

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): SAJ-2016-00216

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Jacksonville District, Cocoa Permits Section, CR-545 and Waterleigh Parcels 10&11, SAJ-2016-00208(JD-AWP)

C. PROJECT LOCATION AND BACKGROUND INFORMATION: The project location includes Avalon Road (State Road 545) from Schofield Road to APF Blvd., Orange County, Florida

State: FL County/parish/borough: Orange City: Winter Garden
Center coordinates of site (lat/long in degree decimal format): Lat. 28.4169° **N**, Long. 81.6360° **W**.
Universal Transverse Mercator:

Name of nearest waterbody: Hickorynut Lake

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

Name of watershed or Hydrologic Unit Code (HUC): HUC 10 0309010105

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: June 15, 2017

Field Determination. Date(s): January 18, 2017

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**

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: N/A

Wetlands: Wetland 5 – 0.88 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 #3 - 2.94 acres and wetland #9 – 0.85 acres totaling 3.79 acres are isolated within the review area. A 0.91 acre upland cut non-wetland water is hydrologically connected to wetland; but, does not connect to waters of the United States. The subject wetlands and non-wetland water are surrounded by upland vegetation and do not have any physical,

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.

chemical, or biological connection to waters of the United States. Sandy soils surrounding the wetlands allow the downward movement of water to the surficial aquifer. Geomorphic conditions appear to reduce the opportunity for lateral movement by subsurface flow to any nearby intermittent tributaries (i.e. swales, ditches). Give the absence of a factual determination of subsurface flow, or a substantial nexus to commerce, these wetlands were determined to be isolated consistent with SWANCC and the "Migratory Bird Rule".

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: Reedy Creek Watershed (Source: Orange County Water Atlas)

Drainage area: 177 Square Miles

Average annual rainfall: inches 50

Average annual snowfall: 0 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 2 tributaries (unnamed waterway with its associated wetlands and lakes flow into Reedy

Creek and then TNW.)

Project waters are 40 river 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 1.7 river miles from RPW.
Project waters are 30 aerial (straight) miles from TNW.
Project waters are 1.5 aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. NO.

Identify flow route to TNW: Wetland 5 connects to Bear Bay Swamp via a culvert under CR 545. Bear Bay Swamp flows to Whittenhorse Creek which flows into Reed Creek and then through Lake Russell to Dead River and finally into Lake Hatchineha (TNW).

Tributary stream order, if known: one

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

Tributary is: Natural
 Artificial (man-made). Explain: The wetland was severed by the construction of CR 545, a culvert has been installed to maintain a hydrologic connection.
 Manipulated (man-altered). Some portions of Reedy Creek have been channalized.

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

Average width: 10-50 feet.
Average depth: 3-10 feet
Average side slopes: varies

Primary tributary substrate composition (check all that apply):

Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover: 0 to 100%
 Other. Explain: These area assumptions based on experience with the area.

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: unknown.

Presence of run/riffle/pool complexes. There are runs, riffles and pools along the tributaries path to the TNW.

Tributary geometry: straight to meandering

Tributary gradient (approximate average slope): Fairly Flat

(c) Flow:

Tributary provides for: Seasonal Flow

Estimate average number of flow events in review area/year: 8 to 10 or more

Describe flow regime: Expected to be continuous in the wet season

Other information on duration and volume: unknown

Surface flow varies.

Subsurface flow: Unknown. Explain findings: No finding.

Dye (or other) test performed: None Conducted.

Tributary has (check all that apply):

Bed and banks

OHWM⁵ (check all indicators that apply):

<input checked="" type="checkbox"/> clear, natural line impressed on the bank	<input checked="" type="checkbox"/> the presence of litter and debris
<input type="checkbox"/> changes in the character of soil	<input type="checkbox"/> destruction of terrestrial vegetation
<input type="checkbox"/> shelving	<input checked="" type="checkbox"/> the presence of wrack line
<input checked="" type="checkbox"/> vegetation matted down, bent, or absent	<input type="checkbox"/> sediment sorting
<input checked="" type="checkbox"/> leaf litter disturbed or washed away	<input checked="" type="checkbox"/> scour
<input checked="" type="checkbox"/> sediment deposition	<input type="checkbox"/> multiple observed or predicted flow events
<input checked="" type="checkbox"/> water staining	<input type="checkbox"/> abrupt change in plant community
<input checked="" type="checkbox"/> other (list): Based on past experience with similar waterbodies in the Central Florida area this water path	

will contain a variety of soils, vegetation and indicators of water flow along its path to the TNW.

Discontinuous OHWM.⁶ Explain:

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

<input type="checkbox"/> High Tide Line indicated by:	<input type="checkbox"/> Mean High Water Mark indicated by:
<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;

⁵A 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.

⁶Ibid.

- physical markings/characteristics vegetation lines/changes in vegetation types.
 tidal gauges
 other (list): Review of Aerial Maps on Google Earth.

(iii) Chemical Characteristics:

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

Identify specific pollutants: Not Known

(iv) Biological Characteristics. Channel supports (check all that apply):

- Riparian corridor. Characteristics (type, average width): varies.
 Wetland fringe. Characteristics:.
 Habitat for:
 Federally Listed species. Explain findings: Indigo snake, wood stork Florida panther.
 Fish/spawn areas. Explain findings: Finfish are expected to occur in Reedy Creek and other lakes.
 Other environmentally-sensitive species. Explain findings:
 Aquatic/wildlife diversity. Explain findings: small and medium mammals, avian species, amphibians, and reptiles.

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: 1,700 acres

Wetland type. Explain: forested.

Wetland quality. Explain: high, wetland is largely intact and buffered from commercial and residential development.

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

(b) General Flow Relationship with Non-TNW:

Flow is: Explain: Continuous.

Surface flow is: unknown

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 29 river miles from TNW.

Project waters are 26 aerial (straight) miles from TNW.

Flow is from: wetland to water.

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: unknown.

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: wood stork, indigo snake, Florida panther.
 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:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Bear Bay Swamp (yes)	1,700 acres		

Summarize overall biological, chemical and physical functions being performed: The review area includes Bear Bay swamp 1,700 acres and Wetland 5 totaling 0.88 acre. The wetlands are hydrologically connected to the TNW through the flow regime described above. These aquatic systems provide habitat for wildlife, perform flood storage and drainage for the surrounding areas, water quality treatment and baseflow to Reedy Creek, and food web support for the Kissimmee River watershed.

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 food webs?
- 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.**
- 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:
- 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: The Reedy Creek Watershed Wetlands are among the most productive in the Central Florida area. An immense variety of species or microbes, plants, insects, amphibians, reptiles, birds, fish, and mammals can be part of this wetland ecosystem. Physical and chemical features such as climate, landscape shape (topology), geology, and the movement and abundance of water help to determine the plants and animals that inhabit this wetland.

The Reedy Creek Wetlands provide great volumes of food that attract many animal species some which are Federally Listed. These animals use wetlands for part of or all of their life-cycle. Dead plant leaves and stems break down in the water to form small particles of organic material called "detritus." This enriched material feeds many small aquatic insects, shellfish, and small fish that are food for larger predatory fish, reptiles, amphibians, birds, and mammals.

The Reedy Creek Wetlands provide for wildlife habitat and food chain support surface water retention or detention, groundwater recharge, and nutrient transformation. Distinct from these intrinsic natural functions are human uses of and interaction with wetlands. The Reedy Creek Wetlands provide support for commercial activities and recreational opportunities such as but not limited to eco-tourism which includes hunting, canoeing, hiking and they also provide valuable fish and wildlife habitat, flood control, supply or drinking water, enhancement of water quality.

The Reedy Creek Watershed allows water, sediments and dissolved materials to drain from higher elevations to a common low-lying outlet like Whittenhorse Creek, Reedy Creek, Dead River, and Lake Hatchineha. These wetlands play an integral role the

ecology and hydrology of the watershed. The combination of shallow water high levels of nutrients and high primary productivity is ideal for the growth of organisms that form the base of the food web and feed many species of fish, amphibians, shellfish, and insects. Many species of birds and mammals rely on the Reedy Creek Watershed wetlands for food, water, and shelter, especially during migration and breeding. Wetlands' microbes, plants, and wildlife are part of global cycles for water, nitrogen, and sulfur. The Reedy Creek Wetlands also store carbon within their plant communities and soil instead of releasing it to the atmosphere as carbon dioxide. Thus these wetlands help to moderate the Central Florida climate conditions.

The Reedy Creek Wetlands have important filtering capabilities for intercepting surface water runoff from higher dry land before the runoff reaches open water. As the runoff water passes through these wetlands they retain excess nutrients and some pollutants and reduce sediment that would clog waterways and affect fish and amphibian egg development. In addition to improving water quality through filtering some wetlands maintain stream flow during dry periods and, many replenish groundwater.

The Reedy Creek Wetlands also function as a natural sponge that trap and slowly release surface water, rain, groundwater, and flood waters. Trees, root mats, and other wetland vegetation also slow the speed of flood waters and distribute them more slowly over the floodplain. This combined water storage and braking action lowers downstream flood heights and reduces erosion. Wetlands within and downstream of urban areas are particularly valuable, counteracting the greatly increased rate and volume of surface water runoff from pavement and buildings. The holding capacity of wetland helps control floods. Preserving and restoring wetlands can often provide the level of flood control otherwise provided by expensive dredge operations and levees. Several threatened and endangered species live in and around the Reedy Creek wetlands. Many other animals and plants depend on the Reedy Creek Wetlands for survival.

5. **Significant nexus findings for an RPW (perennial or seasonal).** Explain findings of presence or absence of significant nexus below, based on the tributary, then go to Section III.D:

The subject wetlands, non-wetland waters, and tributaries are hydrologically connected to Reedy Creek, and ultimately to Lake Hatchineha. The systems provide a variety of habitat and lifecycle support functions. These functions include but are not limited to feeding, nesting, spawning, or areas to rear young for a variety of species such as fish, amphibians, snakes, reptiles, birds, and mammals. These species are present along the path of the waterway to and including the lakes that receive their waters. Extensive development has occurred in the region prior to stormwater permitting rules and these waterbodies and wetlands help to reduce the amount of pollutants or flood waters reaching the downstream TNW. The wetlands and non-wetland waters help to transfer nutrients and organic carbon that support downstream food webs and in combination with its adjacent wetlands, contribute to the physical, chemical, or biological integrity of the TNW. The lakes, creeks, streams, small lakes and wetlands provide the local residents recreational values such as but not limited to boating, fishing and hunting as well as aesthetic values important for property values and quality of life in the central Florida area. Discharge waters are critical in maintaining downstream Reedy Creek Waters exemplified at USGS Gauging Station 02266300.

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: Both Whittenhorse Creek and Reedy Creek are named creeks on the USGS Quadrangle Maps for the Central Florida area. A review of the Orange and Polk County Water Atlas indicates that these two surface waters are used for both Water Quality Sampling and hydrologic Sampling. One of the Whittenhorse Creek sampling sites is situated Approximately 1.5 miles from the project site and flows into Reedy Creek and is indicated as having water levels varying from 84.5 feet to 92 feet as far back as 1985 up to the present.
 - 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: 3 acres.
 - Other non-wetland waters: acres.

Identify type(s) of waters: Lake and pond non-wetland waters.

3. **Non-RPWs⁷ 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.

⁷See 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: Wetland 5 is physically and hydrologically connected to Bear Bay Swamp which connects to a RPW which connects to Reedy Creek
 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: **0.88** 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: wetland 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.⁸

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):⁹

- 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):

⁸ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

⁹ 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).
- 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: 0.91 acres. List type of aquatic resource: Ditch
- Wetlands:

Wetland	Acres
3	2.94
9	0.85

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):

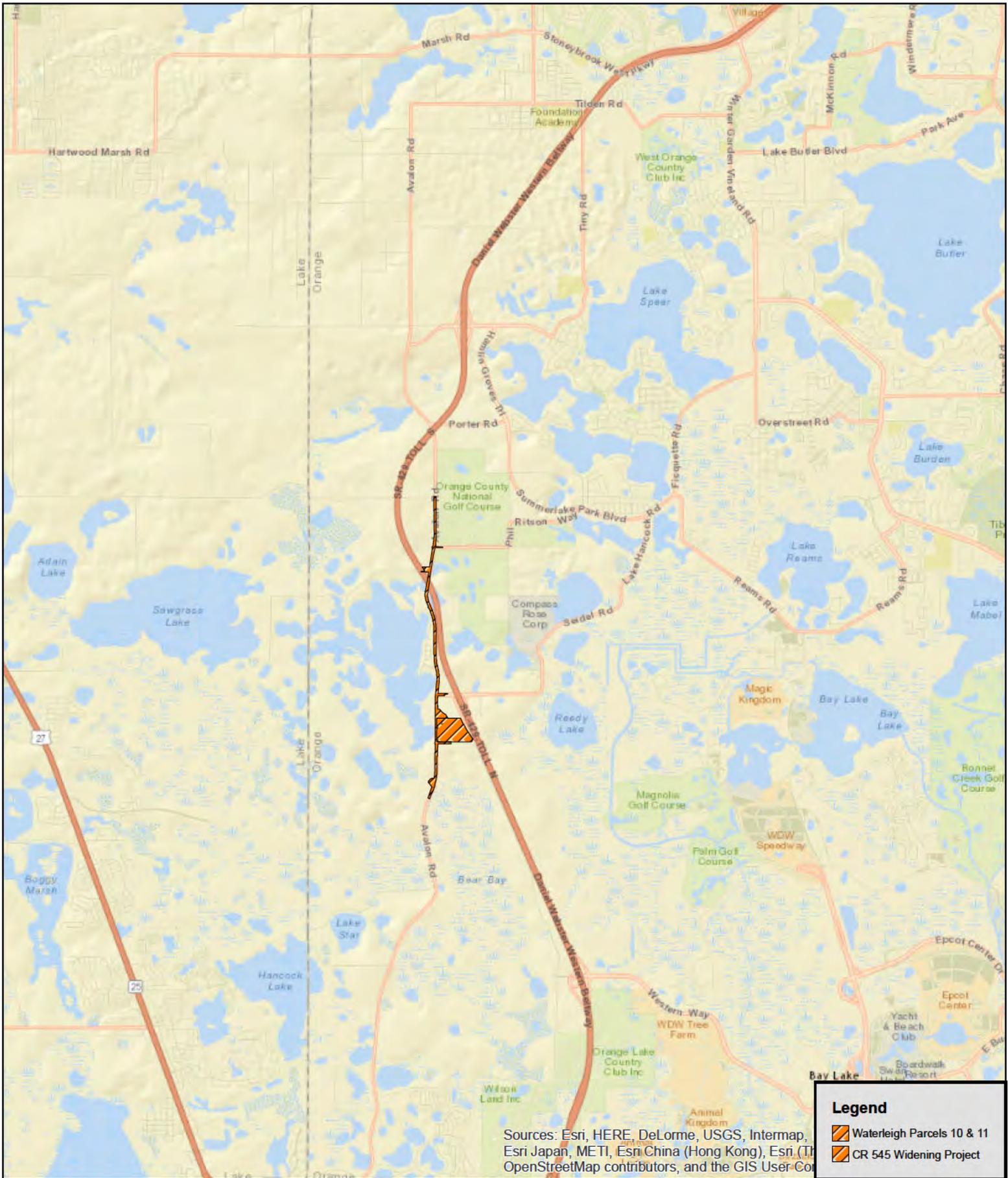
- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource:.
- Wetlands: acres.

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.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant. See Application
 - 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. NHD Flow Lines
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s).
- USDA Natural Resources Conservation Service Soil Survey. Citation:
- National wetlands inventory map(s).
- State/Local wetland inventory map(s):.
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is:
- Photographs:
- Previous determination(s). File no. and date of response letter: SAJ-2014-03166(NPR-JLC) January 22, 2014. SAJ-2016-00216(JD-AWP) April 11, 2017
- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify):
Data from Orange County Water Atlas on Reedy Creek water levels and flows.

B. ADDITIONAL COMMENTS TO SUPPORT JD: There are 0.88 acres of jurisdictional and 3.79 acres of hydrologically isolated wetlands and 0.91 acre non-wetland water within the review area. This document determines the jurisdictional status of waters of the United States, including wetlands and non-wetland waters, found within the Avalon Road proposed right-of-way (State Road 545) from Schofield Road to APF Blvd. and Waterleigh Parcels 10 & 11. Waters of the United States (wetlands and non-wetland waters) outside of the review area boundaries are not considered as part of this evaluation and maybe evaluated in subsequent determinations.



CR 545 Widening / Waterleigh Parcels 10 & 11

Orange County, Florida

Figure 1

Location Map



1
Miles

Project #:110-74
Produced By: MEC
Date: 5/19/2017



CR 545 Widening / Waterleigh Parcels 10 & 11

Orange County, Florida

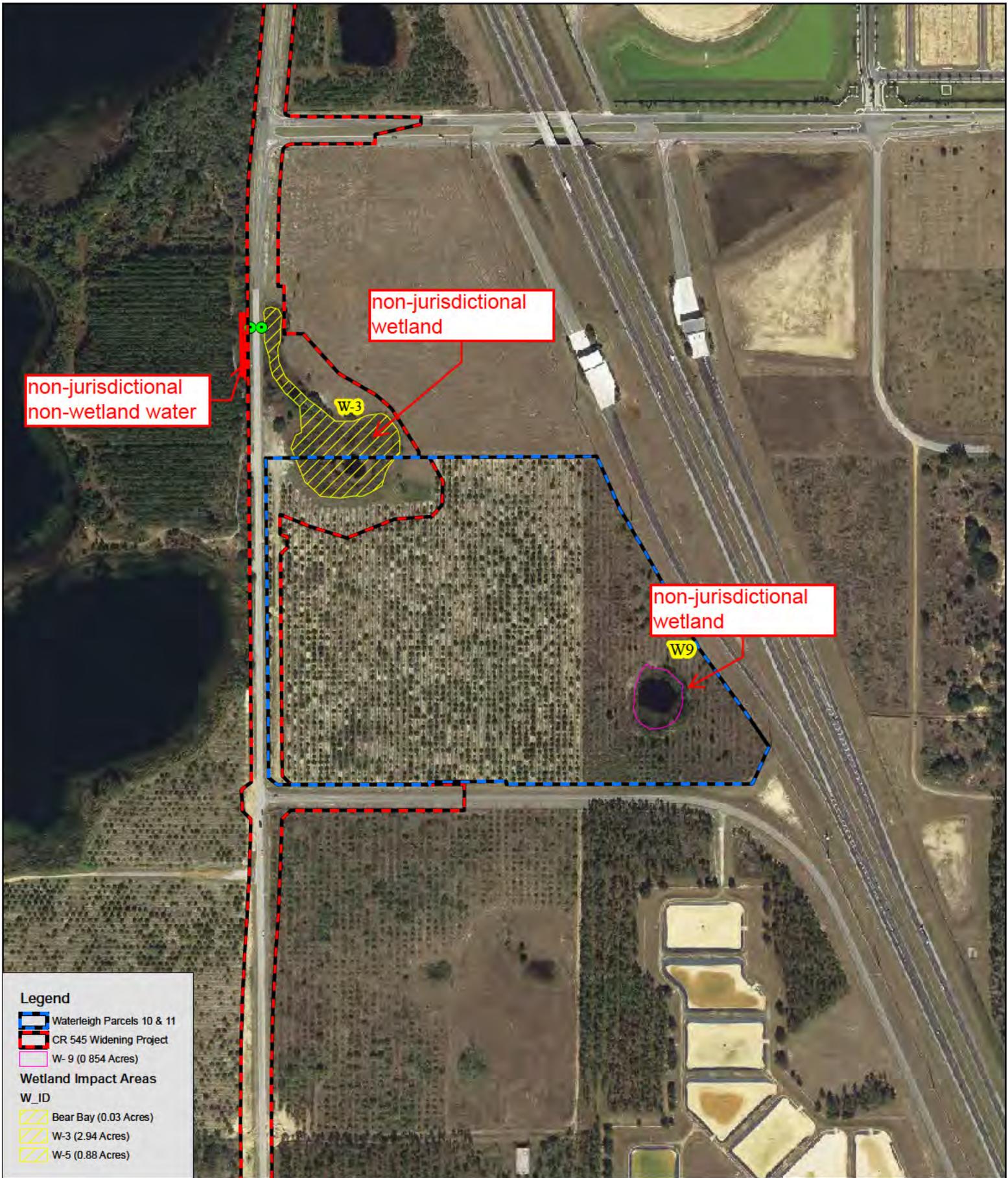
Figure 2

2016 Aerial Photograph



0.35
 Miles

Project #:110-74
 Produced By: MEC
 Date: 5/19/2017



- Legend**
- Waterleigh Parcels 10 & 11
 - CR 545 Widening Project
 - W-9 (0.854 Acres)
- Wetland Impact Areas**
- W_ID**
- Bear Bay (0.03 Acres)
 - W-3 (2.94 Acres)
 - W-5 (0.88 Acres)

CR 545 Widening / Waterleigh Parcels 10 & 11

Orange County, Florida

Figure 5

Wetland Impacts

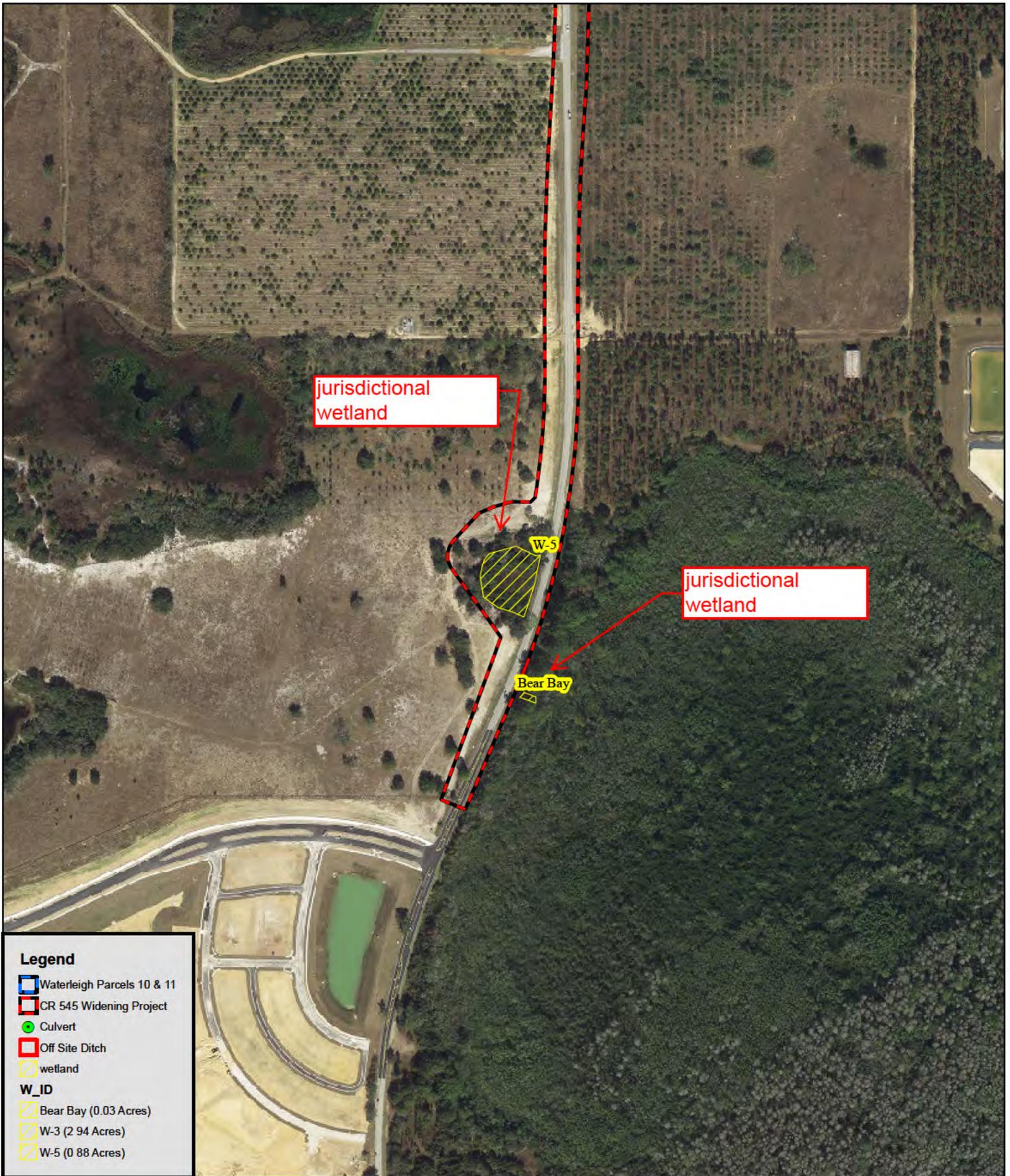


0.1 Miles

Project #:110-74

Produced By: MEC

Date: 6/16/2017



- Legend**
- Waterleigh Parcels 10 & 11
 - CR 545 Widening Project
 - Culvert
 - Off Site Ditch
 - wetland
- W_ID**
- Bear Bay (0.03 Acres)
 - W-3 (2.94 Acres)
 - W-5 (0.88 Acres)

CR 545 Widening / Waterleigh Parcels 10 & 11
 Orange County, Florida
 Figure 6
 Wetland Impact Map

0.09
 Miles
 Project #:110-74
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CR 545 Widening / Waterleigh Parcels 10 & 11

Orange County, Florida

Figure 4

Flow Route



0.25 Miles

Project #:110-74
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 Date: 6/16/2017

Wetland 5

Wetland 5 connects to Bear Bay Swamp which flows to Whittenhorse Creek which flows into Reedy Creek and then through Lake Russell and on into Dead River and finally into Lake Hatchineha (TNW).

Lake Hatchineha (TNW)

Google earth

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