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
B. Meinecke, J. Styer	9/17/2009

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 630 - Wetland A/B (Kathleen Substation Property)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact - Fill	B. Meinecke, J. Styer	10/12/2009

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

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	8	0	Location and landscape support variable is slightly reduced due to location of adjacent roadway and transmission line right-of-way. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, slightly reduced due to adjacent US 98; b) Invasive exotic species = 8, Brazilian pepper present, but not dominant; c) Wildlife access to and from outside = 8, slightly decreased due to limitations imposed by US 98; d) functions that benefit fish & wildlife downstream-distance or barriers = 8, area connected to large wetland complex associated with Green Swamp; e) Impacts to wildlife listed in Part 1 by outside land uses = 8, slightly reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 8, contiguous wetland system connecting to Green Swamp via tributaries of Gator Creek; g) Dependency of downstream areas on assessment area = 8, area provides benefits to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	8	0	The water environment score is slightly reduced due to impacts from ditching, presence of US 98, and landclearing associated with the existing substation. Individual parameter scores: a) water levels and flows = 8, slight alterations in water level due to ditching, US 98, and existing substation; b) water level indicators = 9, 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, slightly altered in areas due to upland species encroachment; g) hydrologic stress on vegetation = 8, not apparent; h) use by animal species with specific hydrological requirements = 9, wading bird 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 1. Vegetation and/or 2. Benthic Community	9	0	The vegetative community structure is dominated by an assemblage of native wetland species, very slightly reduced due to limited presence of exotic species Brazilian pepper. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 10, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 8, limited coverage; c) regeneration and recruitment = 9, somewhat impacted by existing transmission line right-of-way and substation; d) age & size distribution = 9, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = 9, typical of assessment area; f) plant condition = 9; g) land management practices = 7, due to adjacent US 98 and transmission line right-of-way; h) topographic features = 10, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.83	0

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

For impact assessment areas
FL = delta x acres = -0.83 x 0.05 = 0.05

Delta = [with-current]
-0.83

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands DD, LL, AZ, BA, BI, BT, BU, DN

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
631 - Wetland Scrub		Existing Condition	1.49 acres (DD=0.09, LL=0.42, AZ=0.15, BA=0.41, BI=0.31, BT=0.02, BU=0.04, DN=0.05)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Primarily isolated systems within existing cleared transmission line ROW; some connections to adjacent wetlands/surface waters outside the ROW.

Assessment area description

Disturbed wetland scrub dominated by nuisance/exotic species including primrose willow (*Ludwigia* spp.), Brazilian pepper (*Schinus terebinthifolius*), cattail (*Typha latifolia*), Chinese tallow (*Sapium sebiferum*), Florida ground cherry (*Physalis alkekengi*), air potato (*Dioscoria bulbifera*), lantana (*Lantana camara*), skunk vine (*Paederia foetida*), chinaberry (*Melia adezarach*), and wild taro (*Colocasia esculenta*), with additional native species including elderberry (*Sambucus canadensis*), coastal plain willow (*Salix caroliniana*), dogfennel (*Eupatorium capillifolium*), red maple (*Acer rubrum*), maiden fern (*Thelypteris* sp.), rushes (*Juncus* spp.), sedges (*Cyperus* spp.), laurel oak (*Quercus laurifolia*), buttonbush (*Cephalanthus occidentalis*), caesarweed (*Urena lobata*), blackberry (*Rubus* sp.), silverling (*Baccharis glomeruliflora*), broomsedge bluestem (*Andropogon glomeratus*), and meadowbeauty (*Rhexia* sp.).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, residential areas	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

raccoon, mockingbird, catbird

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, K. Bullock	9/23-24/09, 10/05/09, 10/07/09, 10/20/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 631 - Wetlands DD, LL, AZ, BA, BI, BT, BU, DN
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, K. Bullock	9/23-24/09, 10/05/09, 10/07/09, 10/20/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	6	0	Location and landscape support variable is reduced due to debris disposal and location of wetland within residential areas and cleared transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to surrounding development; b) Invasive exotic species = 3, significant coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding residential areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 2, areas isolated from other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 2, no hydrologic connection; g) Dependency of downstream areas on assessment area = 2, little benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	4	0	The water environment score is reduced due to impacts from landclearing and debris. Individual parameter scores: a) water levels and flows = 4, altered due to debris disposal, clearing; b) water level indicators = 6, less than typical of assessment area; c) soil moisture = 6, drier than expected; d) soil erosion or deposition = 3, erosion from adjacent landuses, debris disposal; e) evidence of fire history = N/A; f) vegetation community zonation = 4, upland species encroachment; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 3, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 4, community consists of nuisance/exotic species; 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 1. Vegetation and/or 2. Benthic Community	4	0	The community structure variable is reduced due to dominance by nuisance/exotic species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 3, dominated by nuisance/exotic species; b) invasive exotics or other invasive plant species = 3, extensive coverage; c) regeneration and recruitment = 6, somewhat impacted by diminished hydroperiod; d) age & size distribution = 6, typical of system, reduced due to ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = 4; f) plant condition = 4, dominance by exotic species reduces extent and health of native species; g) land management practices = 4, debris disposal within wetlands, clearing of adjacent native uplands; h) topographic features = 6, reduced compared to typical assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.47	0

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

For impact assessment areas
FL = delta x acres = **-0.47 x 0.17 = 0.08** (see impact table for individual wetland impact acreage)

Delta = [with-current]
-0.47

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 42, 54, 57, 58, 91, 95A, 100, AM, BC, BH, BV, XX

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
631 - Wetland Scrub		Existing Condition	8.41 acres (42=3.02, 54=0.47, 57=0.17, 58=0.76, 91=0.46, 95A=0.71, 100=0.37, AM=1.38, BC=0.47, BH=0.30, BV=0.17, XX=0.13)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Primarily isolated systems within existing cleared transmission line ROW; some connections to adjacent wetlands/surface waters outside the ROW.

Assessment area description

Scrub wetlands vegetated with a mixture of native and nuisance/exotic species including torpedo grass (*Panicum repens*), Brazilian pepper (*Schinus terebinthifolius*), cattail (*Typha latifolia*),Chinese tallow (*Sapium sebiferum*), camphor (*Cinnamomea camphora*), bull crowngrass (*Paspalum boscianum*), primrose willow (*Ludwigia* spp.), bermudagrass (*Cynodon dactylon*), and wild taro (*Colocasia esculenta*), with additional native shrub and tree species including elderberry (*Sambucus canadensis*), coastal plain willow (*Salix caroliniana*), water oak (*Quercus nigra*), red maple (*Acer rubrum*), sweetbay (*Magnolia virginiana*), laurel oak (*Quercus laurifolia*), buttonbush (*Cephalanthus occidentalis*), wax myrtle (*Myrica cerifera*), and silverling (*Baccharis glomeruliflora*), and native groundcover species such as marsh pennywort (*Hydrocotyle umbellata*), maiden fern (*Thelypteris* sp.), rushes (*Juncus* spp.), sedges (*Cyperus* spp.),bristlegrass (*Setaria* sp.), dayflower (*Commelina difusa*), rabbits foot grass (*Polypogon monspeliensis*), caesarweed (*Urena lobata*), blackberry (*Rubus* sp.), smartweed (*Polygonum* sp.), peppervine (*Ampelopsis arborea*), dogfennel (*Eupatorium capillifolium*), maidencane (*Panicum hemitomon*), soft rush (*Juncus effusus*), rattlebox (*Sesbania* sp.), capeweed (*Phyla nodiflora*), tickseed sunflower (*Bidens alba*), pickerelweed (*Pontederia cordata*), Virginia chain fern (*Woodwardia virginica*), cinnamon fern (*Osmunda cinnamomea*), bushy broomsedge (*Andropogon virginicus*), broomsedge bluestem (*Andropogon glomeratus*), and meadowbeauty (*Rhexia* sp.).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, residential areas	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

ibis, white tailed deer, Cuban tree frog, leopard frog, armadillo, red shouldered hawk

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, S. Rizzo, K. Bullock	9/29/09 through 10/21/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 631 - Wetlands 42, 54, 57, 58, 91, 95A, 100, AM, BC, BH, BV, XX
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact - Fill	J. Styer, S. Rizzo, K. Bullock	9/29/09 through 10/21/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	6	0	Location and landscape support variable is reduced due to location within residential areas, agricultural areas, and cleared transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to surrounding development; b) Invasive exotic species = 6, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding residential areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited connection to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 4, limited hydrologic connections; g) Dependency of downstream areas on assessment area = 4, little benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	6	0	The water environment score is reduced due to impacts from landclearing and ditching. 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 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 by animal species with specific hydrological requirements = 5, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 6, some species indicative of high nutrients, eg. cattail, primrose 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 1. Vegetation and/or 2. Benthic Community	6	0	The community structure variable is reduced due to prevalence of nuisance/exotic species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 6, limited diversity due to coverage by nuisance/exotic species; b) invasive exotics or other invasive plant species = 6, moderate coverage; c) regeneration and recruitment = 6, somewhat impacted by ROW maintenance, ditching; d) age & size distribution = 6, typical of system, reduced due to ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = 6; f) plant condition = 6, extent and health of native species impacted somewhat by exotic nuisance species, 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 plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.60	0

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

For impact assessment areas
FL = delta x acres = **-0.60 x 2.04 = 1.22** (see impact table for individual wetland impact acreage)

Delta = [with-current]
-0.60

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands BD, BO, BS, BZ, CA, CCa, CW, DB, DI, DO, EEa

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
631 - Wetland Scrub		Existing Condition	18.21 acres (BD=2.76, BO=1.28, BS=2.72, BZ=3.25, CA=1.50, CCa=0.98, CW=0.05, DB=3.21, DI=0.32, DO=0.71, EEa=1.43)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		Wetland DB is adjacent to OFW (tributary of Hillsborough River)

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Primarily isolated systems within existing cleared transmission line ROW; some connections to adjacent wetlands/surface waters outside the ROW.

Assessment area description

Scrub wetlands dominated by desirable wetland species including shrub and tree species such as elderberry (*Sambucus canadensis*), coastal plain willow (*Salix caroliniana*), water oak (*Quercus nigra*), red maple (*Acer rubrum*), sweetbay (*Magnolia virginiana*), dahoon holly (*Ilex cassine*), laurel oak (*Quercus laurifolia*), buttonbush (*Cephalanthus occidentalis*), wax myrtle (*Myrica cerifera*), American elm (*Ulmus americana*), bald cypress (*Taxodium distichum*), sweetgum (*Liquidambar styraciflua*), and silverling (*Baccharis glomeruliflora*), and native groundcover species such as marsh pennywort (*Hydrocotyle umbellata*), maiden fern (*Thelypteris* sp.), rushes (*Juncus* spp.), sedges (*Cyperus* spp.), beakrushes (*Rhynchospora* spp.), fireflag (*Thalia geniculata*), dayflower (*Commelina difusa*),caesarweed (*Urena lobata*), blackberry (*Rubus* sp.), buttonweed (*Diodia virginianum*), false daisy (*Eclipta prostata*), smartweed (*Polygonum* sp.), peppervine (*Ampelopsis arborea*), dogfennel (*Eupatorium capillifolium*), maidencane (*Panicum hemitomon*), goldenrod (*Solidago* sp.), soft rush (*Juncus effusus*), rattlebox (*Sesbania* sp.), capeweed (*Phyla nodiflora*), tickseed sunflower (*Bidens alba*), fanpetals (*Sida rhombifolia*), Virginia chain fern (*Woodwardia virginica*), netted chain fern (*Woodwardia aereolata*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis*), wild rice (*Zizania aquatica*), water hyssop (*Bacopa monnieri*), marsh fleabane (*Pluchea rosea*), bushy broomsedge (*Andropogon virginicus*), broomsedge bluestem (*Andropogon glomeratus*), and meadowbeauty (*Rhexia* sp.). Some nuisance/exotic species present, including Brazilian pepper (*Schinus terebinthifolius*),camphor (*Cinnamomea camphora*), water primrose (*Ludwigia peruviana*), and rattlebox (*Sesbania* sp.).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, substation	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

musk turtle, soft shelled turtle, cardinal, catbird, great egret, glossy ibis, white ibis

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/30/09 through 10/21/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 631 - Wetlands BD, BO, BS, BZ, CA, CCa, CW, DB, DI, DO, EEa
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, S. Rizzo, K. Bullock	9/30/09 through 10/21/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	8	0	Location and landscape support variable is slightly reduced due to location of wetland within cleared transmission line ROW; surrounding area predominantly natural upland and wetland communities. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, slightly reduced due to clearing of forested habitat within ROW; b) Invasive exotic species = 8, minimal coverage; c) Wildlife access to and from outside = 8, slightly decreased due to limitations imposed by surrounding agricultural areas and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, minimal distance/barries; e) Impacts to wildlife listed in Part 1 by outside land uses = 8, slightly reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 7; g) Dependency of downstream areas on assessment area = 7, moderate benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	8	0	The water environment score is only slightly reduced due to impacts from historical landclearing. Individual parameter scores: a) water levels and flows = 8, slight alterations in water level due to cleared surrounding area; 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 = 7, somewhat altered - upland species encroachment; g) hydrologic stress on vegetation = 7, not apparent; h) use by animal species with specific hydrological requirements = 8, wading bird foraging; 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 1. Vegetation and/or 2. Benthic Community	8	0	The vegetative community is dominated by a diverse assemblage of native wetland speces. Community structure variable slightly reduced due to presence of nuisance/exotic species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 8, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 7, minimal coverage; c) regeneration and recruitment = 7, somewhat impacted by diminished hydroperiod; d) age & size distribution = 8, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 8, slightly reduced due to drought; g) land management practices = 8, slightly reduced due to ROW maintenance; h) topographic features = 8, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.80	0

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

For impact assessment areas
FL = delta x acres = **-0.80 x 5.96 = 4.77** (see impact table for individual wetland impact acreage)

Delta = [with-current]
-0.80

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 35, 37, 39, 56, 60, 61, 65, 74, 81, 85, 86, 92, 94, 95, 96, 130, A, B, O, Q, U, V, Z, AA, AL, AX, BBa, BQ, CQ, DR, DW, EA, GG, JJ, KK

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641 - Freshwater Marsh		Existing Condition	11.91 acres (35=0.45, 37=0.09, 39=0.03, 56=0.10, 60=0.44, 61=0.20, 65=0.30, 74C=0.02, 81=0.01, 85=0.01, 86=0.09, 92=1.26, 94=0.08, 95=0.10, 96=0.08, 130=0.01, A=0.77, B=2.58, O=0.85, Q=0.10, U=0.36, V=0.60, Z=0.17, AA=0.33, AL=0.89, AX=0.16, BBa=0.25, BQ=0.11, CQ=0.11, DR=0.23, DW=0.49, EA=0.03, GG=0.02, JJ=0.08, KK=0.51)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Some freshwater marshes within the ROW are hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, roadways, residential areas, agricultural areas, and cleared transmission line ROW

Assessment area description

Freshwater marsh wetlands vegetated with a mixture of nuisance/exotic and native herbaceous species and a sparse canopy comprised of a mixture of laurel oak (*Quercus laurifolia*) and red maple (*Acer rubrum*). Dominant shrub species include wax myrtle (*Myrica cerifera*), coastal plain willow (*Salix caroliniana*), and silverling (*Baccharis glomeruliflora*). Common groundcover species include Virginia chain fern (*Woodwardia virginica*), smartweed (*Polygonum* sp.), maidencane (*Panicum hemitomon*), dogfennel (*Eupatorium capillifolium*), soft rush (*Juncus effusus*), bushy broomsedge (*Andropogon glomeratus*), broomsedge bluestem (*Andropogon virginicus*), flattop goldenrod (*Euthamia mnor*), dayflower (*Commelina difusa*), water hyssop (*Bacopa monnieri*), blackberry (*Rubus* sp.), sedges (*Cyperus* spp.), buttonweed (*Diodia virginiana*), marsh pennywort (*Hydrocotyle umbellata*), sand cordgrass (*Spartina bakeri*), blue maidencane (*Amphicarpum muhlenbergianum*), pickerelweed (*Pontederia cordata*), hairy indigo (*Indigofera hirsuta*), tickseed sunflower (*Bidens alba*), nutsedge (*Scleria* sp.), baby's tears (*Micranthemum umbrosum*), spatterdock (*Nuphar luteum*), creeping ludwigia (*Ludwigia repens*), morning-glory (*Ipomea* sp.), caesarweed (*Urena lobata*), spikerush (*Eleocharis* sp.), dwarf umbrella grass (*Fuirena scirpoides*), and beak rushes (*Rhynchospora* sp.). Significant coverage by nuisance/exotic species, including torpedo grass (*Panicum repens*), cattail (*Typha latifolia*), paragrass (*Urochloa mutica*), Chinese tallow (*Sapium sebiferum*), Brazilian pepper (*Schinus terebinthifolius*), camphor (*Cinnamomea camphora*), alligator weed (*Alternanthera philoxeroides*), doveweed (*Murdannia nudiflora*), water lettuce (*Pistia stratioides*), air potato (*Dioscorea bulbifera*),rattlebox (*Sesbania* sp.), bahia grass (*Paspalum notatum*), and primrose willow (*Ludwigia peruviana*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, substation	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

armadillo, bullfrog, white ibis, sandhill crane, mosquitofish, snowy egret, little blue heron, black racer, catbird

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/21/09 through 10/22/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 641 - 35, 37, 39, 56, 60, 61, 65, 74, 81, 85, 86, 92, 94, 95, 96, 130, A, B, O, Q, U, V, Z, AA, AL, AX, BBa, BQ, CQ, DR, DW, EA, GG, JJ, KK
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/21/09 through 10/22/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	6	0	Location and landscape support variable is reduced due to location within residential areas, agricultural areas, and cleared transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to surrounding development; b) Invasive exotic species = 6, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding residential areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited connection to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 4, limited hydrologic connections; g) Dependency of downstream areas on assessment area = 4, little benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	5	0	The water environment score is reduced due to impacts from landclearing, ditching, adjacent agricultural and residential landuses, and roadways. Individual parameter scores: a) water levels and flows = 5, altered due to clearing, ditching; b) water level indicators = 6, typical of assessment area; c) soil moisture = 6, typical of assessment area; d) soil erosion or deposition = 5, erosion from 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 by animal species with specific hydrological requirements = 5, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 6, some species indicative of high nutrients, eg. cattail, primrose 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 1. Vegetation and/or 2. Benthic Community	5	0	The community structure variable is reduced due to significant coverage of exotic species of vegetation. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 5, dominated by nuisance/exotic species; b) invasive exotics or other invasive plant species = 5, significant coverage; c) regeneration and recruitment = 6, impacted by mowing, grazing; d) age & size distribution = 5, altered due to grazing and maintenance of ROW; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, reduced due to grazing, ROW maintenance; g) land management practices = 6, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 6, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.53	0

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

For impact assessment areas
FL = delta x acres = **-0.53 x 2.45 = 1.30** (see impact table for individual wetland impact acreage)

Delta = [with-current]
-0.53

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 14, 26, 32/33, 71, 76, 109, 132, C, D, UU/VV, AB, BL, BN, BP, CJ, CP, DH, ED

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641 - Freshwater Marsh		Existing Condition	8.04 acres (14=0.14, 26=0.04, 32/33=1.48, 71=0.82, 76=0.12, 109=0.53, 132=0.45, C=0.26, D=0.51, UU/VV=0.40, AB=1.16, BL=0.38, BN=0.55, BP=0.06, CJ=0.02, CP=0.72, DH=0.23, ED=0.17)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Some freshwater marshes within the ROW are hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, roadways, residential areas, agricultural areas, and cleared transmission line ROW

Assessment area description

Freshwater marsh wetlands dominated by herbaceous species and a sparse canopy comprised of a mixture of slash pine (*Pinus elliottii*), bald cypress (*Taxodium distichum*), American elm (*Ulmus americana*), laurel oak (*Quercus laurifolia*), and red maple (*Acer rubrum*). Dominant shrub species include dahoon holly (*Ilex cassine*), wax myrtle (*Myrica cerifera*), elderberry (*Sambucus canadensis*), coastal plain willow (*Salix caroliniana*), and silverling (*Baccharis glomeruliflora*). Common groundcover species include Virginia chain fern (*Woodwardia virginica*), fireflag (*Thalia geniculata*), smartweed (*Polygonum* sp.), maidencane (*Panicum hemitomon*), dogfennel (*Eupatorium capillifolium*), soft rush (*Juncus effusus*), bushy broomsedge (*Andropogon glomeratus*), flattop goldenrod (*Euthamia minor*), redroot (*Lachnanthes caroliniana*), water spangles (*Salvinia minima*), milkweed (*Asclepias* sp.), coinwort (*Centella asiatica*), dayflower (*Commelina difusa*), goldenrod (*Solidago* sp.), swamp fern (*Blechnum serrulatum*), water hyssop (*Bacopa monnieri*), blackberry (*Rubus* sp.), sedges (*Cyperus* spp.), buttonweed (*Diodia virginiana*), capeweed (*Phyla nodiflora*), muscadine (*Vitis rotundifolia*), marsh pennywort (*Hydrocotyle umbellata*), mosquitofern (*Azolla caroliniana*), leafflower (*Phyllanthus* sp.), duckweed (*Lemna minor*), sand cordgrass (*Spartina bakeri*), sawgrass (*Cladium jamaicense*), cinnamon fern (*Osmunda cinnamomea*), caesarweed (*Urena lobata*), and fragrant water lily (*Nymphaea odorata*). Significant coverage by nuisance/exotic species, including torpedo grass (*Panicum repens*), cattail (*Typha latifolia*), alligator weed (*Alternanthera philoxeroides*), doveweed (*Murdannia nudiflora*), water lettuce (*Pistia stratioides*), air potato (*Dioscorea bulbifera*),melaleuca (*Melaleuca quinquenervia*), rattlebox (*Sesbania* sp.), bermuda grass (*Cynodon dactylon*), bahia grass (*Paspalum notatum*), and primrose willow (*Ludwigia peruviana*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, substation	Not unique
Functions	**Mitigation for previous permit/other historic use**
Widlife habitat, water storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

armadillo, leopard frog, black racer, red shouldered hawk, marsh rabbit, moorhen, mallard, kestrel, black vulture

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/23/09 through 10/22/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 641 - Wetlands 14, 26, 32/33, 71, 76, 109, 132, C, D, UU/VV, AB, BL, BN, BP, CJ, CP, DH, ED
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact - Fill	M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/23/09 through 10/22/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	6	0	Location and landscape support variable is reduced due to location within residential areas, agricultural areas, and cleared transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to surrounding development; b) Invasive exotic species = 6, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding residential areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited connection to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 4, limited hydrologic connections; g) Dependency of downstream areas on assessment area = 4, little benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	6	0	The water environment score is reduced due to impacts from landclearing, ditching, adjacent agricultural and residential 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 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 by animal species with specific hydrological requirements = 5, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 6, some species indicative of high nutrients, eg. cattail, primrose 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 1. Vegetation and/or 2. Benthic Community	6	0	The community structure variable is reduced due to prevalence of nuisance/exotic species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 6, limited diversity due to coverage by nuisance/exotic species; b) invasive exotics or other invasive plant species = 6, moderate coverage; c) regeneration and recruitment = 6, somewhat impacted by ROW maintenance, ditching; d) age & size distribution = 6, typical of system, reduced due to ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = 6; f) plant condition = 6, extent and health of native species impacted somewhat by exotic nuisance species, 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 plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.60	0

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

For impact assessment areas
FL = delta x acres = **-0.60 x 2.01 = 1.20** (see impact table for individual wetland impact acreage)

Delta = [with-current]
-0.60

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 1-4, 6, 10, 12, 13, 15-17, 19, 28, 36, 38, 40, 41, 43, 45, 106, 107, 129, J, N, W, NN, OO, WW, AM, BJ, CE, CH, CI, CK/CL, CM, CO, DG, EH

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641 - Freshwater Marsh		Existing Condition	43 acres (1=0.15, 2=2.63, 3=0.52, 4=0.71, 6=3.81, 10=1.22, 12=0.79, 13=1.34, 15=1.31, 16=0.31, 17=0.19, 19=0.05, 28=0.08, 36=1.38, 38=0.68, 40=1.42, 41=1.04, 43=1.55, 45=1.02, 106=0.15, 107=1.24, 129=2.88, J=0.98, N=1.77, W=0.71, NN=0.50, OO=2.27, WW=0.43, AM=0.56, BJ=0.76, CE=1.71, CH=0.78, CI=1.03, CK/CL=2.01, CM=1.97, CO=0.50, DG=0.60, EH=1.95)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		Wetland W is adjacent to OFW (tributary of Hillsborough River)

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Some freshwater marshes within the ROW are hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, roadways, residential areas, agricultural areas, and cleared transmission line ROW

Assessment area description

Freshwater marsh wetlands vegetated with mixture of predominantly native wetland species including a diverse assemblage of herbaceous species and a sparse canopy comprised of a mixture of slash pine (*Pinus elliottii*), bald cypress (*Taxodium distichum*), American elm (*Ulmus americana*), red bay (*Persea palustris*), laurel oak (*Quercus laurifolia*), red maple (*Acer rubrum*), and sweetgum (*Liquidambar styraciflua*). Shrub species include buttonbush (*Cephalanthus occidentalis*), dahoon holly (*Ilex cassine*), gallberry (*Ilex glabra*), wax myrtle (*Myrica cerifera*), elderberry (*Sambucus canadensis*), coastal plain willow (*Salix caroliniana*), and silverling (*Baccharis glomeruliflora*). Groundcover species include Virginia chain fern (*Woodwardia virginica*), fireflag (*Thalia geniculata*), yellow-eyed grass (*Xyris elliottii*), smartweed (*Polygonum* sp.), lizard's tail (*Saururus cernuus*), rushes (*Juncus* spp.), beaksedges (*Rhynchospora* spp.), spikerush (*Eleocharis* sp.), maidencane (*Panicum hemitomon*), dogfennel (*Eupatorium capillifolium*), soft rush (*Juncus effusus*), bushy broomsedge (*Andropogon glomeratus*), meadow beauty (*Rhexia* sp.), flattop goldenrod (*Euthamia minor*), flattened pipewort (*Eriocaulon compressum*), bristlegrass (*Setaria* sp.), Walter's sedge (*Carex walterii*), woolgrass (*Scirpus cyprinus*), redroot (*Lachnanthes caroliniana*), fanwort (*Cabomba caroliniana*), cutgrass (*Leersia* sp.), dwarf umbrella grass (*Fuirena scirpoides*), water spangles (*Salvinia minima*), balsam apple (*Momordica charantia*), milkweed (*Asclepias* sp.), false pimpernel (*Lindernia* sp.), nutsedge (*Scleria* sp.), coinwort (*Centella asiatica*), dayflower (*Commelina difusa*), greenbrier (*Smilax* sp.), goldenrod (*Solidago* sp.), St. John's wort (*Hypericum fasciculatum*), spatterdock (*Nuphar luteum*), swamp fern (*Blechnum serrulatum*), water hyssop (*Bacopa monnieri*), peppervine (*Ampelopsis arborea*), goatweed (*Scoparia dulcis*), climbing hempvine (*Mikania scandens*), cordrush (*Spartina bakeri*), arrowhead (*Sagittaria lancifolia*), blue maidencane (*Amphicarpum muhlenbergianum*), blackberry (*Rubus* sp.), sedges (*Cyperus* spp.), buttonweed (*Diodia virginiana*), capeweed (*Phyla nodiflora*), muscadine (*Vitis rotundifolia*), marsh pennywort (*Hydrocotyle umbellata*), pickerelweed (*Pontederia cordata*), grassy arrowhead (*Sagittaria graminea*), mosquitofern (*Azolla caroliniana*), and musky mint (*Hyptis alata*). Moderate coverage by nuisance/exotic species, including torpedo grass (*Panicum repens*), cattail (*Typha latifolia*), wild taro (*Colocasia esculenta*), bermuda grass (*Cynodon dactylon*), melaleuca (*Melaleuca quinquenervia*), rattlebox (*Sesbania* sp.), primrose willow (*Ludwigia peruviana*), parrot's feather (*Myriophyllum aquaticum*), and Chinese tallow (*Sapium sebiferum*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, substation	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

little blue heron, cuban tree frog, white ibis, glossy ibis, red shouldered hawk, leopard frog, raccoon, white tailed deer, mosquitofish, green tree frog, Florida cooter, snowy egret, sandhill crane, turkey, common yellowthroat

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/22/09 through 10/19/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 641 - Wetlands 1-4, 6, 10, 12, 13, 15-17, 19, 28, 36, 38, 40, 41, 43, 45, 106, 107, 129, J, N, W, NN, OO, WW, AM, BJ, CE, CH, CI, CK/CL, CM, CO, DG, EH
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/22/09 through 10/19/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	7	0	Location and landscape support variable is slightly reduced due to location of wetlands within transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, slightly reduced due to adjacent development, cleared ROW; b) Invasive exotic species = 6, moderate coverage; c) Wildlife access to and from outside = 7, decreased due to limitations imposed by clearing, roadways, development; d) functions that benefit fish & wildlife downstream-distance or barriers = 7; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, slightly reduced due to clearing, roadways, residential, agricultural areas; f) Hydrologically connected areas downstream of assessment area = 7, typically connect to adjacent forested wetlands; g) Dependency of downstream areas on assessment area = 6, moderate benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	7	0	The water environment score is reflective of relatively undisturbed hydrology, reduced somewhat due to ditching, landclearing, and adjacent residential and agricultural landuses. Individual parameter scores: a) water levels and flows = 7, moderate alterations in water level due to clearing of surrounding areas, ditching, development; b) water level indicators = 7, consistent with expected; c) soil moisture = 7, consistent with expected; d) soil erosion or deposition = 8, minimal erosion; e) evidence of fire history = N/A; f) vegetation community zonation = 7, some upland species encroachment; g) hydrologic stress on vegetation = 8, not apparent; h) use by animal species with specific hydrological requirements = 7, wading bird foraging habitat; i) vegetative species tolerant of and associated with water quality degradation = 7, community consists of typical native species, moderate coverage of exotic/nuisance 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 1. Vegetation and/or 2. Benthic Community	7	0	These freshwater marshes support a diverse community of native wetland vegetation, although nuisance/exotic species are present, slightly reducing the community structure variable. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 7, dominated by desirable native wetland species, nuisance/exotic species present, ROW maintenance reduces extent of canopy species; b) invasive exotics or other invasive plant species = 6, moderate coverage; c) regeneration and recruitment = 7, somewhat impacted by ROW maintenance; d) age & size distribution = 8, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = 7; f) plant condition = 8; g) land 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 uplands, divide by 20)	
current or w/o pres	with
0.70	0

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

For impact assessment areas
FL = delta x acres = **-0.70 x 9.12 = 6.38** (see impact table for individual wetland impact acreage)

Delta = [with-current]
-0.70

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 641 and 643 - Wetland A/B (Kathleen Substation Property)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641/643 - Freshwater Marshes/Wet Prairie		Existing Condition	23.08 acres (FLUCFCS 641); 3.09 (FLUCFCS 643)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Port Lonesome Ditches/03100205		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland areas surround the Kathleen Substation. Hydrologically connected to surrounding freshwater marshes and mixed forested wetlands, connecting to Green Swamp and Withlacoochee River through tributaries of Gator Creek.

Assessment area description

Freshwater marsh and wet prairie communities within ROW leading to existing substation area and connecting to adjacent forested wetlands. Shrub layer comprised of coastal plain willow (*Salix caroliniana*), wax myrtle (*Myrica cerifera*), silverling (*Baccharis glomeruliflora*), Brazilian pepper (*Schinus terebinthifolius*), buttonbush (*Cephalanthus occidentalis*); groundcover consists of sawgrass (Cladium jamaicense), broomsedge bluestem (*Andropogon virginicus*), maidencane (*Panicum hemitomon*), smartweed (*Polygonum punctatum*), cattail (*Typha latifolia*), yellow-eyed grass (*Xyris elliottii*), coinwort (*Centalla asiatica*), and marsh pennywort (*Hydrocotyle umbellata*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Kathleen Substation and transmission line ROW, US 98	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, raccoon, white tailed deer, armadillo, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Black racer, green tree frog, leopard frog, black vulture

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
B. Meinecke, J. Styer	9/17/2009

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 641/643 - Wetland A/B (Kathleen Substation Property)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	B. Meinecke, J. Styer	10/12/2009

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

Indicator	w/o pres or current	with	Comments
.500(6)(a) Location and Landscape Support	8	0	Location and landscape support variable is slightly reduced due to location of adjacent roadway and transmission line right-of-way. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, slightly reduced due to adjacent US 98; b) Invasive exotic species = 8, Brazilian pepper present, but not dominant; c) Wildlife access to and from outside = 8, slightly decreased due to limitations imposed by US 98; d) functions that benefit fish & wildlife downstream-distance or barriers = 8, area connected to large wetland complex associated with Green Swamp; e) Impacts to wildlife listed in Part 1 by outside land uses = 8, slightly reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 8, contiguous wetland system connecting to Green Swamp via tributaries of Gator Creek; g) Dependency of downstream areas on assessment area = 8, area provides benefits to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	7	0	The water environment score is slightly reduced due to impacts from ditching, presence of US 98, and landclearing associated with the existing substation. Individual parameter scores: a) water levels and flows = 7, slight alterations in water level due to ditching and landclearing, US 98, and existing substation; b) water level indicators = 7, slightly less than typical; 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 = 7, slightly altered in areas due to upland species encroachment; g) hydrologic stress on vegetation = 8, not apparent; h) use by animal species with specific hydrological requirements = 7, wading bird habitat; i) vegetative species tolerant of and associated with water quality degradation = 7, community consists of typical species, some upland encroachment; j) direct observation of water quality = 8, no indications of impacts 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 1. Vegetation and/or 2. Benthic Community	7	0	The community structure variable is slightly reduced due to presence of exotic species Brazilian pepper. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 7, dominated by desirable native wetland species, but nuisance (cattail) and exotic (Brazilian pepper) species present; b) invasive exotics or other invasive plant species = 6, moderate coverage; c) regeneration and recruitment = 7, somewhat impacted by existing transmission line right-of-way and substation; d) age & size distribution = 7, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = 7, somewhat reduced compared to expected due to right-of-way maintenance; f) plant condition = 7; g) land management practices = 6, due to adjacent US 98 and transmission line right-of-way; h) topographic features = 7, modified due to right-of-way; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.73	0

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

For impact assessment areas
FL = delta x acres = -0.73 x 2.35 = 1.72 (FLUCFCS 641); -0.73 x 0.12 = 0.08 (FLUCFCS 643); **total of 2.47 acres and total FL of 1.80**

Delta = [with-current]
-0.73

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 18, 20A/20B, 21A/21B, 22A/22B, 23A/23B, 30A/30B, 126, F, X, FF, CF

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641 - Freshwater Marsh		Existing Condition	11.77 acres (18=0.61, 20A/20B=0.47, 21A/21B=0.82, 22A/22B=0.39, 23A/23B=0.49, 30A/30B=2.23, 126=2.47, F=1.32, X=0.82, FF=1.53, CF=0.62)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Some freshwater marshes within the ROW are hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, roadways, residential areas, agricultural areas, and cleared transmission line ROW

Assessment area description

Freshwater marsh wetlands vegetated with mixture of predominantly native wetland species including a diverse assemblage of herbaceous species and a sparse canopy comprised of a mixture of slash pine (*Pinus elliottii*), bald cypress (*Taxodium distichum*), live oak (*Quercus virginiana*), cabbage palm (*Sabal palmetto*), red bay (*Persea palustris*), laurel oak (*Quercus laurifolia*), red maple (*Acer rubrum*), and sweetgum (*Liquidambar styraciflua*). Shrub species include buttonbush (*Cephalanthus occidentalis*), wax myrtle (*Myrica cerifera*), elderberry (*Sambucus canadensis*), coastal plain willow (*Salix caroliniana*), and silverling (*Baccharis glomeruliflora*). Groundcover species include Virginia chain fern (*Woodwardia virginica*), fireflag (*Thalia geniculata*), yellow-eyed grass (*Xyris elliottii*), smartweed (*Polygonum* sp.), lizard's tail (*Saururus cernuus*), grassleaf rush (*Juncus marginatus*), southern beaksedge (*Rhynchospora microcarpa*), spikerush (*Eleocharis* sp.), maidencane (*Panicum hemitomon*), dogfennel (*Eupatorium capillifolium*), soft rush (*Juncus effusus*), bushy broomsedge (*Andropogon glomeratus*), meadow beauty (*Rhexia* sp.), flattop goldenrod (*Euthamia minor*), flattened pipewort (*Eriocaulon compressum*), bristlegrass (*Setaria* sp.), water hyssop (*Bacopa monnieri*), peppervine (*Ampelopsis arborea*), goatweed (*Scoparia dulcis*), climbing hempvine (*Mikania scandens*), loosestrife (*Lythrum* sp.), cordrush (*Spartina* sp.), arrowhead (*Sagittaria lancifolia*), blue maidencane (*Amphicarpum muhlenbergianum*), maiden fern (*Thelypteris* sp.), morning glory (*Ipomea* sp.), blackberry (*Rubus* sp.), rushes (*Juncus* spp.), sedges (*Cyperus* spp.), sawgrass (*Cladium jamaicense*), buttonweed (*Diodia virginiana*), capeweed (*Phyla nodiflora*), muscadine (*Vitis rotundifolia*), Virginia creeper (*Parthenocissus quinquefolia*), marsh pennywort (*Hydrocotyle umbellata*), muhly grass (*Muhlenbergia capillaris*), pickerelweed (*Pontederia cordata*), grassy arrowhead (*Sagittaria graminea*), mosquitofern (*Azolla caroliniana*), and musky mint (*Hyptis alata*). Moderate coverage by nuisance/exotic species, including torpedo grass (*Panicum repens*), rattlebox (*Sesbania* sp.), primrose willow (*Ludwigia peruviana*), parrot's feather (*Myriophyllum aquaticum*), paragrass (*Urochloa mutica*), doveweed (*Murdannia nudiflora*), and Chinese tallow (*Sapium sebiferum*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, substation	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

turkey, white tailed deer, feral hog, cuban brown anole, armadillo, kestrel, green heron, mosquitofish, leopard frog, wood stork, white ibis, black racer

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/23/09 through 10/21/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 641 - Wetlands 18, 20-23, 30, 126, F, X, FF, CF
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/23/09 through 10/21/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	8	0	Location and landscape support variable is slightly reduced due to location of wetlands within transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 9, wetlands provide preferred habitat; b) Invasive exotic species = 8, minimal coverage; c) Wildlife access to and from outside = 8, slightly decreased due to limitations imposed by clearing and roadways; d) functions that benefit fish & wildlife downstream-distance or barriers = 8; e) Impacts to wildlife listed in Part 1 by outside land uses = 8, slightly reduced due to clearing; f) Hydrologically connected areas downstream of assessment area = 8; g) Dependency of downstream areas on assessment area = 7, signficant benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	8	0	The water environment score is reflective of relatively undisturbed hydrology, slightly reduced due to surrounding land clearing. Individual parameter scores: a) water levels and flows = 8, slight alterations in water level due to clearing of surrounding areas; 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; g) hydrologic stress on vegetation = 8, not apparent; h) use by animal species with specific hydrological requirements = 9, high quality 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 1. Vegetation and/or 2. Benthic Community	8	0	These freshwater marshes support a diverse community of native wetland vegetation, although the community structure variable is slightly reduced due to presence of exotic/nuisance species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 8, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 7, moderate coverage; c) regeneration and recruitment = 8, somewhat impacted by ROW maintenance; d) age & size distribution = 8, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = 8; f) plant condition = 8; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 8, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.80	0

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

For impact assessment areas
FL = delta x acres = **-0.80 x 2.32 = 1.86** (see impact table for individual wetland impact acreage)

Delta = [with-current]
-0.80

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 127, DDa, EE, QQ, CD, CV, DC

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641 - Freshwater Marsh		Existing Condition	6.2 acres (127=0.46, DDa=0.08, EE=0.84, QQ=0.60, CD=2.05, CV=2.00, DC=0.17)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		Wetland CV is adjacent to OFW (tributary of Hillsborough River)

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW through ditching. Surrounded by upland and wetland forest, roadways, and cleared transmission line ROW.

Assessment area description

Freshwater marsh wetlands vegetated with mixture of native wetland species including a diverse assemblage of herbaceous species and a sparse canopy comprised of a mixture of slash pine (*Pinus elliottii*), dahoon holly (*Ilex cassine*), laurel oak (*Quercus laurifolia*), red maple (*Acer rubrum*), water oak (*Quercus nigra*), and sweetgum (*Liquidambar styraciflua*). Shrub species include buttonbush (*Cephalanthus occidentalis*), wax myrtle (*Myrica cerifera*), gallberry (*Ilex glabra*), and silverling (*Baccharis glomeruliflora*). Groundcover species include Virginia chain fern (*Woodwardia virginica*), royal fern (*Osmunda regalis*), fireflag (*Thalia geniculata*), alligatorweed (*Alternanthera philoxeroides*), dayflower (*Commelina difusa*), yellow-eyed grass (*Xyris elliottii*), smartweed (*Polygonum* sp.), lizard's tail (*Saururus cernuus*), swamp fern (*Blechnum serrulatum*), goldenrod (*Solidago* sp.), grassleaf rush (*Juncus marginatus*), redroot (*Lachnanthes caroliniana*), southern beaksedge (*Rhynchospora microcarpa*), cinnamon fern (*Osmunda cinnamomea*), spikerush (*Eleocharis baldwinii*), maidencane (*Panicum hemitomon*), dogfennel (*Eupatorium capillifolium*), coinwort (*Centella asiatica*), soft rush (*Juncus effusus*), broomsedge bluestem (*Andropogon virginicus*), and big carpetgrass (*Axonopus furcatus*), Minimal coverage by nuisance/exotic species, including torpedo grass (*Panicum repens*), rattlebox (*Sesbania* sp.), primrose willow (*Ludwigia peruviana*), and water hyacinth (*Eichhornia crassipes*).

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 storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

snowy egret, sandhill crane, anhinga, largemouth bass, mosquitofish, pig frog, common yellowthroat, little blue heron,

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/09 through 10/22/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 641 - Wetlands 127, DDa, EE, QQ, CD, CV, DC
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact - Fill	M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/09 through 10/22/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Comments
.500(6)(a) Location and Landscape Support	8	0	Location and landscape support variable is slightly reduced due to location of wetlands within transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 9, wetlands provide preferred habitat; b) Invasive exotic species = 8, minimal coverage; c) Wildlife access to and from outside = 8, slightly decreased due to limitations imposed by clearing and roadways; d) functions that benefit fish & wildlife downstream-distance or barriers = 8; e) Impacts to wildlife listed in Part 1 by outside land uses = 8, slightly reduced due to clearing; f) Hydrologically connected areas downstream of assessment area = 8; g) Dependency of downstream areas on assessment area = 7, signficant benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	9	0	The water environment score is reflective of relatively undisturbed hydrology. Individual parameter scores: a) water levels and flows = 8, slight alterations in water level due to clearing of surrounding areas; b) water level indicators = 9, consistent with expected; c) soil moisture = 9, consistent with expected; d) soil erosion or deposition = 8, minimal erosion; e) evidence of fire history = N/A; f) vegetation community zonation = 9; g) hydrologic stress on vegetation = 8, not apparent; h) use by animal species with specific hydrological requirements = 9, high quality 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 1. Vegetation and/or 2. Benthic Community	9	0	These freshwater marshes support a diverse community of native wetland vegetation. The community structure variable is slightly reduced due to presence of exotic/nuisance species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 9, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 9, minimal coverage; c) regeneration and recruitment = 8, somewhat impacted by ROW maintenance; d) age & size distribution = 8, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = 8; f) plant condition = 9; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 8, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.87	0

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

For impact assessment areas
FL = delta x acres = **-0.87 x 1.45 = 1.26** (see impact table for individual wetland impact acreage)

Delta = [with-current]
-0.87

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 66, 77, 108, 114, 120, 123, CG, DQ, DW, DY

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
643 - Wet Prairie		Existing Condition	2.24 acres (66=0.44, 77=0.01, 108=0.25, 114=0.21, 120=0.14, 123=0.71, CG=0.23, DQ=0.02, DW=0.12, DY=0.11)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, roadways, and cleared transmission line ROW

Assessment area description

Disturbed wet prairie wetlands vegetated with a mixture of nuisance/exotic and native species, impacted by grazing, mowing, and ditching. Common species include the nuisance/exotics primrose willow (*Ludwigia peruviana*), doveweed (*Murdannia nudiflora*), bermuda grass (*Cynodon dactylon*), bahiagrass (*Paspalum notatum*), alligator weed (*Alternanthera philoxeroides*), and occasional Chinese tallow (Sapium sebiferum), as well as native species leafflower (*Phyllanthus* sp.), dogfennel (*Eupatorium capillifolium*), goatweed (*Scoparia dulcis*), witchgrass (*Dichanthelium* sp.), piedmont primrose willow (*Ludwigia arcuata*), yellow-eyed grass (*Xyris* sp.), false daisy (*Eclipta prostata*), (*Rhynchospora microcarpa*), broomsedge bluestem (*Andropogon virginicus*), dwarf umbrellagrass (*Fuirena scirpoides*), milkweed (*Asclepias* sp.), bushy broomsedge (*Andropogon glomeratus*), lesser creeping rush (*Juncus repens*), silverling (*Baccharis glomeruliflora*), coastal plain willow (*Salix caroliniana*), capeweed (*Phyla nodiflora*), sedges (*Cyperus* sp.), soft rush (*Juncus effusus*), maidencane (*Panicum hemitomon*), crabgrass (*Digitaria* sp.), dayflower (*Commelina difusa*), buttonweed (*Diodia virginiana*),

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, substation	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Cuban tree frog, leopard frog, white tailed deer, kestrel

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock	10/8/09 through 10/21/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 643 - Wetlands 66, 77, 108, 114, 120, 123, CG, DQ, DW, DY
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	M. Arrants, J. Styer, S. Rizzo, K. Bullock	10/8/09 through 10/21/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	6	0	Location and landscape support variable is reduced due to location within existing transmission line ROW with adjacent residential and agricultural areas. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to surrounding development; b) Invasive exotic species = 6, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding agricultural and residential areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited connection to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 2, limited hydrologic connections, typically isolated; g) Dependency of downstream areas on assessment area = 2, little benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	4	0	The water environment score is reduced due to impacts from landclearing, ditching, adjacent agricultural and residential landuses, and roadways. Individual parameter scores: a) water levels and flows = 4, altered due to clearing, ditching; b) water level indicators = 5, less than typical of assessment area; c) soil moisture = 5, reduced due to ditching; d) soil erosion or deposition = 5, erosion from 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 by animal species with specific hydrological requirements = 5, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 6, some species indicative of high nutrients such as primrose 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 1. Vegetation and/or 2. Benthic Community	5	0	The community structure variable is reduced due to significant coverage of exotic species of vegetation, mowing, grazing, and ditching. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 5, significant coverage by nuisance/exotic species; b) invasive exotics or other invasive plant species = 5, significant coverage; c) regeneration and recruitment = 5, impacted by mowing, grazing; d) age & size distribution = 5, altered due to grazing and maintenance of ROW; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, reduced due to grazing, ROW maintenance; g) land management practices = 5, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 5, less than typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.50	0

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

For impact assessment areas
FL = delta x acres = **-0.50 x 0.44 = 0.22** (see impact table for individual wetland impact acreage)

Delta = [with-current]
-0.50

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetlands 112A, 117, CB

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
643 - Wet Prairie		Existing Condition	0.96 acres (112A=0.70, 117=0.06, CB=0.20)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206) and Hillsborough River (03100205)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Typically isolated wet prairies, some connected through ditching to other wetlands/surface waters outside the transmission line ROW. Surrounded by cleared transmission line ROW, agricultural and residential areas, and roadways.

Assessment area description

Wet prairie wetlands vegetated with a mixture of native and nuisance/exotic species, impacted by grazing, ditching, and mowing. Common species include the nuisance/exotics rattlebox (*Sesbania* sp.), doveweed (*Murdannia nudiflora*), bermuda grass (*Cynodon dactylon*), water hyacinth (*Eichhornia crasspies*), and alligator weed (*Alternanthera philoxeroides*), as well as the native species Eastern gamagrass (*Tripsacum dactyloides*), dogfennel (*Eupatorium capillifolium*), milkweed (*Asclepias* sp.), bushy broomsedge (*Andropogon glomeratus*), broomsedge bluestem (*Andropogon virginicus*), capeweed (*Phyla nodiflora*), sedges (*Cyperus* sp.), maidencane (*Panicum hemitomon*), dayflower (*Commelina difusa*), blue maidencane (*Amphicarpum muhlenbergianum*), meadow beauty (*Rhexia* sp.), watergrass (*Luziola fluitans*), and smartweed (*Polygonum* sp.).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, substation	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

none observed

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, K. Bullock	10/07/09 through 10/20/09

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 643 - Wetlands 112A, 116, 117, CB
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact - Fill	M. Arrants, J. Styer, K. Bullock	10/07/09 through 10/20/09

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	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	7	0	Location and landscape support variable is slightly reduced due to location of wetlands within transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, slightly reduced due to adjacent agricultural and residential areas, cleared ROW; b) Invasive exotic species = 6, moderate coverage; c) Wildlife access to and from outside = 7, decreased due to limitations imposed by clearing, roadways, development; d) functions that benefit fish & wildlife downstream-distance or barriers = 7; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, slightly reduced due to clearing, roadways, residential, agricultural areas; f) Hydrologically connected areas downstream of assessment area = 5, typically no connection to adjacent wetlands, with exception of ditched wet prairies; g) Dependency of downstream areas on assessment area = 5, little benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	6	0	The water environment score is reduced due to ditching, grazing, mowing, and clearing of surrounding landscape for residential and agricultural landuses. Individual parameter scores: a) water levels and flows = 6, alterations in water level due to clearing of surrounding areas, ditching, development; b) water level indicators = 6, hydrologic indicators reflective of reduced hydroperiod; c) soil moisture = 6, upland encroachment evident; d) soil erosion or deposition = 6, moderate erosion due to grazing, ditching, ROW maintenance; e) evidence of fire history = N/A; f) vegetation community zonation = 7, some upland species encroachment; g) hydrologic stress on vegetation = 6, upland encroachment apparent; h) use by animal species with specific hydrological requirements = 5, relatively poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 7, community consists of typical native species, moderate coverage of exotic/nuisance 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 1. Vegetation and/or 2. Benthic Community	6	0	These wet prairies support a mixture of native and nuisance/exotic species, reducing the community structure variable score. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 6, moderate coverage by nuisance/exotic species within the ground stratum, ROW maintenance reduces extent of canopy species; b) invasive exotics or other invasive plant species = 6, moderate coverage; c) regeneration and recruitment = 7, somewhat impacted by ROW maintenance; d) age & size distribution = 6, impacted due to grazing, ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = 7; f) plant condition = 7; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 6; little topographic variability; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.63	0

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

For impact assessment areas
FL = delta x acres = -0.63 x 0.18 = 0.11 (Wetland 112A); -0.63 x 0.19 = 0.12 (Wetland CB); **total of 0.37 acres and total FL of 0.23**

Delta = [with-current]
-0.63

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

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

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

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		Wetland CC

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
643 - Wet Prairie		Existing Condition	2.86 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tampa Bay (03100206)		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, within cleared transmission line ROW

Assessment area description

Wet prairie dominated by native herbaceous wetland species including pickerelweed (*Pontederia cordata*), soft rush (*Juncus effusus*), smartweed (*Polygonum* sp.), dogfennel (Eupatorium capillifolium), dayflower (*Commelina difusa*), broomsedge bluestem (*Andropogon virginicus)*, and buttonweed (*Diodia virginiana*), and peppervine (*Ampelopsis arborea*), as well as nuisance/exotic species primrose willow (*Ludwigia peruviana*) and rattlebox (*Sesbania* sp.). Sparse coverage of tree/shrub species, including red maple (*Acer rubrum*), wax myrtle (*Myrica cerifera*), and laurel oak (*Quercus laurifolia*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, residential subdivision, lake	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	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, 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 Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, K. Bullock	9/23/2009

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

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 Name or Number
Progress Energy Florida, Inc./Levy Nuclear Plant - Transmission Lines/PHP Transmission Line		FLUCFCS 643 - Wetland CC
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	M. Arrants, J. Styer, S. Rizzo, K. Bullock	9/25/09 through 10/22/09

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 waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

Indicator	w/o pres or current	with	Description
.500(6)(a) Location and Landscape Support	8	0	Location and landscape support variable is slightly reduced due to location of wetland within transmission line ROW and adjacent residential subdivision. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, wetlands provide preferred habitat; b) Invasive exotic species = 8, minimal coverage; c) Wildlife access to and from outside = 8, slightly decreased due to limitations imposed by clearing and roadways; d) functions that benefit fish & wildlife downstream-distance or barriers = 8; e) Impacts to wildlife listed in Part 1 by outside land uses = 8, slightly reduced due to clearing; f) Hydrologically connected areas downstream of assessment area = 8; g) Dependency of downstream areas on assessment area = 7, signficant benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	8	0	The water environment score is reflective of relatively undisturbed hydrology, slightly reduced due to ROW clearing. Individual parameter scores: a) water levels and flows = 8, slight alterations in water level due to clearing of surrounding areas; 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; g) hydrologic stress on vegetation = 8, not apparent; h) use by animal species with specific hydrological requirements = 9, high quality 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 1. Vegetation and/or 2. Benthic Community	7	0	Wet prairie supporting a diverse community of native wetland vegetation, although the community structure variable is slightly reduced due to presence of exotic/nuisance species, specifically primrose willow and rattlebox. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 8, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 7, moderate coverage; c) regeneration and recruitment = 7, somewhat impacted by ROW maintenance; d) age & size distribution = 7, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = 8; f) plant condition = 8; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 8, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.77	0

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

For impact assessment areas
FL = delta x acres = **-0.77 x 0.27 = 0.21**

Delta = [with-current]
-0.77

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

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

FLORIDA
Natural Areas
INVENTORY

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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: Pinellas-Hillsborough-Polk

Date Received: November 24, 2009

Location: Pinellas, Hillsborough, and Polk Counties

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 maps and element occurrence tables). 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.

*Several of the species and natural communities tracked by the Inventory are considered **data sensitive**. Occurrence records for these elements contain information that we consider sensitive due to collection pressures, extreme rarity, or at the request of the source of the information. The Element Occurrence Record has been labeled "Data Sensitive." We request that you not publish or release specific locational data about these species or communities without consent from the Inventory. If you have any questions concerning this please do not hesitate to call.*

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 Reports). 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.

Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

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.

The FNAI Biodiversity Matrix Geodatabase compiles Documented, Likely, and Potential species and natural communities for each square mile Matrix Unit statewide.

Managed Areas

Portions of the site appear to be located within Lake Park and Cone Ranch, both managed by Hillsborough County. Portions of the site also appear to be located within the Lower Hillsborough Flood Detention Area and Upper Hillsborough, both managed by the Southwest Florida Water Management District.

The Managed Areas data layer shows public and privately managed conservation lands throughout the state. Federal, state, local, and privately managed conservation lands are included.

Land Acquisition Projects

This site appears to be located within the Green Swamp Florida Forever BOT Project, which is part of the State of Florida's Conservation and Recreation Lands land acquisition program. A description of this project is enclosed. For more information on this Florida Forever Project, contact the Florida Department of Environmental Protection, Division of State Lands.

Florida Forever Board of Trustees (BOT) projects are proposed and acquired through the Florida Department of Environmental Protection, Division of State Lands. The state has no regulatory authority over these lands until they are purchased.

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

Site boundaries are approximate.

Pinellas and Hillsborough Counties

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FLORIDA Natural Areas INVENTORY

Element Occurrences

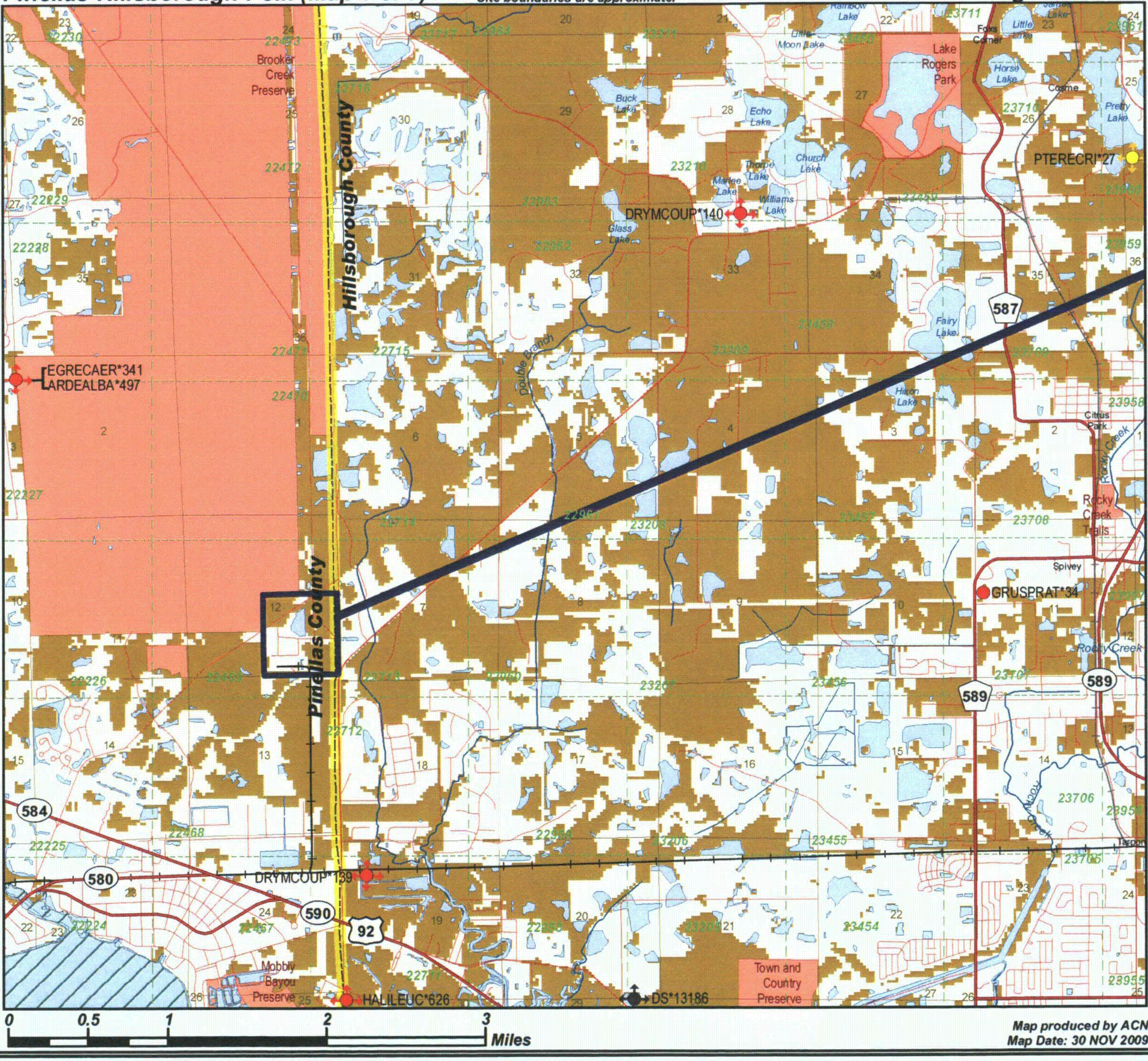
- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever Board of Trustees Projects
- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units
- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water



NOTE
Map should not be interpreted without accompanying documents.

Map produced by ACN
Map Date: 30 NOV 2009

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Pinellas-Hillsborough-Polk (Map 1 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
DRYMCOUP*140	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	1965-	No general description given	INDIGO OBSERVED BY J. S. GODLEY OR MARTY MARTIN IN 1965 (MOLER INTERVIEW OF GODLEY & MARTIN, 1982-03-27).
PTERECRI*27	Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT	1977-09-13	1977-09-13: Open area in sandhill community (Wunderlin).	1977-09-13: Only one flowering specimen seen; specimen taken [fl] (Wunderlin).
GRUSPRAT*34	Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT	1990-04-28	GRASSY (MOWED) FIELDS WITH SCATTERED CYPRESS PONDS ON E SIDE OF RD. SOME OF THE PONDS HAVE BEEN CONVERTED TO RETENTION PONDS.	3 INDIVIDUALS SEEN, 2 ADULTS AND 1 CHICK. 1995: REPORT FROM RESIDENT SAYS NO HABITAT LEFT FOR BIRDS.
DRYMCOUP*139	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	1970-<	No general description given	INDIGO OBSERVED BY J.S GODLEY OR MARTY MARTIN PRIOR TO 1970 (MOLER INTERVIEW OF GODLEY & MARTIN, 1982-03-27).
DS*13186	Data Sensitive Element	Data Sensitive	G2	S2	N	LE	1960-08-12	Data Sensitive	Data Sensitive
ARDEALBA*497	Ardea alba	Great Egret	G5	S4	N	N	1988-06-14	Hole in cypress swamp.	1988/06/14: B.A. Millsap, GFC; PI-R-06 Cattle Egrets or immature Little Blue Herons? Total = B (includes GREG, LBHE).
EGRECAER*341	Egretta caerulea	Little Blue Heron	G5	S4	N	LS	1988-06-14	Hole in cypress swamp	1988/06/14: B.A. Millsap, GFC, observation. PI-R-06 Cattle Egrets or immature Little Blue Herons? "Total" = B (includes GREG, LBHE). 1988/06/15: K.J. McGowan, GFC, observation. Est. breeding pairs (=25). Nesting stages: Young flying/ready, nests abandone
HALILEUC*626	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	2003	No general description given	Nest status 1999-2003: Active - 2003, 2002, 2001, 2000; Unknown/not assessed - 1999;Status 1995-98: Continuously active. (U03FWC01FLUS). Previous data (note different format) NEST; 1991: DESTROYED, 0 YOUNG; 1990: PRODUCED 1 YOUNG; 1989: PRODUCED 1 YOUNG;

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 1 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 22469					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Eumops floridanus	Florida bonneted bat	G1	S1	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Linum carteri var. smallii	Small's Flax	G2T2	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Matrix Unit ID: 22713					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Eumops floridanus	Florida bonneted bat	G1	S1	N	LE
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Linum carteri var. smallii	Small's Flax	G2T2	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	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.

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FLORIDA Natural Areas INVENTORY

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 22960

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Eumops floridanus	Florida bonneted bat	G1	S1	N	LE
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Linum carteri var. smallii	Small's Flax	G2T2	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 22961

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	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.

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 1 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Eumops floridanus	Florida bonneted bat	G1	S1	N	LE
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Linum carteri var. smallii	Small's Flax	G2T2	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 23208

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Eumops floridanus	Florida bonneted bat	G1	S1	N	LE
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Linum carteri var. smallii	Small's Flax	G2T2	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE

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.
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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 1 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 23457

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill upland lake		G3	S2	N	N

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Eumops floridanus	Florida bonneted bat	G1	S1	N	LE
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Linum carteri var. smallii	Small's Flax	G2T2	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 23458

Likely

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

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report

Map 1 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill upland lake		G3	S2	N	N
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Eumops floridanus	Florida bonneted bat	G1	S1	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Linum carteri var. smallii	Small's Flax	G2T2	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 23709

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill upland lake		G3	S2	N	N
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Eumops floridanus	Florida bonneted bat	G1	S1	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 1 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

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Pinellas-Hillsborough-Polk (Map 2 of 7)

Site boundaries are approximate.

Hillsborough County

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FLORIDA
Natural Areas
INVENTORY

Element Occurrences

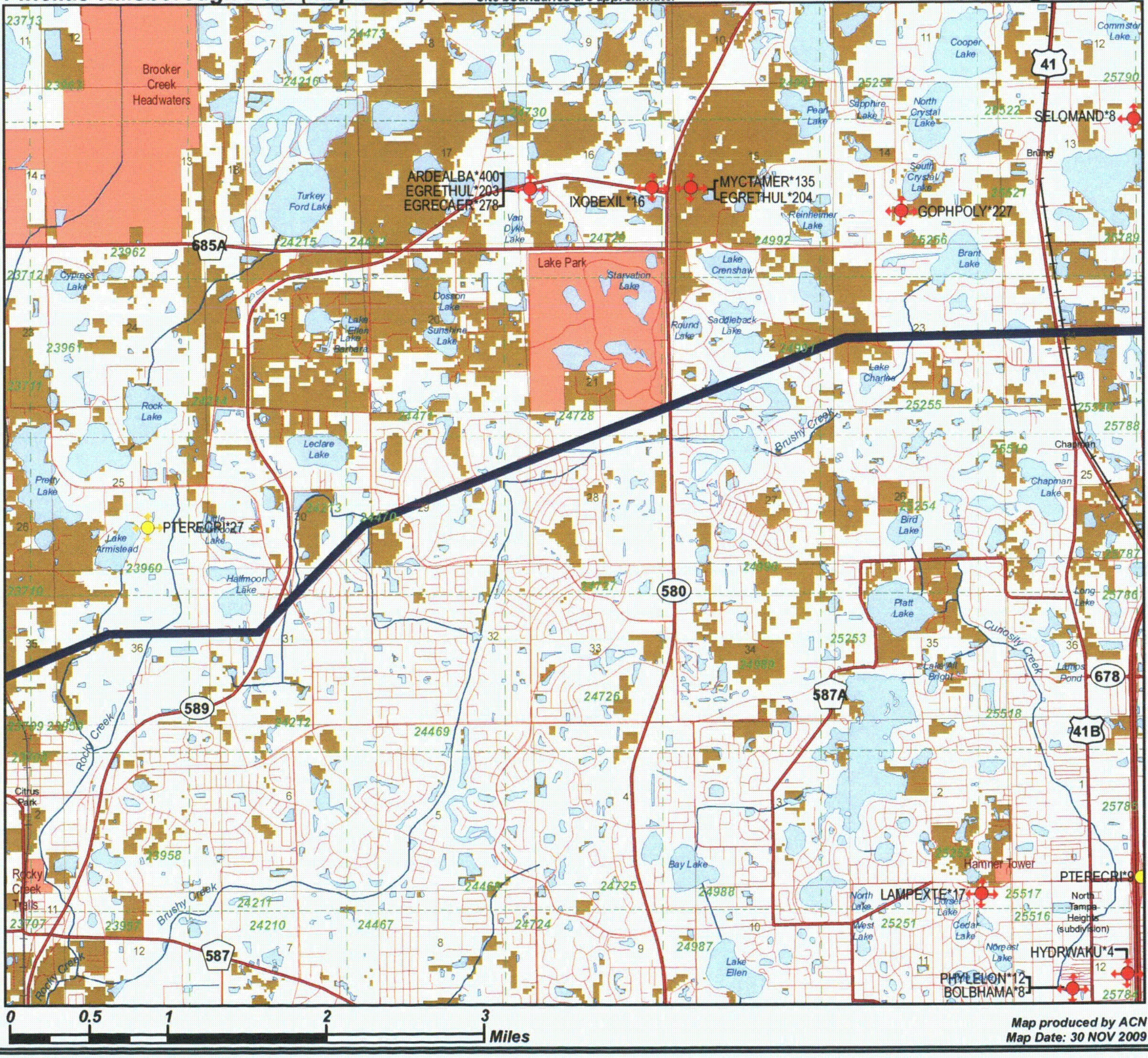
- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever Board of Trustees Projects
- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units
- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water



N W E S

NOTE
Map should not be interpreted without accompanying documents.

Map produced by ACN
Map Date: 30 NOV 2009

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR
Pinellas-Hillsborough-Polk (Map 2 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
PTERECRI*27	Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT	1977-09-13	1977-09-13: Open area in sandhill community (Wunderlin).	1977-09-13: Only one flowering specimen seen; specimen taken [fl] (Wunderlin).
GOPHPOLY*227	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	1987-pre	OLD FIELD	1987-pre: Species occurrence noted here in Diemer's unpublished map set (U86DIE01FLUS).
PTERECRI*9	Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT	1989-09-02	SANDY OAK WOODLANDS, QUERCUS VIRGINIANA VAR. GEMINATA AND QUERCUS LAEVIS DOMINANT.	1 PLANT, FLOWERING, IN LEAF.
EGRETHUL*204	Egretta thula	Snowy Egret	G5	S3	N	LS	1988-05-19	Cypress pond.	1988/05/19: K.J. McGowan, GFC. WOST young flying/ready and loafing on colony. 3 active WOST nests. SNEG and ANHI not nesting. No obs. on other spp (GRHE). "Total" (individuals?) = 15.
EGRETHUL*203	Egretta thula	Snowy Egret	G5	S3	N	LS	1988-05-19	Willows at lake edge.	1988/05/19: K.J. McGowan, GFC. Est. breeding pairs. GREG not nesting? CAEG incubating. LBHE incubating(most), hatching(most), downy(most), flying/ready. No obs. on other spp (SNEG, GRHE). "Total" = B.
LAMPEXTE*17	Lampropeltis extenuata	Short-tailed Snake	G3	S3	N	LT	1960-11-22	No general description given	SPECIMEN IN USF COLLECTION, COLLECTED 22 NOVEMBER 1960.
MYCTAMER*135	Mycteria americana	Wood Stork	G4	S2	LE	LE	1988-06-07	Cypress swamp	1988/06/07: K.J. McGowan, GFC. HI-R-05 One stork incubating. Several old nests. "Total" = A.
ARDEALBA*400	Ardea alba	Great Egret	G5	S4	N	N	1988-05-19	1988-05-19: Willows at lake edge (U97GFC02FLUS).	1988-05-19: K.J. McGowan, GFC; Est. breeding pairs. Great egret not nesting? Cattle egret incubating. Little blue heron incubating(most), hatching(most), downy(most), flying/ready. No obs. on other spp (snowy egret, great heron). Total = B.
EGRECAER*278	Egretta caerulea	Little Blue Heron	G5	S4	N	LS	1988-05-19	Willows at lake edge.	1988/05/19: K.J. McGowan, GFC, observation. Est. breeding pairs. GREG not nesting? CAEG incubating. LBHE incubating (most), hatching (most), downy (most), flying/ready. No obs. on other spp (SNEG, GRHE). "Total" = B.
IXOBEXIL*16	Ixobrychus exilis	Least Bittern	G5	S4	N	N	1988-05-19	Strand Swamp	1988-05-19: K.J. McGowan, GFC, observed 1 bittern. WADING BIRD RECORD FROM MILLSAP'S OCCUR.DBF.

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ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Pinellas-Hillsborough-Polk (Map 2 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
SELOMAND*8	Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N	1958-08-08	1958-08-08: No description given (B99GAL01FLUS).	1958-08-08: 1 specimen was collected and deposited at FSCA (B99GAL01FLUS). 1916-05-18: 3 specimens were collected and deposited at LACM (B99GAL01FLUS). 1916-05-10: 1 specimen was collected and deposited to LACM (B99GAL01FLUS).
PHYLELON*12	Phyllophaga elongata	Elongate June Beetle	G2G4	S2S4	N	N	1966-08-29	1966-08-29: No description given (B89WOO01FLUS).	1966-08-29: One specimen was collected by T.J. Favoroso using a Steiner trap. 1965-08-12: T.J. Favoroso collected 2 specimens in a Japanese beetle trap. 1952-08: J. Gross collected 1 specimen(B89WOO01FLUS).
BOLBHAMA*8	Bolbocerosoma hamatum	Bicolored Burrowing Scarab Beetle	GNR	S3S4	N	N	1964-11-04	1964-11-04: No description given (B73WOO01FLUS).	1964-11-04: One specimen was collected by Jean Beem (B73WOO01FLUS).
HYDRWAKU*4	Hydroptila wakulla	Wakulla Springs Vari-colored Microcaddisfly	G2	S2	N	N	1962-Pre	1962-Pre: No description given (U06RAS01FLUS).	1962-Pre: Specimens were collected before 1962 (U06RAS01FLUS).

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 2 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 23959					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Eumops floridanus	Florida bonneted bat	G1	S1	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Matrix Unit ID: 24212					
Likely					
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 2 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

Matrix Unit ID: 24213

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill upland lake		G3	S2	N	N

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 24470

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Mycteria americana	Wood Stork	G4	S2	LE	LE

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 2 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Matrix Unit ID: 24727					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N

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FLORIDA Natural Areas INVENTORY

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 24728

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Ardea alba	Great Egret	G5	S4	N	N
Egretta caerulea	Little Blue Heron	G5	S4	N	LS
Egretta thula	Snowy Egret	G5	S3	N	LS
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Ixobrychus exilis	Least Bittern	G5	S4	N	N
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 24991					
Likely					
Egretta thula	Snowy Egret	G5	S3	N	LS
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Ixobrychus exilis	Least Bittern	G5	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE
Matrix Unit ID: 25255					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE

atrix Unit ID: 25520

Likely

Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill upland lake		G3	S2	N	N

Potential

Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 2 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE

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Pinellas-Hillsborough-Polk (Map 3 of 7)

Site boundaries are approximate.

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FLORIDA
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Element Occurrences

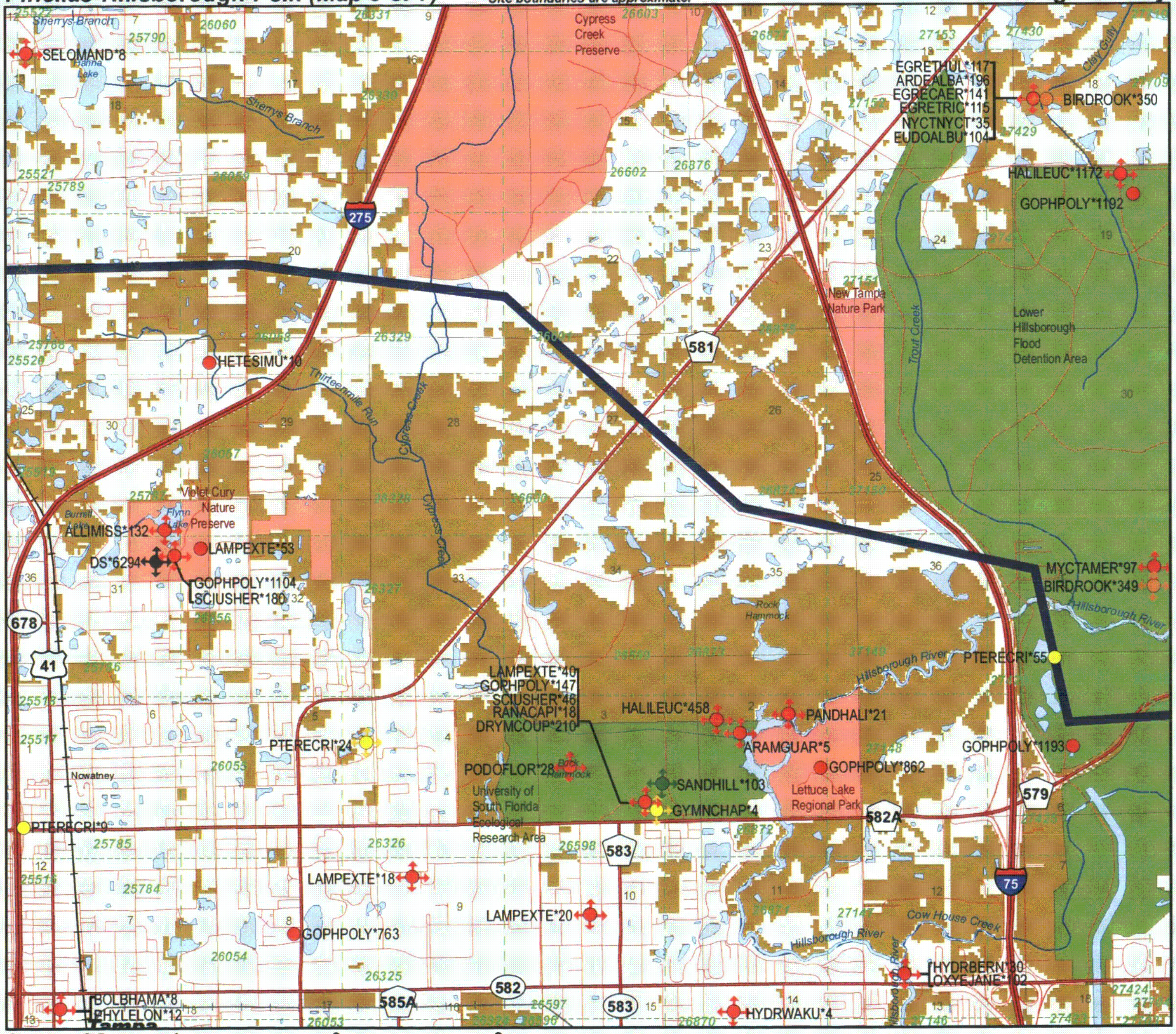
- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever Board of Trustees Projects
- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units
- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water



NOTE
Map should not be interpreted without accompanying documents.

Map produced by ACN
Map Date: 30 NOV 2009

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR
Pinellas-Hillsborough-Polk (Map 3 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
LAMPEXTE*18	Lampropeltis extenuata	Short-tailed Snake	G3	S3	N	LT	1977-04-27	"TURKEY OAK SANDHILL HABITAT".	SPECIMEN FOUND CROSSING SAND ROAD AT 1730 HR, 27 APRIL 1977, BY LEO GARCIA.
PTERECRI*24	Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT	1981-09-15	1981-09-15: Wet pinelands (R. Day).	1981-09-15: Specimen taken [fl] (R. Day).
PODOFLOR*28	Podomys floridanus	Florida Mouse	G3	S3	N	LS	1969	ISLAND OF SAND PINE SCRUB SURROUNDED BY WETLANDS OF HILLSBOROUGH RIVER.	2 USF SPECIMENS (ADULT M & F) COLL. 4 DEC 1969 BY R. JONES (ADJ-010,011).
LAMPEXTE*20	Lampropeltis extenuata	Short-tailed Snake	G3	S3	N	LT	1974-11	DEVELOPED AREA ON FORMER SANDHILL.	1974-01-18: SPECIMEN COLLECTED DOR (DEAD ON ROAD) BY LARRY N. BROWN; BROWN COLLECTED A 2ND SPECIMEN IN NOVEMBER OR DECEMBER 1974 (S74BROSF). 1961-04-28: SINGLE SPECIMEN (GEW-1880) FOUND IN GARAGE (A62WOO01FL).
PTERECRI*9	Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT	1989-09-02	SANDY OAK WOODLANDS, QUERCUS VIRGINIANA VAR. GEMINATA AND QUERCUS LAEVIS DOMINANT.	1 PLANT, FLOWERING, IN LEAF.
GOPHPOLY*763	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	1992-05-21	SANDHILL COMMUNITY WITH LONGLEAF PINE AND INTACT WIREGRASS GROUNDCOVER. QUERCUS LAEVIS, Q. GEMINATA, DIOSPYROS VIRGINIANA, BAPTISIA LECONTEI, LUPINUS DIFFUSUS, PSORALEA CANESCENS, PETALOSTEMON CARNEA, AND DYSCHORISTE OBLONGIFOLIA.	AT LEAST 5 BURROWS SCATTERED OVER CA. 10 ACRE SITE. ONE GOPHER TORTOISE SEEN AT ENTRANCE TO BURROW.
HETESIMU*10	Heterodon simus	Southern Hognose Snake	G2	S2	N	N	1994-POST	Overgrown sandhill succeeding to xeric oak hammock in absence of fire, with residential development but few fences; most homes built in 1983-1985 on 0.5->1-acre lots; Mushinsky yard (site of SIMUS observation) has palmetto understory, but most homes have	Post-1994: H. Mushinsky observed species in yard, though hasn't observed it in 2000-2001.
SCIUSHER*180	Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS	1998	98-December: Oak hammock (U98BOW01FLUS).	00-01-24: Observed on site (U98BOW01FLUS).
ALLIMISS*132	Alligator mississippiensis	American Alligator	G5	S4	SAT	LS	1998	98-December: Freshwater lake (U98BOW01FLUS).	00-01-24: Observed on site (U98BOW01FLUS).

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Pinellas-Hillsborough-Polk (Map 3 of 7)

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SCIUSHER*46	Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS	1979-10-10	SANDHILL HABITAT WITH LONGLEAF OF VARIOUS AGES (NO OLD GROWTH), ON EDGE OF HILLSBOROUGH RIVER FLOODPLAIN.	SPECIMEN (UF-22166) COLL. 10 OCT 1979 BY L.N. BROWN (MN #6).
DS*6294	Data Sensitive Element	Data Sensitive	G2	S2	N	LE	1964-06-17	Data Sensitive	Data Sensitive
EGRECAER*141	Egretta caerulea	Little Blue Heron	G5	S4	N	LS	1988-06-07	No general description given	Species present 1988-06-07.
BIRDROOK*350	Bird Rookery		G5	SNR	N	N	1988-06-07	No general description given	Multi-species rookery, 9 species. >1,000 birds 1988-06-07. Great Egret, Snowy Egret, Cattle Egret, Little Blue Heron, Tricolored Heron, Green-backed Heron, Black-crowned Night Heron, White Ibis, and Anhinga present 1988.
BIRDROOK*349	Bird Rookery		G5	SNR	N	N	1988-06-07	No general description given	Single-species rookery. 101-250 birds 1987-06-30, 1-10 birds 1988-05-27 and 1988-06-07. Wood Stork present 1987 and 1988.
EGRETRIC*115	Egretta tricolor	Tricolored Heron	G5	S4	N	LS	1988-06-07	No general description given	Species present 1988-06-07.
PANDHALI*21	Pandion haliaetus	Osprey	G5	S3S4	N	LS*	1985-08-07	Blackwater Stream with Floodplain Swamp (cypress and hardwoods); emergent and floating vegetation; Pomocea eggs.	Nest (one) in large cypress on W. bank of Hillsborough River, two adult ospreys feeding in adjacent river.
RANACAPI*18	Rana capito	Gopher Frog	G3	S3	N	LS	1985-07-06	SANDHILL SURROUNDED BY FLOODPLAIN SWAMP (CYPRESS) OF HILLSBOROUGH RIVER; SANDHILL TIMBERED IN PAST BUT REGENERATING, A SMALL REMNANT OF PAST LARGE NC; USF BURNS EXPERIMENTALLY.	MUSHINSKY HAS OBSERVED ONE YOUNG INDIVIDUAL.
ARDEALBA*196	Ardea alba	Great Egret	G5	S4	N	N	1988-06-07	No general description given	Species present 1988-06-07.
NYCTNYCT*35	Nycticorax nycticorax	Black-crowned Night-heron	G5	S3	N	N	1988-06-07	No general description given	Species present 1988-06-07.

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Pinellas-Hillsborough-Polk (Map 3 of 7)

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DRYMCOUP*210	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	1984-10-03	SANDHILL SURROUNDED BY FLOODPLAIN SWAMP (CYPRESS) OF HILLSBOROUGH RIVER; SANDHILL TIMBERED IN PAST BUT REGENERATING A SMALL REMNANT OF PAST LARGE NC; USF BURNS EXPERIMENTALLY	MUSHINSKY HAS OBSERVED 6 ADULTS IN 3 YEARS (1982-1984); SNAKES USE SWAMP IN SUMMER, SANDHILL IN SPRING/ AUTUMN (+4 WINTER?)
MYCTAMER*97	Mycteria americana	Wood Stork	G4	S2	LE	LE	1988-06-07	No general description given	Species present 1987-06-30 (101-250 birds), 1988-05-27 (1-10 birds), and 1988-06-07 (1-10 birds).
GYMNCHAP*4	Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N	1974-10-24	Sandhill community.	Infrequent; specimen flowering and fruiting.
GOPHPOLY*147	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	1989-09	SANDHILL SURROUNDED BY FLOODPLAIN SWAMP (CYPRESS) OF HILLSBOROUGH RIVER; SANDHILL TIMBERED IN PAST BUT REGENERATING, A SMALL REMNANT OF PAST LARGE NC; USF BURNS EXPERIMENTALLY.	POPULATION ESTIMATED AT 200-300, BASED ON CAPTURE OF 284 INDIVIDUALS FROM 1982-1991. GOOD, VIABLE POP., VERY ACTIVE COLONY. A83RAS01 EST. POP. DENSITY AT 17.1/HECTARE, MIXED AGES W/LARGE PROP. OF YOUNG. STUDIES OF FOOD HABITS (A89MAC01FL), LOW ANNUAL SUR
LAMPEXTE*40	Lampropeltis extenuata	Short-tailed Snake	G3	S3	N	LT	1984-02-02	SANDHILL SURROUNDED BY FLOODPLAIN SWAMP (CYPRESS) OF HILLSBOROUGH RIVER; SANDHILL TIMBERED IN PAST BUT REGENERATING, A SMALL REMNANT OF PAST LARGE NC; USF BURNS EXPERIMENTALLY.	MUSHINSKY FOUND ONE SNAKE UNDER TIN IN AREA THAT IS BURNED YEARLY IN MAY.
ARAMGUAR*5	Aramus guarauna	Limpkin	G5	S3	N	LS	1985-08-07	BLACKWATER STREAM WITH FLOODPLAIN SWAMP CYPRESS AND HARDWOODS; FLOATING & EMERGENT VEGETATING POMACEA EGGS.	PAIR OBSERVED ACTIVELY INTERACTING ALONG N BANK OF RIVER (D. JACKSON, 85-08-08).
EUDOALBU*104	Eudocimus albus	White Ibis	G5	S4	N	LS	1988-06-07	No general description given	Species present 1988-06-07.
EGRETHUL*117	Egretta thula	Snowy Egret	G5	S3	N	LS	1988-06-07	No general description given	Species present 1988-06-07.
GOPHPOLY*1104	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	1998	98-December: Pine flatwoods and oak hammock (U98BOW01FLUS).	00-01-24: Observed on site (U98BOW01FLUS).
GOPHPOLY*862	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	1993-10-21	Sandy flatwoods.	21 Oct. 93: observed one individual feeding along road.

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Pinellas-Hillsborough-Polk (Map 3 of 7)

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PTERECRI*55	Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT	2000-08-26	2000-08-26: Plants occurring on powerline corridor in association with Serenoa repens, Rhus copallina, Diospyros virginiana, Smilax auriculata, Elephantopus elatus, Euthamia caroliniana, Andropogon virginicus, and Cyperus sp. Bounding either side of the	2000-08-26: 8 individuals (62% flowering) found in area of 900 square yards with marginal vigor(U03SCH03FLUS).
HALILEUC*1172	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	2003	2005-07-12: Source does not provide a description.	Nest status: Active, 2003; Unknown status or not assessed, 2002, 2001, 2000, 1999;(U03FWC01FLUS)
SANDHILL*103	Sandhill		G3	S2	N	N	2004	Longleaf pine overstory, turkey oak, blue-jack oak mid-story, good wiregrass and rich herbaceous groundcover.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1993) (U05FNA02FLUS). Occurrence on site.
HALILEUC*458	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	2003	No general description given	Nest status 1999-2003: Active - 2003, 2001, 2000, 1999; Unknown/not assessed - 2002;Status 1995-98: Continuously active. (U03FWC01FLUS). Previous data (note different format) NEST: 1984-1988 ACTIVE; FLEDGED YOUNG, UNKNOWN 1984-1986.
LAMPEXTE*53	Lampropeltis extenuata	Short-tailed Snake	G3	S3	N	LT	2001-05-03	2001-05-03: Fire-suppressed flatwoods/oak hammock (old sandhill?). Most of land surrounding this small preserve is in residential development (U01BOW01FLUS)	2001-05-03: Sheryl Bowman observed/photographed snake 3 May 2001 (U01BOW01FLUS).
GOPHPOLY*1192	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	2006-07-28	2007-01-29: tortoise burrows are found in a large, actively managed mesic flatwoods that is part of a busy county park located in an urban setting (PNDGUL01FLUS).	2006-07-28: two active burrows observed in open mesic flatwoods within county park (F06FNA22FLUS).
GOPHPOLY*1193	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	2006-08-01	2007-01-29: disturbed remnant sandhill is adjacent to Tampa Bypass Canal and associated spoil areas. Major roads form southern and western boundarys. The Hillsborough River and its associated floodplain surround the area to the north and east (PNDGUL01	2006-08-01: one burrow seen at edge of remnant sandhill beside weedy, exotic filled spoil area (F06FNA22FLUS).

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ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Pinellas-Hillsborough-Polk (Map 3 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
OXYEFLOR*4	Oxyethira florida	Florida Cream and Brown Microcaddisfly	G1G2	S1S2	N	N	1962-Pre	1962-Pre: No description given (U06RAS01FLUS).	1962-Pre: An unknown number of specimens were collected (U06RAS01FLUS).
SELOMAND*8	Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N	1958-08-08	1958-08-08: No description given (B99GAL01FLUS).	1958-08-08: 1 specimen was collected and deposited at FSCA (B99GAL01FLUS). 1916-05-18: 3 specimens were collected and deposited at LACM (B99GAL01FLUS). 1916-05-10: 1 specimen was collected and deposited to LACM (B99GAL01FLUS).
PHYLELON*12	Phyllophaga elongata	Elongate June Beetle	G2G4	S2S4	N	N	1966-08-29	1966-08-29: No description given (B89WOO01FLUS).	1966-08-29: One specimen was collected by T.J. Favoroso using a Steiner trap. 1965-08-12: T.J. Favoroso collected 2 specimens in a Japanese beetle trap. 1952-08: J. Gross collected 1 specimen(B89WOO01FLUS).
BOLBHAMA*8	Bolbocerosoma hamatum	Bicolored Burrowing Scarab Beetle	GNR	S3S4	N	N	1964-11-04	1964-11-04: No description given (B73WOO01FLUS).	1964-11-04: One specimen was collected by Jean Beem (B73WOO01FLUS).
HYDRWAKU*4	Hydroptila wakulla	Wakulla Springs Vari-colored Microcaddisfly	G2	S2	N	N	1962-Pre	1962-Pre: No description given (U06RAS01FLUS).	1962-Pre: Specimens were collected before 1962 (U06RAS01FLUS).
HYDRBERN*30	Hydroptila berneri	Berner's Microcaddisfly	G4G5	S3	N	N	2007-04-03	2007-04-03: No description given other than that the locality was near a river (U09RAS01FLUS).	2007-04-03: Twenty-one specimens were collected using a 15 watt black light over an alcohol-filled white pan (U09RAS01FLUS, U08RAS01FLUS).
OXYEJANE*102	Oxyethira janella	Little-entrance Oxyethiran Microcaddisfly	G5	S4S5	N	N	2007-04-03	2007-04-03: No description given other than that the locality was near a river (U09RAS01FLUS).	2007-04-03: Twenty-seven specimens were collected using a 15 watt black light over an alcohol-filled white pan (U09RAS01FLUS, U08RAS01FLUS).

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Biodiversity Matrix Report
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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 25788					
Likely					
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE
Matrix Unit ID: 26058					
Documented					
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Likely					
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT

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Biodiversity Matrix Report
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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE

Matrix Unit ID: 26329

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Hydroptila wakulla	Wakulla Springs Vari-colored Microca	G1G2	S1S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS

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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE

Matrix Unit ID: 26600

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Hydroptila wakulla	Wakulla Springs Vari-colored Microca	G1G2	S1S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE

Matrix Unit ID: 26601

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Hydroptila wakulla	Wakulla Springs Vari-colored Microca	G1G2	S1S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE

Matrix Unit ID: 26874

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Hydroptila wakulla	Wakulla Springs Vari-colored Microca	G1G2	S1S2	N	N

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Biodiversity Matrix Report
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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G3	S2S3	N	N
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE

Matrix Unit ID: 27149

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2	S2	LT	LS
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Aramus guarauna	Limpkin	G5	S3	N	LS
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Hydroptila wakulla	Wakulla Springs Vari-colored Microca	G1G2	S1S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Pandion haliaetus	Osprey	G5	S3S4	N	LS*
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 3 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE

Matrix Unit ID: 27150

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Hydroptila wakulla	Wakulla Springs Vari-colored Microca	G1G2	S1S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE

Matrix Unit ID: 27425

Documented

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE

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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Sandhill		G3	S2	N	N
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Hydroptila wakulla	Wakulla Springs Vari-colored Microca	G1G2	S1S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Oxyethira florida	Florida Cream and Brown Microcaddis	G1G2	S1S2	N	N
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 27426

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Documented					
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Likely					
Bird Rookery		GNR	SNR	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2	S2	LT	LS
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 3 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Hydroptila wakulla	Wakulla Springs Vari-colored Microca	G1G2	S1S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Trichechus manatus	Manatee	G2	S2	LE	LE

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Pinellas-Hillsborough-Polk (Map 4 of 7)

Site boundaries are approximate.

Hillsborough County

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FLORIDA
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Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

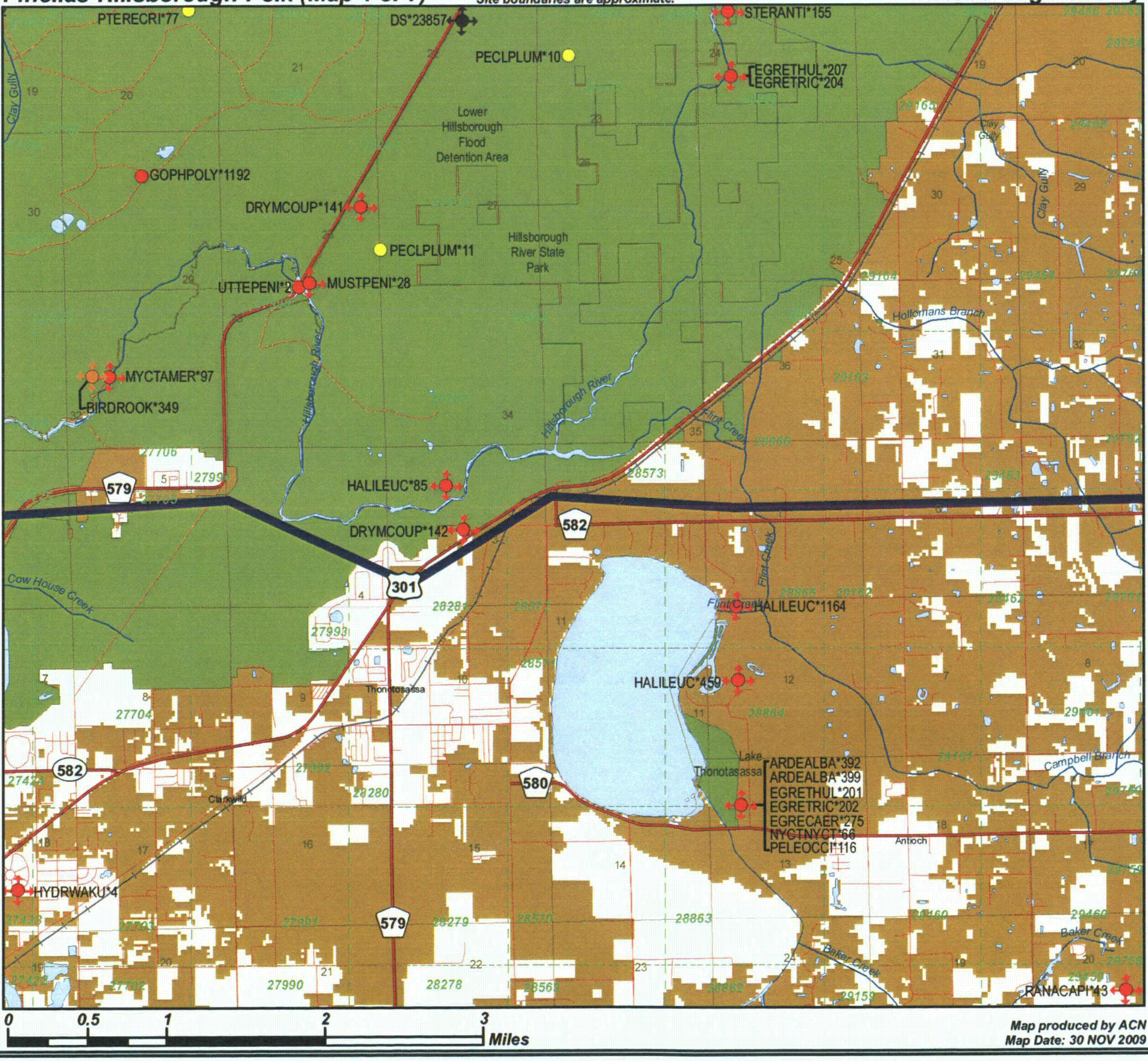
Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever Board of Trustees Projects
- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units
- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water

N W E S



NOTE
Map should not be interpreted without accompanying documents.

Map produced by ACN
Map Date: 30 NOV 2009

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Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Pinellas-Hillsborough-Polk (Map 4 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
RANACAPI*43	Rana capito	Gopher Frog	G3	S3	N	LS	ZZ	No general description given	3 SPEC. (UK-7890-2), COLLECTOR N/A, DATE N/A.
EGRETHUL*201	Egretta thula	Snowy Egret	G5	S3	N	LS	1988-05-05	Willow stand in corner of lake, surrounded by larger trees on three sides.	1988/05/05: B.A. Millsap, GFC. HI-R-09 Brown Pelicans loafing at colony. "Total" = E (includes GREG, SNEG, CAEG, LBHE, ANHI, BRPE, DCCO).
EGRECAER*275	Egretta caerulea	Little Blue Heron	G5	S4	N	LS	1988-05-05	Willow stand in corner of lake, surrounded by larger trees on three sides.	1988/05/05: B.A. Millsap, GFC, observation. HI-R-09 Brown Pelicans loafing at colony. "Total" = E (includes GREG, SNEG, CAEG, LBHE, ANHI, BRPE, DCCO).
PELEOCCI*116	Pelecanus occidentalis	Brown Pelican	G4	S3	N	LS	1988-05-18	Willow stand in corner of lake, surrounded by larger trees on three sides.	1988: B.A. Millsap, GFC. HI-R-09 Brown Pelicans loafing at colony. "Total" = E (includes GREG, SNEG, CAEG, LBHE, ANHI, BRPE, DCCO) on 5/05; K. J. McGowan - 5 juvenile pelicans seen on 5/09, and noted as not nesting on 5/18.
DRYMCOUP*142	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	1970-	No general description given	INDIGO OBSERVED BY MARTY MARTIN IN 1970 (MOLER INTER- VIEW OF GODLEY & MARTIN, 1982-03-27).
MUSTPENI*28	Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N	197?	Floodplain Forest	197?: L. N. Brown, ISU, observation. General reference. Tracks and scat observed. See L.N. Brown, pgs. 67-80 in B.C. Cowell, et al., Biological assessment of the Lower Hillsborough Flood Detention Area, Univ. South Florida, Tampa. 1974 (pg. 69).
BIRDROOK*349	Bird Rookery		G5	SNR	N	N	1988-06-07	No general description given	Single-species rookery. 101-250 birds 1987-06-30, 1-10 birds 1988-05-27 and 1988-06-07. Wood Stork present 1987 and 1988.
DRYMCOUP*141	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	1974-	No general description given	INDIGO OBSERVED BY J.S. GODLEY OR MARTY MARTIN IN 1974 (MOLER INTERVIEW OF GODLEY & MARTIN, 1982-03-27).
STERANTI*155	Sterna antillarum	Least Tern	G4	S3	N	LT	1987-05-13	Dredge spoil	1987/05/13: G. Parsons, NAS, observed 50 nests (U97GFC02FLUS).
ARDEALBA*392	Ardea alba	Great Egret	G5	S4	N	N	1988-05-05	Willow stand in corner of lake, surrounded by larger trees on three sides.	1988/05/05: B.A. Millsap, GFC; HI-R-09 Brown Pelicans loafing at colony. Total = E (includes GREG, SNEG, CAEG, LBHE, ANHI, BRPE, DCCO).

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ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Pinellas-Hillsborough-Polk (Map 4 of 7)

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EGRETHUL*207	Egretta thula	Snowy Egret	G5	S3	N	LS	1987-06-01	Floodplain swamp	1987/06/01: G. Parsons, NAS. WADING BIRD RECORD FROM MILLSAP'S OCCUR.DBF
NYCTNYCT*66	Nycticorax nycticorax	Black-crowned Night-heron	G5	S3	N	N	1988-05-18	Lake	1988: K. J. McGowan, GFC - on 5/09 - ANHI and GBHE may be nesting here or across road.DCCO incubating (most), and feathered. CAEG incubating? and downy. BCNH young flying/ready; 5 juvenile BRPE seen. No obs. On other spp (GREG, SNEG, LBHE, TCHE, GRHE). "
MYCTAMER*97	Mycteria americana	Wood Stork	G4	S2	LE	LE	1988-06-07	No general description given	Species present 1987-06-30 (101-250 birds), 1988-05-27 (1-10 birds), and 1988-06-07 (1-10 birds).
DS*23857	Data Sensitive Element	Data Sensitive	G5	S2	N	LE	1980-02-23	Data Sensitive	Data Sensitive
EGRETRIC*204	Egretta tricolor	Tricolored Heron	G5	S4	N	LS	1987-06-01	Floodplain swamp	1987/06/01: G. Parsons, NAS, observed 3 individuals. WADING BIRD RECORD FROM MILLSAP'S OCCUR.DBF
ARDEALBA*399	Ardea alba	Great Egret	G5	S4	N	N	1988-05-09	Willow stand in corner of lake, surrounded by larger trees on three sides.	1988/05/09: K.J. McGowan, GFC; ANHI and GBHE may be nesting here or across the road. DCCO incubating(most), downy(most), and feathered. CAEG incubating? and downy. BCNH young flying/ready. 5 juv. BRPE seen. No obs. on other spp (GREG, SNEG, LBHE, TCHE, G
EGRETRIC*202	Egretta tricolor	Tricolored Heron	G5	S4	N	LS	1988-05-18	Willow stand in corner of lake, surrounded by larger trees on three sides.	1988/05/18: K.J. McGowan, GFC. Est. # breeding pairs. CAEG incubating(most) and downy young? LBHE with downy young? DCCO incubating,hatching?, downy, and renesting?. BRPE not nesting. No obs. on other spp (GBHE, TCHE, GRHE, BCNH). "Total" = D.
UTTEPENI*2	Utterbackia peninsularis	Peninsular Floater	G3	S2	N	N	1994-pre	No general description given	1994-Pre: collection of 13 specimens cited (A95BOG01FLUS).
PTERECRI*77	Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT	2003-08	2003-08: One individual found in mesic flatwoods which burned 2003-08-13 (F03FRE01FLUS).	2003-08: One plant found in flower (F03FRE01FLUS).
HALILEUC*1164	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	2003	2005-07-12: Source does not provide a description.	Nest status: Active, 2003, 2002, 2001; Unknown status or not assessed, 2000, 1999;(U03FWC01FLUS)

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Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR
Pinellas-Hillsborough-Polk (Map 4 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
HALILEUC*85	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	2003	No general description given	Nest status 1999-2003: Active - 2003, 2002, 2001; Unknown/not assessed - 2000, 1999; Status 1995-98: Unknown/not assessed - 1998, 1997, 1996, 1995; (U03FWC01FLUS). Previous data (note different format) NEST: 1979-1981, 1983-1984 ACTIVE, USURPED BY OWL 19
HALILEUC*459	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	1997	No general description given	Nest status 1999-2003: Inactive - 2003, 2001, 1999; Unknown/not assessed - 2002, 2000; Status 1995-98: Active - 1997, 1996, 1995; Inactive - 1998; (U03FWC01FLUS). Previous data (note different format) NEST: 1985, 1988 ACTIVE, GONE 1986, INACTIVE 1987; FL
PECLPLUM*10	Pecluma plumula	Plume Polypody	G5	S2	N	LE	2006-07-10	2006-11-02: Large hammock grades to floodplain swamp bordering the Hillsborough River to the east. Land to west is mostly disturbed flatwoods used for equestrian recreation (PNDGUL01FLUS).	2006-07-10: 100-200 plants observed as dominant epiphytes on trunks and lower limbs of Quercus virginiana as well as a few on Sabal palmetto in mesic hammock along road and trail (F06FNA22FLUS).
PECLPLUM*11	Pecluma plumula	Plume Polypody	G5	S2	N	LE	2006-07-11	2006-11-02: Extensive hammock in a mosaic with floodplain swamp along the Hillsborough River (PNDGUL01FLUS).	2006-07-11: 30-150 plants observed as epiphytes on lower trunks of Quercus virginiana, on Q. virginiana stump, and on a dying Q. virginiana; occurring with Pleopeltis polypodioides, Vittaria lineata, and Tillandsia setacea; in hydric hammock along road (
GOPHPOLY*1192	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	2006-07-28	2007-01-29: tortoise burrows are found in a large, actively managed mesic flatwoods that is part of a busy county park located in an urban setting (PNDGUL01FLUS).	2006-07-28: two active burrows observed in open mesic flatwoods within county park (F06FNA22FLUS).
HYDRWAKU*4	Hydroptila wakulla	Wakulla Springs Vari-colored Microcaddisfly	G2	S2	N	N	1962-Pre	1962-Pre: No description given (U06RAS01FLUS).	1962-Pre: Specimens were collected before 1962 (U06RAS01FLUS).

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 4 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 27705					
Likely					
Bird Rookery		GNR	SNR	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Hydroptila wakulla	Wakulla Springs Vari-colored Microca	G1G2	S1S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Matrix Unit ID: 27993					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE

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Biodiversity Matrix Report
Map 4 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Hydroptila wakulla	Wakulla Springs Vari-colored Microca	G1G2	S1S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE

Matrix Unit ID: 28281

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Haliaeetus leucocephalus	Bald Eagle	G5	S3	N	N
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill		G3	S2	N	N

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Glandularia tampensis	Tampa Vervain	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Hydroptila wakulla	Wakulla Springs Vari-colored Microca	G1G2	S1S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 4 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Warea carteri	Carter's Warea	G3	S3	LE	LE

Matrix Unit ID: 28572

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE

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Florida Natural Areas Inventory

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 4 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 28865					
Documented					
Haliaeetus leucocephalus	Bald Eagle	G5	S3	N	N
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE
Matrix Unit ID: 29162					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 4 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

Matrix Unit ID: 29462

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 4 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

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FLORIDA
Natural Areas
INVENTORY

Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive

Point Indicates General Vicinity of Element

U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever Board of Trustees Projects

- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units

- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water

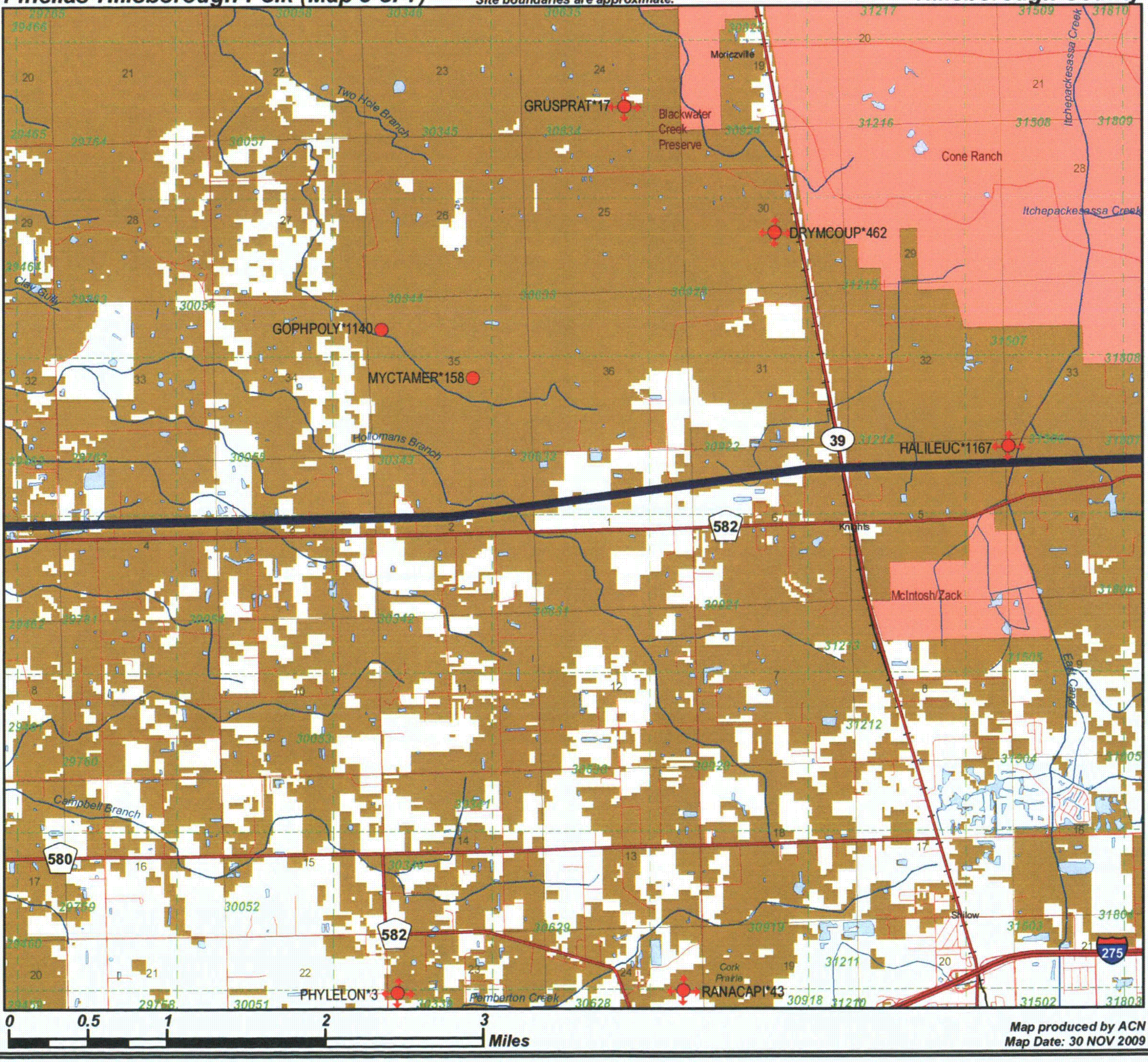
N
W E
S

NOTE
Map should not be interpreted without accompanying documents.

Pinellas-Hillsborough-Polk (Map 5 of 7)

Site boundaries are approximate.

Hillsborough County



Map produced by ACN
Map Date: 30 NOV 2009

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Pinellas-Hillsborough-Polk (Map 5 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
RANACAPI*43	Rana capito	Gopher Frog	G3	S3	N	LS	ZZ	No general description given	3 SPEC. (UK-7890-2), COLLECTOR N/A, DATE N/A.
DRYMCOUP*462	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	1997-04-07	Herbaceous wetland surrounded by cypress system. Some evidence of agricultural/cattle ditching, probably disturbed around 1930.	1997-04-07: One snake seen in early stages of shed.
GRUSPRAT*17	Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT	1986-	SMALL PERMANENT PONDS SCATTERED THROUGHOUT AREA.	CA. 12-15 PAIRS FROM EARLY 1970'S THROUGH 1986.
GOPHPOLY*1140	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	2004-10-05	2004-10-05: Mesic flatwoods disturbed by cattle (PNDSCH03FLUS).	2004-10-05: One adult tortoise and active burrow (PNDSCH03FLUS).
MYCTAMER*158	Mycteria americana	Wood Stork	G4	S2	LE	LE	2004-10-05	2004-10-05: Edge of Taxodium ascendens dome swamp in improved pasture of bahia grass (PNDTAN01FLUS).	2004-10-05: Two adults foraging on edge of wetland (PNDTAN01FLUS).
HALILEUC*1167	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	2003	2005-07-12: Source does not provide a description.	Nest status: Active, 2003, 2002, 2001, 2000; Unknown status or not assessed, 1999;(U03FWC01FLUS)
PHYLELON*3	Phyllophaga elongata	Elongate June Beetle	G2G4	S2S4	N	N	1939-08-19	1939-08-19: No description given (B89WOO01FLUS).	1939-08-19: Eleven specimens were collected at night by Hubbell and Friauf (B89WOO01FLUS).

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 5 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 29761					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT
Matrix Unit ID: 30054					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N

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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

Matrix Unit ID: 30342

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

Matrix Unit ID: 30343

Documented

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Mycteria americana	Wood Stork	G4	S2	LE	LE

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 5 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calamintha ashei	Ashe's Savory	G3	S3	N	LT
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

Matrix Unit ID: 30632

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calamintha ashei	Ashe's Savory	G3	S3	N	LT
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 5 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS

Matrix Unit ID: 30922

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

Matrix Unit ID: 31214

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 5 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS

Matrix Unit ID: 31506

Documented

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Haliaeetus leucocephalus	Bald Eagle	G5	S3	N	N

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Conradina brevifolia	Short-leaved Rosemary	G2Q	S2	LE	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Warea carteri	Carter's Warea	G3	S3	LE	LE
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

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FLORIDA
Natural Areas
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Pinellas-Hillsborough-Polk (Map 6 of 7)

Site boundaries are approximate.

Hillsborough and Polk Counties

Element Occurrences

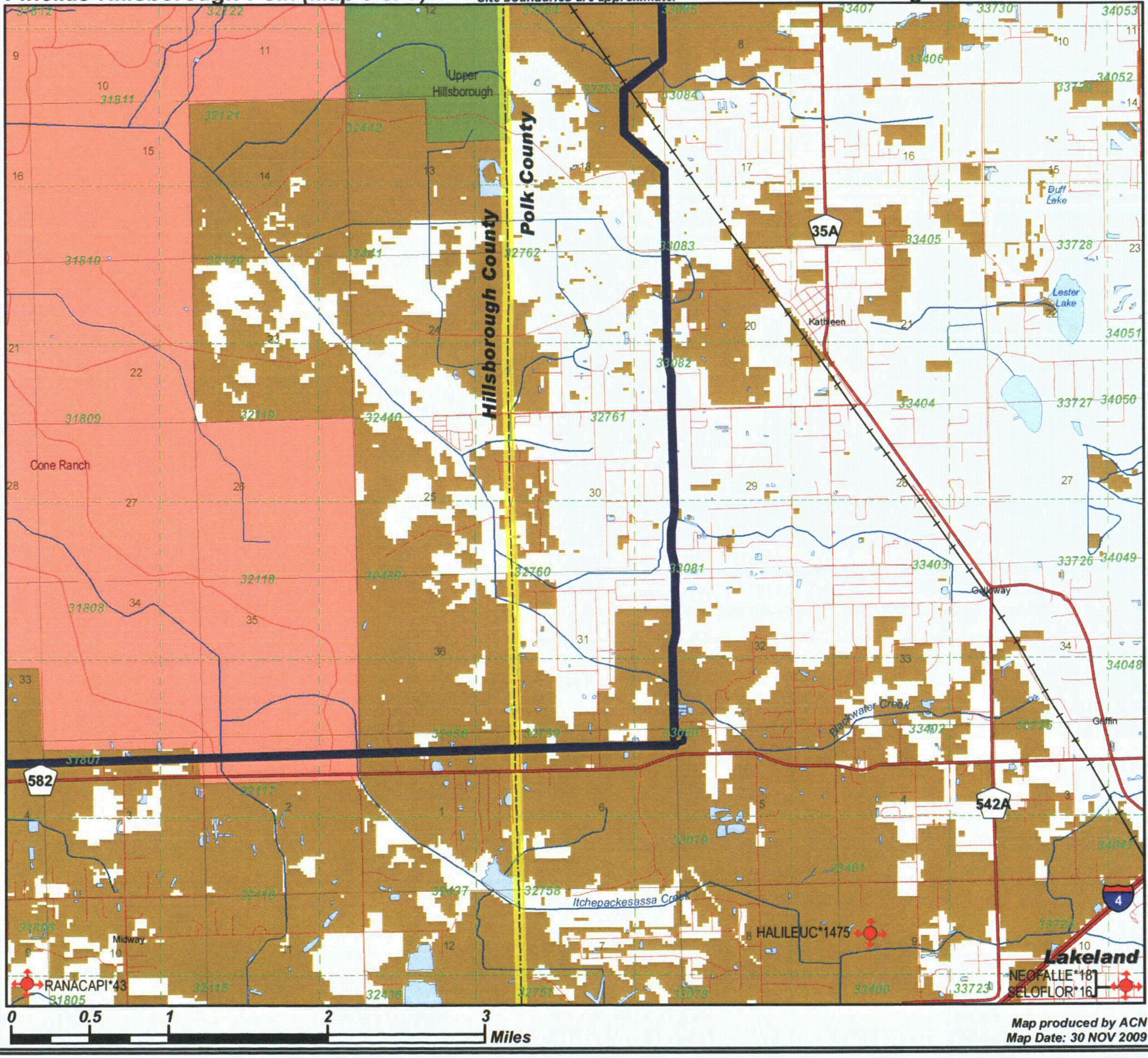
- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever Board of Trustees Projects
- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units
- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water



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NOTE
Map should not be interpreted without accompanying documents.

Map produced by ACN
Map Date: 30 NOV 2009

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Florida Natural Areas Inventory

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR
Pinellas-Hillsborough-Polk (Map 6 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
RANACAPI*43	Rana capito	Gopher Frog	G3	S3	N	LS	ZZ	No general description given	3 SPEC. (UK-7890-2), COLLECTOR N/A, DATE N/A.
NEOFALLE*18	Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N	1970-11-09	No general description given	FSM SPECIMENS: ONE SPECIMEN FSM #10188, COLLECTED BY D.S. LEE 1970-11-09.
HALILEUC*1475	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	2003	2005-07-12: Source does not provide a description.	Nest status: Active, 2003, 2002, 2001, 2000, 1999;(U03FWC01FLUS)
SELOFLOR*16	Selonodon floridensis	Florida Cebrionid Beetle	G2G3	S2S3	N	N	1942-05-30	1942-05-30: No description given (B99GAL01FLUS).	1942-05-30: Five specimens were collected on this date. There in an undated record for two more specimens (B99GAL01FLUS).

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 31807					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Warea carteri	Carter's Warea	G3	S3	LE	LE
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT
Matrix Unit ID: 32117					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Salix floridana	Florida Willow	G2	S2	N	LE
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

Matrix Unit ID: 32438

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

Matrix Unit ID: 32759

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina brittoniana	Britton's Beargrass	G3	S3	LE	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Polygala lewtonii	Lewton's Polygala	G3	S3	LE	LE

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Florida Natural Areas Inventory

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

Matrix Unit ID: 32763

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calamintha ashei	Ashe's Savory	G3	S3	N	LT
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Eumeces egregius lividus	Blue-tailed Mole Skink	G5T2	S2	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina brittoniana	Britton's Beargrass	G3	S3	LE	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Paronychia chartacea ssp. chartacea	Paper-like Nailwort	G3T3	S3	LT	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Polygala lewtonii	Lewton's Polygala	G3	S3	LE	LE
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Warea carteri	Carter's Warea	G3	S3	LE	LE
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

Matrix Unit ID: 33080

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calamintha ashei	Ashe's Savory	G3	S3	N	LT
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina brittoniana	Britton's Beargrass	G3	S3	LE	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Paronychia chartacea ssp. chartacea	Paper-like Nailwort	G3T3	S3	LT	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Polygala lewtonii	Lewton's Polygala	G3	S3	LE	LE
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Selonodon floridensis	Florida Cebrionid Beetle	G2G3	S2S3	N	N
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT
Matrix Unit ID: 33081					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calamintha ashei	Ashe's Savory	G3	S3	N	LT
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Eumeces egregius lividus	Blue-tailed Mole Skink	G5T2	S2	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina brittoniana	Britton's Beargrass	G3	S3	LE	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Paronychia chartacea ssp. chartacea	Paper-like Nailwort	G3T3	S3	LT	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Polygala lewtonii	Lewton's Polygala	G3	S3	LE	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

Matrix Unit ID: 33082

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calamintha ashei	Ashe's Savory	G3	S3	N	LT
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Eumeces egregius lividus	Blue-tailed Mole Skink	G5T2	S2	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Nolina brittoniana	Britton's Beargrass	G3	S3	LE	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Paronychia chartacea ssp. chartacea	Paper-like Nailwort	G3T3	S3	LT	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS

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Florida Natural Areas Inventory
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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Polygala lewtonii	Lewton's Polygala	G3	S3	LE	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Warea carteri	Carter's Warea	G3	S3	LE	LE
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

Matrix Unit ID: 33083

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calamintha ashei	Ashe's Savory	G3	S3	N	LT
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Eumeces egregius lividus	Blue-tailed Mole Skink	G5T2	S2	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Nolina brittoniana	Britton's Beargrass	G3	S3	LE	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Paronychia chartacea ssp. chartacea	Paper-like Nailwort	G3T3	S3	LT	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Polygala lewtonii	Lewton's Polygala	G3	S3	LE	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Warea carteri	Carter's Warea	G3	S3	LE	LE
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

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Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 33084					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calamintha ashei	Ashe's Savory	G3	S3	N	LT
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chionanthus pygmaeus	Pygmy Fringe Tree	G3	S3	LE	LE
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Eumeces egregius lividus	Blue-tailed Mole Skink	G5T2	S2	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Nolina brittoniana	Britton's Beargrass	G3	S3	LE	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Paronychia chartacea ssp. chartacea	Paper-like Nailwort	G3T3	S3	LT	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Polygala lewtonii	Lewton's Polygala	G3	S3	LE	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Warea carteri	Carter's Warea	G3	S3	LE	LE
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT

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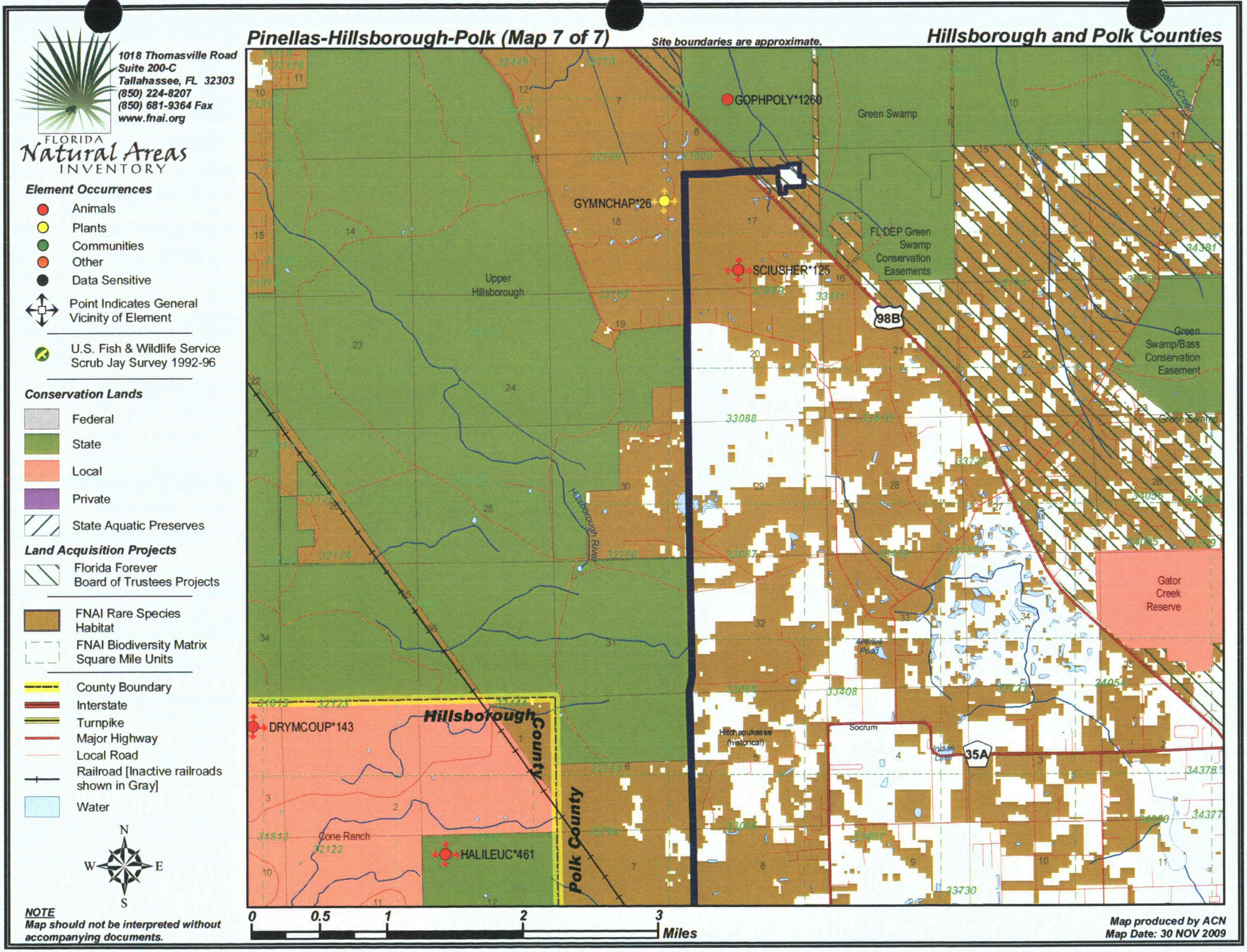
Pinellas-Hillsborough-Polk (Map 7 of 7)
Site boundaries are approximate.
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Element Occurrences
Animals
Plants
Communities
Other
Data Sensitive
Point Indicates General Vicinity of Element
U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96
Conservation Lands
Federal
State
Local
Private
State Aquatic Preserves
Land Acquisition Projects
Florida Forever Board of Trustees Projects
FNAI Rare Species Habitat
FNAI Biodiversity Matrix Square Mile Units
County Boundary
Interstate
Turnpike
Major Highway
Local Road
Railroad [Inactive railroads shown in Gray]
Water
N
W
E
S
NOTE
Map should not be interpreted without accompanying documents.
GOPHPOLY*1260
Green Swamp
GYMNCHAP*26
SCIUSHER*125
FL DEP Green Swamp Conservation Easements
Upper Hillsborough
98B
Green Swamp/Bass Conservation Easement
Green Swamp
Hillsborough River
Gator Creek
Gator Creek Reserve
DRYMCOUP*143
Hillsborough County
Polk County
Cone Ranch
HALILEUC*461
Hitchapukasse (historical)
Socrum
35A
0
0.5
1
2
3
Miles
Map produced by ACN
Map Date: 30 NOV 2009

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Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR
Pinellas-Hillsborough-Polk (Map 7 of 7)

FLORIDA STATE UNIVERSITY 1851

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
DRYMCOUP*143	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	1970-	No general description given	INDIGO OBSERVED BY MARTY MARTIN IN 1970 (MOLER INTER- VIEW OF GODLEY & MARTIN, 1982-03-27).
SCIUSHER*125	Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS	1988-07-28	Cypress Swamp; Mesic Flatwoods.	1988-07-28: B.A. Millsap, GFC, observed 1 adult male.
GYMNCHAP*26	Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N	1987-11-02	1987-11-02: Flatwoods (Hall).	1987-11-02: Infrequent; scattered in flatwoods; specimen taken [leaves, inflor., and few roots] (Hall).
HALILEUC*461	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: 1987-1988 ACTIVE; FLEDGED YOUNG 1987-1988.
GOPHPOLY*1260	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	2008-07-25	2008-07-25: one adult tortoise foraging in grassy road that passes through mesic flatwoods; area is moderately disturbed by a clearing and an ORV trail (PNDHER03FLUS).	2008-07-25: one adult tortoise foraging in grassy road that passes through mesic flatwoods (PNDHER03FLUS).

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 7 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 33085					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calamintha ashei	Ashe's Savory	G3	S3	N	LT
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chionanthus pygmaeus	Pygmy Fringe Tree	G3	S3	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Eumeces egregius lividus	Blue-tailed Mole Skink	G5T2	S2	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Nolina brittoniana	Britton's Beargrass	G3	S3	LE	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Paronychia chartacea ssp. chartacea	Paper-like Nailwort	G3T3	S3	LT	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Polygala lewtonii	Lewton's Polygala	G3	S3	LE	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Warea carteri	Carter's Warea	G3	S3	LE	LE
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT
Matrix Unit ID: 33086					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 7 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Potential					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calamintha ashei	Ashe's Savory	G3	S3	N	LT
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chionanthus pygmaeus	Pygmy Fringe Tree	G3	S3	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Eumeces egregius lividus	Blue-tailed Mole Skink	G5T2	S2	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina brittoniana	Britton's Beargrass	G3	S3	LE	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Polygala lewtonii	Lewton's Polygala	G3	S3	LE	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Warea carteri	Carter's Warea	G3	S3	LE	LE
Zephyranthes simpsonii	Rain Lily	G2G3	S2S3	N	LT
Matrix Unit ID: 33087					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
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
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calamintha ashei	Ashe's Savory	G3	S3	N	LT
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE

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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Eumeces egregius lividus	Blue-tailed Mole Skink	G5T2	S2	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina brittoniana	Britton's Beargrass	G3	S3	LE	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Paronychia chartacea ssp. chartacea	Paper-like Nailwort	G3T3	S3	LT	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Polygala lewtonii	Lewton's Polygala	G3	S3	LE	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Warea carteri	Carter's Warea	G3	S3	LE	LE

Matrix Unit ID: 33088

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
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
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calamintha ashei	Ashe's Savory	G3	S3	N	LT
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N

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FLORIDA Natural Areas INVENTORY

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina brittoniana	Britton's Beargrass	G3	S3	LE	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Paronychia chartacea ssp. chartacea	Paper-like Nailwort	G3T3	S3	LT	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Polygala lewtonii	Lewton's Polygala	G3	S3	LE	LE
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Warea carteri	Carter's Warea	G3	S3	LE	LE

Matrix Unit ID: 33089

Likely

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS

Potential

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
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
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE

Matrix Unit ID: 33090

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Florida Natural Areas Inventory

FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 7 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Documented					
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
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
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T3Q	S2	LE	LE

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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.
G3	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?)
G#G#	Range of rank; insufficient data to assign specific global rank (e.g., G2G3)
G#T#	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.

N 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.

N Not currently listed, nor currently being considered for listing.

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FLORIDA
Natural Areas
INVENTORY

Tracking Florida's Biodiversity