DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
10117 PRINCESS PALM AVENUE, SUITE 120
TAMPA, FLORIDA 33610

August 26, 2016

REPLY TO ATTENTION OF

Regulatory Division
West Permits Branch
Tampa Section
SAJ-2015-02719(JD-JLC)
JURISDICTIONAL VERIFICATION

Locust Branch, LLC
c/o J. Michael Gramling
9205 N. Connechusett Road
Tampa, FL 33617
mgramling@gramlingandhaya.com

Pasco County Associates III, LLLP
c/o Richard Arkin, VP
1600 Sawgrass Corporate Parkway, Suite 400
Sunrise, FL 33323
richard.arkin@glhomes.com

Gentlemen:

Reference is made to information submitted to the U.S. Army Corps of Engineers (Corps) regarding the potential extent of Federal jurisdiction at the project site known as Wiregrass S2/S4, located north of State Road 56 at the terminus of Chancey Road, south of Wesley Chapel Blvd and the Saddlebrook Resort, east of Bruce B. Downs Blvd and the Estancia development, and west of Meadowpointe Blvd and the Countrywalk development, in Section 17, 20 & 21, Township 26 South, Range 20 East, Wesley Chapel, Pasco County, Florida. The evaluation of this jurisdictional determination involved many factors and may have included a field visit, review of aerial photographs, geological quad sheets, county soils maps, and site specific information provided by you. A copy of the approved jurisdictional determination forms and depiction of the geographic extent of Federal jurisdiction are enclosed. A Department of the Army permit may be required for work in areas identified as waters of the United States.

This letter contains an approved jurisdictional determination for your subject site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the South Atlantic Division Office at the following address: If you object to this determination, you may request an

administrative appeal under Corps' regulations at 33 CFR Part 331. If you request to appeal this determination, you must submit a completed RFA form to the South Atlantic Division Office at the following address:

Mr. Jason Steele
South Atlantic Division
U.S. Army Corps of Engineers
CESAD-CM-CO-R, Room 9M15
60 Forsyth St., SW.
Atlanta, Georgia 30303-8801.

Mr. Steele can be reached by telephone number at 404-562-5137, or by facsimile at 404-562-5138.

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division office within 60 days of the date of the RFA. Should you decide to submit an RFA form, it must be received at the above address by **October 24, 2016.** It is not necessary to submit a RFA form to the Division Office if you do not object to the determination in this letter.

The determination shown on the enclosed information represents the upland/wetland boundary for purposes of determining the Corps jurisdictional line. As depicted/described in the attachments, the property encompasses waters of the United States (which are subject to regulation by the Corps) as well as waters which are not subject to regulation by the Corps. Please be advised that the jurisdictional determination shown is based on the Corps of Engineers Wetlands Delineation Manual (1987) and current regional supplement, and is valid for a period no longer than 5 years from the date of this letter unless new information warrants a revision of the determination before the expiration date. If, after the 5-year period, the Corps has not specifically revalidated this jurisdictional determination, it shall automatically expire. Any reliance upon this jurisdictional determination beyond the expiration date may lead to possible violation of current Federal laws and/or regulations. You may request revalidation of the jurisdictional determination prior to the expiration date. Any revalidation or updating will be considered under the method of jurisdictional determination and other applicable regulations in use at the time of the request. Additionally, this determination has been based on information provided by you or your agent; should we determine that the information was incomplete or erroneous this delineation would be invalid.

This determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. This determination

may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are U.S. Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

You are cautioned that work performed below the mean high water line or ordinary high water line in waters of the United States and/or the discharge of dredged or fill material into any areas identified on the enclosed information as within Federal jurisdiction without a Department of the Army permit could subject you to enforcement action. Receipt of a permit from the Department of Environmental Protection or the Water Management District does not obviate the requirement for obtaining a Department of the Army permit.

The Corps' Jacksonville District Regulatory Division is committed to improving service to our customers. We strive to perform our duty in a friendly and timely manner while working to preserve our environment. We invite you to visit http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey and complete our automated Customer Service Survey. Your input is appreciated – favorable or otherwise. Please be aware this Internet address is case sensitive and should be entered as it appears above.

Thank you for your cooperation with our permit program. If you have any questions concerning this matter please contact Jessica Cordwell by mail at the letterhead address, by electronic mail at Jessica.L.Cordwell@usace.army.mil, or by telephone at 813-769-7067.

Sincerely,

RYAN.ANGELA.C.1362394429

Digitally signed by RYAN.ANGELA.C.1362394429
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=RYAN.ANGELA.C.1362394429
Date: 2016.08.26 11:06:28 -04'00'

For: Donald W. Kinard
Chief, Regulatory Division

Enclosures:
NAP/RFA form
Approved JD with attachments

Copies furnished:
mpalmer@kingengineering.com
John.Strawbridge@GLHomes.com
Scott@thewiregrassranch.com
bskidmore@kingengineering.com
nlynn@kingengineering.com

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Locust Branch, LLC/Pasco County Associates III, LLLP	File Number: SAJ-2015-02719	Date: August 26, 2016

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- *ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.*
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- *ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.*
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- *ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.*
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT		
REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)		
ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.		
POINT OF CONTACT FOR QUESTIONS OR INFORMATION:		
If you have questions regarding this decision you may contact: **Project Manager as noted in letter**	If you have questions regarding the appeal process you may contact: Jason W. Steele Administrative Appeals Review Officer USACE – South Atlantic Division 60 Forsyth Street SW, Room 10M15 Atlanta, Georgia 30303-8801 (404) 562-5137	
RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.		
_____ Signature of appellant or agent.	Date:	Telephone number:

Relevant Reaches for Wiregrass S2/S4

Relevant Reaches for Wiregrass S2/S4

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers
*****RELEVANT REACH: TROUT CREEK*****

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): 7/8/16

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Jacksonville, Wiregrass S2/S4, SAJ-2015-02719 (JD-TEH)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: Florida County/parish/borough: Pasco City:
Center coordinates of site (lat/long in degree decimal format): Lat. 28.213497° N, Long. 82.322316° W.
Universal Transverse Mercator:
Name of nearest waterbody: Trout Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Hillsborough River
Name of watershed or Hydrologic Unit Code (HUC): 031002050501 (Trout Creek-Hillsborough River)
☒ 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. The project site consists of 5 relevants reaches. A form has been prepared for each.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): 6/30/16

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There Are no "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

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

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands: 31.45 acres.

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

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **Wetlands K10, N9, N10, N11, O9, O10-1, O10-2, O11-1, O11-2, and O14 were found to be non-jurisdictional.**

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

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

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

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

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

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

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

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

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

(i) General Area Conditions:
Watershed size: 6,000 **acres**
Drainage area: 600 **acres**
Average annual rainfall: 50 inches
Average annual snowfall: 0 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 **10-15** river miles from TNW.
Project waters are **2-5** river miles from RPW.
Project waters are **5-10** aerial (straight) miles from TNW.
Project waters are **1-2** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: Trout Ck (Non-RPW) > Trout Ck (RPW) > Hillsborough River (TNW).
Tributary stream order, if known: first.

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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.

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

Tributary is:
- ☒ Natural
- ☐ Artificial (man-made). Explain: .
- ☒ Manipulated (man-altered). Explain: altered in areas.

Tributary properties with respect to top of bank (estimate):
- Average width: 10 feet
- Average depth: 2 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: herb/forested/cover varies	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: stable.
Presence of run/riffle/pool complexes. Explain: none within project area.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 1 %

(c) Flow:

Tributary provides for: **Seasonal flow (seasonal within project area)**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime: seasonal.
Other information on duration and volume: .

Surface flow is: **Discrete.** Characteristics: .

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

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

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

- ☐ Discontinuous OHWM.[7] Explain: .

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

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

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: clear.
Identify specific pollutants, if known: likely impacted by animal waste due to cattle grazing.

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[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.

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

- ☒ Riparian corridor. Characteristics (type, average width): 50' bottomland hardwood forest.
- ☐ Wetland fringe. Characteristics: .
- ☒ Habitat for:
  - ☒ Federally Listed species. Explain findings: Eastern indigo snake, wood stork.
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☒ Aquatic/wildlife diversity. Explain findings: herps, wading birds.

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: 31.45 acres

Wetland type. Explain: forested/herbaceous freshwater wetlands.

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: .

Surface flow is: **Discrete**

Characteristics: .

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

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☒ Directly abutting (G14)
- ☒ Not directly abutting (K9, K11, M11, N13, N14)
  - ☒ Discrete wetland hydrologic connection. Explain: K9 is connected to G14 via ditch.
  - ☒ Ecological connection. Explain: Wetlands K9, K11, M11, N13, N14 are reasonabily close to the tributary flowing through G14 .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

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

Project waters are **2-5** aerial (straight) miles from TNW.

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

Estimate approximate location of wetland as within the **20 - 50-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: clear.

Identify specific pollutants, if known: likely impacted by animal waste due to cattle grazing.

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

- ☒ Riparian buffer. Characteristics (type, average width): 10'.
- ☐ Vegetation type/percent cover. Explain: .
- ☒ Habitat for:
  - ☒ Federally Listed species. Explain findings: Eastern indigo snake, wood stork.
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☒ Aquatic/wildlife diversity. Explain findings:herps, wading birds.

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

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

Approximately (>80) 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)
G14 (Y)	23.50		
K9 (N)	1.05		
K11 (N)	0.25		
M11 (N)	0.18		
N13 (N)	5.55		
N14 (N)	0.87		
OFF-SITE	>50		

Summarize overall biological, chemical and physical functions being performed: Attenuation of stormwater, wildlife foraging and denning, water quality.

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: .

The following represents the significant nexus findings for the Trout Creek relevant reach and its adjacent wetlands (Wetlands G14, K9, K11, M11, N13, and N14):

Physical: The wetlands perform important flow maintenance functions including storage of flood waters[1, 2] and a release of these waters into the tributary in a more even and consistent manner[2]. Therefore, the wetlands directly affect the duration, frequency, and volume of flow in the tributary and the downstream navigable water[2]. These wetlands offer the following benefits to downstream aquatic resources: reduction of downstream peak discharge and volume, recharge of aquifers, maintenance of seasonal/baseflows, maintenance of groundwater supplies[1]. In fact, cypress swamps appear to have lower evapotranspiration rates than surrounding ecosystems and may, therefore, provide more recharge to the aquifer[3].

Chemical: The wetlands improve water quality by removing sediment and nutrients (particularly phosphorous and nitrogen) that would otherwise reach downstream waters and have a negative effect on aquatic resources[1, 2, 3]. In general, almost all organic matter and nutrients from wastewater flows inflows are removed or stored within the substrate of the wetland[1].

Biological: The wetlands are of utmost importance biologically since the majority of other non-wetland areas in the watershed have been altered for agriculture, residential, or other purposes[1]. These wetlands provide breeding grounds for species that cannot reproduce in faster-moving water and move between wetlands and uplands over their lifecycle[1]. The wetlands also maintain a more consistent water temperature in tributaries, which is important to many aquatic species[2]. The wetland, along with the

tributary system, provide wildlife habitat (e.g. feeding, nesting, spawning, rearing of young) for many aquatic species that live in traditional navigable waters[2]. These wetlands have a diverse community of benthic invertebrates, a major food source for vertebrates[3].

[1]The Clean Water Act Jurisdictional Handbook. 2007. Environmental Law Institute, Washington, DC, 77 pp.

[2]Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States. 2007. US Department of the Army and US Environmental Protection Agency. 12 pp.

[3]Ewel, K.C. 1990. Multiple demands on wetlands. Bioscience, 40:660-666.

3. **Significant nexus findings for wetlands adjacent to an RPW ~~but that do not directly abut the RPW~~ (see note below).** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

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

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

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☒ Tributary waters: **approx. 3,500** linear feet width (ft). **(included within acreage for G14)**
   - ☒ Other non-wetland waters: **0.05** acres. Ditch OSW-L13 connects two jurisdictional wetlands – G14 and L15
     Identify type(s) of waters: **ditch.**

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
   - ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
   - ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

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

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

[8]See Footnote # 3.

☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are 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: **31.45** acres **(**Wetlands G14, K9, K11, M11, N13, and N14) .

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).

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

[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☒ Wetlands: 6.14 acres (Wetlands K10, N9, N10, N11, O9, O10-1, O10-2, O11-1, O11-2, and O14).

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: .
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☒ 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): Google Earth 1995- present.
  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:

Jurisdictional Waters	
ID	**Acreage**
G14	23.50
K9	1.05
K11	0.25
M11	0.18
N13	5.55
N14	0.87
OSW-L13	0.05
TOTAL	**31.45**

Non-Jurisdictional Waters	
ID	**Acreage**
K10	0.70
N9	0.18
N10	2.10
N11	2.30
O9	0.23
O10-1	0.34
O10-2	0.15
O11-1	0.02
O11-2	0.03
O14	0.09
TOTAL	**6.14**

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Wetland K10 is considered isolated and not adjacent because:

1. There is not an unbroken shallow sub-surface connection to jurisdictional waters. The wetlands are surrounded by uplands with with existing topography (natural berms) that limit nutrient/carbon transport to downstream waters to only peak flow events such as the 100-year storm event. There are no ditches, swales, or even cattle trails that could serve to hydrologically connect the isolated wetland to the downstream non-RPW.

2. It is not physically separated from jurisdictional waters by man-made dikes or barriers, natural river berms, beach dunes, and the like.

3. Its proximity to a jurisdictional water is not reasonably close. This wetland is approximately 700 ft from the non-RPW.

Wetland N9 is considered isolated and not adjacent because:

1. There is not an unbroken shallow sub-surface connection to jurisdictional waters. The wetlands are surrounded by uplands with with existing topography (natural berms) that limit nutrient/carbon transport to downstream waters to only peak flow events such as the 100-year storm event. There are no ditches, swales, or even cattle trails that could serve to hydrologically connect the isolated wetland to the downstream non-RPW.

2. It is not physically separated from jurisdictional waters by man-made dikes or barriers, natural river berms, beach dunes, and the like.

3. Its proximity to a jurisdictional water is not reasonably close. This wetland is approximately over 1,000 ft from the non-RPW.

Wetland N10 is considered isolated and not adjacent because:

1. There is not an unbroken shallow sub-surface connection to jurisdictional waters. The wetlands are surrounded by uplands with with existing topography (natural berms) that limit nutrient/carbon transport to downstream waters to only peak flow events such as the 100-year storm event. There are no ditches, swales, or even cattle trails that could serve to hydrologically connect the isolated wetland to the downstream non-RPW.

2. It is not physically separated from jurisdictional waters by man-made dikes or barriers, natural river berms, beach dunes, and the like.

3. Its proximity to a jurisdictional water is not reasonably close. This wetland is approximately 650 ft from the non-RPW.

Wetland N11 is considered isolated and not adjacent because:

1. There is not an unbroken shallow sub-surface connection to jurisdictional waters. The wetlands are surrounded by notable high-palmetto uplands with existing topography (natural berms) that limit nutrient/carbon transport to downstream waters to only peak flow events such as the 100-year storm event. There are no ditches, swales, or even cattle trails that could serve to hydrologically connect the isolated wetland to the downstream non-RPW. There is no hydrologic connection to nearby Wetland M11.

2. It is not physically separated from jurisdictional waters by man-made dikes or barriers, natural river berms, beach dunes, and the like.

3. Its proximity to a jurisdictional water is not reasonably close. This wetland is approximately 500 ft from the non-RPW.

Wetlands O-9, O10-1, O10-2, O11-1, and O11-2 are considered isolated and not adjacent because:

1. There is not an unbroken shallow sub-surface connection to jurisdictional waters. The wetlands are surrounded by uplands with with existing topography (natural berms) that limit nutrient/carbon transport to downstream waters to only peak flow events such as the 100-year storm event. There are no ditches, swales, or even cattle trails that could serve to hydrologically connect the isolated wetland to the downstream non-RPW.

2. They are not physically separated from jurisdictional waters by man-made dikes or barriers, natural river berms, beach dunes, and the like.

3. Their proximity to a jurisdictional water is not reasonably close. This wetlands are over 1,000 ft from the non-RPW.

Wetland O14 is considered isolated and not adjacent because:

1. There is not an unbroken shallow sub-surface connection to jurisdictional waters. The wetlands are surrounded by uplands with with existing topography (natural berms) that limit nutrient/carbon transport to downstream waters to only peak flow events such as the 100-year storm event. There are no ditches, swales, or even cattle trails that could serve to hydrologically connect the isolated wetland to the downstream non-RPW. This wetland is not hydrologically connected to nearby Wetland N13/N14

2. It is not physically separated from jurisdictional waters by man-made dikes or barriers, natural river berms, beach dunes, and the like.

3. Its proximity to a jurisdictional water is not reasonably close. This wetland is over 1,000 ft from the non-RPW.

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers
*****RELEVANT REACH: UT TROUT CREEK #1*****

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): 7/8/16

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Jacksonville, Wiregrass S2/S4, SAJ-2015-02719 (JD-TEH)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: Florida County/parish/borough: Pasco City:
Center coordinates of site (lat/long in degree decimal format): Lat. 28.213497° N, Long. 82.322316° W.
Universal Transverse Mercator:
Name of nearest waterbody: Trout Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Hillsborough River
Name of watershed or Hydrologic Unit Code (HUC): 031002050501 (Trout Creek-Hillsborough River)
☒ 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. The project site consists of 5 relevants reaches. A form has been prepared for each.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): 6/30/16

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

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

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: 17.94 acres.

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

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **Wetlands M13, N14-1, N14-2, and N14-3 were found to be non-jurisdictional.**

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

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

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

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

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

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

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

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

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

(i) General Area Conditions:
Watershed size: 240 **acres**
Drainage area: 240 **acres**
Average annual rainfall: 50 inches
Average annual snowfall: 0 inches

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

Project waters are **10-15** river miles from TNW.
Project waters are **2-5** river miles from RPW.
Project waters are **5-10** aerial (straight) miles from TNW.
Project waters are **1-2** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: UT Trout Ck (non-RPW) > Trout Ck (Non-RPW) > Trout Ck (RPW) > Hillsborough River (TNW).

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

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

Tributary is:
- ☒ Natural
- ☐ Artificial (man-made). Explain: .
- ☒ Manipulated (man-altered). Explain: altered in areas.

Tributary properties with respect to top of bank (estimate):
- Average width: 5 feet
- Average depth: 2 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: herb/forested/cover varies	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: stable.
Presence of run/riffle/pool complexes. Explain: none within project area.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 1 %

(c) Flow:

Tributary provides for: **Seasonal flow (seasonal within project area)**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime: seasonal.
Other information on duration and volume: .

Surface flow is: **Discrete**. Characteristics: .

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

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

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

- ☐ Discontinuous OHWM.[7] Explain: .

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

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

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: clear.
Identify specific pollutants, if known: likely impacted by animal waste due to cattle grazing.

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[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.

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

- ☒ Riparian corridor. Characteristics (type, average width): 50' bottomland hardwood forest.
- ☐ Wetland fringe. Characteristics: .
- ☒ Habitat for:
  - ☒ Federally Listed species. Explain findings: Eastern indigo snake, wood stork.
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☒ Aquatic/wildlife diversity. Explain findings: herps, wading birds.

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: 17.94 acres

Wetland type. Explain: forested/herbaceous freshwater wetlands.

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: .

Surface flow is: **Discrete**

Characteristics: .

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

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☒ Directly abutting (L15, M17)
- ☒ Not directly abutting (J17, L16, M16)
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☒ Ecological connection. Explain: Wetlands J17, L16, and M16 are reasonably close to the tributary flowing through L15.
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

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

Project waters are **2-5** aerial (straight) miles from TNW.

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

Estimate approximate location of wetland as within the **20 - 50-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: clear.

Identify specific pollutants, if known: likely impacted by animal waste due to cattle grazing.

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

- ☒ Riparian buffer. Characteristics (type, average width): 10'.
- ☐ Vegetation type/percent cover. Explain: .
- ☒ Habitat for:
  - ☒ Federally Listed species. Explain findings: Eastern indigo snake, wood stork.
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☒ Aquatic/wildlife diversity. Explain findings:herps, wading birds.

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

All wetland(s) being considered in the cumulative analysis: **15-20**

Approximately (>65) 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)
L15 (Y)	14.08		
J17 (N)	0.60		
L16 (N)	1.94		
M16 (N)	0.23		
OFFSITE	~50 AC		
M17 (Y)	1.09		

Summarize overall biological, chemical and physical functions being performed: Attenuation of stormwater, wildlife foraging and denning, water quality.

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: .

The following represents the significant nexus findings for the UT Trout Creek #1 relevant reach and its adjacent wetlands (Wetlands J17, L15, L16, M17, and M16):

Physical: The wetlands perform important flow maintenance functions including storage of flood waters[1, 2] and a release of these waters into the tributary in a more even and consistent manner[2]. Therefore, the wetlands directly affect the duration, frequency, and volume of flow in the tributary and the downstream navigable water[2]. These wetlands offer the following benefits to downstream aquatic resources: reduction of downstream peak discharge and volume, recharge of aquifers, maintenance of seasonal/baseflows, maintenance of groundwater supplies[1]. In fact, cypress swamps appear to have lower evapotranspiration rates than surrounding ecosystems and may, therefore, provide more recharge to the aquifer[3].

Chemical: The wetlands improve water quality by removing sediment and nutrients (particularly phosphorous and nitrogen) that would otherwise reach downstream waters and have a negative effect on aquatic resources[1, 2, 3]. In general, almost all organic matter and nutrients from wastewater flows inflows are removed or stored within the substrate of the wetland[1].

Biological: The wetlands are of utmost importance biologically since the majority of other non-wetland areas in the watershed have been altered for agriculture, residential, or other purposes[1]. These wetlands provide breeding grounds for species that cannot reproduce in faster-moving water and move between wetlands and uplands over their lifecycle[1]. The wetlands also maintain a more consistent water temperature in tributaries, which is important to many aquatic species[2]. The wetland, along with the

tributary system, provide wildlife habitat (e.g. feeding, nesting, spawning, rearing of young) for many aquatic species that live in traditional navigable waters[2]. These wetlands have a diverse community of benthic invertebrates, a major food source for vertebrates[3].

[1]The Clean Water Act Jurisdictional Handbook. 2007. Environmental Law Institute, Washington, DC, 77 pp.

[2]Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States. 2007. US Department of the Army and US Environmental Protection Agency. 12 pp.

[3]Ewel, K.C. 1990. Multiple demands on wetlands. Bioscience, 40:660-666.

3. **Significant nexus findings for wetlands adjacent to an RPW ~~but that do not directly abut the RPW~~ (see note below).** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

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

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

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☒ Tributary waters: **approx. 700** linear feet width (ft). **(included within acreage for L15 and M17)**
   - ☐ Other non-wetland waters:
     Identify type(s) of waters:

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
   - ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
   - ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

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

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

[8]See Footnote # 3.

☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are 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: **17.94** acres **(Wetlands J17, L15, L16, M17, and M16)** .

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).

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

[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☒ Wetlands: 0.74 acres (Wetlands M13, N14-1, N14-2, and N14-3).

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: .
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☒ 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): Google Earth 1995- present.
  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:

Jurisdictional Waters	
ID	**Acreage**
J17	0.60
L15	14.08
L16	1.94
M16	0.23
M17	1.09
TOTAL	**17.94**

Non-Jurisdictional Waters	
ID	**Acreage**
M13	0.27
N14-1	0.07
N14-2	0.16
N14-3	0.24
TOTAL	**0.74**

Wetlands M13, N14-1, N14-2, and N14-3 are considered isolated and not adjacent because:

1. There is not an unbroken shallow sub-surface connection to jurisdictional waters. The wetlands are surrounded by uplands with with existing topography (natural berms) that limit nutrient/carbon transport to downstream waters to only peak flow events such as the 100-year storm event. There are no ditches, swales, or even cattle trails that could serve to hydrologically connect the isolated wetland to the downstream non-RPW.

2. They are not physically separated from jurisdictional waters by man-made dikes or barriers, natural river berms, beach dunes, and the like.

3. Their proximity to a jurisdictional water is not reasonably close. This wetlands are over 1,000 ft from the non-RPW.

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers
*****RELEVANT REACH: UT TROUT CREEK #2*****

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): 7/8/16

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Jacksonville, Wiregrass S2/S4, SAJ-2015-02719 (JD-TEH)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: Florida County/parish/borough: Pasco City:
Center coordinates of site (lat/long in degree decimal format): Lat. 28.213497° N, Long. 82.322316° W.
Universal Transverse Mercator:
Name of nearest waterbody: Trout Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Hillsborough River
Name of watershed or Hydrologic Unit Code (HUC): 031002050501 (Trout Creek-Hillsborough River)
☒ 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. The project site consists of 5 relevants reaches. A form has been prepared for each.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): 6/30/16

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

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

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: 46.43 acres.

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

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **Wetlands P9, P11, P12, Q11, Q12, Q13, R9, R10, R11, and R12 were found to be non-jurisdictional.**

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

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

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

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

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

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

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

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

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

(i) General Area Conditions:
Watershed size: 400 **acres**
Drainage area: 200 **acres**
Average annual rainfall: 50 inches
Average annual snowfall: 0 inches

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

Project waters are 10-15 river miles from TNW.
Project waters are 2-5 river miles from RPW.
Project waters are 5-10 aerial (straight) miles from TNW.
Project waters are 1-2 aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: UT Trout Ck #2 (non-RPW) > Trout Ck (RPW) > Hillsborough River (TNW).
Tributary stream order, if known: first.

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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.

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

Tributary is:
- ☒ Natural
- ☐ Artificial (man-made). Explain: .
- ☒ Manipulated (man-altered). Explain: altered in areas.

Tributary properties with respect to top of bank (estimate):
- Average width: 5 feet
- Average depth: 2 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: herb/forested/cover varies	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: stable.
Presence of run/riffle/pool complexes. Explain: none within project area.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 1 %

(c) Flow:

Tributary provides for: **Seasonal flow (seasonal within project area)**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime: seasonal.
Other information on duration and volume: .

Surface flow is: **Discrete.** Characteristics: .

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

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

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

- ☐ Discontinuous OHWM.[7] Explain: .

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

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

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: clear.
Identify specific pollutants, if known: likely impacted by animal waste due to cattle grazing.

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[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.

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

- ☒ Riparian corridor. Characteristics (type, average width): 50' bottomland hardwood forest.
- ☐ Wetland fringe. Characteristics: .
- ☒ Habitat for:
  - ☒ Federally Listed species. Explain findings: Eastern indigo snake, wood stork.
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☒ Aquatic/wildlife diversity. Explain findings: herps, wading birds.

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: 46.43 acres

Wetland type. Explain: forested/herbaceous freshwater wetlands.

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: .

Surface flow is: **Discrete**

Characteristics: .

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

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☒ Directly abutting (P16, N17)
- ☒ Not directly abutting (O16, O17, P14, P15, P17-1, P17-2, Q17, R14, R17))
  - ☐ Discrete wetland hydrologic connection. Explain: P14 and P15 have ditch connections to P16
  - ☒ Ecological connection. Explain: Wetlands O16, O17, P17-1, P17-2, Q17, R14, AND R17 are reasonably close to the tributary flowing through L15.
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

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

Project waters are **2-5** aerial (straight) miles from TNW.

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

Estimate approximate location of wetland as within the **20 - 50-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: clear.

Identify specific pollutants, if known: likely impacted by animal waste due to cattle grazing.

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

- ☒ Riparian buffer. Characteristics (type, average width): 10'.
- ☐ Vegetation type/percent cover. Explain: .
- ☒ Habitat for:
  - ☒ Federally Listed species. Explain findings: Eastern indigo snake, wood stork.
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☒ Aquatic/wildlife diversity. Explain findings:herps, wading birds.

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

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

Approximately (>95) 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)
N17 (Y)	1.37		
P16 (Y)	23.74		
O16 (N)	0.18		
O17 (N)	1.84		
P14 (N)	10.60		
P15 (N)	3.75		
P16 (N)	23.74		
P17-1 (N)	0.46		
P17-2 (N)	0.59		
Q17 (N)	0.76		
R14 (N)	0.66		
R17 (N)	2.48		
OFFSITE	>50		

Summarize overall biological, chemical and physical functions being performed: Attenuation of stormwater, wildlife foraging and denning, water quality.

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: .

The following represents the significant nexus findings for the UT Trout Creek #2 relevant reach and its adjacent wetlands (Wetlands N17, O16, O17, P14, P15, P16, P17-1, P17-2, Q17, R14, and R17):

Physical: The wetlands perform important flow maintenance functions including storage of flood waters[1, 2] and a release of these waters into the tributary in a more even and consistent manner[2]. Therefore, the wetlands directly affect the duration, frequency, and volume of flow in the tributary and the downstream navigable water[2]. These wetlands offer the following benefits to downstream aquatic resources: reduction of downstream peak discharge and volume, recharge of aquifers, maintenance of seasonal/baseflows, maintenance of groundwater supplies[1]. In fact, cypress swamps appear to have lower evapotranspiration rates than surrounding ecosystems and may, therefore, provide more recharge to the aquifer[3].

Chemical: The wetlands improve water quality by removing sediment and nutrients (particularly phosphorous and nitrogen) that

would otherwise reach downstream waters and have a negative effect on aquatic resources[1, 2, 3]. In general, almost all organic matter and nutrients from wastewater flows inflows are removed or stored within the substrate of the wetland[1].

Biological: The wetlands are of utmost importance biologically since the majority of other non-wetland areas in the watershed have been altered for agriculture, residential, or other purposes[1]. These wetlands provide breeding grounds for species that cannot reproduce in faster-moving water and move between wetlands and uplands over their lifecycle[1]. The wetlands also maintain a more consistent water temperature in tributaries, which is important to many aquatic species[2]. The wetland, along with the tributary system, provide wildlife habitat (e.g. feeding, nesting, spawning, rearing of young) for many aquatic species that live in traditional navigable waters[2]. These wetlands have a diverse community of benthic invertebrates, a major food source for vertebrates[3].

[1]The Clean Water Act Jurisdictional Handbook. 2007. Environmental Law Institute, Washington, DC, 77 pp.

[2]Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States. 2007. US Department of the Army and US Environmental Protection Agency. 12 pp.

[3]Ewel, K.C. 1990. Multiple demands on wetlands. Bioscience, 40:660-666.

3. **Significant nexus findings for wetlands adjacent to an RPW ~~but that do not directly abut the RPW~~ (see note below).** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

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

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

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☒ Tributary waters: **approx. 4,600** linear feet width (ft). **(included within acreage for P16 and N17)**
   - ☐ Other non-wetland waters:
     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: .

[8]See Footnote # 3.

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

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

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

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

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

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

☒ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: **46.43** acres **(Wetlands N17, O16, O17, P14, P15, P16, P17-1, P17-2, Q17, R14, and R17**).

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): .

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

[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

Provide acreage estimates for non-jurisdictional waters in the review area, 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: 16.78 acres (Wetlands P9, P11, P12, Q11, Q12, Q13, R9, R10, R11, and R12).

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: .
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☒ 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): Google Earth 1995- present.
  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:

Jurisdictional Waters	
ID	**Acreage**
N17	1.37
O16	0.18
O17	1.84
P14	10.60
P15	3.75
P16	23.74
P17-1	0.46
P17-2	0.59
Q17	0.76
R14	0.66
R17	2.48
TOTAL	**46.43**

Non-Jurisdictional Waters	
ID	**Acreage**
P9	0.12
P11	2.94
P12	2.95
Q11	7.14
Q12	0.47
Q13	0.19
R9	1.25
R10	0.07
R11	1.58
R12	0.07
TOTAL	**16.78**

Wetlands P9, Q12, R9, R10, are R11 are considered isolated and not adjacent because:

1. There is not an unbroken shallow sub-surface connection to jurisdictional waters. The wetlands are surrounded by uplands with with existing topography (natural berms) that limit nutrient/carbon transport to downstream waters to only peak flow events such as the 100-year storm event. There are no ditches, swales, or even cattle trails that could serve to hydrologically connect the isolated wetland to the downstream non-RPW.

2. They are not physically separated from jurisdictional waters by man-made dikes or barriers, natural river berms, beach dunes, and the like.

3. Their proximity to a jurisdictional water is not reasonably close. This wetlands are over 1,000 ft from the non-RPW.

Wetland Q13 is considered isolated and not adjacent because:

1. There is not an unbroken shallow sub-surface connection to jurisdictional waters. The wetlands are surrounded by uplands with with existing topography (natural berms) that limit nutrient/carbon transport to downstream waters to only peak flow events such as the 100-year storm event. There are no ditches, swales, or even cattle trails that could serve to hydrologically connect the isolated wetland to the downstream non-RPW.

2. It is not physically separated from jurisdictional waters by man-made dikes or barriers, natural river berms, beach dunes, and the like.

3. Its proximity to a jurisdictional water is not reasonably close. This wetland is approximately 650 ft from the non-RPW.

Wetland R12 is considered isolated and not adjacent because:

1. There is not an unbroken shallow sub-surface connection to jurisdictional waters. The wetlands are surrounded by uplands with with existing topography (natural berms) that limit nutrient/carbon transport to downstream waters to only peak flow events such as the 100-year storm event. There are no ditches, swales, or even cattle trails that could serve to hydrologically connect the isolated wetland to the downstream non-RPW.

2. It is not physically separated from jurisdictional waters by man-made dikes or barriers, natural river berms, beach dunes, and the like.

3. Its proximity to a jurisdictional water is not reasonably close. This wetland is approximately 560 ft from the non-RPW.

Wetlands P11, Q11, and P12 are considered isolated and not adjacent because:

1. There is not an unbroken shallow sub-surface connection to jurisdictional waters. The wetlands are surrounded by uplands with with existing topography (natural berms) that limit nutrient/carbon transport to downstream waters to only peak flow events such as the 100-year storm event. There are no ditches, swales, or even cattle trails that could serve to hydrologically connect the isolated wetland to the downstream non-RPW. They are separated from P14 by an approximately 150 foot width of uplands.

2. They are not physically separated from jurisdictional waters by man-made dikes or barriers, natural river berms, beach dunes, and the like.

3. Their proximity to a jurisdictional water is not reasonably close. This wetlands are over 1,000 ft from the non-RPW.

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers
*****RELEVANT REACH: UT TROUT CREEK #3*****

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): 7/8/16

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Jacksonville, Wiregrass S2/S4, SAJ-2015-02719 (JD-TEH)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: Florida County/parish/borough: Pasco City:
Center coordinates of site (lat/long in degree decimal format): Lat. 28.213497° N, Long. 82.322316° W.
Universal Transverse Mercator:
Name of nearest waterbody: Trout Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Hillsborough River
Name of watershed or Hydrologic Unit Code (HUC): 031002050501 (Trout Creek-Hillsborough River)
☒ 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. The project site consists of 5 relevants reaches. A form has been prepared for each.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): 6/30/16

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There Are no "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There Are "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

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

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or 3.31 acres.
      Wetlands: 8.73 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:

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

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. **TNW**
   Identify TNW: .

   Summarize rationale supporting determination: .

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

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

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

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

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

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

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

   (i) General Area Conditions:
   Watershed size: 300 **acres**
   Drainage area: 100 **acres**
   Average annual rainfall: 50 inches
   Average annual snowfall: 0 inches

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

   Project waters are **10-15** river miles from TNW.
   Project waters are **2-5** river miles from RPW.
   Project waters are **5-10** aerial (straight) miles from TNW.
   Project waters are **1-2** aerial (straight) miles from RPW.
   Project waters cross or serve as state boundaries. Explain: .

   Identify flow route to TNW[5]: UT Trout Ck #4 (non-RPW) > UT Trout Ck #3 (non-RPW) > Trout Ck (RPW) > Hillsborough River (TNW).

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

[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: first.

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

Tributary is:
- ☒ Natural
- ☐ Artificial (man-made). Explain: .
- ☒ Manipulated (man-altered). Explain: altered in areas.

Tributary properties with respect to top of bank (estimate):
- Average width: 5 feet
- Average depth: 2 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: herb/forested/cover varies	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: stable.
Presence of run/riffle/pool complexes. Explain: none within project area.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 1 %

(c) Flow:

Tributary provides for: **Seasonal flow (seasonal within project area)**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime: seasonal.
Other information on duration and volume: .

Surface flow is: **Discrete**. Characteristics: .

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

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

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

- ☐ Discontinuous OHWM.[7] Explain: .

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

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

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: clear.
Identify specific pollutants, if known: likely impacted by animal waste due to cattle grazing.

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[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.

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

- ☒ Riparian corridor. Characteristics (type, average width): 50' bottomland hardwood forest.
- ☐ Wetland fringe. Characteristics: .
- ☒ Habitat for:
  - ☒ Federally Listed species. Explain findings: Eastern indigo snake, wood stork.
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☒ Aquatic/wildlife diversity. Explain findings: herps, wading birds.

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: 8.73 acres

Wetland type. Explain: forested/herbaceous freshwater wetlands.

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: .

Surface flow is: **Discrete**

Characteristics: .

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

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☒ Directly abutting (R18)
- ☒ Not directly abutting (S17, T17, T18, W17-1, W17-2))
  - ☒ Discrete wetland hydrologic connection. Explain: T18 connected to tributary via SW-T18; T17 connected to tributary via SW-T16; W17-1 and W17-2 connected to tributary via SW-W17
  - ☒ Ecological connection. Explain: Wetland S17 is reasonably close to the tributary flowing through SW-T16.
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

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

Project waters are **2-5** aerial (straight) miles from TNW.

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

Estimate approximate location of wetland as within the **20 - 50-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: clear.

Identify specific pollutants, if known: likely impacted by animal waste due to cattle grazing.

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

- ☒ Riparian buffer. Characteristics (type, average width): 10'.
- ☐ Vegetation type/percent cover. Explain: .
- ☒ Habitat for:
  - ☒ Federally Listed species. Explain findings: Eastern indigo snake, wood stork.
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☒ Aquatic/wildlife diversity. Explain findings:herps, wading birds.

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

All wetland(s) being considered in the cumulative analysis: **15-20**

Approximately (>32) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
R18 (Y)	2.99		
S17 (N)	1.27		
T17 (N)	1.82		
T18 (N)	0.35		
W17-1 (N)	0.74		
W17-2 (N)	1.56		
OFFSITE	~20		

Summarize overall biological, chemical and physical functions being performed: Attenuation of stormwater, wildlife foraging and denning, water quality.

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: .

The following represents the significant nexus findings for the UT Trout Creek #4 relevant reach and its adjacent wetlands (Wetlands R18, S17, T17, T18, W17-1, and W17-2):

Physical: The wetlands perform important flow maintenance functions including storage of flood waters[1, 2] and a release of these waters into the tributary in a more even and consistent manner[2]. Therefore, the wetlands directly affect the duration, frequency, and volume of flow in the tributary and the downstream navigable water[2]. These wetlands offer the following benefits to downstream aquatic resources: reduction of downstream peak discharge and volume, recharge of aquifers, maintenance of seasonal/baseflows, maintenance of groundwater supplies[1]. In fact, cypress swamps appear to have lower evapotranspiration rates than surrounding ecosystems and may, therefore, provide more recharge to the aquifer[3].

Chemical: The wetlands improve water quality by removing sediment and nutrients (particularly phosphorous and nitrogen) that would otherwise reach downstream waters and have a negative effect on aquatic resources[1, 2, 3]. In general, almost all organic matter and nutrients from wastewater flows inflows are removed or stored within the substrate of the wetland[1].

Biological: The wetlands are of utmost importance biologically since the majority of other non-wetland areas in the watershed have been altered for agriculture, residential, or other purposes[1]. These wetlands provide breeding grounds for species that cannot reproduce in faster-moving water and move between wetlands and uplands over their lifecycle[1]. The wetlands also maintain a

more consistent water temperature in tributaries, which is important to many aquatic species[2]. The wetland, along with the tributary system, provide wildlife habitat (e.g. feeding, nesting, spawning, rearing of young) for many aquatic species that live in traditional navigable waters[2]. These wetlands have a diverse community of benthic invertebrates, a major food source for vertebrates[3].

[1]The Clean Water Act Jurisdictional Handbook. 2007. Environmental Law Institute, Washington, DC, 77 pp.

[2]Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States. 2007. US Department of the Army and US Environmental Protection Agency. 12 pp.

[3]Ewel, K.C. 1990. Multiple demands on wetlands. Bioscience, 40:660-666.

3. **Significant nexus findings for wetlands adjacent to an RPW ~~but that do not directly abut the RPW~~ (see note below).** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

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

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

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☒ Tributary waters: **approx. 1,500** linear feet width (ft). **(included within acreage for SW-T16)**
   - ☒ Other non-wetland waters: 3.31 ac (SW-R18, SW-T18, and SW-W17)
     Identify type(s) of waters: ditches connecting jurisdictional wetlands

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
   - ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
   - ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

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

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

[8]See Footnote # 3.

☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are 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: **8.73** acres **(Wetlands R18, S17, T17, T18, W17-1, and W17-2**).

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).

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

[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: 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: .
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☒ 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): Google Earth 1995- present.
  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:

Jurisdictional Waters	
ID	**Acreage**
R18	2.99
S17	1.27
T17	1.82
T18	0.35
W17-1	0.74
W17-2	1.56
SW-R18	0.10
SW-T16	2.51
SW-T18	0.12
SW-W17	0.58
TOTAL	**12.04**

Non-Jurisdictional Waters	
ID	**Acreage**
NONE	
TOTAL	**0**

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers
*****RELEVANT REACH: UT CLAY GULLEY*****

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): 7/8/16

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Jacksonville, Wiregrass S2/S4, SAJ-2015-02719 (JD-TEH)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: Florida County/parish/borough: Pasco City:
Center coordinates of site (lat/long in degree decimal format): Lat. 28.213497° N, Long. 82.322316° W.
Universal Transverse Mercator:
Name of nearest waterbody: Clay Gulley
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Hillsborough River
Name of watershed or Hydrologic Unit Code (HUC): 031002050501 (Trout Creek-Hillsborough River)
☒ 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. The project site consists of 5 relevants reaches. A form has been prepared for each.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): 6/30/16

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There Are no "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There Are "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

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

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or 3.31 acres.
      Wetlands: 4.36 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:

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

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. **TNW**
   Identify TNW: .

   Summarize rationale supporting determination: .

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

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

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

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

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

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

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

   (i) General Area Conditions:
   Watershed size: 2,817 **acres**
   Drainage area: 100 **acres**
   Average annual rainfall: 50 inches
   Average annual snowfall: 0 inches

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

   Project waters are **5-10** river miles from TNW.
   Project waters are **2-5** river miles from RPW.
   Project waters are **5-10** aerial (straight) miles from TNW.
   Project waters are **2-5** aerial (straight) miles from RPW.
   Project waters cross or serve as state boundaries. Explain: .

   Identify flow route to TNW[5]: UT Clay Gulley (non-RPW) > Clay Gulley (RPW) > Hillsborough River (TNW).
   Tributary stream order, if known: third.

[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.

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

Tributary is:
- ☒ Natural
- ☐ Artificial (man-made). Explain: .
- ☒ Manipulated (man-altered). Explain: altered in areas.

Tributary properties with respect to top of bank (estimate):
- Average width: 5 feet
- Average depth: 2 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: herb/forested/cover varies	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: stable.
Presence of run/riffle/pool complexes. Explain: none within project area.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 1 %

(c) Flow:

Tributary provides for: **Seasonal flow (seasonal within project area)**
Estimate average number of flow events in review area/year: **2-5**
- Describe flow regime: seasonal.

Other information on duration and volume: .

Surface flow is: **Discrete.** Characteristics: .

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

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

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

- ☐ Discontinuous OHWM.[7] Explain: .

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

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

(iii) Chemical Characteristics:

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

Identify specific pollutants, if known: likely impacted by animal waste due to cattle grazing.

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[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.

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

- ☒ Riparian corridor. Characteristics (type, average width): 50' bottomland hardwood forest.
- ☐ Wetland fringe. Characteristics: .
- ☒ Habitat for:
  - ☒ Federally Listed species. Explain findings: Eastern indigo snake, wood stork.
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☒ Aquatic/wildlife diversity. Explain findings: herps, wading birds.

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: 4.36 acres

Wetland type. Explain: forested/herbaceous freshwater wetlands.

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: .

Surface flow is: **Discrete**

Characteristics: .

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

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☒ Directly abutting (Z18-1, Z18-2)
- ☒ Not directly abutting (AA16, AA18))
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☒ Ecological connection. Explain: Wetlands AA16 and AA18 are reasonabily close to the tributary flowing through Z18.
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

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

Project waters are **2-5** aerial (straight) miles from TNW.

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

Estimate approximate location of wetland as within the **20 - 50-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: clear.

Identify specific pollutants, if known: likely impacted by animal waste due to cattle grazing.

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

- ☒ Riparian buffer. Characteristics (type, average width): 10'.
- ☐ Vegetation type/percent cover. Explain: .
- ☒ Habitat for:
  - ☒ Federally Listed species. Explain findings: Eastern indigo snake, wood stork.
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☒ Aquatic/wildlife diversity. Explain findings:herps, wading birds.

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

All wetland(s) being considered in the cumulative analysis: **15-20**

Approximately (>200) 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)
Z18-1 (Y)	1.64		
Z18-2 (Y)	1.13		
AA16 (N)	1.41		
AA18 (N)	0.18		
OFFSITE	~200		

Summarize overall biological, chemical and physical functions being performed: Attenuation of stormwater, wildlife foraging and denning, water quality.

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: .

The following represents the significant nexus findings for the UT Clay Gulley relevant reach and its adjacent wetlands (Wetlands Z18-1, Z18-2, AA16, and AA18):

Physical: The wetlands perform important flow maintenance functions including storage of flood waters[1, 2] and a release of these waters into the tributary in a more even and consistent manner[2]. Therefore, the wetlands directly affect the duration, frequency, and volume of flow in the tributary and the downstream navigable water[2]. These wetlands offer the following benefits to downstream aquatic resources: reduction of downstream peak discharge and volume, recharge of aquifers, maintenance of seasonal/baseflows, maintenance of groundwater supplies[1]. In fact, cypress swamps appear to have lower evapotranspiration rates than surrounding ecosystems and may, therefore, provide more recharge to the aquifer[3].

Chemical: The wetlands improve water quality by removing sediment and nutrients (particularly phosphorous and nitrogen) that would otherwise reach downstream waters and have a negative effect on aquatic resources[1, 2, 3]. In general, almost all organic matter and nutrients from wastewater flows inflows are removed or stored within the substrate of the wetland[1].

Biological: The wetlands are of utmost importance biologically since the majority of other non-wetland areas in the watershed have been altered for agriculture, residential, or other purposes[1]. These wetlands provide breeding grounds for species that cannot reproduce in faster-moving water and move between wetlands and uplands over their lifecycle[1]. The wetlands also maintain a more consistent water temperature in tributaries, which is important to many aquatic species[2]. The wetland, along with the tributary system, provide wildlife habitat (e.g. feeding, nesting, spawning, rearing of young) for many aquatic species that live in

traditional navigable waters[2]. These wetlands have a diverse community of benthic invertebrates, a major food source for vertebrates[3].

[1]The Clean Water Act Jurisdictional Handbook. 2007. Environmental Law Institute, Washington, DC, 77 pp.

[2]Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States. 2007. US Department of the Army and US Environmental Protection Agency. 12 pp.

[3]Ewel, K.C. 1990. Multiple demands on wetlands. Bioscience, 40:660-666.

3. **Significant nexus findings for wetlands adjacent to an RPW ~~but that do not directly abut the RPW~~ (see note below).** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

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

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

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☒ Tributary waters: **approx. 400** linear feet width (ft). **(included within acreage for Z18-2)**
   - ☐ Other non-wetland waters:
     Identify type(s) of waters:

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
   - ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
   - ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

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

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

[8]See Footnote # 3.

☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are 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: **4.36** acres **(Wetlands Z18-1, Z18-2, AA16, and AA18**).

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).

---

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

[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: 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: .
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☒ 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): Google Earth 1995- present.
  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:

Jurisdictional Waters	
ID	**Acreage**
Z18-1	1.64
Z-18-2	1.13
AA16	1.41
AA18	0.18
TOTAL	**4.36**

Non-Jurisdictional Waters	
ID	**Acreage**
NONE	
TOTAL	**0**

ACREAGE SUMMARY

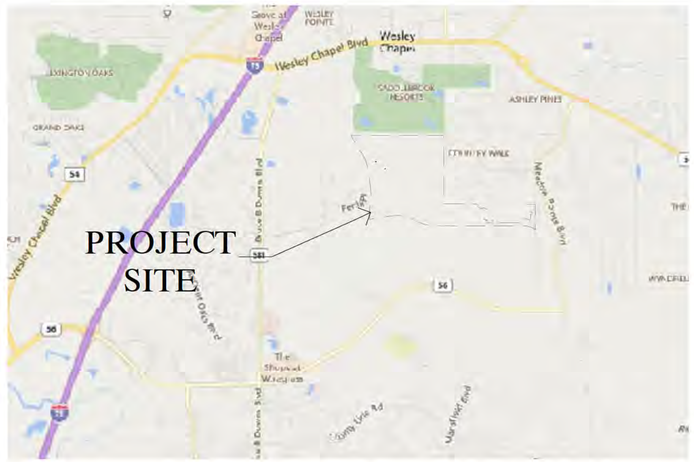
Jurisdictional Waters	
ID	**Acreage**
G14	23.50
J17	0.60
K9	1.05
K11	0.25
L15	14.08
L16	1.94
M11	0.18
M16	0.23
M17	1.09
N13	5.55
N14	0.87
N17	1.37
O16	0.18
O17	1.84
P14	10.60
P15	3.75
P16	23.74
P17-1	0.46
P17-2	0.59
Q17	0.76
R14	0.66
R17	2.48
R18	2.99
S17	1.27
T17	1.82
T18	0.35
W17-1	0.74
W17-2	1.56
Z18-1	1.64
Z-18-2	1.13
AA16	1.41
AA18	0.18
SW-L13	0.05
SW-R18	0.10
SW-T16	2.51
SW-T18	0.12
SW-W17	0.58
TOTAL	**112.22**

Non-Jurisdictional Waters	
ID	**Acreage**
K10	0.70
M13	0.27
N9	0.18
N10	2.10
N11	2.30
N14-1	0.07
N14-2	0.16
N14-3	0.24
O9	0.23
O10-1	0.34
O10-2	0.15
O11-1	0.02
O11-2	0.03
O14	0.09
P9	0.12
P11	2.94
P12	2.95
Q11	7.14
Q12	0.47
Q13	0.19
R9	1.25
R10	0.07
R11	1.58
R12	0.07
TOTAL	**23.66**

WIREGRASS PARCEL S2/S4

CONCEPTUAL PERMIT PLANS

SECTION 17, 20, 21, TOWNSHIP 26S S, RANGE 20E E
PASCO COUNTY, FLORIDA



LOCATION MAP

FOR:

LOCUST BRANCH, LLC

P.O. BOX 290069
TAMPA, FL 33687

BY:

King
ENGINEERING ASSOCIATES, INC.
4921 Memorial Highway, One Memorial Center, Suite 300
Tampa, Florida 33634
Phone: (813) 880-8881, Fax: (813) 880-8882
www.kingengineering.com
Engineering License #2610

Planning | Transportation | Ecological | Land Development | Water | Solid Waste | Surveying
Tampa, FL | Austin, TX | Miami, FL | Sarasota, FL

PARCEL ID#'s
17-26-20-0000-00100-0030
17-26-20-0000-00100-0000
20-26-20-0000-00100-0S20
20-26-20-0000-00100-0000
21-26-20-0000-00100-0000
21-26-20-0000-00100-0050
21-26-20-0000-00100-0040

Sheet List Table

SWFWMD SUBMITTAL	ACOE SUBMITTAL	SHEET NUMBER	SHEET TITLE
*	*	C1.01	COVER
*	*	C1.05	OVERALL SITE PLAN
*	*	C2.00	CONSTRUCTION POLLUTION PREVENTION PLAN
*	*	C3.01	MASTER ENVIRONMENTAL PLAN
*	*	C3.02	MASTER ENVIRONMENTAL PLAN
*	*	C4.01	MASTER DRAINAGE PLAN
*	*	C4.02	MASTER DRAINAGE PLAN
*	*	C5.01	MITIGATION PLAN
*	*	C5.02	MITIGATION PLAN
*	*	C5.03	MITIGATION NOTES AND DETAILS
*	*	C9.01	TYPICAL POND SECTIONS
*	*	C10.01	STORMWATER DETAILS

LEGAL DESCRIPTION

A PORTION OF SECTIONS 17 & 20, TOWNSHIP 26 SOUTH, RANGE 20 EAST, PASCO COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SECTION 17, TOWNSHIP 26 SOUTH, RANGE 20 EAST, PASCO COUNTY, FLORIDA; THENCE ALONG THE EAST LINE OF SAID SECTION 17, S00°09'30"W, A DISTANCE OF 1,324.63 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE ALONG SAID EAST LINE OF SECTION 17, S00°09'55"W, A DISTANCE OF 3,972.39 FEET TO THE SOUTHEAST CORNER OF SECTION 17; THENCE ALONG THE EAST LINE OF SECTION 20, TOWNSHIP 26 SOUTH, RANGE 20 EAST, PASCO COUNTY, FLORIDA, S00°26'15"W, A DISTANCE OF 38.82 FEET TO NORTHERLY RIGHT-OF-WAY LINE OF PROPOSED CHANCEY ROAD AND THE POINT OF CURVATURE OF A NON TANGENT CURVE; THENCE ALONG SAID NORTHERLY RIGHT-OF-WAY, THE FOLLOWING THREE (3) COURSES; (1) WESTERLY ALONG THE ARC OF SAID NON-TANGENT CURVE TO THE LEFT, HAVING A RADIUS OF 3,070.00 FEET, AN ARC LENGTH OF 289.11 FEET, A CENTRAL ANGLE OF 05°23'44", AND A CHORD BEARING AND DISTANCE OF S83°21'33"W, 289.00 FEET; (2) S80°39'41"W, A DISTANCE OF 4,033.42 FEET TO A POINT OF CURVATURE; (3) NORTHWESTERLY ALONG THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 50.00 FEET, AN ARC LENGTH OF 91.63 FEET, A CENTRAL ANGLE OF 105°00'00", AND A CHORD BEARING AND DISTANCE OF N46°50'19"W, 79.34 FEET TO THE EASTERLY RIGHT-OF-WAY LINE OF PROPOSED WIREGRASS RANCH BOULEVARD; THENCE ALONG SAID EASTERLY RIGHT-OF-WAY, THE FOLLOWING FIVE (5) COURSES; (1) N00°39'41"E, A DISTANCE OF 1,040.23 FEET TO A POINT OF CURVATURE; (2) NORTHERLY ALONG THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 2,170.00 FEET, AN ARC LENGTH OF 565.59 FEET, A CENTRAL ANGLE OF 14°56'01", AND A CHORD BEARING AND DISTANCE OF N01°48'19"W, 563.99 FEET; (3) N09°16'19"W, A DISTANCE OF 1,197.44 FEET TO A POINT OF CURVATURE; (4) NORTHERLY ALONG THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 2,170.00 FEET, AN ARC LENGTH OF 861.39 FEET, A CENTRAL ANGLE OF 22°44'38", AND A CHORD BEARING AND DISTANCE OF N20°38'38"W, 855.75 FEET; (5) N32°00'57"W, A DISTANCE OF 343.00 FEET; THENCE N89°54'52"E, A DISTANCE OF 1,235.69 FEET; THENCE N01°21'00"W, A DISTANCE OF 34.15 FEET; THENCE N58°17'36"E, A DISTANCE OF 18.29 FEET; THENCE N10°07'36"E, A DISTANCE OF 47.77 FEET; THENCE N15°01'14"W, A DISTANCE OF 37.26 FEET; THENCE N00°16'25"W, A DISTANCE OF 34.10 FEET; THENCE N28°14'49"W, A DISTANCE OF 48.81 FEET; THENCE N35°23'51"W, A DISTANCE OF 35.73 FEET; THENCE N42°01'17"W, A DISTANCE OF 74.66 FEET; THENCE S53°29'29"W, A DISTANCE OF 3.88 FEET; THENCE N67°22'47"W, A DISTANCE OF 56.94 FEET; THENCE N66°07'39"W, A DISTANCE OF 43.71 FEET; THENCE N61°50'08"W, A DISTANCE OF 36.84 FEET; THENCE N84°10'42"W, A DISTANCE OF 46.39 FEET; THENCE S66°03'28"W, A DISTANCE OF 43.33 FEET; THENCE S70°44'48"W, A DISTANCE OF 50.36 FEET; THENCE N28°06'22"W, A DISTANCE OF 18.09 FEET; THENCE N26°14'40"E, A DISTANCE OF 55.86 FEET; THENCE N46°01'59"E, A DISTANCE OF 51.53 FEET; THENCE N07°56'04"W, A DISTANCE OF 51.58 FEET; THENCE N88°45'05"E, A DISTANCE OF 27.00 FEET; THENCE N49°32'44"E, A DISTANCE OF 37.70 FEET; THENCE N24°21'42"E, A DISTANCE OF 40.47 FEET; THENCE N70°30'07"E, A DISTANCE OF 30.27 FEET; THENCE N66°14'45"E, A DISTANCE OF 33.96 FEET; THENCE N41°18'54"E, A DISTANCE OF 43.25 FEET; THENCE N81°19'08"E, A DISTANCE OF 29.73 FEET; THENCE S76°54'12"E, A DISTANCE OF 43.86 FEET; THENCE N27°45'10"E, A DISTANCE OF 52.04 FEET; THENCE N18°00'53"W, A DISTANCE OF 45.22 FEET; THENCE N25°30'52"W, A DISTANCE OF 22.26 FEET; THENCE N84°40'35"E, A DISTANCE OF 60.61 FEET; THENCE N11°10'34"E, A DISTANCE OF 16.14 FEET; THENCE N81°20'00"W, A DISTANCE OF 73.87 FEET; THENCE N27°24'42"W, A DISTANCE OF 49.58 FEET; THENCE N89°54'52"E, A DISTANCE OF 3,787.37 FEET TO THE POINT OF BEGINNING.

CONTAINING 428.30 ACRES

Permit Type	Permit No.	Status
A.C.O.E.		
S.W.F.W.M.D.		

Know what's below. Call before you dig.

NO.	DATE	REVISION	BY

JOB NO:	4463-033-000
DATE:	04/08/2016
SCALE:	AS SHOWN

C1.01

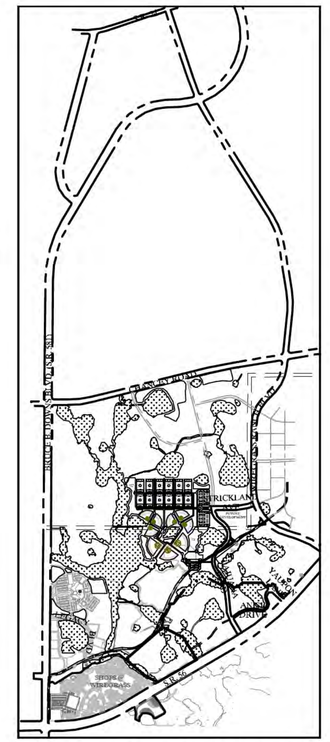
ACOE SUBMITTAL
APRIL 8, 2016

SADDLEBROOK RESORT

POND S2P-800
AMENITY AREA
POND S2P-510
WETLAND "G14"
FLOOD COMPENSATION POND S2P-505
FLOOD COMPENSATION POND S2P-515
STORMWATER POND S2P-520
MITIGATION AREA G14-A
MITIGATION AREA G14-B
WETLAND "G14"
WIREGRASS RANCH BLVD
WETLAND "N10"
POND S2P-503
POND S2P-500
WETLAND "N11"
POND S2P-550
POND S2P-580
WETLAND "N13"
POND S2P-570
WETLAND "N14"
POND S2P-620
FLOOD COMPENSATION POND S2P-590
POND S2P-610
POND S2P-600
FLOOD COMPENSATION POND S2P-650
FLOOD COMPENSATION POND S2P-705
FLOOD COMPENSATION POND S2P-840
POND S2P-830
POND S2P-700
FLOOD COMPENSATION POND S2P-660
FLOOD COMPENSATION POND S2P-670
WETLAND "L15"
WETLAND "L15"
FLOOD COMPENSATION POND S2P-675
POND S2P-680
WETLAND "P16"
POND CR-6
FLOOD COMPENSATION POND S2P-690
WETLAND "M17"
W-FC-01
W-FC-02
WETLAND "M17"
WREC SUBSTATION
WETLAND "N17"
WETLAND "O18"
CHANCEY ROAD
HAN E ROAD EX EN ION
PROJE LI I (T P)
100' FLORIDA POWER CORPORATION EASEMENT O.R. BOOK 169, PAGE 120
WETLAND "P19"
NEIGHBORHOOD PARK AREA
POND S2P-205
FLOOD COMPENSATION POND S2P-240
FLOOD COMPENSATION POND S2P-230
FLOOD COMPENSATION POND S2P-200
FLOOD COMPENSATION POND S2P-201
POND S2P-250
WETLAND "P16"
WETLAND "P16"
POND S2P-220
POND S2P-190
WETLAND "P16"
NEIGHBORHOOD PARK AREA
NP-24
NW-20A
POND S2P-100
POND S2P-110
WETLAND "Q11"
POND S2P-120
POND S2P-130
POND S2P-140
POND S2P-150
POND S2P-560
WETLAND "P12"
WETLAND "P14"
POND S2P-160
POND S2P-170
WETLAND "P16"
POND S2P-180
WETLAND "P14"
POND S2P-200
WETLAND "P14"
POND S4P-120
POND S4P-130
POND S4P-140
POND S4P-100
POND S4P-110
WETLAND "S17"
WETLAND "R18"
POND CR-7
WETLAND "S18"
WETLAND "X16"
WETLAND "Y17"
WETLAND "W17"
POND CR-8
POND CR-9
CHANCEY ROAD EXTENSION
WETLAND "X18"
WETLAND "Z16"
WETLAND "Z16" MITIGATION AREA AA16-1
MITIGATION AREA AA16-2
WETLAND "Z18"
POND CR-10
WETLAND "Z19"

BLUE=
JURISDICTIONAL

ORANGE=
NON-JD



WIREGRASS ROADWAY LOCATION MAP

0 400 800
SCALE: FEET

King
ENGINEERING ASSOCIATES, INC.
4921 Memorial Highway, One Memorial Center, Suite 300
Tampa, Florida 33634
Phone: (813) 880-8881, Fax: (813) 880-8882
www.kingengineering.com
Engineering License #2610

NO.	DATE	REVISION	BY

WIREGRASS PARCEL S2/S4
CONCEPTUAL PERMIT PLANS
LOCUST BRANCH, LLC
PASCO COUNTY, FLORIDA
OVERALL SITE PLAN

JOB NO:	4463-033-000
DATE:	04/08/2016
SCALE:	AS SHOWN

C1.05

ACOE SUBMITTAL
APRIL 8, 2016

SITE DESCRIPTION

PROJECT NAME:
WIREGRASS PARCEL S2/S4

LATITUDE: N 28° 13' 11.8"
LONGITUDE: W 82° 19' 36.6

DEVELOPER:
LOCUST BRANCH, LLC

DEVELOPER'S ADDRESS:
P.O. BOX 290069
TAMPA, FL 33687

DESCRIPTION OF NATURE OF CONSTRUCTION ACTIVITY

CONSTRUCTION OF A SINGLE FAMILY RESIDENTIAL DEVELOPMENT. COMPONENTS INCLUDE INTERNAL ROADWAYS, WETLAND MITIGATION AREAS, STORMWATER MANAGEMENT FACILITIES, PARKING, WATER & SANITARY SEWER UTILITIES, AND STORM WATER UTILITIES.

SOIL DISTURBING ACTIVITIES INCLUDE:
INSTALLING STABILIZED CONSTRUCTION ENTRANCES, CONSTRUCTION OF EROSION AND SEDIMENT CONTROLS, CLEARING AND GRUBBING, GRADING, AND CONSTRUCTION OF STORM SEWER. PROJECT AREA CONTAINS ±428.3 AC.

SEQUENCE OF MAJOR ACTIVITIES:

1. PRIOR TO THE COMMENCEMENT OF CLEARING, GRUBBING, AND DEMOLITION, THE SITE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL DEVICES CALLED FOR ON THE PLANS.
2. UPON INSTALLATION OF THE EROSION CONTROL DEVICES, THE SITE CONTRACTOR MAY BEGIN SITE CLEARING, DEMOLITION, EARTHWORK, DRAINAGE, UTILITY AND ROADWAY CONSTRUCTION ACTIVITIES WITHIN THE CONSTRUCTION LIMITS. THE SITE CONTRACTOR SHALL STABILIZE ALL AREAS DISTURBED WITHIN FIVE DAYS OF THE COMPLETION OF GRADING ACTIVITIES OF THE DISTURBED AREA.
3. THE SITE CONTRACTOR SHALL MAINTAIN THE EXISTING STORMWATER SYSTEM UNTIL THE PROPOSED SYSTEM HAS BEEN RE-ROUTED. ONCE THE PROPOSED SYSTEM IS IN PLACE, THE CONTRACTOR MAY BEGIN THE REMOVAL OF THE EXISTING STORMWATER PIPES AS INDICATED ON THE CONSTRUCTION DOCUMENTS.
4. THE SITE CONTRACTOR SHALL REMOVE ALL EROSION PROTECTION DEVICES WITHIN EACH CONTRIBUTING AREA FOLLOWING PERMANENT STABILIZATION OF ALL DISTURBED AREAS.

NAME OF RECEIVING WATERS: TROUT CREEK WATERHSED & CLAY GULLY

CONTROLS

EROSION AND SEDIMENT CONTROLS

STABILIZATION PRACTICES

WIND EROSION STABILIZATION: THE CONTRACTOR SHALL DENUDE ONLY AREAS WHERE IT IS EXPECTED TO BE GRADED OR ALTERED WITHIN A TWO (2) WEEK TIME-FRAME. FINAL GRADES SHALL BE PERFORMED AND TEMPORARY OR PERMANENT SOIL STABILIZATION SHALL BE APPLIED. AREAS WHERE CONSTRUCTION OPERATIONS WILL BE CONTINUOUS, FUGITIVE DUST SHALL BE MANAGED BY APPLYING A WATER SPRAY TO SATURATE THE SURFACE SOILS ON A DAILY BASIS, OR AS NEEDED TO MAINTAIN MINIMAL DUST TRANSPORT. FUGITIVE DUST SHALL BE MONITORED CONTINUOUSLY AND ADDITIONAL MEASURES MAY NEED TO BE TAKEN TO CONTROL OFF-SITE TRANSPORT OF UNACCEPTABLE LEVELS OF DUST.

TEMPORARY STABILIZATION: TOP OF SOIL STOCK PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS WILL BE STABILIZED WITH TEMPORARY GRASS AND MULCH NO LATER THAN 5 DAYS FROM THE LAST CONSTRUCTION ACTIVITY. GRASS SEED SHALL BE A MIXTURE OF 20 PARTS OF BERMUDA SEED AND 80 PARTS OF PENSACOLA BAHIA. THE SEPARATE TYPES OF SEED USED SHALL BE THOROUGHLY DRY MIXED IMMEDIATELY BEFORE SOWING. SEED WHICH HAS BECOME WET SHALL NOT BE USED. THE MULCH MATERIAL USED SHALL NORMALLY BE DRY MULCH. DRY MULCH SHALL BE STRAW OR HAY, CONSISTING OF OAT, RYE OR WHEAT STRAW, OR OF PANGOLA, PEANUT, COASTAL BERMUDA OR BAHIA GRASS HAY. ONLY UNDETERIORATED MULCH WHICH CAN BE READILY CUT INTO THE SOIL SHALL BE USED. AREAS OF THE SITE WHICH ARE TO BE PAVED WILL BE TEMPORARILY STABILIZED BY APPLYING STABILIZATION AND BASE.

PERMANENT STABILIZATION: DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASES SHALL BE STABILIZED WITH SOD NO LATER THAN 5 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY.

STRUCTURAL PRACTICES

STAKED SILT FENCES: THE STAKED SILT FENCES WILL BE CONSTRUCTED ALONG THE PERIMETER AS PREVIOUSLY EXPLAINED. THESE DEVICES WILL STOP AND DIVERT RUNOFF TO THE SEDIMENT BASINS.

SEDIMENT BASINS: THE STORM WATER MANAGEMENT AREAS WILL ACT AS SEDIMENT BASINS DURING CONSTRUCTION. THE SEDIMENT BASINS WILL BE CONSTRUCTED TO THE DESIGN CROSS-SECTION, OR A MINIMUM OF 2' BELOW EXISTING GROUND AT THE CONTRACTORS DISCRETION TO ALLOW SILTS TO BE COLLECTED AND REMOVED PRIOR TO COMPLETION OF THE GRADING.

STORM WATER MANAGEMENT

STORM WATER DRAINAGE WILL BE PROVIDED BY A CURB, SWALE, STORM SEWER, OR CATCH BASIN SYSTEM FOR THE DEVELOPED AREAS. SWALES TO BE SODDED AND INCLUDE CHECK DAMS AND RIPRAP TO CONTROL RUNOFF VELOCITY AND TRANSPORT OF SEDIMENT. WHEN CONSTRUCTION IS COMPLETE THE IMPROVED PORTION OF THE SITE WILL DRAIN TO STORM WATER PONDS. THE PONDS WILL BE IN THE LOCATION OF THE TEMPORARY SEDIMENT BASINS. WHEN UPSLOPE AREAS ARE STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASINS. THE PONDS HAVE BEEN DESIGNED BY A PROFESSIONAL ENGINEER TO LIMIT PEAK FLOW RATES FROM THE DESIGN STORM EVENT AT OR BELOW PRE-DEVELOPMENT RATES, AND CONSTRUCTION PER DETAILS SHOWN IN THE PLANS IS IMPERATIVE.

OTHER CONTROLS

WASTE DISPOSAL

WASTE MATERIALS: ALL WASTE MATERIAL WILL BE COLLECTED AND STORED IN DUMPSTERS PER LOCAL AGENCIES REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTERS. THE DUMPSTERS WILL BE EMPTIED A MINIMUM OF ONCE A WEEK OR MORE OFTEN IF NECESSARY, AND THE TRASH WILL BE HAULED TO A REGISTERED LANDFILL FOR DISPOSAL. NO CONSTRUCTION MATERIALS WILL BE BURIED ON-SITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED IN THE ON-SITE OFFICE TRAILER AND THE CONSTRUCTION MANGER RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE: ALL HAZARDOUS WASTE MATERIALS, IF ENCOUNTERED, WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

SANITARY WASTE: ALL SANITARY WASTE WILL BE COLLECTED FROM PORTABLE UNITS A MINIMUM OF THREE TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR, AS REQUIRED BY LOCAL REGULATION.

OFFSITE VEHICLE TRACKING

STABILIZED CONSTRUCTION ENTRANCES SHALL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREETS WILL BE CLEANED AS NEEDED TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM OR TO THE SITE WILL BE COVERED WITH A TARPAULIN AT ALL TIMES.

TIMING OF CONTROL MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, STAKED SILT BARRIERS, STABILIZED CONSTRUCTION ENTRANCES AND SEDIMENT BASINS WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN 21 DAYS WILL BE STABILIZED WITH A TEMPORARY GRASS AND MULCH WITHIN 5 DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN THAT AREA, THAT AREA WILL BE STABILIZED WITH PERMANENT SOD. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE TRAPS AND THE STAKED SILT BARRIERS WILL BE REMOVED.

CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

THE STORM WATER POLLUTION PREVENTION PLAN REFLECTS THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT'S (SWFWMD) REQUIREMENTS FOR STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL, AS ESTABLISHED BY THE FLORIDA ADMINISTRATIVE CODE, CHAPTER 40D-4 AND 40D-40. TO ENSURE COMPLIANCE, THIS PLAN WAS PREPARED IN ACCORDANCE WITH SWFWMD'S "BASIS OF REVIEW FOR SURFACE WATER MANAGEMENT PERMIT APPLICATIONS WITHIN THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT." THIS PLAN ALSO REFLECTS THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR WORK IN BRANCH 6.

MAINTENANCE INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

THESE ARE THE INSPECTION AND MAINTENANCE PRACTICES THAT SHALL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROL.

ALL CONTROL MEASURES IN DISTURBED AREAS WILL BE INSPECTED AT LEAST ONCE EACH WEEK AND WITHIN 24 HOURS OF THE END OF ANY STORM EVENT OF 0.25 INCHES OR GREATER BY A CONTRACTORS REPRESENTATIVE. (WHERE SITES HAVE BEEN FINALLY STABILIZED SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH.) ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE. SILT FENCE WILL BE INSPECTED REGULARLY FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND. THE SEDIMENT BASINS WILL BE INSPECTED FOR DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB. TEMPORARY AND PERMANENT GRASSING, MULCHING AND SODDING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH. A MAINTENANCE INSPECTION REPORT SHALL BE MADE AFTER EACH INSPECTION BY THE CONTRACTOR AND SHALL BE KEPT IN AN ACTIVE LOG READILY AVAILABLE AT THE JOB SITE CONSTRUCTION TRAILER. THE SITE SUPERINTENDENT WILL SELECT INDIVIDUALS WHO WILL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES. FILLING OUT THE INSPECTION AND MAINTENANCE REPORT WILL BE BY THE CONTRACTOR. PERSONNEL SELECTED FOR MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ON-SITE IN GOOD WORKING ORDER.

NON-STORM WATER DISCHARGES

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

WATER FROM FIRE FIGHTING ACTIVITIES, FIRE HYDRANT FLUSHING, WATER LINE FLUSHING, WATER USED TO SPRAY OFF LOOSE SOILS FROM VEHICLES, DUST CONTROL, PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED). ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

GROUNDWATER DEWATERING ACTIVITIES ARE NOT COVERED BY THIS PERMIT. THE CONTRACTOR MUST APPLY FOR COVERAGE UNDER THE GENERIC PERMIT FOR THE DISCHARGE OF PRODUCED GROUNDWATER FROM ANY NON-CONTAMINATED SITE ACTIVITY PURSUANT TO 62-621.300 (2), F.A.C.

INVENTORY FOR POLLUTION PREVENTION PLAN

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED, BUT NOT LIMITED, TO BE PRESENT ON-SITE DURING CONSTRUCTION:

CONCRETE
DETERGENTS
PAINTS (ENAMEL AND LATEX)
METAL STUDS
GLASS
TAR
SAND
FERTILIZERS
PETROLEUM BASED PRODUCTS AND FUELS
CLEANING SOLVENTS
WOOD
MASONRY BLOCK
ROOFING SHINGLES
STONE

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING:

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES SHALL BE FOLLOWED ON-SITE DURING THE CONSTRUCTION PROJECT.

AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER CONTAINED ENCLOSURE. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL MANUFACTURER'S LABELED CONTAINERS. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER. WHENEVER POSSIBLE, ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER. MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED. THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ON-SITE.

HAZARDOUS PRODUCTS:

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

PRODUCTS SHALL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURERS' OR LOCAL AND STATE RECOMMENDED METHODS OF PROPER DISPOSAL SHALL BE FOLLOWED.

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON-SITE:

PETROLEUM PRODUCTS:

ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ON-SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS:

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS:

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS:

CONTRACTOR SHALL DESIGNATE AN AREA FOR DISCHARGE OF SURPLUS CONCRETE OR DRUM WASH WATER AND SHALL INSTALL A CONTAINMENT BERM AROUND THIS AREA TO PREVENT RUNOFF TO THE REMAINDER OF THE SITE. HARD DEBRIS SHALL BE DISPOSED OF BY CONTRACTOR UPON COMPLETION OF THE PROJECT.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE. EQUIPMENT AND MATERIALS WILL INCLUDE, BUT NOT BE LIMITED TO, BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREAS WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL,WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE WILL DESIGNATE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ON-SITE.

NOTICE OF INTENT (NOI) / NOTICE OF TERMINATION (NOT)

- THIS NOTICE OF INTENT (NOI) FORM IS TO BE COMPLETED AND SUBMITTED TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) BEFORE USE OF THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES PROVIDED IN SUBSECTION 62-621.300(4), F.A.C.
- A NOTICE OF TERMINATION WILL BE SUBMITTED TO EPA AFTER THE CONSTRUCTION HAS BEEN COMPLETED AND THE SITE HAS UNDERGONE FINAL STABILIZATION.

POLLUTION PREVENTION PLAN CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THESE CONSTRUCTION PLANS, THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM, AS SHOWN ON THESE CONSTRUCTION PLANS, DESIGNED TO ASSURE THAT APPROPRIATE POLLUTION PREVENTION MEASURES ARE IMPLEMENTED DURING CONSTRUCTION AND TO ASSURE THAT THE QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION. THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

DEVELOPER:

SIGNED: _____

NAME AND TITLE: _____

COMPANY: _____

ADDRESS: _____

_____

DATE: _____

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERIC STORM WATER PERMIT ISSUED PURSUANT TO SECTION 403.0885, F.S., THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

SIGNATURE	FOR	RESPONSIBLE FOR
COMPANY:	COMPANY:	GENERAL CONTRACTOR
NAME:	NAME:	
TITLE:	TITLE:	
DATE:	DATE:	
COMPANY:	COMPANY:	TEMPORARY AND PERMANENT STABILIZATION
NAME:	NAME:	
TITLE:	TITLE:	
DATE:	DATE:	
COMPANY:	COMPANY:	STABILIZED CONSTRUCTION ENTRANCE, EARTH DIKES, SEDIMENT BASIN
NAME:	NAME:	
TITLE:	TITLE:	
DATE:	DATE:	

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Engineering License #2610

NO.	DATE	REVISION	BY

WIREGRASS PARCEL S2/S4

LOCUST BRANCH, LLC
PASCO COUNTY, FLORIDA

CONSTRUCTION POLLUTION PREVENTION PLAN

JOB NO:	4463-033-000
DATE:	04/08/2016
SCALE:	AS SHOWN

C2.00

ACOE SUBMITTAL
APRIL 8, 2016

WETLAND IMPACT AREA "K9" (1.05 AC)

WETLAND IMPACT AREA "K10" (0.70 AC)

WETLAND IMPACT AREA "O9" (0.22 AC)

WETLAND IMPACT AREA "O10-1" (0.34 AC)

WETLAND IMPACT AREA "O10-2" (0.15 AC)

WETLAND IMPACT AREA "O11-2" (0.03 AC)

WETLAND IMPACT AREA "R10" (0.07 AC)

WETLAND IMPACT AREA "N11" (0.43 AC)

WETLAND IMPACT AREA "M11" (0.18 AC)

WETLAND IMPACT AREA "O11-1" (0.02 AC)

WETLAND IMPACT AREA "R11" (1.58 AC)

MITIGATION AREA G14-1

MITIGATION AREA G14-2

WETLAND IMPACT AREA "O12" (0.47 AC)

WETLAND IMPACT AREA "P14-1" (0.04 AC)

WETLAND IMPACT AREA "R12" (0.07 AC)

WETLAND IMPACT AREA "P14-3" (0.28 AC)

WETLAND IMPACT AREA "P14-2" (0.02 AC)

WETLAND IMPACT AREA "M13" (0.27 AC)

WETLAND IMPACT AREA "O13" (0.19 AC)

SURFACE WATER IMPACT AREA "L13" (0.05 AC)

WETLAND IMPACT AREA "N14" (0.02 AC)

WETLAND IMPACT AREA "O14" (0.09 AC)

WETLAND IMPACT AREA "N14-1" (0.07 AC)

WETLAND IMPACT AREA "N14-2" (0.16 AC)

WETLAND IMPACT AREA "N14-3" (0.24 AC)

WETLAND IMPACT AREA "L15-1" (0.17 AC)

WETLAND IMPACT AREA "R14" (0.66 AC)

UPLAND AREA "K14-1"

MATCHLINE - SEE SHEET C3.02

KEYMAP

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Engineering License #2610

NO.	DATE	REVISION	BY

WIREGRASS PARCEL S2/S4
CONCEPTUAL PERMIT PLANS
LOCUST BRANCH, LLC
PASCO COUNTY, FLORIDA
MASTER ENVIRONMENTAL PLAN

JOB NO: 4463-033-000
DATE: 04/08/2016
SCALE: AS SHOWN

C3.01

ACOE SUBMITTAL
APRIL 8, 2016

MATCHLINE - SEE SHEET C3.01

WETLAND IMPACT AREA "P16-1" (0.43 AC)

WETLAND IMPACT AREA "L16" (1.94 AC)

WETLAND IMPACT AREA "L15-2" (0.08 AC)

WETLAND IMPACT AREA "M16" (0.23 AC)

WETLAND IMPACT AREA "O16" (0.18 AC)

WETLAND IMPACT AREA "Q17" (0.76 AC)

WETLAND IMPACT AREA "P17-1" (0.46 AC)

WETLAND IMPACT AREA "P16-2" (0.07 AC)

SURFACE WATER IMPACT AREA "T16" (2.51 AC)

WETLAND IMPACT AREA "R17" (2.48 AC)

WETLAND IMPACT AREA "J17" (0.60 AC)

WETLAND IMPACT AREA "M17" (1.09 AC)

WETLAND IMPACT AREA "N17" (1.37 AC)

WETLAND IMPACT AREA "K17" (1.23 AC)

WETLAND IMPACT AREA "O17" (1.84 AC)

WETLAND IMPACT AREA "P17-2" (0.59 AC)

100' FLORIDA POWER CORPORATION EASEMENT
O.R. BOOK 169, PAGE 120

SURFACE WATER IMPACT AREA "R18" (0.10 AC)

WETLAND IMPACT AREA "R18-2" (1.22 AC)

WETLAND IMPACT AREA "T18" (0.35 AC)

WETLAND IMPACT AREA "R18-1" (0.03 AC)

SURFACE WATER IMPACT "T18" (0.12 AC)

WETLAND IMPACT AREA "Q18" (2.36 AC)

MATCHLINE - SEE THIS SHEET

WETLAND IMPACT AREA "T17" (1.82 AC)

SURFACE WATER IMPACT AREA "W17" (0.58 AC)

WETLAND IMPACT AREA "W17-2" (1.56 AC)

WETLAND IMPACT AREA "Z18-2" (1.13 AC)

100' FLORIDA POWER CORPORATION EASEMENT
O.R. BOOK 169, PAGE 120

WETLAND IMPACT AREA "W17-1" (0.74 AC)

WETLAND IMPACT AREA "Z18-1" (1.64 AC)

WETLAND IMPACT AREA "AA18" (0.18 AC)

KEYMAP

0 200 400
SCALE: FEET

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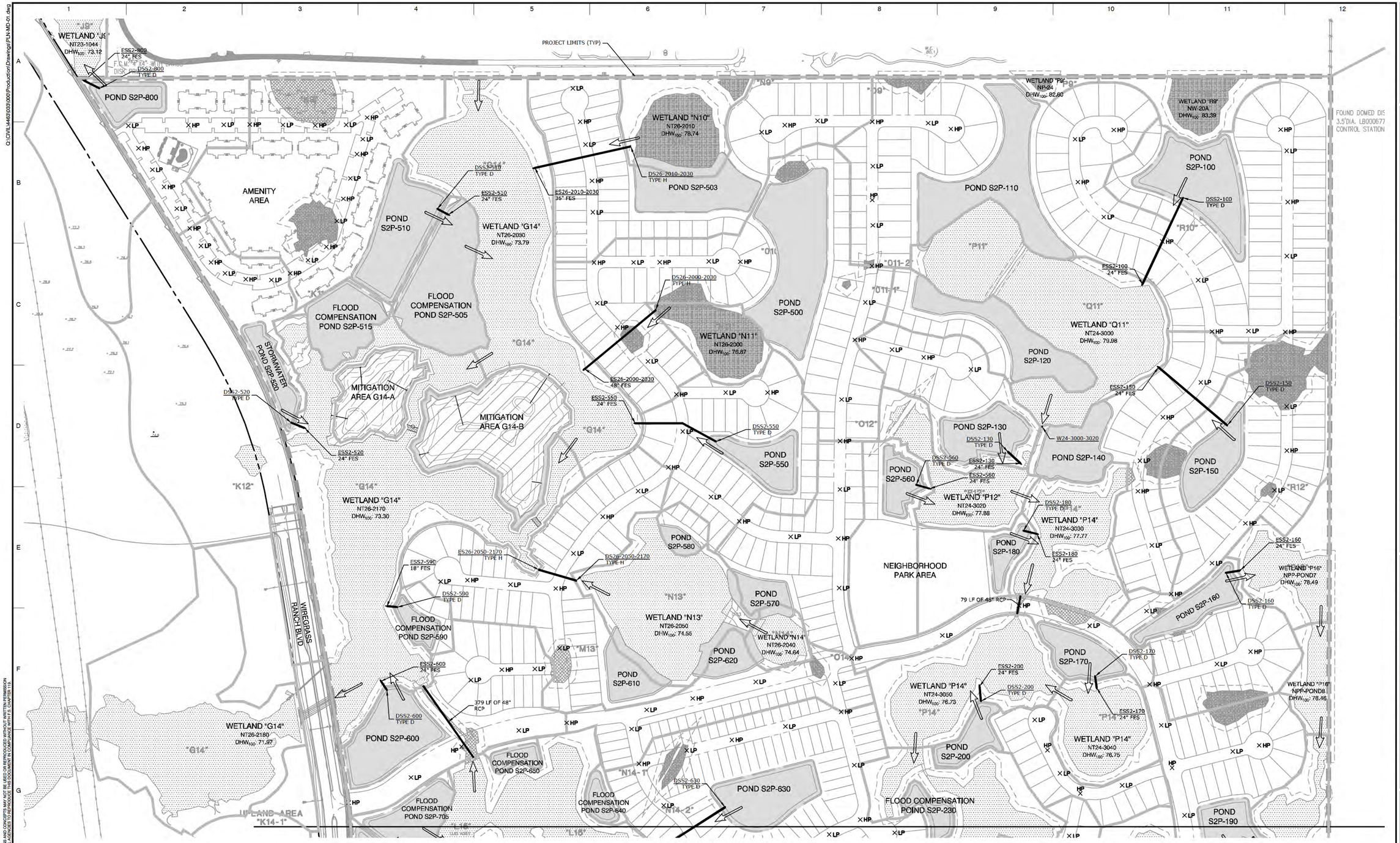
WIREGRASS PARCEL S2/S4
CONCEPTUAL PERMIT PLANS
LOCUST BRANCH, LLC
PASCO COUNTY, FLORIDA
MASTER ENVIRONMENTAL PLAN

JOB NO:	4463-033-000
DATE:	04/08/2016
SCALE:	AS SHOWN

C3.02

ACOE SUBMITTAL
APRIL 8, 2016



MATCHLINE - SEE SHEET C4.02

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NO.	DATE	REVISION	BY

WIREGRASS PARCEL S2/S4
CONCEPTUAL PERMIT PLANS
LOCUST BRANCH, LLC
PASCO COUNTY, FLORIDA
MASTER DRAINAGE PLAN

JOB NO:	4463-033-000
DATE:	04/08/2016
SCALE:	AS SHOWN

C4.01

ACOE SUBMITTAL
APRIL 8, 2016

Q:\CIVIL\4463\033\000\Production\Drawings\PLN_MD-01.dwg

MATCHLINE - SEE SHEET C4.01

POND S2P-700

ESS2-700 24" FES

DSS2-700 TYPE D

FLOOD COMPENSATION POND S2P-660

FLOOD COMPENSATION POND S2P-670

ESS2-630 24" FES

FLOOD COMPENSATION POND S2P-240

FLOOD COMPENSATION POND S2P-201

FLOOD COMPENSATION POND S2P-200

DSS2-220 TYPE D

ESS2-210 24" FES

POND S2P-220

DSS2-190 TYPE D

ESS2-190 24" FES

WETLAND "P16" NT24-3070 DHW100: 77.14

WETLAND "P16" NT24-3060 DHW100: 75.02

WETLAND "L15" NT26-2110 DHW100: 73.30

WETLAND "L15" NT26-2100 DHW100: 73.79

WETLAND "P16" NT24-3103 DHW100: 74.77

POND S2P-205

DSS2-205 TYPE D

ESS2-205 24" FES

(3) 103 LF OF 48" RCP

NEIGHBORHOOD PARK AREA

207 LF OF 54" RCP

WETLAND "P16" NT24-3104 DHW100: 74.73

WETLAND "P16" NT24-3080 DHW100: 74.87

DSS2-250 TYPE D

ESS2-250 24" FES

POND S2P-250

ESS-CR6 24" FES

DS-CR6 TYPE D

WIREGRASS RANCH BLVD

FLOOD COMPENSATION POND S2P-680

ESS2-680 24" FES

FLOOD COMPENSATION POND S2P-675

WETLAND "P16" NT24-3105 DHW100: 74.70

POND CR-6

POND S2P-680

DSS2-680 TYPE D

WETLAND "M17" NT26-2120N DHW100: 73.23

(3) 140 LF OF 48" RCP

CHANCEY ROAD

(2) 140 LF OF 48" RCP

W-FC-02

W-FC-01

WETLAND "N17" NT24-3106 DHW100: 73.07

140 LF OF 48" X 36" BOX CULVERT (MAMMAL CROSSING)

140 LF OF 48" X 36" BOX CULVERT (MAMMAL CROSSING)

WETLAND "O18" NT24-3300 DHW100: 73.06

WETLAND "J17" NT26-2130 DHW100: 72.40

WETLAND "M17" NT26-2120 DHW100: 72.40

WREC SUBSTATION

PROJECT LIMITS (TYP)

100' FLORIDA POWER CORPORATION EASEMENT
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POND S4P-100

DSS4-100 TYPE D

ESS4-100 36" FES

POND S4P-110

ESS4-110 24" FES

DSS4-110 TYPE D

WETLAND "R18" NT24-3275 DHW100: 76.31

(2) 197 LF OF 42" RCP

(2) 143 LF OF 36" RCP

WETLAND "R19" NT24-3280 DHW100: 74.19

WETLAND "S17" NT24-3220N DHW100: 76.87

ES-CR7 24" FES

DS-CR7 24" FES

POND CR-7

ES-4000-3220N 48" FES

WETLAND "S18" NT24-3220S DHW100: 75.90

POND S4P-120

ESS4-120 24" FES

DSS4-120 TYPE D

DS-3215-3220N TYPE H

ES-3215-3220N 36" FES

DSS4-130 TYPE D

ESS4-130 24" FES

POND S4P-130

MATCHLINE - SEE THIS SHEET

MATCHLINE - SEE THIS SHEET

WETLAND "V16" NC-4005 DHW100: 84.45

F.I.P. 1-1/4" "W16"

SURFACE WATER "L16" NC-4000 DHW100: 84.48

296 LF OF 42" RCP

WETLAND "X16" NC-4008 DHW100: 84.63

F.O.P. 1" 19.41'W & 1.89'S OF PL

WETLAND "AA16" WCB-30 DHW100: 82.94

WETLAND "Z16" NC-4020 DHW100: 83.55

MITIGATION AREA AA16-1

WETLAND "Y17" NC-4010 DHW100: 84.31

POND S4P-130

DSS4-140 TYPE D

POND S4P-140

ESS4-140 36" FES

DS-CR8 TYPE D

ES-CR8 18" FES

ES-CR9 18" FES

DS-CR9 TYPE D

WETLAND "W17" NC-4035 DHW100: 83.92

POND CR-8

POND CR-9

ES-CR10 24" FES

DS-CR10 TYPE D

MITIGATION AREA AA16-2

WETLAND "Z18" NC-4025W DHW100: 83.35

POND CR-10

WETLAND "Z19" NC-4025 DHW100: 83.49

PROJECT LIMITS (TYP)

100' FLORIDA POWER CORPORATION EASEMENT
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CHANCEY ROAD

DS-4080-3220N TYPE H

140 LF OF 36" RCP

140 LF OF 18" RCP

148 LF OF 48" RCP

WETLAND "Z19" NC-4030 DHW100: 82.60

WETLAND "X18" NC-4040 DHW100: 84.07

0 200 400
SCALE: FEET

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Engineering License #2610

NO.	DATE	REVISION	BY

WIREGRASS PARCEL S2/S4
CONCEPTUAL PERMIT PLANS
LOCUST BRANCH, LLC
PASCO COUNTY, FLORIDA
MASTER DRAINAGE PLAN

JOB NO:	4463-033-000
DATE:	04/08/2016
SCALE:	AS SHOWN

C4.02

ACOE SUBMITTAL
APRIL 8, 2016