**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): 02/28/2023**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER: SWG-2019-00857, HCFCD,**

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**
State: Texas County/parish/borough: Harris City: Houston
Center coordinates of site (lat/long in degree decimal format): Lat. 30.019721° **N**, Long. 95.492369° **W**.
Universal Transverse Mercator: 259626.19E, 3323587.27N; UTM zone 15R
Name of nearest waterbody: Cypress Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Cypress Creek
Name of watershed or Hydrologic Unit Code (HUC): Buffalo-San Jacinto (12040104)
☒ 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: Revised 01/17/2023
☐ Field Determination. Date(s):

**SECTION II: SUMMARY OF FINDINGS**

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

There **Are** "*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: The section of Cypress Creek in the review area is listed by USACE-SWG as a Navigable Water subject to Section 10 of the Rivers and Harbors act of 1899 due to its susceptibility for use to transport interstate or foreign commerce.

**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: 5,652 linear feet: width (ft) and/or 6.690 acres.
Wetlands: 1.748 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: **See below and attached Table 2 for the list of non-jurisdictional waters identified.**

[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.

**Non-Regulated Waters - No Direct or Indirect Connection**

**One non-RPW (Stream 7) does not directly or indirectly convey water into a TNW (Cypress Creek, Stream 1) and is therefore a non-regulated water. Non-regulated waters are included in Table 2.**

**Non-Regulated Waters - No Significant Nexus**

**There is an indirect surface hydrologic connection between the approximate 1,300-foot relevant reach of non-RPW, Stream 9, flowing through a drainage inlet structure into a buried culvert which then conveys surface water directly into the nearest TNW, Cypress Creek. Stream 9, has no adjacent wetlands and it does not substantively aid in the reduction of thermal and chemical pollutants flowing into Cypress Creek. The relevant reach does not have any adjacent wetlands to retain floodwaters. Therefore, this relevant reach does not provide benefits to the physical integrity of Cypress Creek by reducing velocities during overbank events, or stabilizing soils. This relevant reach could contribute to erosion and sedimentation within the Cypress Creek, however, this would be speculative based on the length on the relevant reach and the distance to the TNW. There are no adjacent wetlands along this relevant reach to produce detritus and organics as a food source for downstream aquatic organisms. It is doubtful that the relevant reach has aquatic organisms that require this relevant reach and the TNW. Therefore, we could not conclude that the relevant reach has more than a speculative or insubstantial effect on the biological integrity of Cypress Creek.**

**There is an indirect surface hydrologic connection between the approximate 152-foot relevant reach of non-RPW, Stream 10, reaching Stream 9 and flowing through a drainage inlet structure into a buried culvert which then directly conveys surface water into the nearest TNW, Cypress Creek. Stream 10, has no adjacent wetlands within the relevant reach, it is unlikely that this ephemeral stream substantively aids in the reduction of thermal and chemical pollutants flowing into Cypress Creek. The relevant reach does not have any adjacent wetlands to retain floodwaters. Therefore, this relevant reach does not provide benefits to the physical integrity of Cypress Creek by reducing velocities during overbank events, or stabilizing soils. This relevant reach could contribute to erosion and sedimentation within Cypress Creek, however, this would be speculative based on the length on the relevant reach and the distance to the TNW. There are no adjacent wetlands along this relevant reach to produce detritus and organics as a food source for downstream aquatic organisms. It is doubtful that the relevant reach has aquatic organisms that require this relevant reach and the TNW. Therefore, we could not conclude that the relevant reach has more than a speculative or insubstantial effect on the biological integrity of Cypress Creek**

**There is a direct surface hydrologic connection between the approximate 2,261-foot relevant reach of non-RPW Stream 11_12, which conveys surface water into the nearest TNW, Cypress Creek. Stream 11_12, has no adjacent wetlands within the relevant reach, it is unlikely that this ephemeral stream substantively aids in the reduction of thermal and chemical pollutants flowing into Cypress Creek. The relevant reach does not have any adjacent wetlands to retain floodwaters. Therefore, this relevant reach does not provide benefits to the physical integrity of Cypress Creek by reducing velocities during overbank events, or stabilizing soils. This relevant reach could contribute to erosion and sedimentation within Cypress Creek, however, this would be speculative based on the length on the relevant reach and the distance to the TNW. There are no adjacent wetlands along this relevant reach to produce detritus and organics as a food source for downstream aquatic organisms. It is doubtful that the relevant reach has aquatic organisms that require this relevant reach and the TNW. Therefore, we could not conclude that the relevant reach has more than a speculative or insubstantial effect on the biological integrity of Cypress Creek. There are no adjacent wetlands along this relevant reach to produce detritus and organics as a food source for downstream aquatic organisms. It is doubtful that the relevant reach has aquatic organisms that require this relevant reach and the TNW. Therefore, we could not conclude that the relevant reach has more than a speculative or insubstantial effect on the biological integrity of Cypress Creek.**

**There is a direct surface hydrologic connection between the approximate 238-foot relevant reach of non-RPW Stream 13, which conveys surface water into the nearest TNW, Cypress Creek. Stream 13, has no adjacent wetlands, within the relevant reach, it is unlikely that this ephemeral stream substantively aids in the reduction of thermal and chemical pollutants flowing into Cypress Creek. The relevant reach does not have any adjacent wetlands to retain floodwaters. Therefore, this relevant reach does not provide benefits to the physical integrity of Cypress Creek by reducing velocities during overbank events, or stabilizing soils. This relevant reach could contribute to erosion and sedimentation within Cypress Creek, however, this would be speculative based on the length on the relevant reach and the distance to the TNW.**

**In conclusion, it is the Corps opinion that there is not sufficient evidence to support the statement that these relevant reaches provide a significant nexus (more than speculative or insubstantial) effect upon the chemical, physical, and/or biological integrity of the downstream TNW, Cypress Creek. Based on the significant nexus determination, we determined that these streams are not a water of the United States and is not subject to federal jurisdiction under Section 404 of the Clean Water Act. .**

**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: **Cypress Creek**.

Summarize rationale supporting determination: The section of Cypress Creek in the review area is listed by USACE-SWG as a Navigable Water subject to Section 10 of the Rivers and Harbors act of 1899.

**2. Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is "adjacent": All wetlands (1.748 acres) delineated within the review area were determined to be adjacent as they are located within the FEMA 100-year floodplain, and thus are hydrologically connected to the surface waters of Cypress Creek (the TNW) at the frequency associated with 100-year flood events. See Table 1 for a list of all wetlands identified in the review area.

**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:
Stream 9
Watershed size: 21.546 acres
Drainage area: 21.546 acres
Average annual rainfall: 45.28 inches
Average annual snowfall: 0 inches

Stream 10
Watershed size: 0.886 acres
Drainage area: 0.886 acres

Stream 11_12
Watershed size: 57.29 acres
Drainage area: 57.29 acres **Pick List**
Drainage area: **Pick List**

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

Average annual rainfall:
Stream 13
Watershed size: 9.49 acres
Drainage area: 9.49 acres inches
Average annual snowfall: inches

**(ii) Physical Characteristics:**

(a) Relationship with TNW:

☒ Tributary flows directly into TNW.
☒ Tributary flows through **2** tributaries before entering TNW.

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

Identify flow route to TNW[5]:
All non-RPWs listed in Table 1 flow either directly or indirectly into Cypress Creek, a TNW.

Stream 9 is a non-RPW and flows directly into Cypress Creek by way of an underground culvert.

Stream 10 is a non-RPW and flows indirectly into Cypress Creek. Water flows from Stream 10 into Stream 9, which flows into Cypress Creek by way of an underground culvert.

Stream 11_12 is a non-RPW and flows directly into Cypress Creek.

Stream 13 is a non-RPW and flows directly into Cypress Creek.
.

Tributary stream order, if known: Streams 9, 10, 11_12, and 13 are first order streams.
Tributary stream order, if known: .

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

**Tributary** is: ☒ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: Upstream portions of Stream 11_12 show evidence of straightening and channelization in the survey area..

**Tributary** properties with respect to top of bank (estimate):
Average width: 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: Tributaries generally have incised and eroded banks..
Presence of run/riffle/pool complexes. Explain: Tributaries primarily consist of run habitat, with water pooling in low areas in some ephemeral channels.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): <1 %

(c) Flow:

Tributary provides for: **Ephemeral flow**
Estimate average number of flow events in review area/year: **2-5**
Describe flow regime: Streams 9, 10, 11_12, and 13 exhibit ephemeral flow.
Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: All streams identified occurred within channels with a well defined OHWM.

[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.

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

☐ 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:

- ☐ oil or scum line along shore objects
- ☐ fine shell or debris deposits (foreshore)
- ☐ physical markings/characteristics
- ☐ tidal gauges
- ☐ other (list):

☐ Mean High Water Mark indicated by:

- ☐ survey to available datum;
- ☐ physical markings;
- ☐ vegetation lines/changes in vegetation types.

**(iii) Chemical Characteristics:**

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

Explain: Standing water was not present in streams 9, 10, 11_12, and 13 at the time of field visits.

Identify specific pollutants, if known: .

[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): The riparian corridor for all non TNW-streams is primarily forested, and ranges from zero to approximately 1-9 feet in 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: Ephemeral streams may provide habitat for invertebrates and amphibian species with short larval periods which require habitat free from fish predation. In addition, these streams have a dense / closed canopy cover and may providing water sources for invertebrate, bird, reptile, amphibian, and mammal species without requiring those species venture into open-canopied spaces, thereby risking exposure to predation..

**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: No wetlands identified in the Survey Area are abutting or situated adjacent to non-TNW (Stream 9, Stream 10, Stream 11_12, Stream 13) that flow directly or indirectly into TNW (Stream 1 – Cypress Creek). Table 1 contains details regarding the characteristics of these wetlands, 0 acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Ephemeral flow**. Explain: .

Surface flow is**: Overland sheetflow**

Characteristics: .

Subsurface flow: **Pick List**. 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: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

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

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** 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: .

☐ 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: **Pick List**

Approximately ( ) 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) |
|---|---|---|---|

Summarize overall biological, chemical and physical functions being performed: .

## 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: Non-RPW features Stream 9 and Stream 10 indirectly convey surface water into Cypress Creek, and Non-RPW features Stream 11_12 and Stream 13 both directly convey surface water flows directly into Cypress Creek. However, each of these non-RPWs has no amount of adjacent wetlands within their respective relevant reaches, thereby exhibiting a negative significant nexus. See Section IIB2 for additional information.

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: .

## 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: 5,652 linear feet width (ft), Or, 6.690 acres.
   - ☒ Wetlands adjacent to TNWs: 1.748 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: 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 jurisidictional. Data supporting this conclusion is provided at Section III.C.

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

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

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

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

**E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]**
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .

[8] See Footnote # 3.
[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.***

☐ 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: **Stream 9, Stream 10, Stream 11_12, and Stream 13 all have a direct or indirect surface water connection to a TNW (Cypress Creek). However, each of these non-RPWs has no small amount of adjacent wetlands, thereby exhibiting a negative significant nexus.**
☒ Other: (explain, if not covered above): **Stream 7 does not have a direct or indirect surface connection to a TNW (Cypress Creek).**

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): **3,951** linear feet, **4-8** width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

**SECTION IV: DATA SOURCES.**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply -** checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☒ Corps navigable waters' study: USACE list of Navigable Waters within the Galveston District Regulatory Boundaries.
☐ 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:1:24000 scale; Tomball, TX: Spring, TX: Satsuma, TX; and Aldine, TX quads..
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☒ National wetlands inventory map(s). Cite name:USFWS NWI mapper online.
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps:48201C.
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date):Aerial Imagery: Maxar, 1943, 1977, 1988, 2001, 2009, 2013, 2019.
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:** Regulated Waters
Cypress Creek is a TNW that is considered to be jurisdictional by the Corps of Engineers as it is listed by USACE-SWG as a Navigable Water subject to Section 10 of the Rivers and Harbors act of 1899 due to its susceptibility for use to transport interstate or foreign commerce.

Ten wetlands (Wetlands 1-2, Wetlands 8-15) delineated within the review area (Table 1) were determined to be adjacent to the TNW as they are located within the FEMA 100-year floodplain of Cypress Creek, and thus are hydrologically connected to the surface waters of Cypress Creek (the TNW) at the frequency associated with 100-year flood events.

Non-Regulated Waters - No Direct or Indirect Connection
One non-RPW (Stream 7) does not directly or indirectly convey water into a TNW (Cypress Creek, Stream 1) and is therefore a non-regulated water. Non-regulated waters are included in Table 2.

Non-Regulated Waters - No Significant Nexus
There is an indirect surface hydrologic connection between the approximate 1,300-foot relevant reach of non-RPW, Stream 9, flowing through a drainage inlet structure into a buried culvert which then conveys surface water directly into the nearest TNW, Cypress Creek. Stream 9, has no adjacent wetlands and it does not substantively aid in the reduction of thermal and chemical pollutants flowing into Cypress Creek.

There is an indirect surface hydrologic connection between the approximate 152-foot relevant reach of non-RPW, Stream 10, reaching Stream 9 and flowing through a drainage inlet structure into a buried culvert which then directly conveys surface water into the nearest TNW, Cypress Creek. Stream 10, along with no adjacent wetlands within the relevant reach, it is unlikely that this ephemeral stream substantively aids in the reduction of thermal and chemical pollutants flowing into Cypress Creek.

There is a direct surface hydrologic connection between the approximate 2,261-foot relevant reach of non-RPW Stream 11_12, which conveys surface water into the nearest TNW, Cypress Creek. Stream 11_12, has no adjacent wetlands within the relevant reach, it is unlikely that this ephemeral stream substantively aids in the reduction of thermal and chemical pollutants flowing into Cypress Creek.

There is a direct surface hydrologic connection between the approximate 238-foot relevant reach of non-RPW Stream 13, which conveys surface water into the nearest TNW, Cypress Creek. Stream 13, has no adjacent wetlands, within the relevant reach, it is unlikely that this ephemeral stream substantively aids in the reduction of thermal and chemical pollutants flowing into Cypress Creek.

Table 1: Jurisdictional WOTUS in the Review Area.

| Field ID | Type | OHWM to OHWM | Width (ft) | | Length (ft) | Acreage | JDRelationship to TNW | Latitude, Longitude |
|---|---|---|---|---|---|---|---|---|
| Stream 1 | Cypress Creek | Perennial Stream | 53 | 5,652 | 6.690 | Yes | TNW | 30.015901°, -95.494108° |
| Wetland 1 | - | PFO Wetland | - | - | 0.008 | Yes | Adjacent to TNW | 30.021289°, -95.489535° |
| Wetland 2 | - | PFO Wetland | - | - | 0.300 | Yes | Adjacent to TNW | 30.019721°, -95.492369° |
| Wetland 8 | - | PFO Wetland | - | - | 0.090 | Yes | Adjacent to TNW | 30.016529°, -95.492114° |
| Wetland 9 | - | PFO Wetland | - | - | 1.020 | Yes | Adjacent to TNW | 30.018962°, -95.491807° |
| Wetland 10 | - | PFO Wetland | - | - | 0.040 | Yes | Adjacent to TNW | 30.020799°, -95.489230° |
| Wetland 11 | - | PFO Wetland | - | - | 0.090 | Yes | Adjacent to TNW | 30.019065°, -95.494234° |
| Wetland 12 | - | PFO Wetland | - | - | 0.050 | Yes | Adjacent to TNW | 30.020550°, -95.493667° |
| Wetland 13 | - | PFO Wetland | - | - | 0.060 | Yes | Adjacent to TNW | 30.019794°, -95.495690° |
| Wetland 14 | - | PFO Wetland | - | - | 0.060 | Yes | Adjacent to TNW | 30.020074°, -95.493268° |
| Wetland 15 | - | PFO Wetland | - | - | 0.030 | Yes | Adjacent to TNW | 30.024833°, -95.486126° |

Table 2: Non-Jurisdictional Waters in the Review Area

| Field ID | Waterbody Name | Type | OHWM (ft) | Length (ft) | Acreage | JD | Relationship to TNW | Latitude, Longitude |
|---|---|---|---|---|---|---|---|---|
| Stream 7 | -Ephemeral Stream, | | 6 | 555 | 0.100 | No | No Connection | 30.020205°, -95.493966° |
| Stream 9 | -Ephemeral Stream, | | 6 | 1,300 | 0.160 | No | Negative Significant Nexus | 30.021441°, -95.492058° |
| Stream 10 | -Ephemeral Stream, | | 7 | 152 | 0.030 | No | Negative Significant Nexus | 30.021396°, -95.492836° |
| Stream 11_12 | -Ephemeral Stream | | 8 | 2,261 | 0.460 | No | Negative Significant Nexus | 30.022236°, -95.489826° |
| Stream 13 | - Ephemeral Stream | | 4 | 238 | 0.030 | No | Negative Significant Nexus | 30.019949°, -95.490927° |

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