

I. ADMINISTRATIVE INFORMATION

Completion Date of Approved Jurisdictional Determination (AJD): 5/27/2021 ORM Number: SWG-2016-00561 Associated JDs: N/A or ORM numbers and identifiers (e.g. HQS-2020-00001-MSW-MITSITE).

Review Area Location¹: State/Territory: Texas City: Houston County/Parish/Borough: Harris

Center Coordinates of Review Area: Latitude 29.986900 Longitude -95.302319

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) Siz	e	(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) Siz	ze	(a)(2) Criteria	Rationale for (a)(2) Determination		
N/A.	N/A.	N/A.	N/A.	N/A.		

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		
N/A.	N/A.	N/A.	N/A.	N/A.		

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.



D. Excluded Waters or Features

Excluded waters $((b)(1) - (b)(12))$. ⁴							
Exclusion Name	Exclusion	n Size	Exclusion ⁵	Rationale for Exclusion Determination			
Wetland A	0.667	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland A is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.			
Wetland B	0.149	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland B is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.			
Wetland C	0.159	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland C is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.			
Wetland D	0.197	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States.			

 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	Exclusior	n Size	Exclusion ⁵	Rationale for Exclusion Determination	
				Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland D is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.	
Wetland F	0.048	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland F is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.	
Wetland G	0.829	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland G is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.	
Wetland H	0.057	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland H is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an	



Exclusion Name	Exclusion Size		Exclusion ⁵	Rationale for Exclusion Determination
				(a)(1-3) water by more than a single natural or
				man-made barrier
Wetland I	1.193	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland I is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.
Wetland J	0.337	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland J is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.
Wetland K	0.007	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland K is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.
Wetland L	0.026	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland L is a closed depression that neither



Excluded waters ((b)(1) – (b)(12)): ⁴					
Exclusion Name	Exclusior	n Size	Exclusion ⁵	Rationale for Exclusion Determination	
				abuts an $(a)(1-3)$ water, nor is located in a landscape position that would be flooded/inundated by an $(a)(1-3)$ water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.	
Wetland M	0.041	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland M is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.	
Wetland P	0.884	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland P is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.	
Wetland Q	0.411	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland Q is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.	
Wetland R	1.237	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States.	



Excluded waters $((b)(1) - (b)(12))^4$					
Exclusion Name	Exclusior	n Size	Exclusion ⁵	Rationale for Exclusion Determination	
				Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland R is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.	
Wetland S	0.212	acre(s)	(b)(1) Non- adjacent wetland.	Garners Bayou, located approximately 520 linear feet north of the subject site, is the nearest intermittent (a)(2) water of the United States. Based on the previous approved jurisdictional determination (AJD), aerial imagery, topo quad maps, and detailed LiDAR elevation data, Wetland S is a closed depression that neither abuts an (a)(1-3) water, nor is located in a landscape position that would be flooded/inundated by an (a)(1-3) water within a typical year. This wetland is separated from an (a)(1-3) water by more than a single natural or man-made barrier.	
Ditch 1	0.667	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 historic and contemporary aerial imagery, topo quad maps, and detailed LiDAR elevation data, Ditch 1 was constructed within uplands to convey surface water flow. At the time of construction, Ditch 1 neither relocated an (a)(1-2) tributary, nor was constructed within an (a)(1-2) tributary, nor was constructed in an adjacent wetland. Therefore, Ditch 1 meets the 33 CFR 328.3(b)(5) ditch exclusion.	
Pond E	2.61	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 historic and contemporary aerial imagery, topo quad maps, and detailed LiDAR elevation data, Pond E is an artificial feature constructed or excavated wholly in uplands for the purpose of capturing and retaining water. Therefore, Pond E meets the 33 CFR 328.3(b)(8) artificial pond exclusion.	

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: Title(s) and date(s)
 This information Select. sufficient for purposes of this AJD.
 Rationale: N/A or describe rationale for insufficiency (including partial insufficiency).
 - Data sheets prepared by the Corps: Title(s) and/or date(s).
 - Photographs: Select. Title(s) and/or date(s).
 - Corps site visit(s) conducted on: 10/10/2016
 - Previous Jurisdictional Determinations (AJDs or PJDs): SWG-2016-00561 (01/09/2017)
 - Antecedent Precipitation Tool: *provide detailed discussion in Section III.B.*
 - USDA NRCS Soil Survey: Title(s) and/or date(s).
 - USFWS NWI maps: Title(s) and/or date(s).
 - ☑ USGS topographic maps: 7.5-Minute Topographic Quadrangle Map(s) Humble, TX (1916, 1946, 1954, 1967, 1982, 1995).

Name and/or date and other relevant information Data Source (select) **USGS Sources** N/A. **USDA Sources** N/A. NOAA Sources N/A. **USACE** Sources N/A. State/Local/Tribal Sources N/A. Other Sources Federal Emergency Management Agency (FEMA): Flood Insurance Rate Map (FIRM), Panel 48201C0485M (6/9/2014); Flood Insurance Study (FIS), Harris County, Texas and Incorporated Areas, 48201CV007D (1/6/2017). The Texas Water Development Board (TWDB), Texas Strategic Mapping (StratMap) Program, Light Detection and Ranging (LiDAR), 0.5-meter Bare Earth Digital Elevation Model (DEM).

Other data sources used to aid in this determination:

B. Typical year assessment(s): To determine wetland adjacency as it pertains to hydrologic trends and the subject site aquatic resources verified by SWG, the Antecedent Precipitation Tool (APT) was used to evaluate site-specific climatic conditions based on contemporary elevation data, aerial imagery and other relevant site-specific information. The APT is a tool that provides the ability to assess rainfall at a specific location in the recent past, cumulative for the preceding 3 months (WETS analysis product score), as well as climatological review for the previous 30-year period. This tool includes the Palmer Drought Severity Index (PDSI), and the Web-based, Water-Budget, Interactive, Modeling Program (WebWimp) water balance/hydrologic seasons information. The APT uses climatic data collected from numerous nearby weather stations and produces the most reliable source for 30 years of preceding precipitation data. Historic and contemporary aerial photographs do not depict overbank flooding of the subject site from the nearest (a)(2) water, Garners Bayou. The long-term and short-term APT results for reviewed aerial imagery are provided in Table 1 below.

TABLE 1 Google Earth Imagery								
Date	APT	APT Condition	Season	PDSI	Preceding 72 hr Rainfall			
12/31/1943	13	Normal	Wet	Mild Wetness	N/A			



13	Normal	Wet	Incip Drought	0.66"
6	Drier than Normal	Wet	Severe Drought	0.07"
14	Normal	Wet	Mod Wetness	1.26"
11	Normal	Wet	Severe Wet	0"
16	Wetter than Normal	Wet	Mild Wetness	1.83"
9	Drier than Normal	Wet	Mild Wetness	0.55
13	Normal	Wet	Mod Drought	0.12"
11	Normal	Wet	Mild Wetness	0.5"
18	Wetter than Normal	Dry	Mod Drought	0.58"
12	Normal	Dry	Severe Wetness	0.17"
10	Normal	Wet	Severe Wetness	0.01"
11	Normal	Wet	Incip Drought	0"
	13 6 14 11 16 9 13 11 18 12 10 11	13Normal6Drier than Normal14Normal11Normal16Wetter than Normal9Drier than Normal13Normal14Normal15Wetter than Normal16Normal17Normal18Wetter than Normal12Normal10Normal11Normal	13NormalWet6Drier than NormalWet14NormalWet11NormalWet16Wetter than NormalWet9Drier than NormalWet13NormalWet14NormalWet15NormalWet16Wetter than NormalWet17NormalWet18Wetter than NormalDry12NormalDry10NormalWet11NormalWet	13NormalWetIncip Drought6Drier than NormalWetSevere Drought14NormalWetMod Wetness11NormalWetSevere Wet16Wetter than NormalWetMild Wetness9Drier than NormalWetMild Wetness13NormalWetMod Drought11NormalWetMild Wetness18Wetter than NormalDryMod Drought12NormalDrySevere Wetness10NormalWetSevere Wetness11NormalWetSevere Wetness

Comparison of contemporary LiDAR elevation data review and the FEMA flood insurance study (FIS) 48201CV007D, the average highest point for the subject site wetlands is 80.44 feet (NAVD88). This elevation is between 0.9 and 0.4 feet above the 10% annual chance flood zone (10-year floodplain) base flood elevations range of 79.5 to 80 feet (NAVD88). None of the reviewed aerial images depict overbank flooding from Garners Bayou, the closest (a)(2) tributary. Of particular interest are those photos collected during Wetter than Normal precipitation conditions with greater than 0.5" rainfall recorded during the immediately preceding 72 hours. Therefore, based on the APT tool analysis of historic aerial imagery and site visit dates there is insufficient data to conclude any of the subject site non-abutting wetlands are inundated by overbank flooding from an (a)(1) – (a)(3) water in a typical year.

Based on a review of site-specific information, current federal regulation, scientific and flood plain studies, aerial imagery, and contemporary LiDAR elevation data, we have determined the subject site contains sixteen (16) wetlands comprising approximately 5.97 acres. The subject site wetlands neither abut an (a)(1-3) water, nor would they be inundated by flooding of an (a)(1-3) water in a typical year, nor are they physically separated from an (a)(1-3) water by a single natural barrier, nor are they physically separated by an artificial barrier that allows direct surface hydrologic connection between the aquatic feature(s) in review and an (a)(1-3) water in a typical year. Therefore, the subject site wetlands meet the 33 CFR 328.3(b)(1) non-adjacent wetlands exclusion.

C. Additional comments to support AJD: The previous AJD, completed 9 January 2017, concluded the subject site aquatic resources were subject to Section 404 of the Clean Water Act according to the 2 December 2008 joint EPA-Corps guidance "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States." The current Navigable Waters Protection Rule (NWPR) incorporates and clarifies the previous guidance and in this instance changes the jurisdictional determination.