

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): 31 March 2014

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CESAJ-RD-WF, North Brook Holdings, LLC / Stoneybrook North, SAJ-2001-06697

C. PROJECT LOCATION AND BACKGROUND INFORMATION: The project site is located at the Northeast corner of the intersection of I-75 and Bayshore Road, Pritchett Parkway in Seciions 15, 16, & 21, Township 43 South, Range 25 East.

State:FL

County/parish/borough: Lee City: North Fort Myers

Center coordinates of site (lat/long in degree decimal format): Lat. 26.72904° **N**, Long. -81.81548° **W**.

Universal Transverse Mercator:

Name of nearest waterbody: Bayshore and Popash Creek

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

Name of watershed or Hydrologic Unit Code (HUC):

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: 9 September 2015

Field Determination. Date(s): 25 March 2015

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: 2 Creeks 7,300 and 10240 linear feet: 30 and 60 width (ft) and/or 5 and 14 acres.

Wetlands: 10 wetlands totalling 63.46 acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

Elevation of established OHWM (if known):17 feet.

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: Waters identified as OSW-4 Palustrine Emergent Persistent and an area located between wetland identified as WL-H and WL-G shown in the NWI as Palustrine Emergent Persistent were belived to have potential to be jurisdictonal waters.

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.

During a site visit conducted on 25 March 2015, the Corps noted an area west of WL-H that appeared to have wetland characteristics. Upon close inspection the Corps determined plants similar to above herbaceous species except no canopy (perhaps cleared in past and maintained by mowing/cattle grazing); soil samples showed stripped matrix within the upper 12 inches, thin layer of muck on the surface and small amounts of muck organic bodies; no indicators of hydrology but area both naturally (wet/dry season) and unnaturally (cattle grazing/mowing) disturbed. Located partially within WL-G; FWS wetland inventory map indicates a larger area than delineated by consultant; soil maps indicate both Pineda Fine Sand, Digressional & Floridana Sand, Digressional; vegetation present included mostly closed hardwood canopy with water oak, red maple & slash pine. Notwithstanding, the Corps agreed to have the area further reserched by a soil scientist. The soil survey indicated that the subject parcel soils are Malabar fine sand. Soil Scientist identified S6 indicator withing the supect area, however the report states the S6 indicator as starting below -8 inches or lower in each location. During the site inspection and later confirmed in the office that OW-4 was excavated from wetlands, with soil classified as Pineda Fine Sand, depressional. Aerial photograph as well as the USGS Quads confirm OW-4 was excavated from wetlands (circa 1987). The areas in the USGS Quads is identified as a Marsh or swamp and is connected to Bayshore Creek. During the site visit an adjacent area north of OW-4 was sampled and was determined that the area did not have the required characteristics for wetland. OW-4 appears to impact the hydrology of the adjacent areas, an no further wetland characteristics were found. Therefore, the Corps can agree to with the consultant on the Other Surface Water Call for OW-4. Agricultural uses of the land have modified the soils hydric properties. As the soil scientis report confirms.

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: 1,404 square miles

Drainage area: 898556.4 acres

Average annual rainfall: 44 inches

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

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

Identify flow route to TNW⁵: Water from WL-A trough WL-J flows on diferent conveyances to Bayshore Creek or Popash Creek which flows directly to the TNW.
Tributary stream order, if known: 1 .

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

Tributary is: Natural
 Artificial (man-made). Explain: .
 Manipulated (man-altered). Explain: Bayshore Creek has been redirected in certain areas.

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

Average width: 30 feet for Bayshore Creek and 60 feet for Popash Creek feet
Average depth: 2-6 feet
Average side slopes: **3:1** .

Primary tributary substrate composition (check all that apply):

- | | | |
|---|--|-----------------------------------|
| <input type="checkbox"/> Silts | <input checked="" type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input checked="" type="checkbox"/> Cobbles | <input checked="" type="checkbox"/> Gravel | <input type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input checked="" type="checkbox"/> Vegetation. Type/% cover: 70 | |
| <input type="checkbox"/> Other. Explain: . | | |

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

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

Tributary geometry: **Meandering**

Tributary gradient (approximate average slope): 2-3 %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **20 (or greater)**

Describe flow regime: permanent.

Other information on duration and volume: .

Surface flow is: **Confined**. Characteristics: bed and bank.

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

Dye (or other) test performed: .

Tributary has (check all that apply):

- | | |
|--|---|
| <input checked="" type="checkbox"/> Bed and banks | |
| <input checked="" type="checkbox"/> OHWM ⁶ (check all indicators that apply): | |
| <input checked="" type="checkbox"/> clear, natural line impressed on the bank | <input 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 checked="" type="checkbox"/> shelving | <input 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 type="checkbox"/> scour |
| <input checked="" type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events |
| <input type="checkbox"/> water staining | <input type="checkbox"/> abrupt change in plant community |
| <input type="checkbox"/> other (list): | |
| <input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: . | |

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.

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 checked="" 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 checked="" type="checkbox"/> physical markings; |
| <input type="checkbox"/> physical markings/characteristics | <input checked="" 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: Clear water.

Identify specific pollutants, if known: .

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

- Riparian corridor. Characteristics (type, average width): 30-60.
- Wetland fringe. Characteristics: herbaceous.
- Habitat for:
 - Federally Listed species. Explain findings: Potential Florida Bonneted Bat, Red Cockaded Woodpecker, Wood Stork, Florida Scrub Jay & Caracara habitat.
 - Fish/spawn areas. Explain findings: .
 - Other environmentally-sensitive species. Explain findings: amphibians, reptiles.
 - Aquatic/wildlife diversity. Explain findings: amphibians, 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: WL-A, B, C, D,E, F, G, H, I, & J Total 63.46 acres

Wetland type. Explain: Palustrine Emergent Persistent, Forested shrub and herbaceous.

Wetland quality. Explain: moderate.

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

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: Run-off during rainy season.

Surface flow is: **Discrete**

Characteristics: seasonal.

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: Wetland WL-A, B, E, F, H, I, J are connected through conveyances & direct runoff to the tributary.
 - Ecological connection. Explain: Vegetation is consistent throughout the connection.
 - Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **1 (or less)** river miles from TNW.

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

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **2-year or less** 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: tannic, mostly clear.

Identify specific pollutants, if known: .

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

- Riparian buffer. Characteristics (type, average width):25 feet.
- Vegetation type/percent cover. Explain:Vegetation present included mostly closed hardwood canopy with water oak, red maple & slash pine.
- Habitat for:
 - Federally Listed species. Explain findings:potential Florida Bonneted Bat, Red Cockaded Woodpecker, Wood Stork, Florida Scrub Jay & Caracara habitat.
 - Fish/spawn areas. Explain findings: .
 - Other environmentally-sensitive species. Explain findings: .
 - Aquatic/wildlife diversity. Explain findings:species typical to this type of habitat.

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

All wetland(s) being considered in the cumulative analysis: **10**

Approximately (63.46+/-) 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> |
|------------------------------|------------------------|------------------------------|------------------------|
| WL-A (N) | 3.25 | WL-B (N) | 1.7 |
| WL-C (Y) | 0.59 | WL-D (N) | 7.28 |
| WL-E (N) | 1.05 | WL-F (N) | 4.48 |
| WL-G (Y) | 1.78 | WL-H (N) | 20.37 |
| WL-I (N) | 11.9 | WL-J (N) | 10.76 |

Summarize overall biological, chemical and physical functions being performed: storage of flood waters, reduction of downstream peak discharge and volume, recharge of aquifers, sediment and nutrient removal, provide wildlife habitat including ESA species, support diverse community of benthic invertebrates, food source for vertebrates. Additionally, these wetlands flow into Caloosahatchee River near the National Wildlife Refuge which provides habitat and breeding for aquatic flora and fauna including the endangered smalltooth sawfish (*Pristis*) and West Indian Manatee (*Tichechus manatus*). These wetlands assist in the removal of nutrients prior to reaching the estuary, reducing water degradation due to the possibilities of eutrophication, algal blooms, and hypoxia.

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: See Section IV (B) for the significant nexus discussion.

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: See Section IV (B) for the significant nexus discussion.

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: USGS Quad Maps show both Bayshore and Popash Creek as being perennial, Site observation during dry season showed flowing water.
 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: **2 Creeks 7,300 and 10240** linear feet **30 and 60 each** width (ft).
 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.

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: **Is directly abutting Bayshore 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: **1.78 +/-** 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: +/-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: **61.68 +/-**acres.

⁸See 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: 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: Dexbender.
- 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.

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.

- USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name:Fort Myers, 7.5 minute .
- USDA Natural Resources Conservation Service Soil Survey. Citation: .
- National wetlands inventory map(s). Cite name:Google Earth.
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps:12071C0277F, 12071C0281F.
- 100-year Floodplain Elevation is:20 feet(National Geodectic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date):Google Earth Jan 2015.
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): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: Significant Nexus Determination: Florida is in the Eleventh Circuit and the Eleventh Circuit has concluded that the Kennedy standard is the sole method of determining CWA jurisdiction in that Circuit (United States v. McWane, Inc., et al., 505 F.3d 1208 [11th Cir. 2007]). Therefore, unless the aquatic resources are traditional navigable waters or wetlands adjacent to traditional navigable waters, the Corps must conduct a significant nexus determination on all other waters in order to determine jurisdiction under the CWA. The Corps has determined that for this review, the tributary and directly abutting wetlands have more than an insubstantial or speculative effect on the physical, chemical, and biological integrity of the downstream TNWs, as described below.

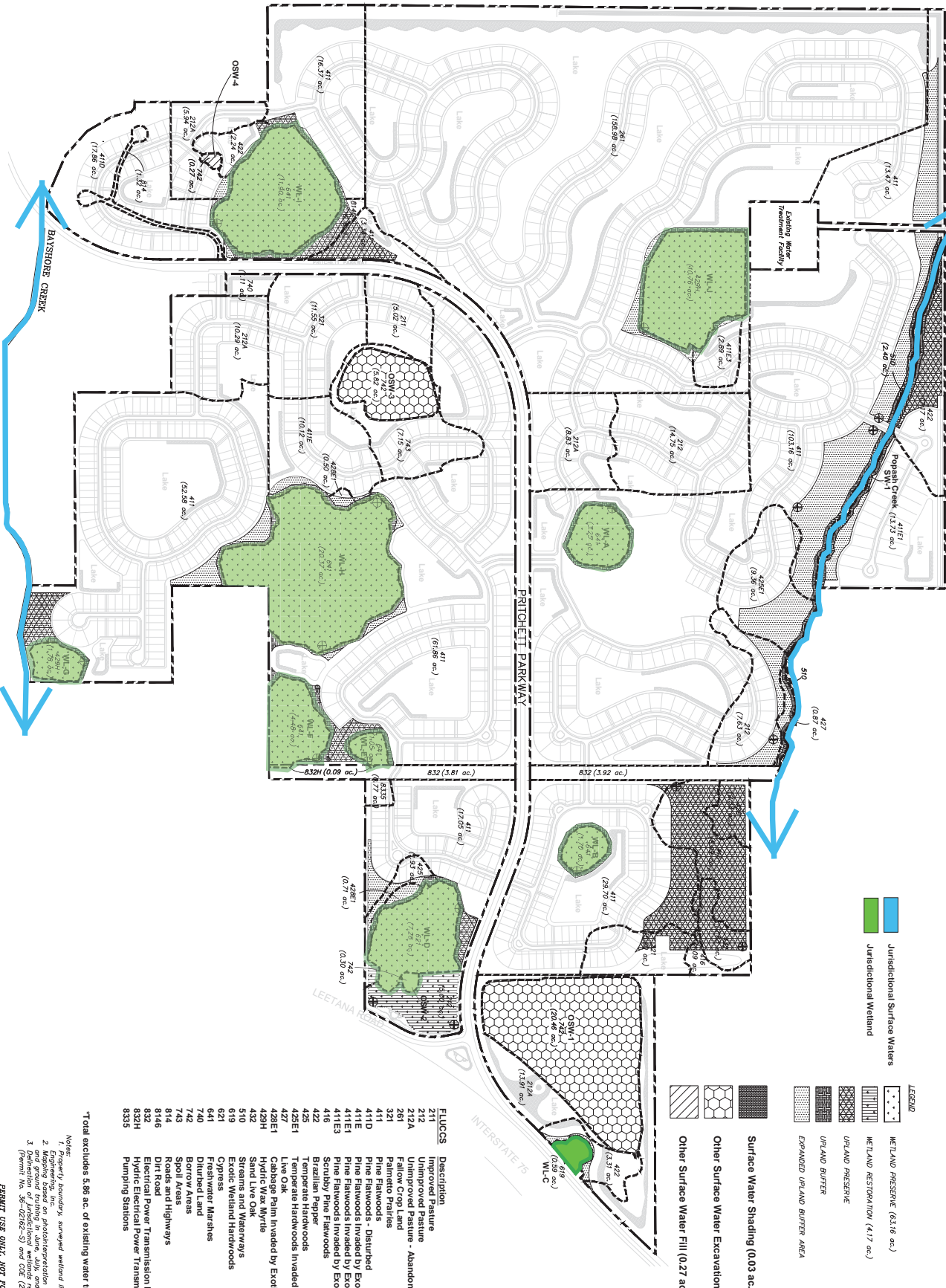
The following represents the significant nexus finding for the tributary and associated wetlands WL-A through J except WL-G):

PHYSICAL: The wetlands perform important flow maintenance functions, including storage of flood waters and maintenance of groundwater supplies, and therefore directly affect the duration, frequency and volume of flow in the tributary and the downstream TNW.

CHEMICAL: These wetlands improve water quality by removing sediment and nutrients (particularly phosphorous and nitrogen) that would otherwise reach the tributary and be transferred to the downstream TNW and have a negative effect on aquatic resources. These wetlands assist in preventing even further water degradation by providing a chemical buffer.









BIOLOGICAL: The wetlands are of importance biologically since the majority of other non-wetland areas in the watershed have been altered for agriculture, residential, or other purposes. They provide breeding grounds for species that cannot reproduce in faster-moving water and move between wetlands and uplands over their lifecycle, and provide habitat for a variety of species. In particular these wetlands are within the Florida Bonneted Bat, Red Cockaded Woodpecker, Wood Stork, Florida Scrub Jay & Caracara habitat . The biological functions provided are expected to also be exported to the tributary and provide benefits to the downstream TNW. The RPW flows into Caloosahatchee River utilized by the endangered smalltooth sawfish, various swimming sea turtles, and the West Indian Manatee.

Combined COE Jurisdictional Wetlands, Upland Buffers, and Site Plan Map



 Jurisdictional Surface Waters
 Jurisdictional Wetland

LEGEND


| | |
|---|--|
|  | WETLAND PRESERVE (63.16 ac.) |
|  | WETLAND RESTORATION (4.17 ac.) |
|  | WETLAND PRESERVE |
|  | UPLAND BUFFER |
|  | EXPANDED UPLAND BUFFER AREA |
|  | Surface Water Shading (0.03 ac.) |
|  | Other Surface Water Excavation (26.28 ac.) |
|  | Other Surface Water Fill (0.27 ac.) |

| FLUCCS | Description | Average |
|---------------|--|--------------------|
| 212 | Improved Pasture | 27.26 ac. |
| 212A | Unimproved Pasture - Abandoned | 36.53 ac. |
| 261 | Fallow Crop Land | 158.98 ac. |
| 321 | Palmier Prairies | 16.75 ac. |
| 411 | Pine Flatwoods | 297.53 ac. |
| 411D | Pine Flatwoods - Disturbed by Exotics (9-3%) | 10.12 ac. |
| 411E | Pine Flatwoods Invaded by Exotics (10-25%) | 13.73 ac. |
| 411F | Pine Flatwoods Invaded by Exotics (26-50%) | 13.82 ac. |
| 411G | Pine Flatwoods Invaded by Exotics (51-75%) | 5.18 ac. |
| 416 | Savanna Flatwoods | 12.72 ac. |
| 422 | Brazilian Pepper | 9.36 ac. |
| 425 | Temperate Hardwoods | 1.21 ac. |
| 425E1 | Live Oak | 0.87 ac. |
| 428E1 | Cabbage Palm Invaded by Exotics (10-25%) | 12.54 ac. |
| 428H | Hydric Wax Myrtle | 2.83 ac. |
| 432 | Sand Live Oak | 0.59 ac. |
| 432A | Slender Live Oak | 0.59 ac. |
| 619 | Exotic Wetland Hardwoods | 7.28 ac. |
| 621 | Cypress | 42.75 ac. |
| 641 | Freshwater Marshes | 1.11 ac. |
| 740 | Disturbed Land | 26.85 ac. |
| 742 | Borrow Areas | 7.15 ac. |
| 743 | Spill Areas | 1.32 ac. |
| 814 | Roads and Highways | 2.15 ac. |
| 814a | DIRT Road Power Transmission Lines | 0.09 ac. |
| 832H | Hydric Electrical Power Transmission Lines | 0.09 ac. |
| 8335 | Pumping Stations | 0.77 ac. |
| Totals | | 720.00 ac.* |

*Total excludes 5.86 ac. of existing water treatment facility and access road.

- Notes:**
- Property boundary, surveyed wetland lines, and site plan provided by Banks & Associates, Inc.
 - Mapping based on photointerpretation of 2013 aerial photography and ground truthing in June, July, and August 2014.
 - Permit No. 36-0262-S and COE (20010663)(WHR-DE1).

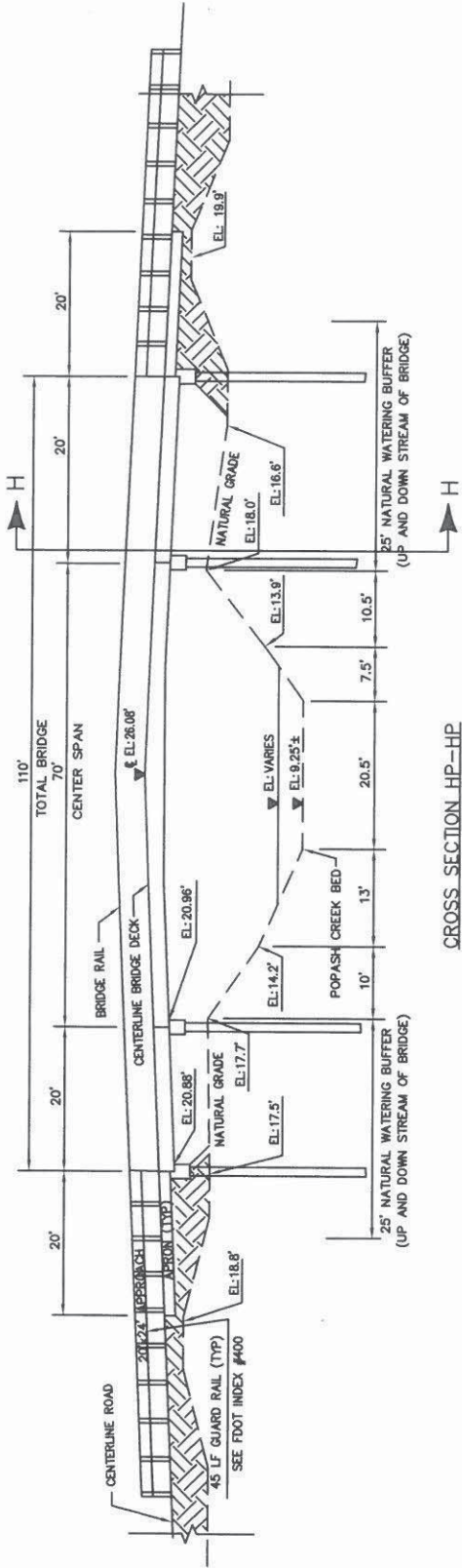
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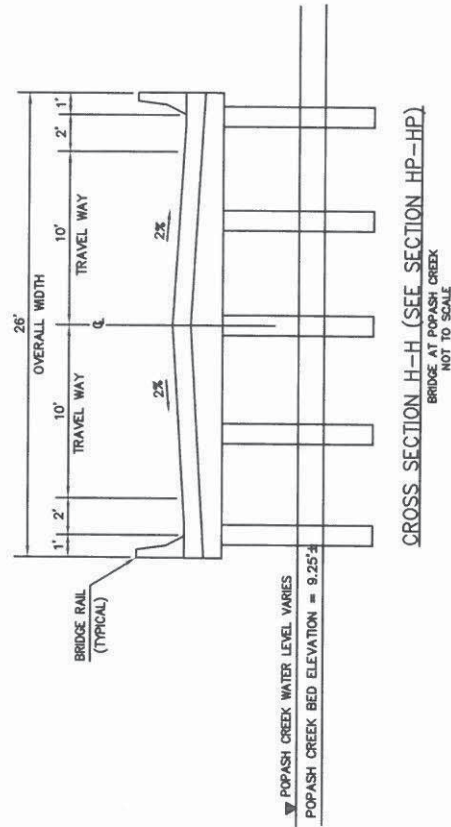
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N.T.S.



CROSS SECTION HP-HP
POPASH CREEK AT BRIDGE
NOT TO SCALE



CROSS SECTION H-H (SEE SECTION HP-HP)
BRIDGE AT POPASH CREEK
NOT TO SCALE

Note: Bridge sections provided by Banks Engineering, Inc.

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Drawing: BANK196BRIDGESECTION.DWG

W. DEXTER BENDER
& ASSOCIATES, INC.
ENVIRONMENTAL & MARINE CONSULTING
FORT MYERS 239-334-3680

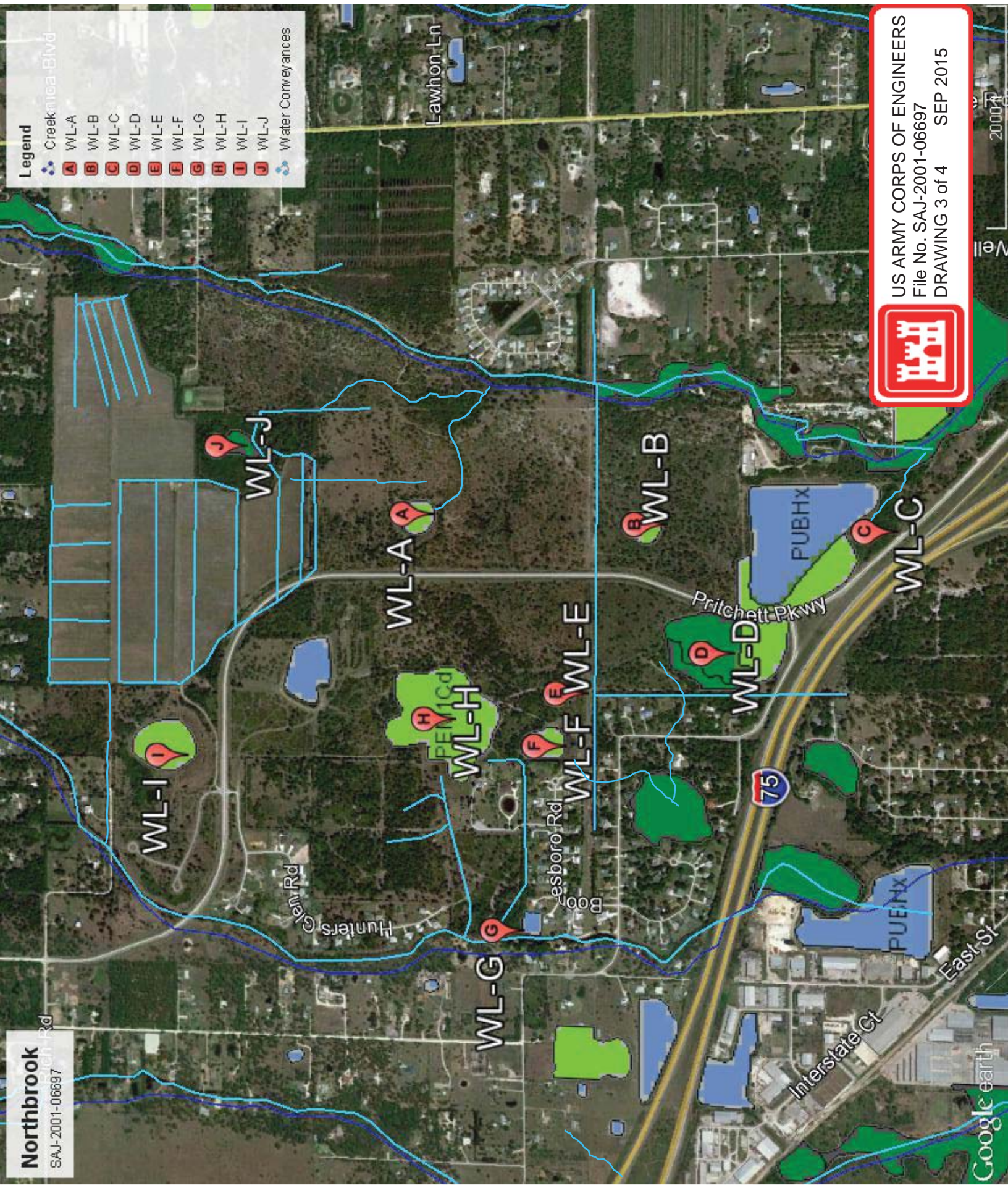


Proposed Popash Creek Bridge - Cross Sections

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SAJ-2001-06697

Legend

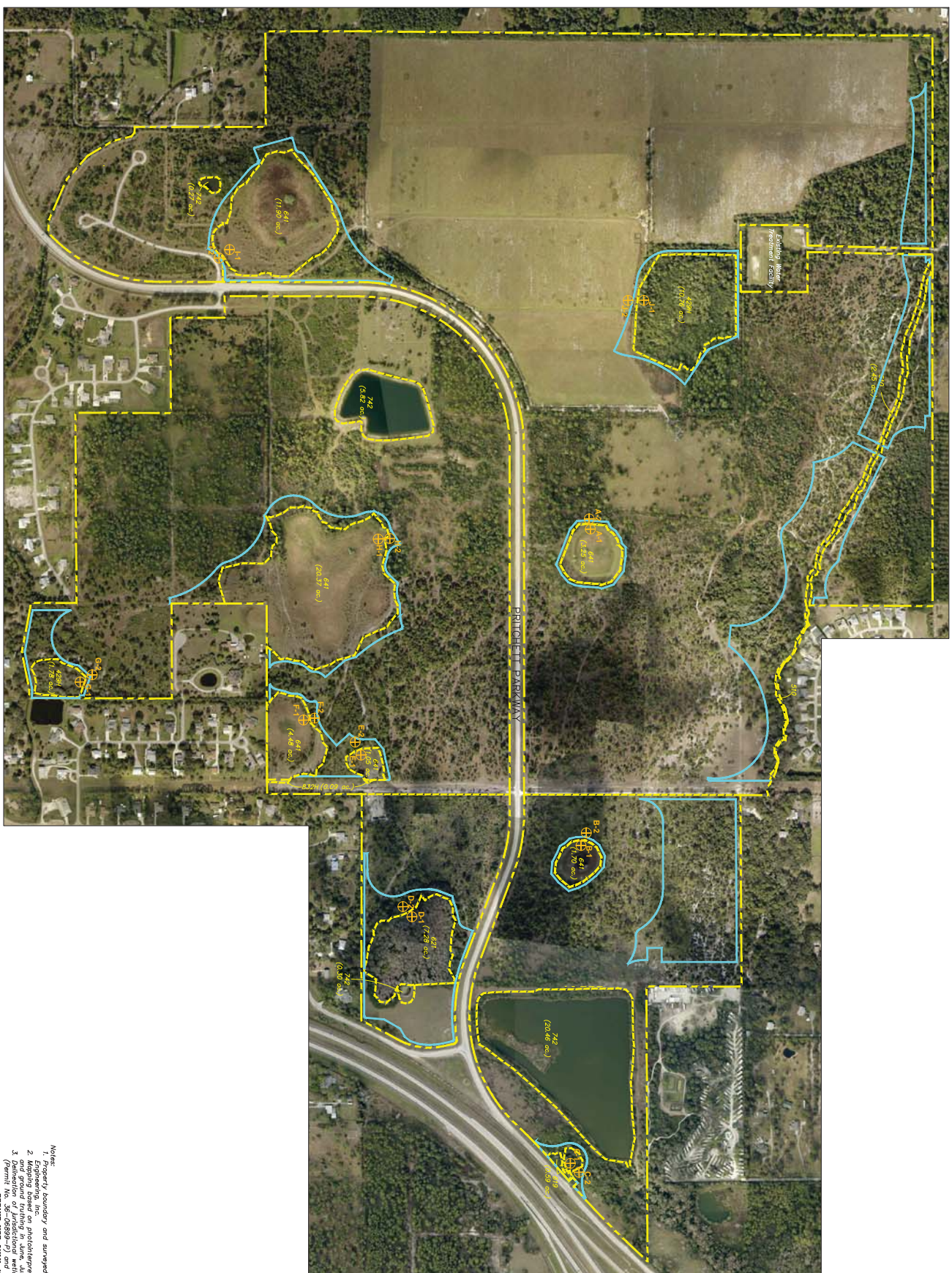
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- WL-A
- WL-B
- WL-C
- WL-D
- WL-E
- WL-F
- WL-G
- WL-H
- WL-I
- WL-J
- Water Conveyances



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DRAWING 3 of 4 SEP 2015

Google earth

Aerial Preserve Overlay



- Notes:
1. Property boundary and surveyed wetland lines provided by Banks
 2. Mapping based on photo-interpretation of 2013 aerial photography
 3. Publication of this document is subject to review and approval by the SWMD (Permit No. 36-06899-P) and CDE (2001106697/WH-DE/D).
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 DRAWING 4 of 4 SEP 2015



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