



Environmental Services, Inc.

26 July 2022

Jason McMillon
MCM Land Company
630 W 34th Street
Austin, Texas 78705

**RE: Section 404 Clean Water Act Jurisdictional Determination
Brownlee Ranch site located southwest of the intersection of Highway 281 and
Park Road 4 South, Burnet, Burnet County, Texas
HJN 22248.001WD**

Dear Mr. McMillon:

Horizon Environmental Services, Inc. (Horizon) has evaluated the above-referenced property (subject site) for potential areas subject to jurisdiction under Section 404 of the Clean Water Act ("waters of the US," including wetlands [WOTUS]) regulated by the US Army Corps of Engineers (USACE) and Environmental Protection Agency (EPA). This letter provides the results of the jurisdictional determination process.

PROJECT LOCATION

The subject site consists of approximately 1003.8 acres generally located southwest of the intersection of Highway 281 and Park Road 4 South, Burnet, Burnet County, Texas (Appendix A, Figure 1). The central and eastern portions of the subject site are within the Federal Emergency Management Agency (FEMA) 100-year floodplains of Long Branch and Honey Creek (FEMA, 2019).

DETERMINATION OF WATERS OF THE US, INCLUDING WETLANDS

The determination process consisted of a pre-field literature review and a site assessment conducted according to the general methodologies prescribed by the 1987 USACE *Wetlands Delineation Manual* and Regional Supplement: Great Plains Region (Version 2.0) (March 2010); USACE Regulatory Guidance Letter (RGL) No. 05-05 (7 December 2005); and 2008 Clean Water Act (CWA) Jurisdictional Determination Guidance (Rapanos Guidance).

The term "waters of the US (WOTUS)" means¹:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

¹ 40 CFR 230.3(s)

2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
 - i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as WOTUS under the definition;
5. Tributaries of waters identified in items (1) through (4) above;
6. The territorial seas;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in items (1) through (6) above.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not WOTUS.

WOTUS do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the EPA.

"Wetlands" are defined as areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support (and that under normal circumstances do support) a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (EPA, 40 CFR §230.3).

Note: Some wetlands and other water bodies may not meet the above criteria to be classified as WOTUS subject to jurisdiction under Section 404 of the CWA; see Determination of Jurisdictional Nexus below.

PRE-FIELD EVALUATION

The following resources were reviewed to evaluate the subject site for potential wetlands or other water features that would require further assessment during the field investigation:

- US Geological Survey (USGS) topographic map (1986);
- FEMA flood hazard maps (2019);

- US Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) map (USFWS, 2022);
- Natural color aerial photography (ESRI, 2017);
- Color infrared aerial photography (USDA, 2010); and
- US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey information (2022).

The literature evaluation indicated that potential wetlands and other water features may exist within the subject site.

FIELD RECONNAISSANCE

Horizon personnel conducted a field reconnaissance on 20 July 2022 to verify those areas identified as potential water features, including wetlands, during the pre-field evaluation. In addition, Horizon personnel determined which features, if any, met the USACE criteria to be classified as jurisdictional and subject to regulation under Section 404 of the CWA (nexus determination discussed below).

Based on the field investigation and current USACE guidance, Horizon personnel identified 3 tributaries (T-1 through T-3), 3 swales (S-1 through S-3), and 5 wetland areas (W-1 through W-5) within the subject site. The investigation and data analysis demonstrated that the identified wetland areas met the requisite criteria (hydrophytic vegetation, hydrology, and hydric soils) to be classified as wetlands.

Long Branch (T-1) was located on the central portion of the subject site and runs in an east-west direction (Appendix A, Figure 2 and Photos 1 to 3). Long Branch (T-1) exhibited an ordinary high water mark (OHWM) ranging mainly from 10 to 60 feet wide but thinning to as narrow as 3 feet wide. T-1 also widens into short segments of sheet flow. Vegetation along T-1 included Chinese tallow (*Triadica sebifera*), buttonbush (*Cephalanthus occidentalis*), sneezeweed (*Helenium* sp.), and spikerush (*Eleocharis* sp.). Long Branch (T-1) was determined to be an intermittent tributary and is considered jurisdictional and subject to Section 404 of the CWA.

Honey Creek (T-2) was located on the eastern portion of the subject site and runs in a north-south direction (Appendix A, Figure 2 and Photos 4 and 5). Honey Creek (T-2) exhibited an OHWM ranging from 6 to 60 feet wide. Six spring/seep areas were observed along the length of Honey Creek (T-2). Vegetation along Honey Creek (T-2) included Texas live oak (*Quercus fusiformis*), Texas croton (*Croton texensis*), silver bluestem (*Bothriochloa laguroides*), and common ragweed (*Ambrosia artemisiifolia*). Honey Creek was determined to be an intermittent tributary and is considered jurisdictional and subject to Section 404 of the CWA.

An unnamed tributary of Honey Creek (T-3) was located on the northern portion of the subject site and runs in an east-west direction (Appendix A, Figure 2 and Photos 6 and 7). Tributary T-3 exhibited an OHWM ranging from 3 to 20 feet wide and a dry stream bed along most of the

channel. The unnamed tributary (T-3) was determined to be an ephemeral tributary and is considered jurisdictional and subject to Section 404 of the CWA.

Swales S-1, S-2, and S-3 exhibited no OHWMs and were determined to be grassland swales; therefore, S-1, S-2, and S-3 are considered non-jurisdictional and not subject to Section 404 of the CWA (Appendix A, Figure 2 and Photos 8 to 10).

Five wetlands (W-1 to W-5) were located within the subject site (Appendix A, Figure 2 and Photos 11 to 15). Wetland vegetation observed included black willow (*Salix nigra*), spikerush (*Eleocharis* sp.), pennywort (*Centella asiatica*), coontail (*Ceratophyllum demersum*), and cattail (*Typha latifolia*). The investigation and data analysis demonstrated that the identified wetland areas met the requisite criteria (hydrophytic vegetation and hydrology) to be classified as wetlands. Wetlands W-1 to W-5 were located along Long Branch (T-1) and Honey Creek (T-2) and were hydrologically connected to WOTUS; therefore, wetlands W-1 to W-5 are considered jurisdictional and subject to Section 404 of the CWA.

DETERMINATION OF JURISDICTIONAL NEXUS

A determination of Section 404 jurisdiction for the identified wetlands and/or water features was made in accordance with the 2008 CWA Jurisdictional Determination Guidance (Rapanos Guidance).

CRITERIA AND TERMINOLOGY

A. Traditional Navigable Waters/Wetlands

The 2008 Rapanos Guidance specifies that the USACE and EPA will take jurisdiction over:

1. Traditional Navigable Waters (TNWs);
2. Wetlands adjacent to TNWs;
3. Non-navigable tributaries of TNWs that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months); and
4. Wetlands that directly abut such tributaries.

B. Other Waters/Wetlands

The Rapanos Guidance also specifies that the USACE and EPA will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW:

1. Non-navigable tributaries that are not relatively permanent;
2. Wetlands adjacent to non-navigable tributaries that are not relatively permanent; and
3. Wetlands adjacent to, but that do not directly abut a relatively permanent non-navigable water.

C. Adjacency

The term “adjacent,” as defined in the Rapanos Guidance, means “bordering, contiguous, or neighboring.” Under this definition, the USACE and EPA consider wetlands to be adjacent if:

1. There is an unbroken or shallow sub-surface connection to jurisdictional waters;
2. The wetlands are physically separated from jurisdictional waters by man-made ditches or barriers, natural river berms, beach dunes, and the like; or
3. The wetland’s proximity to a jurisdictional water is reasonably close, supporting science-based inference such that wetlands have an ecological interconnection with jurisdictional waters.

Adjacency to TNWs and relatively permanent waters (RPWs) is usually defined in the Fort Worth District by the FEMA 100-year floodplain.

FINDINGS

Traditional Navigable Waters/Wetlands

We have determined that Long Branch (T-1), Honey Creek (T-2), and wetlands W-1 to W-5 observed on the subject site meet the jurisdictional criteria defined in Section A above.

Other Waters/Wetlands

Based on our fact-specific TNW nexus analysis, we have determined that unnamed tributary T-3 observed on the subject site meets the jurisdictional criteria defined in Section B above.

Adjacency

We have determined that no wetlands or water features observed on the subject site meet the criteria for adjacency defined in Section C above.

SUMMARY AND RECOMMENDATIONS

The determination process revealed that the subject site contains areas subject to jurisdiction under Section 404 of the CWA and associated guidance (see Appendix A, Figure 2).

The EPA and USACE jointly signed a rule on 23 January 2020 redefining WOTUS under Section 404 of the CWA. The new rule, termed the Navigable Waters Protection Rule (NWPR), became effective 22 June 2020 and recodified WOTUS from its previous definition under the 2008 Rapanos Guidance. However, on 30 August 2021, a US District Court issued an order that remanded the NWPR back to the EPA and thus nullified its use. Moving forward, the USACE will utilize the 2008 Rapanos Guidance to assess jurisdiction over wetlands and WOTUS until the legal circumstances change. As such, Horizon evaluated all aquatic resources on the subject site according to 2008 Rapanos Guidance.

The opinions expressed in this report are based on Horizon's professional interpretation of the 2008 Rapanos Guidance. It is unclear at this time what the ultimate fate of the court ruling will be or if it will remain in effect. As of 9 June 2021, the EPA has also formally announced its intent to draft a new rule to define WOTUS. At this time, it is unknown how long this process will take or what legal challenges it may encounter; therefore, Horizon recommends contacting us prior to closing on or starting work on the subject site in order to determine what rules are in place at that time.

If jurisdictional wetlands or other jurisdictional waters will be impacted on the subject site, a more detailed jurisdictional delineation and impact analysis may be required to identify the extent of proposed impacts and determine what level of Section 404 permitting, if any, would be required. Acquiring a 404 permit through the USACE may also necessitate a cultural resources survey under Section 106 of the National Historic Preservation Act, as well as a threatened or endangered species habitat assessment.

This determination of jurisdiction is based on the 2008 Rapanos Guidance and remains our opinion until the EPA and USACE promulgate new rules on Section 404 jurisdiction. As always, our findings are based on our professional experience and opinions and do not represent official government findings. Only the USACE and/or EPA can render an official finding of Section 404 jurisdiction.

USACE verification of the non-jurisdictional status of wetlands and/or water features observed on the subject site is not required by law. The verification process (if desired) can be obtained and may require concurrence from the EPA.

If you have any questions or require additional information, please feel free to contact me at (512) 328-2430 or sflesher@horizon-esi.com.

Sincerely,
For Horizon Environmental Services, Inc.



Scott Flesher
Vice President | Ecological Program Manager



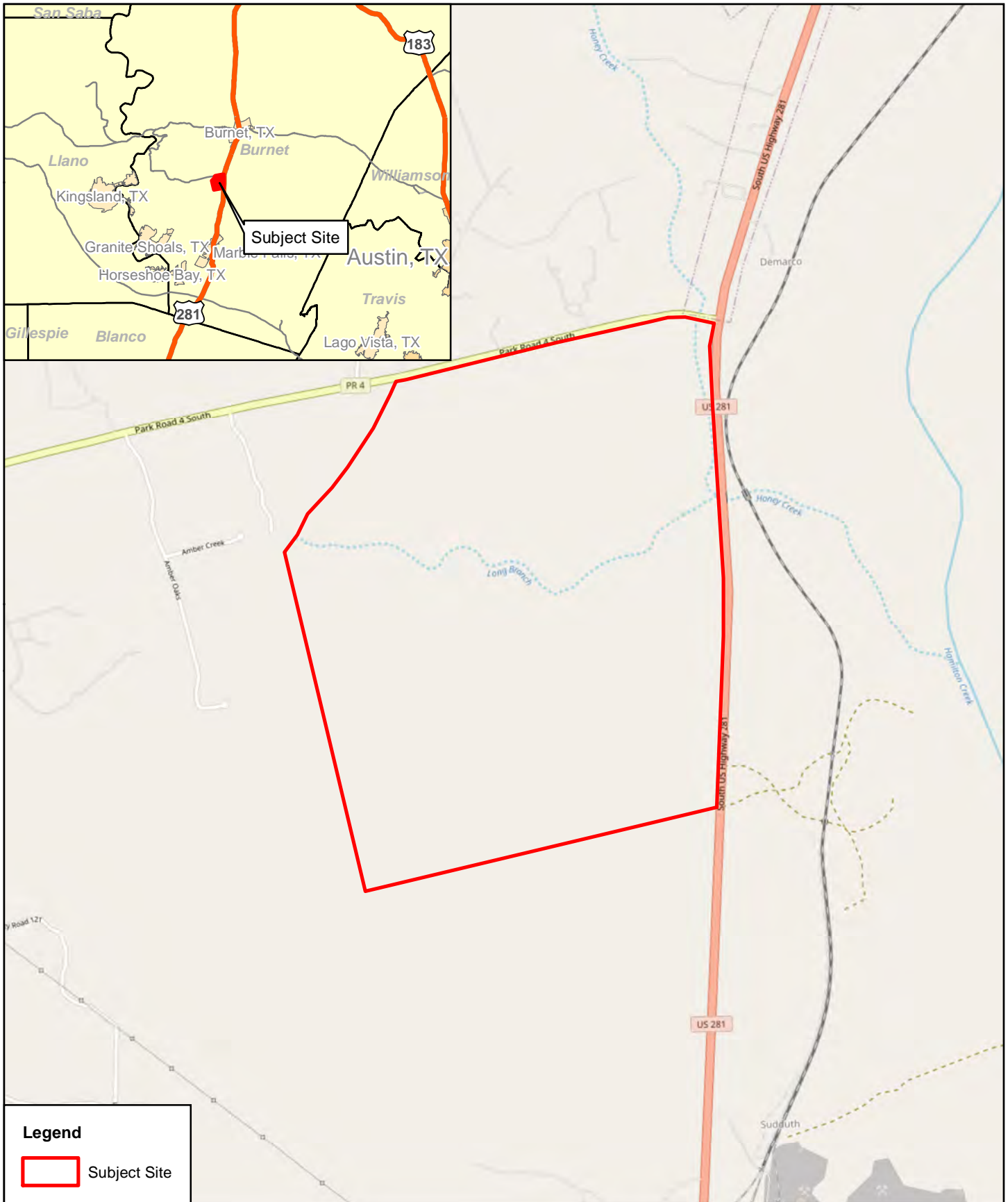
Zachary Blackburn
Ecological Technician

References

- (ESRI) Environmental Systems Research Institute. World Imagery, <<https://www.arcgis.com/home/item.html?id=10df2279f9684e4a9f6a7f08febac2a9>>. Imagery date 25 November 2017. Accessed 19 July 2022.
- (FEMA) Federal Emergency Management Agency. Flood Insurance Rate Map (FIRM) Panel Nos. 48053C0470G and 48053C0460G, Burnet County, Texas. 1 November 2019.
- (NRCS) US Department of Agriculture, Natural Resources Conservation Service. 2022. Web Soil Survey, <<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>>. Accessed 22 July 2022.
- (OSM) OpenStreetMap contributors. OpenStreetMap, <<http://www.openstreetmap.org>>. Available under the Open Database License (www.opendatacommons.org/licenses/odbl). Accessed 19 July 2022.
- (USDA) US Department of Agriculture. Digital orthophoto quarter-quadrangle, Longhorn Cavern and Mormon Mill, Texas. National Agriculture Imagery Program, Farm Service Agency, Aerial Photography Field Office. 2010.
- (USFWS) US Department of the Interior, Fish and Wildlife Service. National Wetlands Inventory Wetlands Mapper, <<https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>>. Accessed 19 July 2022.
- (USGS) US Geological Survey. 7.5-minute series topographic maps, Longhorn Cavern and Mormon Mill, Texas quadrangle. 1986.

**APPENDIX A
SUPPORTING DOCUMENTATION**

FIGURES
PHOTOGRAPHS




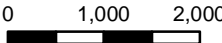
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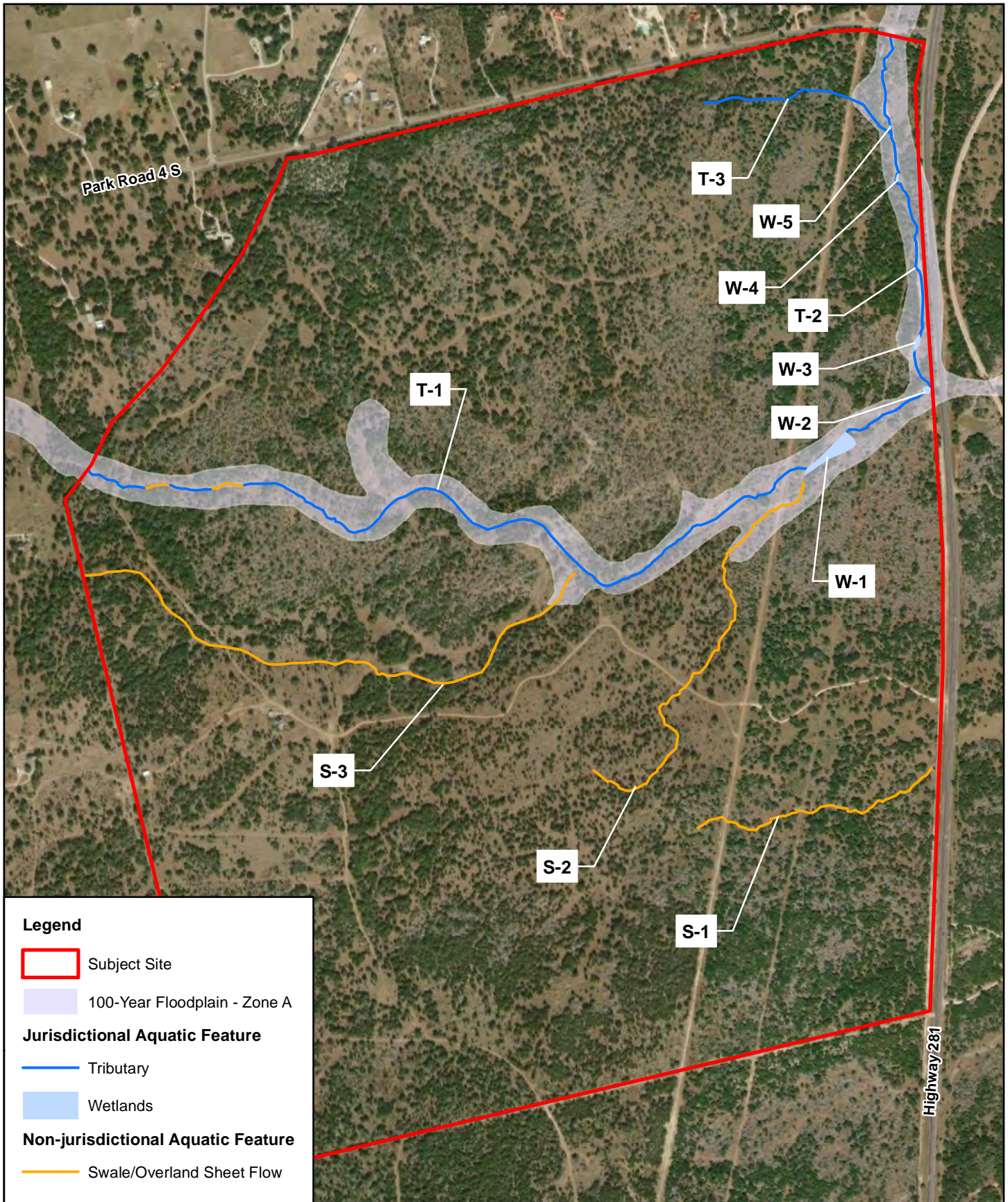
Subject Site

HorizonTM
Environmental Services, Inc.

| | |
|---------|-------------|
| Date: | 07/19/2022 |
| Drawn: | ZHB |
| HJN NO: | 22248.001WD |
| Source: | OSM, 2022 |

Figure 1
Vicinity Map
Brownlee Ranch
Burnet, Burnet County, Texas



 Feet



Legend

- Subject Site
- 100-Year Floodplain - Zone A

Jurisdictional Aquatic Feature

- Tributary
- Wetlands


Non-jurisdictional Aquatic Feature

- Swale/Overland Sheet Flow

Horizon
Environmental Services, Inc.

| | |
|---------|---------------------------|
| Date: | 07/19/2022 |
| Drawn: | ZHB |
| HJN NO: | 22248.001WD |
| Source: | ESRI, 2017; FEMA, 2019 |

Figure 2
Jurisdictional Determination Map
Brownlee Ranch
Burnet, Burnet County, Texas



0 500 1,000
Feet



PHOTO 1

Long Branch (T-1) on the central portion of the subject site



PHOTO 2

Long Branch (T-1) on the central portion of the subject site



PHOTO 3

Long Branch (T-1) widening into sheet flow



PHOTO 4

Honey Creek (T-2) observed on the eastern portion of the subject site



PHOTO 5

Honey Creek (T-2) observed on the eastern portion of the subject site



PHOTO 6

Unnamed tributary (T-3) observed on the northern portion of the subject site



PHOTO 7

Unnamed tributary (T-3) observed on the northern portion of the subject site



PHOTO 8

Swale (S-1) observed on the southern portion of the subject site



PHOTO 9

Swale (S-2) observed on the southern portion of the subject site



PHOTO 10

Swale (S-3) observed on the central portion of the subject site



PHOTO 11

Wetland (W-1) observed on the central portion of the subject site



PHOTO 12

Wetland (W-2) observed on the central portion of the subject site



PHOTO 13

Wetland (W-3) observed on the eastern portion of the subject site



PHOTO 14

Wetland (W-4) observed on the eastern portion of the subject site



PHOTO 15

Wetland (W-5) observed on the eastern portion of the subject site



PHOTO 16

General view of the subject site