

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): February 22, 2012

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CESAJ-RD-NC, Restoration, SAJ-2009-01219(IP-AWP)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: FL County/parish/borough: Volusia City: Edgewater
Center coordinates of site (lat/long in degree decimal format): Lat. 28.9707°**N**, Long. 80.9886°**W**.
Universal Transverse Mercator: 17 501115E 3204741N

Name of nearest waterbody: Spruce Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Spruce Creek

Name of watershed or Hydrologic Unit Code (HUC): Upper St Johns (03080101)

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: November 18, 2011

Field Determination. Date(s): November 17, 18, and 26, 2008 (Steve Brooker); February 24, 2009 (Steve Brooker); January 6 and 13, 2010; and November 9, 2011 (Andrew Phillips)

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 waters² (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Impoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or approximately **14 project acres**.

Wetlands: approximately **3,099.78 acres within the review area/project site** .

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: Approximately **145 acres of wetlands within the review area/project site** were determined to be isolated pursuant to Solid Waste Agency of Northern Cook County (SWANCC)

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. **TNW**

Identify TNW: .

Summarize rationale supporting determination: .

2. **Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is “adjacent”: .

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

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

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

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

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

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

(i) **General Area Conditions:**

Watershed size: 280.19 **square miles**

Drainage area: **Pick List**

Average annual rainfall: approximately 40 inches

Average annual snowfall: 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: No.

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 TNW⁵: Project wetlands drain west via on-site ditches (RPWs) to the Spruce Creek Swamp and the Samsula Canal (RPW), which flows north to Spruce Creek (TNW), which flows north and east to end in the Intracoastal Waterway (TNW).

Tributary stream order, if known: .

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

Tributary is: Natural
 Artificial (man-made). Explain: The on-site RPWs are manmade ditches which flow into Spruce Creek Swamp and Samsula Canal.
 Manipulated (man-altered). Explain: Natural flowways within the review area have been altered through installation of artificial paths, culverts, and low water road crossings.

Tributary properties with respect to top of bank (estimate):

Average width: 6 feet
Average depth: 6 feet
Average side slopes: **2:1**.

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: The RPW is routinely maintained to ensure accessibility of the site for silviculture activities.

Presence of run/riffle/pool complexes. Explain: N/A.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): approximately 1-2 %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **6-10**

Describe flow regime: .

Other information on duration and volume: The on-site ditches (RPWs) convey water to the Samsula Canal for at least 3 months seasonally and intermittently following storm events. The Samsula Canal (RPW) is a major tributary of Spruce Creek and exhibits flow year round.

Surface flow is: **Discrete and confined**. Characteristics: Water flows from east to west confined in on-site RPWs which discharge into the Spruce Creek Swamp. Surface flow also occurs discreetly through contiguous wetlands where it ultimately discharges to the Spruce Creek Swamp. Water flows discretely from the Spruce Creek Swamp into the Samsula Canal (RPW) which is confined until it empties into Spruce Creek (TNW).

Subsurface flow: **Unknown**. Explain findings: .

Dye (or other) test performed: .

Tributary has (check all that apply):

Bed and banks
 OHWM⁶ (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:

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

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

⁷Ibid.

- | | |
|--|--|
| <input type="checkbox"/> oil or scum line along shore objects | <input type="checkbox"/> survey to available datum; |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings; |
| <input type="checkbox"/> physical markings/characteristics | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges | |
| <input type="checkbox"/> other (list): | |

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: chemical characteristics are unknown. The review area is undeveloped but does received direct untreated run off from Interstate 95 along its eastern boundary. Waters are tannic and somewhat acidic due to pine plantation land use.

Identify specific pollutants, if known: No known pollutants.

(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: The Samsula Canal and on-site ditches provide open water habitat for use by federally listed species such as wood stork (*Mycteria americana*) and American alligator (*Alligator mississippiensis*).

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings: The Samsula Canal and on-site ditches provide potential open water habitat for a variety of common wildlife species and also has potential for occurrence of state listed wading bird species such as little blue heron (*Egretta caerulea*), tricolored heron (*Egretta tricolor*), snowy egret (*Egretta thula*), white ibis (*Eudocimus albus*), and limpkin (*Aramus guarauna*). These areas also provide macro-invertebrate production and aquatic food web support for downstream waters.

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: approximately 3,099.78 acres within the review area

Wetland type. Explain: The majority of the project wetlands consist of freshwater forested systems dominated by Cypress Swamp (621), Slash Pine-Cypress Swamp (6271), and Wet Pine Planatations (W4410) communities.

Wetland quality. Explain: Historical silvicultural activities within the project area have adversely affected wetland quality through bedding and furrowing, planted pine encroachment into wetlands, and altered hydrdologic regime from ditches, roads, and canals.

Project wetlands cross or serve as state boundaries. Explain: No.

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: Water flow from project wetlands into Spruce Creek Swamp and the Samsula Canal occurs seasonally and in association with major storm events.

Surface flow is: **Discrete and confined**

Characteristics: Flow from project wetlands is carried discretely across the relatively flat topography or is confined in on-site ditches.

Subsurface flow: **Unknown**. Explain findings:

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting: Approximately 2,852.97 acres of wetlands within the review area exhibit a discrete hydrologic connection with either the on-site ditches (RPWs) or Samsula Canal (RPW) through intermittent flow ways and culverts.

Not directly abutting

Discrete wetland hydrologic connection. Explain: Approximately 101.17 acres of wetlands within the review area are adjacent to but not directly abutting the RPWs.

Ecological connection. Explain: The adjacent wetlands provide a biological, physical, and chemical connection between the onsite wetlands and the TNW. These connections are defined in Section C of this document and in the additional information provided at the end of the document.

Separated by berm/barrier. Explain: Although the 101.17 acres of wetlands adjacent to but not directly abutting an RPW are separated by a distance ranging from 21 to 143 feet, and potentially a berm, they still fall within a zone of hydrologic influence of the RPW.

(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: There are no know pollutants within the review area. The wetlands have been altered by years of continuous silvaculture activities including clear cutting, selective harvest, and replanting. The silvaculture operations are regulated by various agencies including the St. Johns River Water Management District, who enforces Best Management Practices as well as water quality controls.

Identify specific pollutants, if known: No known pollutants.

(iii) Biological Characteristics. Wetland supports (check all that apply):

Riparian buffer. Characteristics (type, average width): .

Vegetation type/percent cover. Explain: Dominant project wetland types include Cypress Swamp (621), Slash Pine-Cypress Swamp (6271), and Wet Pine Planatations (W4410)communities, the majority of which have been impacted to varying degrees by historic silvicultural activities.

Habitat for:

Federally Listed species. Explain findings: Some project wetlands exhibit potential for occurrence of federally listed species such as wood stork (*Mycteria americana*) and eastern indio snake.

Fish/spawn areas. Explain findings:.

Other environmentally-sensitive species. Explain findings:.

Aquatic/wildlife diversity. Explain findings: Some project wetlands provide potential cover, foraging, and breeding habitat for a variety of wildlife species including state listed species such as little blue heron (*Egretta caerulea*), tricolored heron (*Egretta tricolor*), snowy egret (*Egretta thula*), white ibis (*Eudocimus albus*), limpkin (*Aramus guarauna*), and Florida black bear (*Ursus americanus floridanus*).

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

All wetland(s) being considered in the cumulative analysis: **30 (or more)**

Approximately 3,099.78 acres within review area/project site are being considered in the cumulative analysis. Due to the connected nature of the subject wetlands and the size of the site they were not broken out individually.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Y	2,852.97		
N	101.17		
N	145.64 (isolated wetlands)		

Summarize overall biological, chemical and physical functions being performed: The review area encompasses the proeject site wetlands and RPWs within the project boundaries. The review area contains wetlands both abutting and adjacent to non-navigable tributaries of Spruce Creek (TNW), including on-site ditches . The review area wetlands are considered hydrologically connected to the TNW via these non-navigable tributaries. Functions provided by the review area wetlands include water storage and attenuation, filtration of pollutants and sediments, and potential cover, foraging, and breeding habitat for wetland-dependent and generalist wildlife species.

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: Determination in favor of jurisdiction is based on the close proximity of adjacent wetlands to the RPWs, in combination with the lack of a significant physical separation such as uplands, berms, dikes, barriers, or culvert connections. The onsite wetlands provide storage and attenuation of floodwaters. The wetlands provide wildlife habitat, breeding, shelter, and nesting opportunities. Benefits are provided to aquatic species, avian species, and aquatic dependant species such as amphibians.
- 4. Significant nexus findings for wetlands directly abutting an RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its abutting wetlands, then go to Section III.D: Determination in favor of jurisdiction is based on the close proximity of adjacent wetlands to the RPWs, in combination with the lack of a significant physical separation such as uplands, berms, dikes, barriers, or culvert connections. The onsite wetlands provide storage and attenuation of floodwaters. The wetlands provide wildlife habitat, breeding, shelter, and nesting opportunities. Benefits are provided to aquatic species, avian species, and aquatic dependant species such as amphibians.
- 5. Significant nexus findings for an RPW (perennial or seasonal).** Explain the findings of presence or absence of significant nexus below, based on the tributary, then go to Section III.D. The subject site contains several manmade RPWs which convey water west of the site to the Samsula Canal which is also an RPW. The Samsula Canal is a major tributary of Spruce Creek and exhibits flow at least seasonally. These RPWs have the capacity to carry pollutants or flood waters to the TNW, as well as provide flood storage and pollutant treatment prior to reaching the TNW. The tributary has the capacity to provide habitat and lifecycle support for higher level organisms in the food web including species downstream in the TNW. Benefits are provided to aquatic species, avian species, and aquatic dependant species such as amphibians. In addition to flood storage these RPWs convey detrital matter to downstream waters. Overall, the RPW and adjacent wetlands have an affect on the physical, chemical, and biological process in the Spruce Creek estuary (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:
 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: Review area tributaries, including on-site ditches (RPWs) and the Samsula Canal (RPW) exhibit water flow at least 3 months per year.

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

- Tributary waters: approximately 14 acres
 Other non-wetland waters: acres.
 Identify type(s) of waters:

- 3. Non-RPWs⁸ 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.

⁸See Footnote # 3.

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: Abutting review area wetlands exhibit a direct hydrologic connection with the RPW tributaries and are not separated from the RPW by uplands, berms, dikes, barriers, or other similar features.

Provide acreage estimates for jurisdictional wetlands in the review area: approximately 2,852.97 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 jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: approximately 101.17 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: .

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.

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.

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: Approximately 145.64 acres . The majority of these wetlands are in fragmented, isolated watersheds in the eastern portion of the site. See maps attached.

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: 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: ACOE Jurisdictional Wetland Findings for the Restoration Project Site, Volusia County, Florida (BDA 2011).
- 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 NHD data. USGS NHD Map in the Vicinity of the Restoration Project Site and Review Area, Volusia County, Florida.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Volusia County, Florida (Samsula, Edgewater, New Smyrna Beach, and Lake Ashby quads; 1 inch=1.5 miles).
- USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Soils Map of the Restoration Project Site, Volusia County, Florida.
- National wetlands inventory map(s). Cite name: USFWS NWI Data for the Restoration Project Site, Volusia County, Florida .
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): 2006 Aerial Photograph of the Restoration Project Site, Volusia County, Florida (Donald W. McIntosh & Associates, Inc. 2006). 1943 Aerial Photography of the Restoration Project Site, Volusia County, Florida (University of Florida Map & Digital Imaging Library): Aerial Photograph of the Restoration Review Area and Project Site, Volusia County, Florida. 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): Spruce Creek Watershed Facts (St. John's River Water Management District website).

B. ADDITIONAL COMMENTS TO SUPPORT JD: The Restoration project site lies at the intersection of three watersheds, Upper St. Johns (03080101), Daytona-St. Augustine (03080201), and Cape Canaveral (03080202). These watersheds generally drain to the north, east, and south, respectively (see maps attached). Historically, water flowed from the project site to the north, south, and west, with limited flow to the east due to upland barriers and absence of drainage ways. Intensive silvicultural uses of the project site, including the construction of deep drainage ditches and raised roadways, have altered water flow patterns within the site. Adjacent features such as Interstate-95 to the east and Opossum Camp Road to the south have also contributed to alteration and re-direction of hydrologic flow patterns leaving the project site. Water flow within the project site currently trends west toward Spruce Creek Swamp via the onsite drainage ditches. The current

westerly flow pattern, in combination with the geographically isolated wetlands within the eastern portion of the project site, eliminates the Daytona-St. Augustine and Cape Canaveral watersheds as significant downstream reaches for project site waters. Therefore, separate JD form analyses are not provided for these watersheds. All potentially jurisdictional project site wetlands and surface waters are considered relevant to the Upper St. Johns watershed and discussed within this JD form.