

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): Name

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Galveston District, SWG-2012-00797, Proposed Sabine Lake Mitigation Bank

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Texas County/Parish: Jefferson City: Fannett
Center coordinates of site (lat/long in degree decimal format, NAD-83): Lat. see table^o N, Long. see attached table^o W;
Universal Transverse Mercator: UTM: 15, see attached table N., see attached table E., NAD: 83
Name of nearest water body: North Fork Taylor's Bayou
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: North Fork Taylor's bayou
Name of watershed or Hydrologic Unit Code (HUC): 12040201

- 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: 3 November 2016
 Field Determination. Date(s): 11 August 2016

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

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

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

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
 Wetlands adjacent to TNWs
 Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
 Non-RPWs that flow directly or indirectly into TNWs
 Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 Impoundments of jurisdictional waters
 Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or **appx 1.4** acres
Wetlands: **1.5** 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:

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, 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 body⁴ 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: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: 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 **Pick List** river miles from TNW.

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

Project waters are **Pick List** 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: **N/A**

Identify flow route to TNW⁵: **North Fork of Taylor's Bayou (adj to the wetlands on this site) is an RPW that becomes a TNW down strem within the lower portion of this reach (south of SH 124)**

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: **3**

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

Tributary is: Natural
 Artificial (man-made). Explain:
 Manipulated (man-altered). Explain: **Currently being channelized (with a DA permit) with new berm construction.**

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

Average width: **60-70** feet
Average depth: 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:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **North Fork is being channelized with new berm construction.**

Presence of run/riffle/pool complexes. Explain: **N/A**

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **1**

Describe flow regime: **perennial**

Other information on duration and volume: **Tributary is relatively permanent and appears to have perennial flow.**

Surface flow is: **Confined**. Characteristics:

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

Dye (or other) test performed:

Tributary has (check all that apply):

Bed and banks
 OHWM⁶ (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: **North Fork of Taylors Bayou is listed for portion being a 303(d) water.**

Identify specific pollutants, if known: **Pollutants are unknown**

⁶A 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.

⁷Ibid.

(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: **See attached table** acres

Wetland type. Explain: **Palustrine**

Wetland quality. Explain: **There are 2 wetlands with the project boundary associated with this significant Nexus analysis. They are neighboring the North Fork of Taylors Bayou, on the upward edge of a northern farm fields. WA 1 if 0.4 acre in size and WA 2 is 1.1 acres in size.**

Project wetlands cross or serve as state boundaries. Explain: **N/a**

(b) General Flow Relationship with Non-TNW:

Flow is: **No Flow**. Explain:

Surface flow is: **Overland sheetflow**

Characteristics: **The wetlands are located within the anticipated high flow of North Fork of Taylors bayou (i.e. the 100-year floodplain).**

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: **The wetlands are located within the anticipated high flow of the North Fork of Taylors Bayou.**

Ecological connection. Explain:

Separated by berm/barrier. Explain: **The wetlands are separated by a berms from the Bayou.**

(d) Proximity (Relationship) to TNW

Project wetlands are **2-5** 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 **100 - 500-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:

Identify specific pollutants, if known:

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

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain: **forested and/or herbaceous**
- 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: **30 (or more)**

Approximately **(1000+)** 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>
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Summarize overall biological, chemical and physical functions being performed:

The flood plain is very vast through this reach (a 3rd order tributary perennial water withit being a TNW Southeast of SH 124) . It is appx 12+ mile long and converges with the South Fork of Taylors Bayou. There are greater than 1000 acres of numerous "other waters" and wetlands mapped through this reach within the mapped flood plain using the NWI. (see map)

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: **This significant nexus evaluation is for an approximate 12+ mile, third order, perennial stream (relatively permanent water and becomes a TNW within the southeastern portion of the reach) and greater than 1000 acres of adjacent wetlands. The reach begins at the confluence of North Fork of Taylors Bayou and Bridge Gully on the northwest end and terminates at the confluence with the South Fork of Taylors Bayou on the southeastern end. The Bayou is currently being channelized and new berms are being constructed on both sides. Both sides contain numerous acres of forested and agriculture fields (including greater than 1000 acres of adjacent wetlands).** There are two wetlands on the projet site (totaling 1.5 acres). WA 1 is appx 2.3 river miles or 2.2 aerial miles from the upper reaches of the TNW and WA 1 is appx 2.8 aerial miles or 3.0 river miles from the upper reaches of the TNW. It is also

noteworthy that there are numerous abandoned lentic agriculture ditches that pond for very long duration (totaling 1.4 acre) on the site. These wetlands within the project site are neighboring the North Fork of Taylors Bayou. They are located within the mapped 100-year floodplain of the North Fork of Taylors Bayou.

Based on our analysis, the Corps found evidence/data to support the statement that these waters (the relevant reach of North Fork of Taylors Bayou and all of the similarly situated adjacent wetlands with this reach) provide more than a speculative or insubstantial effect upon the chemical integrity of the downstream TNW (which is the lower portion of this reach of the North Fork of Taylors Bayou). There is a direct surface hydrologic connection between this approximate 12+ mile relevant reach of the Bayou (Noting the lower part is a TNW). There are 1,000+ acres of adjacent wetlands that provide important chemical sequestration impact/effect upon the waters as they flow through the adjacent wetlands and connect to the downstream TNW. Wetlands reduce and/or eliminate bacteria, thermal and chemical pollutants flowing into the RPW and/or into the TNW. The adjacent wetlands within this reach are situated in a farm fields and forested tracts. These wetlands sequester sediment and pollutants from the agricultural runoff. A portion of the North Fork of Taylors Bayou is listed as a 303(d) impaired water. Therefore, it is our determination that the aquatic resources within this relevant reach provide more than speculative or insubstantial effects that are inseparably bound to the chemical integrity of the downstream TNW.

The retention of water and retardation of overbank flooding associated with the 1,000+ acres of adjacent wetlands (including the 1.5-acres of wetlands) located within the relevant reach have an effect upon the physical attributes of the downstream TNW. These aquatic features provide greater than 1000 acres of floodplain storage which has a direct effect upon the velocity, duration and flow of waters into the downstream TNW. Increased and intense flow results in increased flooding and scouring, resulting in loss of property and affecting the physical integrity and attributes of the TNW. The effects of removing greater than 1,000 acres of abutting and neighboring wetlands will increase the velocity and flow (duration and frequency) into the downstream TNW. This will result in more than a speculative or insubstantial effect upon the physical attributes of the downstream TNW. Therefore, the aquatic resources within this relevant reach provide more than speculative or insubstantial effects that are inseparably bound to maintain the physical integrity of the downstream TNW.

There are no known species found in this review area that require the TNW and the neighboring wetlands to fulfill their life cycle requirements. The Bayou has aquatic organisms that travel through the waterway without impedence. Since a portion of the reach does contain a TNW is it SWG determination that species of fishes and/or invertebrates utilize the entire reach of the Bayou for portions of their life cycles and as such the aquatic resources within this reach do provide a significant nexus to the biological integrity of the downstream TNW (which is part of this review area). It is also noted that the abutting and neighboring wetlands aid in providing species habitat, shelter from predators, and detritus and nutrients as a food source. In conclusion, SWG has determined that there is sufficient evidence to support the statement that the aquatic resources within this approximate 12+-mile, 3rd order relevant reach of the North Fork of Taylors Bayou combined with the greater than 1000 acres of adjacent wetlands (including the 1.5 acres of adjacent wetlands on the tract) provide a more than speculative or insubstantial effect upon the chemical, physical and/or biological integrity of the downstream TNW (North Fork of Taylors Bayou, which is included in this review area). As such, it is our draft determination that the waters within this relevant reach and its adjacent wetlands are waters of the United States are subject to Section 404 of the Clean Water Act.

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: **North Fork of Taylors Bayou has perennial flow and is TNW at the lower portion (Below SH 124).**
- 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-RPW⁸ 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.

⁸See Footnote # 3.

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

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

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

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
- Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
- 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 jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: Approximately 1.5 acres

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

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

Provide estimates for jurisdictional wetlands in the review area: acres

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from “waters of the U.S.,” or
- Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- Demonstrate that water is isolated with a nexus to commerce (see E below).

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

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

Identify water body and summarize rationale supporting determination:

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

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

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

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.

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in “SWANCC,” the review area would have been regulated based solely on the “Migratory Bird Rule” (MBR).
- Waters do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction. Explain:
- Other: (explain, if not covered above):

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

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

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

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

SECTION IV: DATA SOURCES.

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

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: **RES**
- 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: **Site visit**
- Corps navigable waters’ study:
- U.S. Geological Survey Hydrologic Atlas:
 - 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 Fannett.**
- USDA Natural Resources Conservation Service Soil Survey. Citation:
- National wetlands inventory map(s). Cite name: **USFWS NWI**
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): **2010 to 2015 Google Earth**
 - or Other (Name & Date): **2009, 2015 Infrared; 2006 TWDB LiDAR Data**
- 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: TThis significant nexus evaluation is for an approximate 12+ mile, third order, perennial stream (relatively permanent water and becomes a TNW within the southeastern portion of the reach) and greater than 1000 acres of adjacent wetlands. The reach begins at the confluence of North Fork of Taylors Bayou and Bridge Gully on the northwest end and terminates at the confluence with the South Fork of Taylors Bayou on the southeastern end. The Bayou is currently being channelized and new berms are being constructed on both sides. Both sides contain numerous acres of forested and agriculture fields (including greater than 1000 acres of adjacent wetlands).

There are two wetlands on the project site (totaling 1.5 acres). WA 1 is appx 2.3 river miles or 2.2 aerial miles from the upper reaches of the TNW and WA 1 is appx 2.8 aerial miles or 3.0 river miles from the upper reaches of the TNW. It is also noteworthy that there are numerous abandoned lentic agriculture ditches that pond for very long duration (totaling 1.4 acre) on the site. These wetlands within the project site are neighboring the North Fork of Taylors Bayou. They are located within the mapped 100-year floodplain of the North Fork of Taylors Bayou. Based on our analysis, the Corps found evidence/data to support the statement that these waters (the relevant reach of North Fork of Taylors Bayou and all of the similarly situated adjacent wetlands with this reach) provide more than a speculative or insubstantial effect upon the chemical integrity of the downstream TNW (which is the lower portion of this reach of the North Fork of Taylors Bayou). There is a direct surface hydrologic connection between this approximate 12+ mile relevant reach of the Bayou and the TNW (Noting the lower part is a TNW). There are 1,000+ acres of adjacent wetlands that provide important chemical sequestration impact/effect upon the waters as they

flow through the adjacent wetlands and connect to the downstream TNW. Wetlands reduce and/or eliminate bacteria, thermal and chemical pollutants flowing into the RPW and/or into the TNW. The adjacent wetlands within this reach are situated in a farm fields and forested tracts. These wetlands sequester sediment and pollutants from the agricultural runoff. A portion of the North Fork of Taylors Bayou is listed as a 303(d) impaired water. Therefore, it is our determination that the aquatic resources within this relevant reach provide more than speculative or insubstantial effects that are inseparably bound to the chemical integrity of the downstream TNW.

The retention of water and retardation of overbank flooding associated with the 1,000+ acres of adjacent wetlands (including the 1.5-acres of wetlands) located within the relevant reach have an effect upon the physical attributes of the downstream TNW. These aquatic features provide greater than 1000 acres of floodplain storage which has a direct effect upon the velocity, duration and flow of waters into the downstream TNW. Increased and intense flow results in increased flooding and scouring, resulting in loss of property and affecting the physical integrity and attributes of the TNW. The effects of removing greater than 1,000 acres of abutting and neighboring wetlands will increase the velocity and flow (duration and frequency) into the downstream TNW. This will result in more than a speculative or insubstantial effect upon the physical attributes of the downstream TNW. Therefore, the aquatic resources within this relevant reach provide more than speculative or insubstantial effects that are inseparably bound to maintain the physical integrity of the downstream TNW.

There are no known species found in this review area that require the neighboring wetlands and the waters of the TNW to fulfill their life cycle requirements. The Bayou has aquatic organisms that travel through the waterway without impedence. Since a portion of the reach does contain a TNW it is SWG determination that species of fishes and/or invertebrates utilize the entire bayou reach for portions of their life cycles and as such the aquatic resources within this reach do provide a significant nexus to the biological integrity of the downstream TNW (which is part of this review area). urces within this relevant reach and the waters of the TNW to fulfill life cycle requirements. It is also noted that the abutting and neighboring wetlands aid in providing species habitat, shelter from predators, and detritus and nutrients as a food source.

In conclusion, SWG has determined that there is sufficient evidence to support the statement that the aquatic resources within this approximate 12+-mile, 3rd order relevant reach of the North Fork of Taylors Bayou combined with the greater than 1000 acres of adjacent wetlands (including those 1.5 acres of adjacent wetlands on the tract) provide a more than speculative or insubstantial effect upon the chemical, physical and/or biological integrity of the downstream TNW (North Fork of Taylors Bayou, which is included in this review area). As such, it is our draft determination that the waters within this relevant reach and its adjacent wetlands are waters of the United States are subject to Section 404 of the Clean Water Act.

TABLE 1

Name	Lat	Long	Size	Distance to TNW
WA 1	29.91246	-94.31328	0.4	2.8 miles
WA 2	29.91601	-94.30171	1.1	2.2 miles