

**APPROVED JURISDICTIONAL DETERMINATION FORM**  
**U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 13 July 2017**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER:** Galveston District, SWG-2015-00876, Wetlands and perennial stream

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: Texas County/Parish: Montgomery City: Conroe

Center coordinates of site (lat/long in degree decimal format, NAD-83): Lat. SEE TABLE "A"° N, Long. SEE TABLE "A"° W;

Universal Transverse Mercator: UTM: 15N, SEE TABLE "A" N., SEE TABLE "A" E., NAD: 83

Name of nearest water body: White Oak Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: West Fork San Jacinto River

Name of watershed or Hydrologic Unit Code (HUC): White Oak Creek-West Fork San Jacinto River 120401010104

- Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.  
 Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

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

- Office (Desk) Determination. Date: 7 March 2017  
 Field Determination. Date(s): 14 March 2017

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION.**

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

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

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION.**

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

**1. Waters of the U.S.**

**a. Indicate presence of waters of U.S. in review area (check all that apply):<sup>1</sup>**

- TNWs, including territorial seas  
 Wetlands adjacent to TNWs  
 Relatively permanent waters<sup>2</sup> (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: 71 linear feet: --width (ft) and/or -- acres

Wetlands: Approximately 0.11 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):<sup>3</sup>**

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

<sup>2</sup> 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).

<sup>3</sup> Supporting documentation is presented in Section III.F.

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.  
Explain:

### 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, fill out Section III.D.2 and 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 water body<sup>4</sup> is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the water body 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: 5488.2105 square miles

Drainage area: 1695.143 acres

Average annual rainfall: 49.1 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 2-5 river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 1-2 aerial (straight) miles from TNW.

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

Project waters cross or serve as state boundaries. Explain:

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

Identify flow route to TNW<sup>5</sup>: White Oak Creek flows 2.39-miles south-southwest to a convergence with the West Fork San Jacinto River, which has historically been considered a TNW

Tributary stream order, if known: **The tributary is a 3rd order stream.**

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

**Tributary is:**  Natural  
 Artificial (man-made). Explain:  
 Manipulated (man-altered). Explain:

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

Average width: **25-35** feet  
Average depth: **0.5** feet  
Average side slopes: **Pick List**

**Primary tributary substrate composition (check all that apply):**

Silts  Sands  Concrete  
 Cobbles  Gravel  Muck  
 Bedrock  Vegetation. Type/% cover:  
 Other. Explain: **clay**

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

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Meandering**

Tributary gradient (approximate average slope): **Unknown** %

(c) **Flow:**

Tributary provides for: **Intermittent but not seasonal flow**

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

Describe flow regime: **perennial**

Other information on duration and volume: **flow during the site visit, flow data at Texas Commission of Environmental Quality(TCEQ) Surface Water Quality Monitoring (SWQM) station downstream shows consistent flow**

Surface flow is: **Pick List**. Characteristics:

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

Dye (or other) test performed:

Tributary has (check all that apply):

Bed and banks  
 OHWM<sup>6</sup> (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.<sup>7</sup> 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

<sup>5</sup> 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.

<sup>6</sup>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 water body'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.

<sup>7</sup>Ibid.

other (list):

**(iii) Chemical Characteristics:**

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

Explain: **Unknown**

Identify specific pollutants, if known: **Unknown**

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

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:
  - Federally Listed species. Explain findings:
  - Fish/spawn areas. Explain findings:
  - Other environmentally-sensitive species. Explain findings:
  - Aquatic/wildlife diversity. Explain findings:

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: 0.11 acres

Wetland type. Explain: Forested/Scrub shrub and emergent

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: At the time of site visit, small erosional features had eroded through the berm complexes that separated the wetlands and a flow was traced coming from the wetland at the higher elevations within the 100-year floodplain, through multiple swale-like wetlands to White Oak Creek. Two of these erosional features were observed and photographed

Surface flow is: **Overland sheetflow**

Characteristics:

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

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain:

Ecological connection. Explain:

Separated by berm/barrier. Explain: Appear to be a series of berms and swale-like wetlands (3 were noted at the southern portions of the project area western boundary), possibly former channels of White Oak Creek.

(d) Proximity (Relationship) to TNW

Project wetlands are 2-5 river miles from TNW.

Project waters are 1-2 aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **2-year or less** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **water was clear and colorless,**

Identify specific pollutants, if known: **Unknown**

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

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain: 30-50% cover, many wetland trees and shrubs
- Habitat for:
  - Federally Listed species. Explain findings:
  - Fish/spawn areas. Explain findings:
  - Other environmentally-sensitive species. Explain findings:
  - Aquatic/wildlife diversity. Explain findings:

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

All wetland(s) being considered in the cumulative analysis: **1**

Approximately (37) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Wet 1-Y	37		

Summarize overall biological, chemical and physical functions being performed:

**The Corps found sufficient site specific evidence/data to support the statement that these waters (within this reach) provide more than speculative or insubstantial effect upon the biological, chemical, and physical integrity of the downstream TNW located 2.39-miles downstream. The National Wetland Inventory (NWI) map identifies 37-acres of forested scrub/shrub wetlands within this approximately 5.37-miles relative reach of White Oak Creek. The NWI also identifies riverine habitat of approximately 22-acres within this reach. A site visit identified a complex of swale and berm wetlands within the 100-year floodplain that extended perpendicular to White Oak Creek the entire length within the project area and likely extend both north and south of the project area within the floodplain. These wetlands are not represented in the NWI map. White Oak Creek also had 1-2-feet of fringing wetlands throughout much of the project area, and could be seen at different locations to the north and south of the project area, within the reach. There are numerous tributaries that feed into White Oak Creek to the north and south, prior to flowing into West Fork San Jacinto River, historically noted as a TNW.**

**Numerous monitoring stations on the West Fork San Jacinto River report elevated bacteria levels, and some of these stations are well downstream of the White Oak Creek reach being considered. However, a Surface Water Quality Management Station on the southern portion of this relative reach offers evidence that the water quality of White Oak Creek is within EPA standards, as White Oak Creek is not listed as an impaired water by the EPA. This data suggests that the aquatic resources within this reach (White Oak Creek, from the convergence of East and West Fork White Oak Creek to the convergence with the West Fork San Jacinto River) provide a chemical function more than speculative or insubstantial amount to affect the chemical integrity of the downstream TNW located 2.39-miles downstream. However, without more data, this cannot be correlated and is speculative.**

**Within this reach there are approximately 5.37-miles of White Oak Creek, a perennial stream with fringing wetland located entirely inside the mapped floodplain. There is also approximately 37-acres of shrub/forested wetlands and approximately 22-acres of riverine habitat. These forested/shrub wetlands neighbor and are within the 100-year floodplain. There is evidence that much flood plain storage capacity is being provided by the appx. 37-acres wetlands located within the mapped floodplain in this reach, and there is substantial sediment load reduction by these aquatic resources during the seasonal rainfall events. It is the Corps opinion there is sufficient evidence that the aquatic resources within this review area provide more than a speculative or insubstantial effect upon the physical attributes for the downstream TNW located 2.39-miles downstream .**

There may or may not be species found in this review area that require these aquatic resources within this reach/review area and the waters of the TNW (2.39-miles downstream) to full fill their life cycle requirements . The hydrologic regime for this reach is perennial and does not limit the aquatic species that require these aquatic resources and the the perennial waters of the TNW to fulfill their lifecycle requirements . Since the hydroperiod for this reach could be described as perennial, as well as precipitation driven and the flow regime is perennial, there is little speculation associated with stating that aquatic biotic species would require both , the TNW located 2.39-miles downstream and the aquatic resources within this reach to fulfill their lifecycle requirements. As such, it is the Corps conclusion that MORE information is needed to support the ascertainment that this reach provides more than a speculative or insubstantial effect upon the biological integrity of the downstream TNW, located approximately 2.39-miles away.

In conclusion, it is the Corps opinion that there is sufficient evidence to support the statement that the aquatic resources within this reach (including the 5.37-miles of White Oak Creek with associated fringing wetlands and approximate 37-acres of scrub-shrub/forested wetlands, and 22-acres of riverine habitat) could provide a significant nexus (more than speculative or insubstantial) effect upon the chemical and biological integrity of the downstream TNW, it does provide a significant nexus (more than speculative or insubstantial) effect on the physical integrity of the downstream TNW located 2.39-miles downstream. As such, this reach of White Oak Creek does have a significant nexus with West Fork San Jacinto River.

### 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:

**Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: The Corps found sufficient site specific evidence/data to support the statement that these waters (within this reach) provide more than speculative or insubstantial effect upon the biological, chemical, and physical integrity of the downstream TNW located 2.39-miles downstream. The National Wetland Inventory (NWI) map identifies 37-acres of forested scrub/shrub wetlands within this approximately 5.37-miles relative reach of White Oak Creek. The NWI also identifies riverine habitat of approximately 22-acres



within this reach. A site visit identified a complex of swale and berm wetlands within the 100-year floodplain that extended perpendicular to White Oak Creek the entire length within the project area and likely extend both north and south of the project area within the floodplain. These wetlands are not represented in the NWI map. White Oak Creek also had 1-2-feet of fringing wetlands throughout much of the project area, and could be seen at different locations to the north and south of the project area, within the reach. There are numerous tributaries that feed into White Oak Creek to the north and south, prior to flowing into West Fork San Jacinto River, historically noted as a TNW.

Numerous monitoring stations on the West Fork San Jacinto River report elevated bacteria levels, and some of these stations are well downstream of the White Oak Creek reach being considered. However, a Surface Water Quality Management Station on the southern portion of this relative reach offers evidence that the water quality of White Oak Creek is within EPA standards, as White Oak Creek is not listed as an impaired water by the EPA. This data suggests that the aquatic resources within this reach (White Oak Creek, from the convergence of East and West Fork White Oak Creek to the convergence with the West Fork San Jacinto River) provide a chemical function more than speculative or insubstantial amount to affect the chemical integrity of the downstream TNW located 2.39-miles downstream. However, without more data, this cannot be correlated and is speculative.

Within this reach there are approximately 5.37-miles of White Oak Creek, a perennial stream with fringing wetland located entirely inside the mapped floodplain. There is also approximately 37-acres of shrub/forested wetlands and approximately 22-acres of riverine habitat. These forested/shrub wetlands neighbor and are within the 100-year floodplain. There is evidence that much flood plain storage capacity is being provided by the appx. 37-acres wetlands located within the mapped floodplain in this reach, and there is substantial sediment load reduction by these aquatic resources during the seasonal rainfall events. It is the Corps opinion there is sufficient evidence that the aquatic resources within this review area provide more than a speculative or insubstantial effect upon the physical attributes for the downstream TNW located 2.39-miles downstream .

There may or may not be species found in this review area that require these aquatic resources within this reach/review area and the waters of the TNW (2.39-miles downstream) to full fill their life cycle requirements . The hydrologic regime for this reach is perennial and does not limit the aquatic species that require these aquatic resources and the the perennial waters of the TNW to fulfill their lifecycle requirements . Since the hydroperiod for this reach could be described as perennial, as well as precipitation driven and the flow regime is perennial, there is little speculation associated with stating that aquatic biotic species would require both , the TNW located 2.39-miles downstream and the aquatic resources within this reach to fulfill their lifecycle requirements. As such, it is the Corps conclusion that more information is needed to support the ascertainment that this reach provides more than a speculative or insubstantial effect upon the biological integrity of the downstream TNW, located approximately 2.39-miles away.

3. In conclusion, it is the Corps opinion that there is sufficient evidence to support the statement that the aquatic resources within this reach (including the 5.37-miles of White Oak Creek with associated fringing wetlands and approximate 37-acres of scrub-shrub/forested wetlands, and 22-acres of riverine habitat) could provide a significant nexus (more than speculative or insubstantial) effect upon the chemical and biological integrity of the downstream TNW, it does provide a significant nexus (more than speculative or insubstantial) effect on the physical integrity of the downstream TNW located 2.39-miles downstream. As such, this reach of White Oak Creek does have a significant nexus with West Fork San Jacinto River.

**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: In all aerial imagery, White Oak Creek has water visible. During the site visit, water flow was brisk, visible. FEMA Floodway Data for Montgomery County and TCEQ SWQM Stations data for Station ID: 20731

White Oak Creek and its two upstream segments, the White Oak Creek North and White Oak Creek West, converge at a point approximately 0.25-miles north of the project location. These combined perennial stream segments flow into West Fork San Jacinto, which is listed as an EPA Impaired water. The Corps found sufficient site specific evidence/data to support the statement that these waters (within this reach) provide more than speculative or insubstantial effect upon the physical integrity of the downstream TNW located 2.39-miles downstream. There are numerous waterways and tributaries that feed into White Oak Creek North, White Oak Creek East, and White Oak Creek prior to it reaching the West Fork San Jacinto River, a TNW. There is adequate data and information that would support that these aquatic resources within this reach (a 3rd order perennial tributary and adjacent wetlands) provide more than speculative or insubstantial amount of physical attributes that would affect the physical integrity of the downstream TNW located 2.39-miles downstream.

In conclusion, it is the Corps opinion that there is sufficient evidence to support the statement that the aquatic resources within this reach (including the 37-acres wetland and relatively permanent water) provide a significant nexus (more than speculative or insubstantial) effect upon the chemical, physical and/or biological integrity of the downstream TNW located 2.39-miles downstream. Therefore these aquatic resources would be classified as "water of the United States" subject to federal jurisdiction under Section 404 of the Clean Water Act.

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: **approximately 1507** linear feet **approximately 20-35** width (ft)  
 Other non-wetland waters: **approximately 0.01** acres  
Identify type(s) of waters: **fringing wetlands**

**3. Non-RPWs<sup>8</sup> that flow directly or indirectly into TNWs.**

- Water body that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

- Tributary waters: linear feet width (ft).  
 Other non-wetland waters: acres  
Identify type(s) of waters:

**4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

<sup>8</sup>See Footnote # 3.



- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - Prior to the Jan 2001 Supreme Court decision in “SWANCC,” the review area would have been regulated based solely on the “Migratory Bird Rule” (MBR).
    - Waters do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction. Explain:
- Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

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

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction (check all that apply):

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

**SECTION IV: DATA SOURCES.**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- 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: **14 March 2017**
- Corps navigable waters’ study:
- U.S. Geological Survey Hydrologic Atlas: **White Oak Creek-West Fork San Jacinto River 120401010104**
  - USGS NHD data
  - USGS 8 and 12 digit HUC maps
- Galveston District’s Approved List of Navigable Waters
- U.S. Geological Survey map(s). Cite scale & quad name: **1:24,000 Shephard Hill, Cowl Spur, Conroe**
- USDA Natural Resources Conservation Service Soil Survey. Citation: **1978 Montgomery County, Texas Soil Survey**
- National wetlands inventory map(s). Cite name: **USFWS NWI map**
- State/Local wetland inventory map(s):
- FEMA/FIRM maps: **48339C0360G, Published 18 August 2014**
- 100-year Floodplain Elevation is:      (National Geodectic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): **1995-2017 Google Earth aerials, 2017 Digital Globe**  
or  Other (Name & Date):
- Previous determination(s). File no. and date of response letter: **SWG 2006-00272, Mailed 29 September 2006**
- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify): **FEMA Floodway Data**

**B. ADDITIONAL COMMENTS TO SUPPORT JD:** A previous jurisdictional determination, SWG 2006-00272, was located for a larger tract of land that included a portion of this project area. Specific to this project area, the determination found that there was 0.117-acre of fringing wetlands and identified 0.77-acre of White Oak Creek as an ephemeral stream. This jurisdictional determination is expired and data obtained off-site and during the site visit identifies White Oak Creek as a perennial stream and Relatively Permanent Water of the United States.

The Corps found sufficient site specific evidence/data to support the statement that these waters (within this reach) provide more than speculative or insubstantial effect upon the biological, chemical, and physical integrity of the downstream TNW located 2.39-miles downstream. The National Wetland Inventory (NWI) map identifies 37-acres of forested scrub/shrub wetlands within this approximately 5.37-

miles relative reach of White Oak Creek. The NWI also identifies riverine habitat of approximately 22-acres within this reach. A site visit identified a complex of swale and berm wetlands within the 100-year floodplain that extended perpendicular to White Oak Creek the entire length within the project area and likely extend both north and south of the project area within the floodplain. These wetlands are not represented in the NWI map. White Oak Creek also had 1-2-feet of fringing wetlands throughout much of the project area, and could be seen at different locations to the north and south of the project area, within the reach. There are numerous tributaries that feed into White Oak Creek to the north and south, prior to flowing into West Fork San Jacinto River, historically noted as a TNW.

Numerous monitoring stations on the West Fork San Jacinto River report elevated bacteria levels, and some of these stations are well downstream of the White Oak Creek reach being considered. However, a Surface Water Quality Management Station on the southern portion of this relative reach offers evidence that the water quality of White Oak Creek is within EPA standards, as White Oak Creek is not listed as an impaired water by the EPA. This data suggests that the aquatic resources within this reach (White Oak Creek, from the convergence of East and West Fork White Oak Creek to the convergence with the West Fork San Jacinto River) provide a chemical function more than speculative or insubstantial amount to affect the chemical integrity of the downstream TNW located 2.39-miles downstream. However, without more data, this cannot be correlated and is speculative.

Within this reach there are approximately 5.37-miles of White Oak Creek, a perennial stream with fringing wetland located entirely inside the mapped floodplain. There is also approximately 37-acres of shrub/forested wetlands and approximately 22-acres of riverine habitat. These forested/shrub wetlands neighbor and are within the 100-year floodplain. There is evidence that much flood plain storage capacity is being provided by the appx. 37-acres wetlands located within the mapped floodplain in this reach, and there is substantial sediment load reduction by these aquatic resources during the seasonal rainfall events. It is the Corps opinion there is sufficient evidence that the aquatic resources within this review area provide more than a speculative or insubstantial effect upon the physical attributes for the downstream TNW located 2.39-miles downstream .

There may or may not be species found in this review area that require these aquatic resources within this reach/review area and the waters of the TNW (2.39-miles downstream) to full fill their life cycle requirements . The hydrologic regime for this reach is perennial and does not limit the aquatic species that require these aquatic resources and the the perennial waters of the TNW to fulfill their lifecycle requirements . Since the hydroperiod for this reach could be described as perennial, as well as precipitation driven and the flow regime is perennial, there is little speculation associated with stating that aquatic biotic species would require both , the TNW located 2.39-miles downstream and the aquatic resources within this reach, to fulfill their lifecycle requirements. As such, it is the Corps conclusion that more information is needed to support the ascertainment that this reach provides more than a speculative or insubstantial effect upon the biological integrity of the downstream TNW, located approximately 2.39-miles away.

In conclusion, it is the Corps opinion that there is sufficient evidence to support the statement that the aquatic resources within this reach (including the 5.37-miles of White Oak Creek with associated fringing wetlands and approximate 37-acres of scrub-shrub/forested wetlands, and 22-acres of riverine habitat) could provide a significant nexus (more than speculative or insubstantial) effect upon the chemical and biological integrity of the downstream TNW, these resources do provide a significant nexus (more than speculative or insubstantial) effect on the physical integrity of the downstream TNW located 2.39-miles

downstream. As such, this reach of White Oak Creek does have a significant nexus with West Fork San Jacinto River

Table A: SWG 2015-00876-Alleged UA, Savannah Development

Wetland ID	Latitude	Longitude	Easting	Northing	Appx. Size (Acres)	Appx. Distance (feet) Nearest water	Appx. Distance (miles) Nearest Nav Water (W Fork San Jacinto)
NW 1	30.346059°	-95.505250°	259179.34	3359793.52	0.03	110	1.90
NW 2	30.346080°	-95.505382°	259166.70	3359796.13	0.02	70	1.90
SW 1	30.343171°	-95.505387°	259159.09	3359473.63	0.03	96	1.70
SW 2	30.343253°	-95.505148°	259182.27	3359482.22	0.02	161	1.71
SW 3	30.343290°	-95.505023°	259194.00	3359486.00	0.01	202	1.72
Total Approximate Wetland Acreage					0.11		

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