US Army Corps of Engineers

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): January 12, 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Jacksonville District/SAJ-2015-00475-Tom Miller MOD

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: FL County/parish/borough: Hillsborough City: Balm
Center coordinates of site (lat/long in degree decimal format): Lat. 27.782808° **N**, Long. 82.289780° **W**.
Universal Transverse Mercator:
Name of nearest waterbody: Little Bullfrog Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Hillsborough Bay
Name of watershed or Hydrologic Unit Code (HUC): 0310020604-Bullfrog Creek-Wolf Branch Frontal
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: January 12, 2018
☒ Field Determination. Date(s): November 22, 2016

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: (Shown on attached map by King Engineering in green) 5,800 linear feet: width (ft) and/or 3.62 acres.
   Wetlands: (Shown on attached map by King Engineering in green) 19.82 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: **The site contains 3.38 acres (8,291 linear feet) of non-jurisdictional agricultural ditches and swales (referred to on the attached map by King Engineering in orange as 18; 19 #1, #2, #3, #5, #6, #7, #8; 21; 22 #2; 23; 24; 25; and 26). These features were excavated in non-hydric soils for agricultural drainage and do not exhibit characteristics of a tributary and do not drain wetlands to a downstream TNW. These features are non-jurisdictional based on the**

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

preamble to 33 CFR Part 328 in the November 13, 1986, Federal Register (51 FR 41217, Section 328.3) and further guidance.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

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

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

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

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

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

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

(i) General Area Conditions:
Watershed size: 874 **square miles**
Drainage area: 25,749 **acres**
Average annual rainfall: 53 inches
Average annual snowfall: 0 inches

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

Project waters are **10-15** river miles from TNW.
Project waters are **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.

Identify flow route to TNW[5]: The ditches flow to Wetland C, which forms the headwaters of Little Bullfrog Creek. Little Bullfrog Creek flows into Bullfrog Creek, which empties into Hillsborough Bay.

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

Tributary stream order, if known: .

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

Tributary is: ☐ Natural
☒ Artificial (man-made). Explain: Ditches OSW 20 and OSW 22 are excavated features.
☒ Manipulated (man-altered). Explain: Ditches OSW 19, OSW 24 and OSW 25 are natural tributaries that were historically channelized for agricultural ditching.

Tributary properties with respect to top of bank (estimate):
Average width: 10 feet
Average depth: 3 feet
Average side slopes: **4:1 (or greater).**

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: Stable.
Presence of run/riffle/pool complexes. Explain: None.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): %

(c) Flow:

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

Describe flow regime: Steady flow in wet season, lighter flow during dry season. The tributaries had standing or flowing water during the November 22, 2016, site visit. Additional observations via available aerial photographs of standing or flowing water during dry season months over more than 20 years indicate that the tributaries have relatively permanent flow at least seasonally, most likely year-round.

Other information on duration and volume: The ditches receive direct runoff from the agricultural operation.

Surface flow is: **Confined.** Characteristics: Water flows within the ditch banks and is confined to culverts under vehicle crossings. Surface water enters the ditch via overland flow or sheet flow.

Subsurface flow: **Yes**. Explain findings: Based on historic aerial photographs of the review area, the ditches were effective in draining the site of excess water. In the 1938, 1948, 1968, 1982 aerials (prior to ditching and site transformation for agriculture), all of the historic marsh wetlands within the review area exhibited greater inundation than that which occurs post-ditching. Current conditions reflect a reduced hydropattern and hydroperiod. The wetlands are generally drier, have more shrubby vegetation and contain nonnative and nuisance vegetation due to the lateral effect of the drainage ditches drawing down the water table.

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☒ vegetation matted down, bent, or absent	☐ sediment sorting
☒ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☒ water staining	☐ abrupt change in plant community
☐ other (list):	

☒ Discontinuous OHWM.[7] Explain: The tributaries are confined to culverts under vehicle crossings.

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

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

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

☐ other (list):

(iii) Chemical Characteristics:

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

Explain: The ditches contain duckweed, water spangles and algae--typical of systems with high nutrient loads such as nitrogen and phosphorus. Water entering ditches is from adjacent row crops, introducing chemicals and nutrients from fertilizer and pesticide applications. The two most dominant land uses in the Hillsborough Bay watershed are urban/built up and agriculture.

Identify specific pollutants, if known: The review area is a farm (row crops). The ditches transport the chemicals and nutrients from fertilizers and pesticides downstream.

Little Bullfrog Creek is categorized as impaired for dissolved oxygen by the Florida Department of Environmental Protection (FDEP), and dissolved oxygen and fecal coliform by the Environmental Protection Agency (EPA).

Bullfrog Creek is categorized as impaired for dissolved oxygen, nutrients (chlorophyll-a and historic chlorophyll-a) by the FDEP, and fecal coliform, chlorophyll-a, dissolved oxygen and mercury in fish tissue by the EPA.

Hillsborough Bay is categorized as impaired for dissolved oxygen by the FDEP, and chlorophyll-a, dissolved oxygen, mercury in fish tissue by the EPA.

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

☐ Riparian corridor. Characteristics (type, average width): .

☒ Wetland fringe. Characteristics: Ditches connect directly to wetlands.

☒ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☒ Aquatic/wildlife diversity. Explain findings: Habitat for small fish, reptiles, amphibians, macroinvertebrates, insects.

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: Total 19.82 acres; consists of Wetland C: 9.97 acres; Wetland F: 0.03 acre; Wetland G: 0.55 acre; Wetland H: 3.65 acres; Wetland I: 0.74 acre; Wetland J: 2.52 acres; Wetland K: 2.37 acres

Wetland type. Explain: Wetland hardwood forest (Wetlands J and K); stream and lake swamp/bottomland (Wetland H); willow and elderberry (Wetlands C, F, G and I).

Wetland quality. Explain: The wetlands within the review area are generally degraded as a result of altered hydrology from ditching and the proliferation of nuisance and nonnative plant species. Wetland H is contiguous with the adjacent habitats within Balm-Boyette Scrub Preserve and exhibits higher functional value.

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

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: The wetlands receive rainfall and runoff from the adjacent uplands and are drained by the ditches. Flow is greater during the wet season when rainfall is more abundant. Wetland C, which is partially situated within the review area, is the headwater wetland for Little Bullfrog Creek. All of the wetlands within the review area flow to Wetland C, which flows to Little Bullfrog Creek and to the downstream TNW.

Surface flow is: **Discrete**

Characteristics: The wetlands have a direct surface connection with the tributaries (ditches).

Subsurface flow: **Yes**. Explain findings: Based on historic aerial photographs of the review area, the ditches were effective in draining the site of excess water. In the 1938, 1948, 1968 and 1982 aerials (prior to ditching and site transformation for agriculture), all of the historic marsh wetlands within the review area exhibited greater inundation than that which occurs post-ditching. Current conditions reflect a reduced hydropattern and hydroperiod. The wetlands are generally drier, have more shrubby vegetation and contain nonnative and nuisance vegetation due to the lateral effect of the drainage ditches drawing down the water table.

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☒ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **10-15** river miles from TNW.

Project waters are **5-10** aerial (straight) miles from TNW.

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

Estimate approximate location of wetland as within the **50 - 100-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: The wetlands did not exhibit observable indicators of poor water quality such as a sheen or film during the November 22, 2016, field inspection; however, the adjacent row crops contribute chemicals and nutrients from fertilizer and pesticide applications. The two most dominant land uses in the Hillsborough Bay watershed are urban/built up and agriculture.

Identify specific pollutants, if known: The wetlands assimilate the excess chemicals and nutrients from fertilizer and pesticide applications in the adjacent row crops.

Little Bullfrog Creek is categorized as impaired for dissolved oxygen by the Florida Department of Environmental Protection (FDEP), and dissolved oxygen and fecal coliform by the Environmental Protection Agency (EPA).

Bullfrog Creek is categorized as impaired for dissolved oxygen, nutrients (chlorophyll-a and historic chlorophyll-a) by the FDEP, and fecal coliform, chlorophyll-a, dissolved oxygen and mercury in fish tissue by the EPA.

Hillsborough Bay is categorized as impaired for dissolved oxygen by the FDEP, and chlorophyll-a, dissolved oxygen, mercury in fish tissue by the EPA.

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

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

☒ Vegetation type/percent cover. Explain:

Wetland hardwood forest (Wetlands J and K): Red maple (Acer rubrum), water oak (Quercus nigra), laurel oak (Quercus laurifolia), swamp bay (Persea palustris), sweetbay (Magnolia virginiana), Carolina willow (Salix caroliniana), elderberry, swamp fern (Blechnum serrulatum) and chain fern (Woodwardia virginica).

Stream and lake swamp/bottomland (Wetland H): Red maple, laurel oak, swamp bay, loblolly bay (Gordonia lasianthus), slash pine (Pinus palustris), wax myrtle (Morella cerifera), elderberry, swamp fern, boston fern (Nephrolepis exaltata), blackberry, chain fern, royal fern (Osmunda regalis) and cinnamon fern (Osmunda cinnamomea).

Willow and elderberry (Wetlands C, F, G and I): Carolina willow, elderberry, Brazilian pepper (Schinus terebinthifolia) and primrose willow. Additional species include chain fern, swamp fern, red maple, sweetbay, wax myrtle, royal fern and cinnamon fern.

☒ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☒ Aquatic/wildlife diversity. Explain findings: Habitat for reptiles, amphibians, wading birds, macroinvertebrates and small mammals.

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

All wetland(s) being considered in the cumulative analysis: 7

Approximately (19.82) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Y	9.97	Y	0.03
Y	0.55	Y	0.74
Y	3.65	Y	2.52
Y	2.37		

Summarize overall biological, chemical and physical functions being performed: The subject wetlands, in combination with similarly situated wetlands, perform the following functions: Storage of flood waters; reduction of downstream peak discharges and volumes; recharge of the aquifer; maintenance of seasonal/baseflows; maintenance of groundwater supplies; removal of sediments and nutrients; provision of breeding grounds and wildlife habitat (e.g. feeding/foraging, nesting, spawning, rearing of young); support diverse community of benthic invertebrates, a major food source for vertebrates.

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:
4.
5. **Signicant Nexus Determination: 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 needs to 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 subject tributaries (RPW ditches) and the subject wetlands, in combination with similarly situated waters, have more than an insubstantial or speculative effect on the physical, chemical, and biological integrity of the downstream TNW, as described below. The following significant nexus determination based on a respresentative subset of adjacent wetlands and tributaries in the watershed would be consistent with a determination based on an evaluation of all waters of the same type in the watershed.
6.
7. The following represents the significant nexus finding for the RPW ditches and similarly situated waters:

8. PHYSICAL: The tributaries receive rainfall and stormwater runoff from a farm and transport this water and sediment load downstream. Flows from the tributaries and similarly situated tributaries affect the duration, frequency and volume of freshwater flow into Hillsborough Bay, the receiving TNW. The lateral effect of the ditches on the adjacent wetlands has led to drier conditions and altered hydropatterns, reducing the capacity of the wetlands to filter sediment and pollutants prior to discharge downstream. Some of these ditches are manipulated natural creeks that were widened, deepened and straightened, and thus carry a much greater capacity of freshwater and sediment to the downstream TNW than would naturally occur.
9. CHEMICAL: The tributaries transfer pollutants from the farm as well as adjacent land uses to the downstream TNW. Pollutants within the review area and in the watershed include fertilizers and pesticides (excess nitrogen and phosphorus), petroleum wastes, residential chemicals (from lawn maintenance), etc., which cumulatively have led to an impairment rating of all waters downstream of the review area--Little Bullfrog Creek, Bullfrog Creek and Hillsborough Bay. This demonstrates an observable chemical functional relationship between the subject tributaries and similarly situated waters, and the downstream TNW. These chemical contributions occuring upstream negatively affect aquatic resources downstream and can contribute to eutrophication and algal blooms.
10. BIOLOGICAL: The tributaries, in combination with similarly situated tributaries, provide foraging habitat for wading birds where appropriate depths occur, as well as habitat for reptiles, amphibians, small fish and aquatic insects, including species which move between aquatic and upland environments during their life cycles. Aquatic resources downstream may be negatively affected by water quality impairments from upstream pollutants, including low dissolved oxygen resulting from toxic algae blooms due to eutrophication. The biological functions provided by the tributaries addressed in this JD are exported to the downstream TNW.
11.
12. The following represents the significant nexus finding for the adjacent wetlands and similarly situated wetlands:
13. 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 tributaries and the downstream TNW. The wetlands provide a means of slowing water's velocity and reducing the amount of sediments entering downstream waters.
14. CHEMICAL: The wetlands improve water quality by removing sediments, nutrients and other pollutants that would otherwise reach the downstream TNW. The wetlands assimilate pollutants from the farm operation as well as pesticide and fertilizer runoff from adjacent land uses prior to discharge to the TNW, reducing nutrient loads downstream in Hillsborough Bay.
15. BIOLOGICAL: The subject wetlands and similarly situated wetlands are important biologically since a substantial amount of the historical wetland coverage in the watershed has been altered for residential and commercial development, and agriculture. They provide breeding grounds for species that cannot reproduce in faster-moving water and move between wetlands and uplands over their lifecycle, and provide foraging, nesting and rearing habitat for a variety of species. The biological functions provided by the wetlands discussed in this JD are exported downstream to, and provide benefits to, the downstream 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: The tributaries had standing or flowing water during the November 22, 2016, site visit. Additional observations via available aerial photographs of standing or flowing water during dry season months over more than 20 years indicate that the tributaries have relatively permanent flow at least seasonally and most likely year-round.

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   ☒ Tributary waters: **5,800** linear feet width (ft).
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   ☐ Tributary waters: linear feet width (ft).
   ☐ Other non-wetland waters: acres.

[8]See Footnote # 3.

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: The wetlands share a direct surface connection with the tributaries.

   Provide acreage estimates for jurisdictional wetlands in the review area: **19.82** acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
   ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

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

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
   ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

7. **Impoundments of jurisdictional waters.**[9]
   As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
   ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
   ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
   ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

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

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

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.

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

☐ 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): **The site contains 3.38 acres of non-jurisdictional agricultural ditches and swales (referred to on the attached map by King Engineering in orange as 18; 19 #1, #2, #3, #5, #6, #7, #8; 21; 22 #2; 23; 24; 25; and 26). These features were excavated in non-hydric soils for agricultural drainage and do not exhibit characteristics of a tributary and do not drain wetlands to a downstream TNW. These features are non-jurisdictional based on the preamble to 33 CFR Part 328 in the November 13, 1986, Federal Register (51 FR 41217, Section 328.3) and further guidance.**

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.

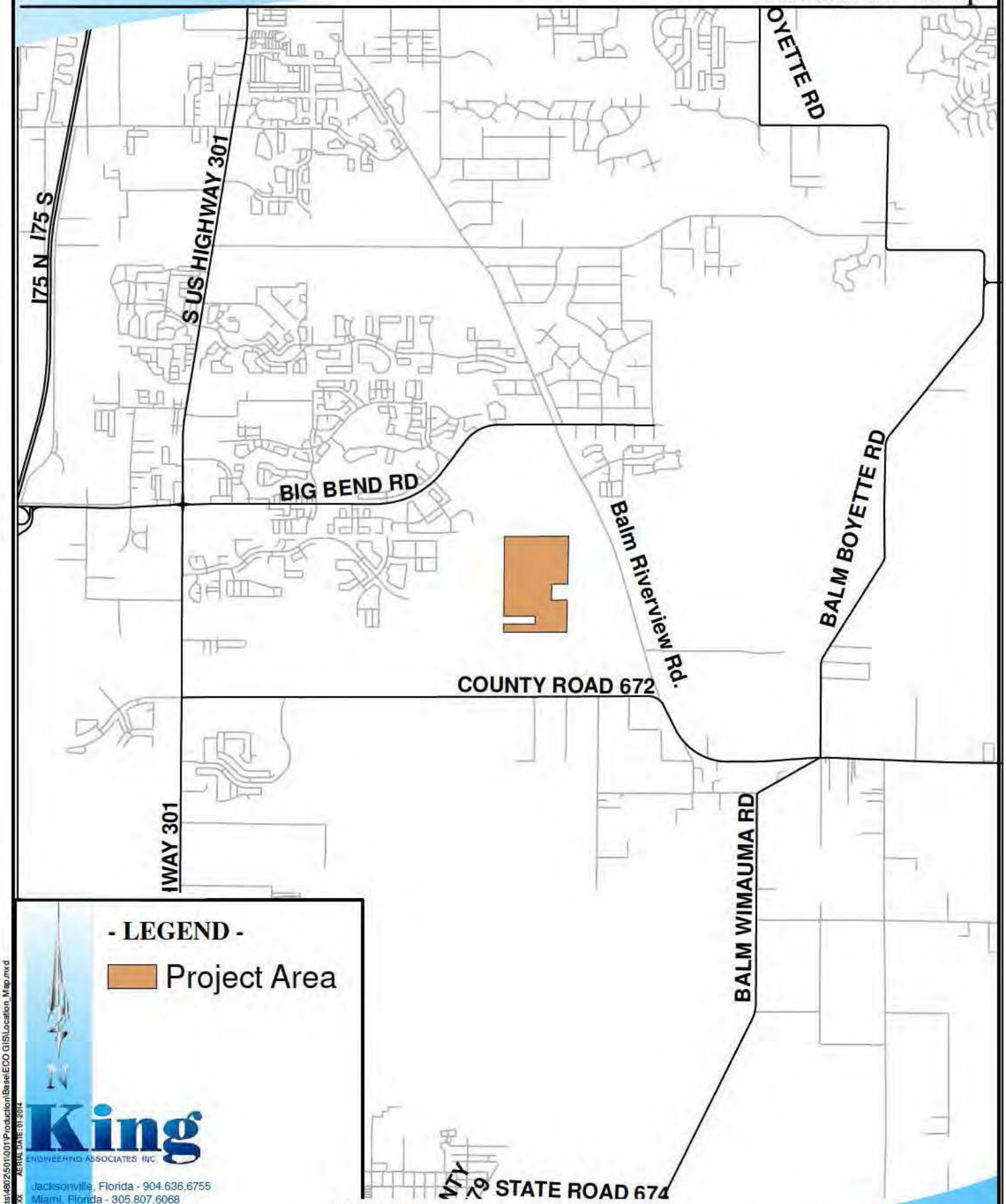
A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted 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 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: GIS layer provided by USGS/Earth Point (2017).
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: Map obtained from https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Historic aerials from years 1938, 1948, 1968, 1982 from http://ufdc.ufl.edu/aerials/map; aerial from years 1995, 1999-2017 from Google Earth.
  or ☒ Other (Name & Date): Site photographs taken by the Corps (2016).
☒ Previous determination(s). File no. and date of response letter: Wetland C evaluated in Formal JD for SAJ-2013-02807 on 05 February 2014.
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☒ Other information (please specify):
Rainfall data: http://www.swfwmd.state.fl.us/data/hydrologic/rainfall_data_summaries/
Tampa Bay Water Atlas: http://www.tampabay.wateratlas.usf.edu/river/?wbodyid=52&wbodyatlas=river; http://www.tampabay.wateratlas.usf.edu/watershed/waterquality.asp?wshedid=187&wbodyatlas=watershed; http://www.tampabay.wateratlas.usf.edu/river/waterquality.asp?wbodyid=18&wbodyatlas=river.

B. ADDITIONAL COMMENTS TO SUPPORT JD:
Additional comments supporting RPW determination: A water is "seasonal" when it has predictable flow during wet seasons in most years. The tributaries have relatively permanent flowing or standing water at least seasonally and likely all year long. This determination is based on direct visual observations as well as a review of aerial photography spanning between 1995-2017.

Additional comments supporting significant nexus determination: If it can be demonstrated that the tributary has a bed, bank and an OHWM, and is part of a tributary system to a traditional navigable water or an interstate water, and, therefore, can transport pollutants, flood waters or other materials to a traditional navigable water or interstate water, it is generally expected that the tributary, along with the other tributaries in the watershed and their adjacent wetlands (the "similarly situated" waters), can be demonstrated to have a significant nexus with the downstream TNW. This expectation is based on the significant harm that pollutants can have on the physical, chemical or biological integrity of the downstream TNW. The presence of a bed, bank and an OHWM in the subject tributaries are physical indicators of flow. The presence of standing and/or flowing water has also been documented in field inspections and via aerial photography spanning more than 20 years. Flows through all of the tributaries collectively in the watershed with the above characteristics are sufficient to transport pollutants or other materials downstream to the TNW in amounts that significantly affect its chemical, physical or biological integrity. In addition, the analysis considers the functions performed cumulatively by all wetlands that are adjacent to the tributaries, such as storage of flood water and runoff; pollutant trapping and filtration; improvement of water quality; support of habitat for aquatic species; and other functions that contribute to the maintenance of water quality, aquatic life, commerce, navigation, recreation and public health in the downstream TNW. These functions, considered cumulatively, have more than a speculative or insubstantial effect on the physical, chemical and biological integrity of the downstream TNW.

SOUTH FORK TRACTS Q, S, T, U, V & W

Location Map



King
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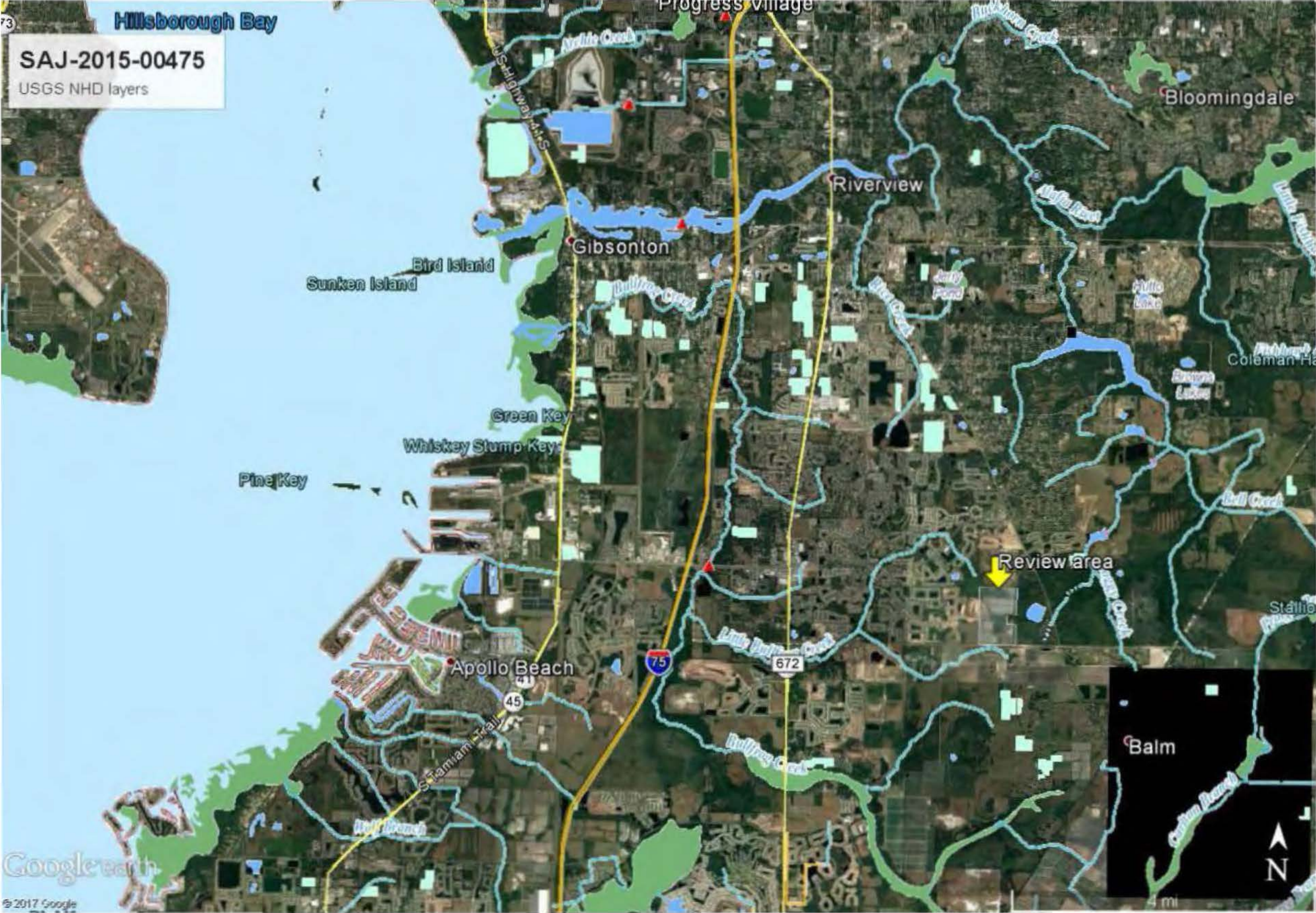
FILE DATE: XX-XX-XXXX AERIAL DATE: 01-2014

HILLSBOROUGH COUNTY

GRAPHIC REPRESENTATIONS ARE GENERAL IN NATURE AND SHOULD BE USED FOR PLANNING PURPOSES ONLY


SAJ-2015-00475
USGS NHD layers
Hillsborough Bay
Progress Village
Bloomingdale
Riverview
Gibsonton
Bird Island
Sunken Island
Green Key
Whiskey Stump Keys
Pine Key
Review area
Apollo Beach
Balm
N
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SAJ-2015-00475
USGS NHD layers
Review area
Big Bend Rd
Cedarfield Dr
Tropical Isle Ln
Mistral Cove Pl
Waterleaf Vista Blvd
Royal Pines Ave
Youngdale Pl
Balm Riverview Rd
Ashton Field Ave
Ambleside Blvd
Luckygem Dr
Harlan Eddy Ct
Flora Springs Dr
Google earth
3000 ft
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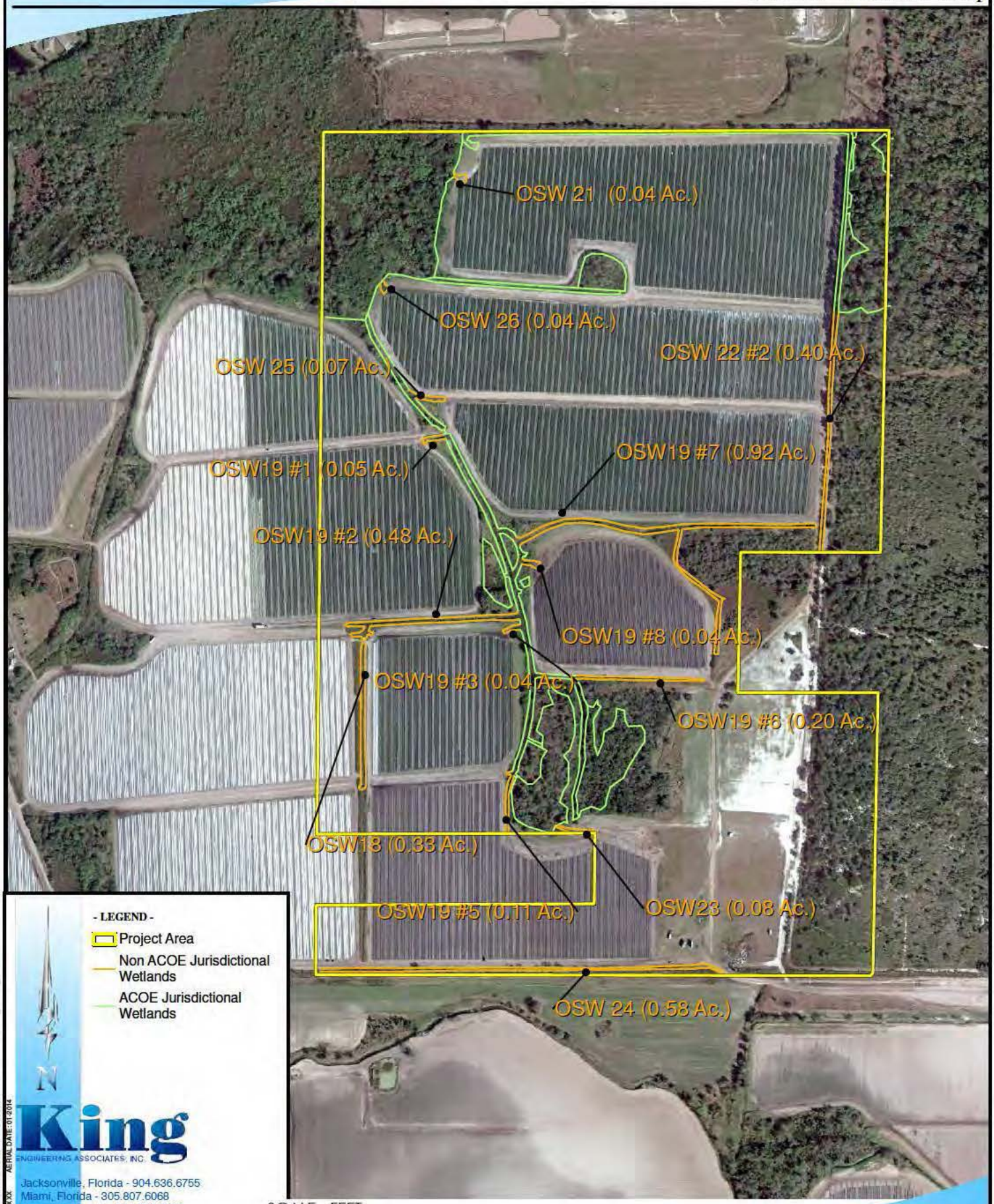
SOUTH FORK TRACTS Q, S, T, U, V & W

ACOE Wetland Map



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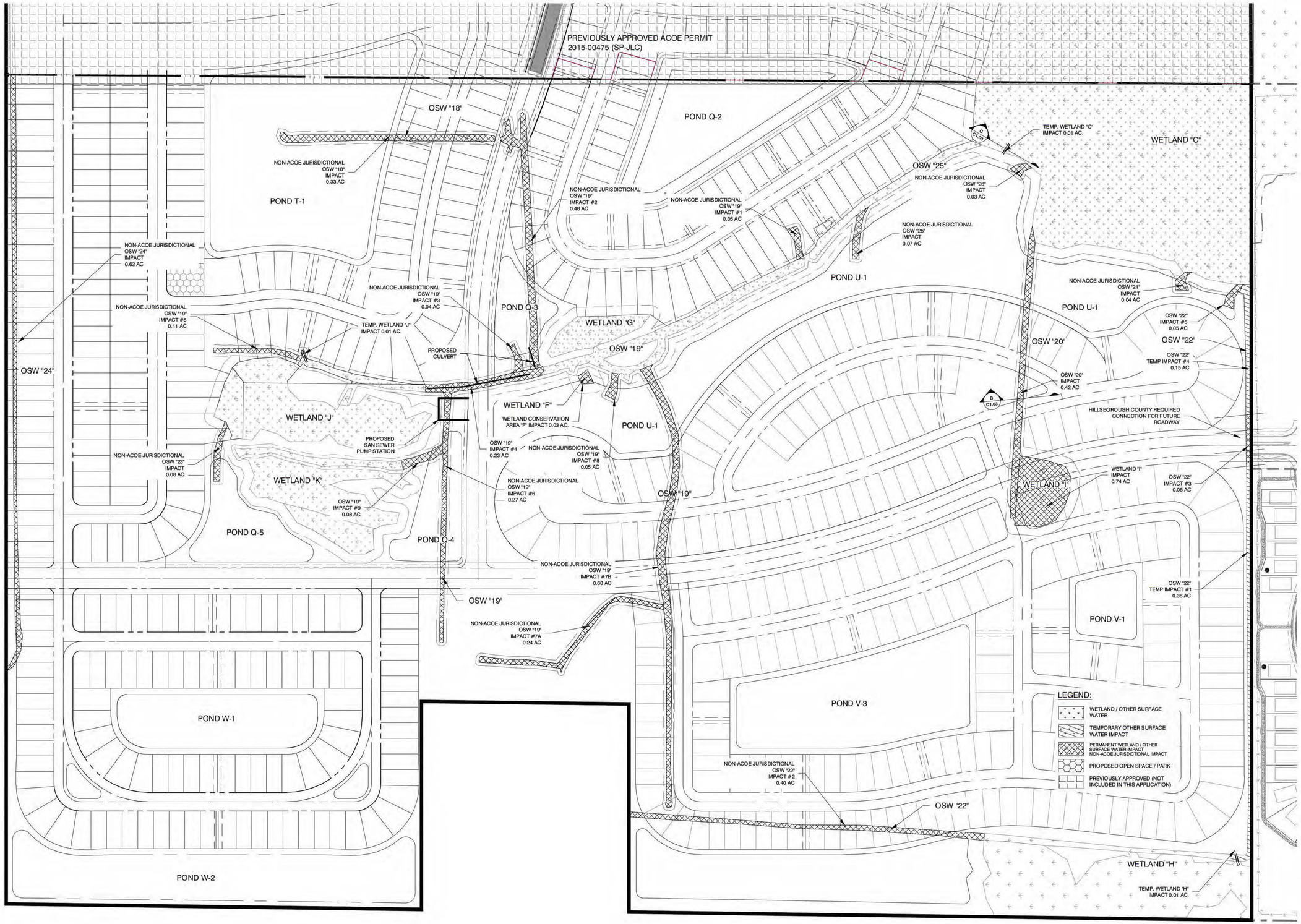
FILE DATE: XX.XX.XXXX AERIAL DATE: 01.2014

HILLSBOROUGH COUNTY

GRAPHIC REPRESENTATIONS ARE GENERAL IN NATURE AND SHOULD BE USED FOR PLANNING PURPOSES ONLY



0 150 300.0001
SCALE: FEET

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Engineering License #2610

NO.	DATE	REVISION	BY

SOUTH FORK TRACTS Q, S, T, U, V, & W
CONCEPTUAL PERMIT PLANS
EISENHOWER PROPERTY GROUP LLC
HILLSBOROUGH COUNTY, FLORIDA

IMPACT PLAN

TUYEN L. TRAN
JUNE 12, 2017
FL P.E. NO. 54099

JOB NO:	4802-502-006
DATE:	10/27/2016
SCALE:	1" = 150'

C1.02

ACOE SUBMITTAL
06-16-2017

Q:\CIVIL\4802\502\006\Production\Drawings\Concept Exhibit\ACOE CONCEPTUAL PERMIT PLAN.dwg

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Soil Map—Hillsborough County, Florida
(SAJ-2015-00475)

Map Scale: 1:7,430 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 350 700 1400 2100

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Hillsborough County, Florida
Survey Area Data: Version 16, Oct 4, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 1, 2014—Jan 8, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Archbold fine sand	0.9	0.4%
5	Basinger, Holopaw, and Samsula soils, depressional	7.1	3.1%
21	Immokalee fine sand, 0 to 2 percent slopes	134.1	57.8%
27	Malabar fine sand, 0 to 2 percent slopes	28.9	12.5%
29	Myakka fine sand, 0 to 2 percent slopes	19.0	8.2%
41	Pomello fine sand, 0 to 5 percent slopes	16.6	7.1%
46	St. Johns fine sand	12.7	5.5%
52	Smyrna fine sand, 0 to 2 percent slopes	12.6	5.4%
Totals for Area of Interest		**231.9**	**100.0%**