U.S. ARMY CORPS OF ENGINEERS
REGULATORY PROGRAM
APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM)
NAVIGABLE WATERS PROTECTION RULE

I. ADMINISTRATIVE INFORMATION

Completion Date of Approved Jurisdictional Determination (AJD): 2/25/2021
ORM Number: SWG-2019-00237
Associated JDs: N/A
Review Area Location[1]: State/Territory: TX City: Sour Lake County/Parish/Borough: Hardin
Center Coordinates of Review Area: Latitude 30.209080 Longitude -94.499439

II. FINDINGS

A. Summary: Check all that apply. At least one box from the following list MUST be selected. Complete the corresponding sections/tables and summarize data sources.

- ☐ The review area is comprised entirely of dry land (i.e., there are no waters or water features, including wetlands, of any kind in the entire review area). Rationale: N/A or describe rationale.
- ☐ There are "navigable waters of the United States" within Rivers and Harbors Act jurisdiction within the review area (complete table in Section II.B).
- ☒ There are "waters of the United States" within Clean Water Act jurisdiction within the review area (complete appropriate tables in Section II.C).
- ☒ There are waters or water features excluded from Clean Water Act jurisdiction within the review area (complete table in Section II.D).

B. Rivers and Harbors Act of 1899 Section 10 (§ 10)[2]

§ 10 Name	§ 10 Size		§ 10 Criteria	Rationale for § 10 Determination
N/A.	N/A.	N/A	N/A.	N/A.

C. Clean Water Act Section 404

Territorial Seas and Traditional Navigable Waters ((a)(1) waters):[3]				
(a)(1) Name	(a)(1) Size		(a)(1) Criteria	Rationale for (a)(1) Determination
N/A.	N/A.	N/A.	N/A.	N/A.

Tributaries ((a)(2) waters):				
(a)(2) Name	(a)(2) Size		(a)(2) Criteria	Rationale for (a)(2) Determination
Stream SA002	0.458	acre(s)	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	This feature is an unnamed Jackson Creek tributary that has intermittent water flow as reported by the consultant, as seen in historic aerial imagery, and based on a soil survey depth to water table rating of 0 cm. SA002 flows approximately 0.35 river miles to the intersection with Jackson Creek, which flows approximately 10.25 river miles to the intersection with Pine Island Bayou, an (a)(1) water.
Stream SA004a	0.484	acre(s)	(a)(2) Intermittent tributary contributes	This feature is a portion of Jackson Creek, a natural tributary that has more than ephemeral water flow as reported by the consultant, as seen in historic aerial

[1] Map(s)/figure(s) are attached to the AJD provided to the requestor.
[2] If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Rivers and Harbors Act Section 10 navigable waters list, do NOT use this document to make the determination. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Rivers and Harbors Act Section 10 navigability determination.
[3] A stand-alone TNW determination is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established. A stand-alone TNW determination should be completed following applicable guidance and should NOT be documented on the AJD Form.

Tributaries ((a)(2) waters):				
(a)(2) Name	(a)(2) Size		(a)(2) Criteria	Rationale for (a)(2) Determination
			surface water flow directly or indirectly to an (a)(1) water in a typical year.	imagery, and based on a soil survey depth to water table rating of 0 cm. Jackson Creek segment SA004a flows approximately 0.32 river miles to the junction with segment SA004b, which then flows approximately 10.25 river miles to the intersection with Pine Island Bayou, an (a)(1) water.
Stream SA004b	3.781	acre(s)	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	This feature is a portion of Jackson Creek, a natural tributary that has more than ephemeral water flow as reported by the consultant, as seen in historic aerial imagery, and based on a soil survey depth to water table rating of 0 cm. Stream SA003b flows approximately 8.5 river miles to where it intersects with Pine Island Bayou, an (a)(1) water.
Stream SA017	0.274	acre(s)	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	This feature is an unnamed Jackson Creek tributary that has more than ephemeral water flow as reported by the consultant, as seen in historic aerial imagery, and based on a soil survey depth to water table rating of 0 cm. SA017 flows approximately 4.2 river miles to the point it intersects with Jackson Creek which flows approximately 4.8 rivers miles to the intersection with Pine Island Bayou, an (a)(1) water.

Lakes and ponds, and impoundments of jurisdictional waters ((a)(3) waters):				
(a)(3) Name	(a)(3) Size		(a)(3) Criteria	Rationale for (a)(3) Determination
N/A.	N/A.	N/A.	N/A.	N/A.

Adjacent wetlands ((a)(4) waters):				
(a)(4) Name	(a)(4) Size		(a)(4) Criteria	Rationale for (a)(4) Determination
Wetland WA015	4.811	acre(s)	(a)(4) Wetland abuts an (a)(1)-(a)(3) water.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature abuts Jackson Creek, an (a)(2) water.
Wetland WA017a	35.303	acre(s)	(a)(4) Wetland abuts an (a)(1)-(a)(3) water.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature abuts Jackson Creek, an (a)(2) water.
Wetland WA018	24.858	acre(s)	(a)(4) Wetland abuts an (a)(1)-(a)(3) water.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature abuts Jackson Creek, an (a)(2) water.
Wetland WA020a	9.613	acre(s)	(a)(4) Wetland abuts an (a)(1)-(a)(3) water.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature abuts Jackson Creek, an (a)(2) water.

Adjacent wetlands ((a)(4) waters):				
(a)(4) Name	(a)(4) Size		(a)(4) Criteria	Rationale for (a)(4) Determination
Wetland WA020c1	1.019	acre(s)	(a)(4) Wetland abuts an (a)(1)-(a)(3) water.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature Jackson Creek, abuts an (a)(2) water.
Wetland WA020c2	0.622	acre(s)	(a)(4) Wetland abuts an (a)(1)-(a)(3) water.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature abuts an (a)(2) water.
Wetland WA021c	1.815	acre(s)	(a)(4) Wetland abuts an (a)(1)-(a)(3) water.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature abuts an (a)(2) water.
Wetland WA025	67.090	acre(s)	(a)(4) Wetland abuts an (a)(1)-(a)(3) water.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature abuts an (a)(2) water.

D. Excluded Waters or Features

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
Culvert1	0.015	acre(s)	(b)(1) Water or water feature that is not identified in (a)(1)-(a)(4) and does not meet the other (b)(1) subcategories.	Based on direct observation this feature is a culvert connection between two sections of Jackson Creek and therefore meets the definition of an underground or buried portion of a channel network.
Wetland WA001a	36.44	acre(s)	(b)(1) Non-adjacent wetland.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature neither abuts an (a)(1-3) water nor lies within a landscape position that would be expected to be inundated by an (a)(1-3) water in a typical year.
Wetland WA002a	18.389	acre(s)	(b)(1) Non-adjacent wetland.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature neither abuts an (a)(1-3) water nor lies within a landscape position that would be expected to be inundated by an (a)(1-3) water in a typical year.
Wetland WA005	17.834	acre(s)	(b)(1) Non-adjacent wetland.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature neither abuts an (a)(1-3) water nor lies within a

[4] Some excluded waters, such as (b)(2) and (b)(4), may not be specifically identified on the AJD form unless a requestor specifically asks a Corps district to do so. Corps districts may, in case-by-case instances, choose to identify some or all of these waters within the review area.
[5] Because of the broad nature of the (b)(1) exclusion and in an effort to collect data on specific types of waters that would be covered by the (b)(1) exclusion, four sub-categories of (b)(1) exclusions were administratively created for the purposes of the AJD Form. These four sub-categories are not new exclusions, but are simply administrative distinctions and remain (b)(1) exclusions as defined by the NWPR.

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
				landscape position that would be expected to be inundated by an (a)(1-3) water in a typical year.
Wetland WA006a1	8.262	acre(s)	(b)(1) Non-adjacent wetland.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature neither abuts an (a)(1-3) water nor lies within a landscape position that would be expected to be inundated by an (a)(1-3) water in a typical year.
Wetland WA006a2	51.865	acre(s)	(b)(1) Non-adjacent wetland.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature neither abuts an (a)(1-3) water nor lies within a landscape position that would be expected to be inundated by an (a)(1-3) water in a typical year.
Wetland WA009a	33.940	acre(s)	(b)(1) Non-adjacent wetland.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature neither abuts an (a)(1-3) water nor lies within a landscape position that would be expected to be inundated by an (a)(1-3) water in a typical year.
Wetland WA009b	0.431	acre(s)	(b)(1) Non-adjacent wetland.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature neither abuts an (a)(1-3) water nor lies within a landscape position that would be expected to be inundated by an (a)(1-3) water in a typical year.
Wetland WA011a	94.327	acre(s)	(b)(1) Non-adjacent wetland.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature neither abuts an (a)(1-3) water nor lies within a landscape position that would be expected to be inundated by an (a)(1-3) water in a typical year.
Wetland WA017b	0.421	acre(s)	(b)(1) Non-adjacent wetland.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature neither abuts an (a)(1-3) water nor lies within a landscape position that would be expected to be inundated by an (a)(1-3) water in a typical year.
Swale 1	2.246	acre(s)	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature lacks a consistent bed and bank and exhibits ephemeral surface water flow only in direct response to precipitation. Therefore, this feature does not meet the 33 CFR 328.3(a)(2) tributary definition.

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
Stream SA003	0.350	acre(s)	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature exhibits ephemeral surface water flow or pooling only in direct response to precipitation.
Stream SA005	0.039	acre(s)	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature exhibits ephemeral surface water flow or pooling only in direct response to precipitation.
Ditch SA001	0.028	acre(s)	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1).	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature is a constructed or excavated channel used to convey water, and did not relocate a tributary, was not constructed in a tributary, nor was constructed in an adjacent wetland.
Ditch SA006	0.507	acre(s)	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1).	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature is a constructed or excavated channel used to convey water, and did not relocate a tributary, was not constructed in a tributary, nor was constructed in an adjacent wetland.
Ditch SA007	1.163	acre(s)	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1).	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature is a constructed or excavated channel used to convey water, and did not relocate a tributary, was not constructed in a tributary, nor was constructed in an adjacent wetland.
Ditch SA008	0.389	acre(s)	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature is a constructed or excavated channel used to convey water, and did not relocate a tributary, was not constructed in a tributary, nor was constructed in an adjacent wetland.

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
			conditions of (c)(1).	
Ditch SA009	0.400	acre(s)	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1).	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature is a constructed or excavated channel used to convey water, and did not relocate a tributary, was not constructed in a tributary, nor was constructed in an adjacent wetland.
Ditch SA010	0.554	acre(s)	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1).	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature is a constructed or excavated channel used to convey water, and did not relocate a tributary, was not constructed in a tributary, nor was constructed in an adjacent wetland.
Ditch SA011	0.057	acre(s)	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1).	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature is a constructed or excavated channel used to convey water, and did not relocate a tributary, was not constructed in a tributary, nor was constructed in an adjacent wetland.
Ditch SA012	0.292	acre(s)	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1).	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature is a constructed or excavated channel used to convey water, and did not relocate a tributary, was not constructed in a tributary, nor was constructed in an adjacent wetland.
Ditch SA013	0.157	acre(s)	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature is a constructed or excavated channel used to convey water, and did not relocate a tributary,

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
			(a)(4) water that do not satisfy the conditions of (c)(1).	was not constructed in a tributary, nor was constructed in an adjacent wetland.
Ditch SA014	0.28	acre(s)	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1).	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature is a constructed or excavated channel used to convey water, and did not relocate a tributary, was not constructed in a tributary, nor was constructed in an adjacent wetland.
Ditch SA015	0.279	acre(s)	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1).	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature is a constructed or excavated channel used to convey water, and did not relocate a tributary, was not constructed in a tributary, nor was constructed in an adjacent wetland.
Ditch SA016	0.464	acre(s)	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1).	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature is a constructed or excavated channel used to convey water, and did not relocate a tributary, was not constructed in a tributary, nor was constructed in an adjacent wetland.
Wetland WA016	0.125	acre(s)	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1).	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this feature is a constructed or excavated linear channel used to convey water, and did not relocate a tributary, was not constructed in a tributary, nor was constructed in an adjacent wetland.
Wetland WA001b	0.161	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
				imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA001c	0.165	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA002b	0.563	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA004	0.015	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA006b1	0.157	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA006b2	0.168	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA010	1.616	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA011b	0.519	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA012	0.488	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA013	0.431	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
Wetland WA014	0.856	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA019	4.158	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA020b	0.418	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA021a	17.898	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA021b1	0.55	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA021b2	0.232	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA021b3	0.028	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA022	0.251	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA023	1.249	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
Wetland WA024	2.171	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Wetland WA-1	0.353	acre(s)	(b)(6) Prior converted cropland.	Based on historic aerial imagery this feature was manipulated for agricultural purposes prior to 23 December 1985 and contemporary aerial imagery shows this area is currently used for agricultural purposes, specifically grazing.
Pond PA001	13.698	acre(s)	(b)(8) Artificial lake/pond constructed or excavated in upland or a non-jurisdictional water, so long as the artificial lake or pond is not an impoundment of a jurisdictional water that meets (c)(6).	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this man-made feature constructed or excavated wholly in uplands to collect and retain water.
Pond PA002	0.130	acre(s)	(b)(8) Artificial lake/pond constructed or excavated in upland or a non-jurisdictional water, so long as the artificial lake or pond is not an impoundment of a jurisdictional water that meets (c)(6).	Based on a review of site-specific information including LiDAR elevation data, and historic aerial imagery this man-made feature constructed or excavated wholly in uplands to collect and retain water.
Pond PA003	0.048	acre(s)	(b)(8) Artificial lake/pond constructed or excavated in upland or a non-jurisdictional water, so long as the artificial lake or pond is not an impoundment of a jurisdictional	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this man-made feature constructed or excavated wholly in uplands to collect and retain water.

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
			water that meets (c)(6).	
Pond PA007	18.693	acre(s)	(b)(8) Artificial lake/pond constructed or excavated in upland or a non-jurisdictional water, so long as the artificial lake or pond is not an impoundment of a jurisdictional water that meets (c)(6).	Based on a review of site-specific information including LiDAR elevation data, historic aerial imagery, and direct observation this man-made feature constructed or excavated wholly in uplands to collect and retain water.

III. SUPPORTING INFORMATION

A. Select/enter all resources that were used to aid in this determination and attach data/maps to this document and/or references/citations in the administrative record, as appropriate.

☒ Information submitted by, or on behalf of, the applicant/consultant: Wetland delineation report submitted by SWCA, dated 5 March 2019.

This information is and is not sufficient for purposes of this AJD.

Rationale: Site visit data was collected to support the submitted report

☒ Data sheets prepared by the Corps: 25 February 2020 and 9 July 2020.

☒ Photographs: Aerial and Other: 2018 National Agriculture Imagery Program (NAIP) 1.0-meter Near Color (NC) / Color Infrared (CIR); Google Earth Aerial Images, 2004 - 2019.; Site visit photographs, 25 February 2020 and 9 July 2020.

☒ Corps site visit(s) conducted on: 25 February 2020 and 9 July 2020.

☐ Previous Jurisdictional Determinations (AJDs or PJDs): ORM Number(s) and date(s).

☒ Antecedent Precipitation Tool: *provide detailed discussion in Section III.B*.

☒ USDA NRCS Soil Survey: Web Soil Survey, National Cooperative Soil Survey - Hardin County Texas.

☐ USFWS NWI maps: Title(s) and/or date(s).

☒ USGS topographic maps: 7.5-minute topographic quadrangle maps – Sour Lake, Texas (1984), and Thorson Gully, Texas (1984). 15-minute topographic quadrangle maps – Daisetta, Texas (1955), and Sour Lake, Texas (1955).

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	N/A.
USDA Sources	N/A.
NOAA Sources	N/A.
USACE Sources	N/A.
State/Local/Tribal Sources	N/A.

Data Source (select)	Name and/or date and other relevant information
Other Sources	U.S. Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA): Flood Insurance Rate Map (FIRM): Hardin County, Texas and Unincorporated Areas, Panel Numbers 48199C0475F and 48199C0500F (10/06/2010). Flood Zone: X. United States Geological Survey (USGS). 2017 Neches River Basin 0.7-Meter Light Detection and Ranging (LiDAR), Bare Earth Digital Elevation Model (DEM).

B. Typical year assessment(s): The subject site central coordinates are 30.209080 North and -94.499439 West, and the site is located within the Sour Lake, Texas and Thorson Gully, Texas 7.5-minute USGS topographic quadrangle maps. The site is located on flood insurance rate map (FIRM) panels 48199C0475F and 48199C0500F (10/06/2010). Jackson Creek, which flows through the central portion of the site from north to south does not have an associated floodplain.

The determination regarding potential inundation due to flooding by the nearest waterway is based largely upon site specific information and scientific studies regarding floodplain correlation and elevation information for bank-full and floodplains (e.g. study entitled: Hydrogeomorphological differentiation between floodplains and terraces by: Qina Yan, Toshiki Iwasaki, Andrew Stumpf, Patrick Belmont, Gary Parker & Praveen Kuma.) as well as review of historic site information (including precipitation data) and aerial photos of the site . The study referenced previously revealed that the 10-year flood plain elevation is located in a slightly higher elevation than riverine bank-full elevation. Noting per NWPR regulation, that bank-full is anticipated to be located within the area that floods in a typical year and as such jurisdictional. Regulation also states that it does not extend to the boundary of the 100-year flood plain. Since the site does not have an associated floodplain, the non-abutting aquatic resources on this site are located at an elevation above the anticipated overbank flooding from Jackson Creek and the 2 other unnamed Jackson Creek tributaries.

In an effort to determine adjacency (as it pertains to hydrologic trends and the subject aquatic resources verified by SWG) an analysis was done using the APT tool, elevation data, aerial imagery & other relevant site-specific information. The APT is a tool that affords the user the capability to look at rainfall at a specific location in the recent past compared to long term precipitation. It provides climatic conditions for the preceding 3 months (WETS score) and the comparison with the previous 30 years from numerous nearby precipitation gages. It also reports the PDSI (drought index) rainfall & WebWimp water balance/hydrologic seasons information. WETS analysis produces a score between 6 and 18 noting a score of 6-9 is drier than normal, 10-14 is normal & 15-18 is wetter than normal. The APT uses climatic data collected from numerous nearby weather stations and produces the most reliable source for a full 30 years of precipitation data.

The APT for the site visit dates, 25 February 2020 (wet season) and 9 July 2020 (dry season) are 13 and 12, respectively, on a scale of 6-18. An APT score between 15 and 18 indicates wetter than normal precipitation during the preceding 90 days, while an APT score between 10 and 14 indicates normal precipitation during the preceding 90 days. During the site visit dates neither the two sections of Jackson Creek nor the two unnamed Jackson Creek tributaries exhibited over-bank flooding into non-abutting wetlands, despite the area receiving 0.54 inch and 1.41 inches of rainfall, respectively, during the preceding 72 hours. Jackson Creek does not have an associated floodplain. Based on 2016 LiDAR

elevation data the subject site non-abutting wetlands lie between 0.3 and 1 foot above either the Jackson Creek or unnamed tributary streambeds. The APT values for reviewed imagery, site visit dates, and delineation dates are summarized in Table 1 below.

TABLE 1

Date	APT	APT Condition	Season	PDSI	Preceding 72 hr Rainfall Lumberton, TX
Site Visit					
2/25/2020	13	Normal	Wet	Mild Wetness	1.41”
7/9/2020	12	Normal	Dry	Mild Wetness	0.54”
NAIP					
9/21/2016	14	Normal	Dry	Severe Wet	0”
11/20/2018	18	Wetter than Normal	Wet	Severe Wet	0.32”
TOP					
2/10/2015	11	Normal	Wet	Incip Wet	0”
Google Earth					
02/04/1995	14	Normal	Wet	Mod Wetness	0” (from APT)
10/31/2006	14	Normal	Wet	Mild Wetness	0.03” (9.61” @84 hrs)
01/12/2009	10	Normal	Wet	Mild Drought	0.1”
03/12/2010	12	Normal	Wet	Normal	0.34”
11/28/2011	7	Drier than Normal	Wet	Extreme Drought	1.25”
04/19/2013	12	Normal	Wet	Mod Drought	0.03”
10/03/2014	14	Normal	Wet	Mild Wetness	0.07”
12/13/2015	15	Wetter than Normal	Wet	Severe Wet	0.01”
02/24/2017	12	Normal	Wet	Mod Drought	0.41”
01/02/2018	6	Drier than Normal	Wet	Mild Drought	0.11”
Delineation					
10/11/2018	16	Wetter than Normal	Wet	Moderate Wet	0.47”
10/12/2018	16	Wetter than Normal	Wet	Moderate Wet	0.45”
10/13/2018	16	Wetter than Normal	Wet	Moderate Wet	0.17”
10/16/2018	16	Wetter than Normal	Wet	Moderate Wet	0”
10/19/2018	16	Wetter than Normal	Wet	Moderate Wet	0.5”
10/23/2018	13	Normal	Wet	Moderate Wet	0.94”
10/24/2018	16	Wetter than Normal	Wet	Moderate Wet	0.75”
10/25/2018	16	Wetter than Normal	Wet	Moderate Wet	0.35”
10/26/2018	16	Wetter than Normal	Wet	Moderate Wet	1.46”

Historic aerial imagery depict flowing and pooled water within Jackson Creek and the unnamed Jackson Creek tributary. Flowing water was observed within subject site tributaries during the site visits during normal precipitation conditions. And according to the Hardin County Soil Survey indicates the Leton loam, 0 to 1% slopes, soil series associated with Jackson Creek has a minimum water table depth rating of 0 cm. Therefore, Jackson Creek and the unnamed tributaries meet the definition of 33 CFR 328.3(a)(2) waters.

Abutting wetlands are contiguous with Jackson Creet and therefore adjacent to an intermittent (a)(2) water, which meets the 33 CFR 328.3(a)(4) definition of adjacent wetlands. As noted above all non-abutting wetlands within the subject site are located a minimum of 6 inches above the ordinary high water mark of either Jackson Creek or the unnamed Jackson Creek tributaries. Additionally, overbank flooding of non-abutting wetlands was neither observed in historic aerial imagery collected during periods of wetter than normal precipitation nor following dates with >1" of rainfall recorded during the preceding 72 hours. Therefore, based on the APT tool analysis of historic aerial imagery and site visit dates there is insufficient data to conclude the non-abutting wetlands within the subject site are inundated by overbank flooding from an (a)(1) – (a)(3) water in a typical year.and as such meet the 33 CFR 328.3(b)(1) exclusion for non-adjacent wetlands.

C. **Additional comments to support AJD:** Based on visual observation, historic aerial imagery review, and contemporary LiDAR elevation data review Jackson Creek and three (3) unnamed Jackson Creek tributaries, comprising approximately 5.0 acres exhibit intermittent water flow in a typical year as supported by the Hardin County soil survey depth to groundwater rating, and indirectly contribute surface water flow to Pine Island Bayou, an (a)(1) perennial water. Therefore, Jackson Creek and the three (3) unnamed tributaries meet the 33 CFR 328.3(a)(2) Clean Water Act (CWA) Section 404 tributary definition. Five (5) forested wetlands and three (3) scrub-shrub wetlands, comprising approximately 141.68 and 3.46 acres respectively, abut either Jackson Creek or the intermittent site tributaries and therefore meet the 33 CFR 328.3(a)(4) adjacent wetland definition. One (1) herbaceous wetland comprising approximately 0.42 acre, seven (7) forested wetlands comprising approximately 261.1 acres, and two (2) scrub-shrub wetlands comprising approximately 0.56 acre are located at a landscape position that would not be expected to be flooded/inundated by an (a)(1 - 3) water during a "typical year" and therefore meet the 33 CFR 328.3(b)(1) CWA Section 404 non-adjacent exclusion. The one (1) approximate 0.01-acre subject site culvert is an underground or buried portion of a drainage network and therefore meets the 33 CFR 328.3(b)(1) CWA Section 404 exclusion. The three (3) ephemeral tributaries within the site are characterized by surface water flow or pooling only in direct response to precipitation and therefore meet the 33 CFR 328.3(b)(5) CWA Section 404 ephemeral tributary exclusion. Nineteen (19) herbaceous wetlands comprising approximately 14.38 acres, one (1) approximate 17.9-acre forested wetland, and one (1) approximate 0.17-acre scrub-shrub wetland was in agricultural use prior to December 23, 1985 and are currently used for grazing. Therefore, the twenty-one (21) wetlands meet the 33 CFR 328.3(b)(6) CWA Section 404 prior converted cropland exclusion. The four (4) artificial ponds comprising approximately 32.57 acres were constructed/excavated wholly in uplands to collect and retain water for stock watering and/or irrigation and therefore meet the 33 CFR 328.3(b)(8) CWA Section 404 artificial lakes or ponds exclusion. Therefore, a Department of the Army (DA) permit is required prior to the discharge of dredged and/or fill material into the subject site (a)(2) and (4) waters pursuant to CWA Section 404.

Based on site size and complexity the AJD map is separated into two maps, one each for the Clean Water Act Section 404 and non-404 aquatic resources.