The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 9, 2019, and executed by FHWA and TxDOT.
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1.0 Introduction

The Texas Department of Transportation (TxDOT) conducted a waters of the U.S. (WOTUS) delineation for a proposed road project on Loop 9, Segment B from Interstate Highway IH 35 East (IH 35E) to IH 45 in Dallas and Ellis counties, Texas (CSJ 2964-10-005). The delineation was completed on January 29 and May 1, 2019. Field evaluations occurred in discontinuous months as additional access became available.

The delineation was performed to evaluate the presence of jurisdictional WOTUS and identify their boundaries within the project area. It is anticipated that this waters of the U.S. delineation report (WOTUS DR) will be used in support of the jurisdictional determination process for on-site aquatic resources. If it is determined that jurisdictional resources will be impacted, this WOTUS DR will also support applications for regulatory permits that may be required from the United States Army Corps of Engineers (USACE) for proposed construction activities.

Waterbodies were delineated according to USACE Regulatory Guidance Letter (RGL) 05-05 Ordinary High Water Mark (OHWM) Identification for non-tidal waters and the Mean High Tide (MHT) line for tidal waters. As required under Section 404 of the Clean Water Act (CWA), wetlands were delineated using the routine method described in the USACE 1987 Wetlands Delineation Manual (1987 Manual) and the USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0) – March 2010 (2010 Regional Supplement). Wetland types and boundaries were determined through initial map review, followed by fieldwork involving the examination of three (3) parameters: hydrology, vegetation, and soils. Delineation criteria and indicators for each of these parameters are outlined in the 1987 Manual and the 2010 Regional Supplement. The 2010 Regional Supplement presents wetland indicators, delineation guidance, and other information that is specific to the Great Plains Region, per the regional supplement. Wetlands were classified according to the Cowardin Classification System used for the United States Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI).

This document contains the following four (4) attachments:

- Attachment 1 – Figures: contains maps of the project area
- Attachment 2 – Wetland Determination Data Forms: documents the three (3) criteria for wetlands at all sample points
- Attachment 3 – Historical Aerial Photographs: contains historical aerial imagery, starting with the oldest photographs first
- Attachment 4 - Site Photographs: contains photographs taken during the site visit(s)

2.0 Project Overview

The TxDOT-Dallas District proposes the construction of Loop 9 as a new location frontage road system between IH 35E to IH 45 through Dallas and Ellis Counties, Texas. The length of the project is an approximate ten-mile new location frontage road system. The proposed project would also include the preservation of right-of-way (ROW) for an ultimate access-controlled main lane facility. Construction of the future main lanes would be based on projected traffic and funding and would require additional environmental analysis prior to construction.

This project is going through the planning, specifications, and estimates (PS&E) process. It was determined during the PS&E process that additional ROW must be required for construction of the IH 35E Interchange.

The proposed construction of the IH 35E Interchange will now require an additional approximately 41 acres of new right-of-way (ROW) for the use of staging area(s) along IH 35E for construction of the interchange at the proposed Loop 9, as well as the preservation of the additional ROW for future construction of the ultimate interchange facility (final phase). The proposed ROW located along the west side of IH 35E from north of Travis...
Street to south of Parakeet Drive will be needed, to accommodate the proposed interchange improvements of ramps, bridge structures, and frontage roads within the project area. Total project length of the IH 35E interchange at Loop 9 is approximately 0.5 miles in length.

This WOTUS DR only covers the approximately 41 acres of new ROW. Approximately 23 acres of the 41 acre project area (56 percent) have been surveyed. The remainder of the project area could not be field surveyed due to lack of right-of-entry (ROE). Those areas have been desktop delineated using available resources. Resources used to conduct the desktop delineation are described in Section 4.0.

Attachment 1 - Figures contains the following eight (8) maps of the project area:

- Figure 1 – Vicinity Map
- Figure 2 – Aerial Overview Map
- Figure 3 – USGS Topographic Map
- Figure 4 – NWI Wetland Map
- Figure 5 – NRCS Soils Map
- Figure 6 – FEMA Floodplain Map
- Figure 7 – LiDAR Map
- Figure 8 – Waters of the U.S. Delineation Map

3.0 Ecological Site Description

The project area is located within the Southwestern Prairies Cotton and Forage Land Resource Region (LRR J) of the Great Plains and is more specifically located in Major Land Resource Area (MLRA) 86A (Texas Blackland Prairie, Northern part). Most of this MLRA is characterized by a nearly level to gently sloping, dissected plain. Dissected areas with steeper slopes occur along entrenched river and creek valleys. This area supports mixed tall and mid-grass prairies. Areas along the major rivers and streams support savanna vegetation. Nearly all of this area is improved pasture, cropland, or rangeland. Urban development is rapidly increasing adjacent to the major cities.

The project area consists of existing and proposed ROW. Currently, the project area consists of disturbed land, agricultural land, pastures, shrublands and maintained residential lawns. Additionally, vegetation within existing ROW along IH 35E, within the project area, consists primarily of well maintained, regularly mowed, herbaceous roadside vegetation.

4.0 Methods

4.1 Map and Database Review

The following information sources were considered and, if applicable, consulted prior to and during the field delineation to assist in the identification of potential WOUS within the project area.

4.1.1 USGS Topographic Maps

The United States Geological Survey (USGS) topographic maps illustrate elevation contours, drainage patterns, and hydrography. The Lancaster, Texas, USGS Quadrangle (Quad) map was reviewed to determine the likelihood of the project area containing jurisdictional waterbodies.
4.1.2 USFWS NWI Data

NWI data were reviewed as a contributing resource to help identify potential wetland features located within the project area.

4.1.3 NRCS Soil Survey Data

The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) maintains an online Web Soil Survey database. The data provided in the Web Soil Survey provides a good basis for the soil textures and types one can expect to find at a particular delineation area. NRCS-mapped soil types at the project area were reviewed to determine which of the soils exhibit hydric characteristics. NRCS-mapped soil types are assigned a hydric indicator status of “hydric” or “non-hydric” by the National Technical Committee for Hydric Soils.

4.1.4 Aerial Photography

Aerial photography provides insight to the state and function of land resources. Signs of inundation and vegetative signatures on aerial images indicate whether land might be functioning as a wetland or supporting a stream system. Historic and current aerial photography was reviewed utilizing GeoSearch™ database and Google Earth, prior to and during the field delineation, in order to further understand the nature of the project area.

4.1.5 FEMA FIRM

The Federal Emergency Management Agency (FEMA) maintains flood insurance rate maps (FIRMs). The FIRM including the project area was reviewed to determine if the 100-year floodplain is mapped. The USACE utilizes the 100-year floodplain to assist in determining jurisdiction of aquatic features. FEMA FIRM data was reviewed to evaluate the location of any mapped floodplain in relation to aquatic resources located within the project area.

4.1.6 LiDAR

Light detection and ranging (LiDAR) is a remote sensing technique that measures spatial and temporal data. LiDAR information is provided by the Texas Natural Resources Information System (TNRIS) online database for each USGS Quad. LiDAR data was obtained for the Lancaster, Texas, USGS Quad to evaluate elevation changes throughout the project area.

4.2 Waters of the U.S. Delineation

With respect to any non-tidal waterbodies located within the project area, biologists followed the methodology outlined in Regulatory Guidance Letter (RGL) 05-05. With respect to any tidal waterbodies located within the site, biologists identified the MHT line by observing changes in vegetation, drift deposits of shells and debris, and physical markings or characteristics along the shoreline that may indicate the general height reached by a rising tide.

Data collected for any waterbodies includes average water depth, average width per waterbody, length of linear segments within the project boundary, and water flow classification (i.e., tidal, non-tidal, ephemeral, intermittent, and/or perennial).

Any wetland delineation was conducted based on the 1987 Manual and the 2010 Regional Supplement, as well as the three (3) parameters described within. The three-parameter approach requires investigation of hydrological characteristics, hydrophytic vegetation, and hydric soils at selected sample points within a project area. Sample points are located to ascertain upland/wetland boundaries and to record significant spatial changes in wetland plant communities. All three (3) indicator parameters must be met in order for the area to be classified as a wetland. See subsections on Hydrology, Vegetation, and Soils, below, for indicator-specific information.
Geospatial data was collected utilizing a Trimble GeoXH 6000 Series Global Positioning System (GPS) with sub-meter accuracy. All geospatial data was collected in accordance with the April 21, 2016 memorandum from the Galveston District of the USACE entitled, Standard Operating Procedure, Recording Jurisdictional Delineations using GPS.

4.2.1 Hydrology

Wetland hydrology is characterized when, under normal circumstances, the surface is either inundated or the upper horizon(s) of the soil are saturated at a sufficient frequency and duration to create anaerobic conditions. Seasonal and long-term rainfall patterns, local geology and topography, soil type, local water table conditions, and drainage are factors that influence hydrology.

Wetland hydrology indicators include: oxidized rhizospheres along living roots, saturated soils, standing surface water, algal mat, aquatic fauna, high water table, iron deposits, sparsely vegetated concave surface, geomorphic position, moss trim lines, water-stained leaves, crawfish burrows, watermarks, drainage patterns, and surface soil cracks.

During the field survey, these indicators were used to determine if an area exhibited wetland hydrology.

4.2.2 Vegetation

In accordance with the procedure set forth in the 1987 Manual and the 2010 Regional Supplement, the hydrophytic status of vegetation communities was determined by identifying dominant species and, if necessary, calculating a "Prevalence Index," as defined in the 1987 Manual.

Individual plant species were checked against the current National Wetland Plant List (NWPL), and their regional wetland indicator status was determined. Species are classified as follows:

- Obligate Wetland (OBL) if they almost always occur in wetlands (>99 percent of the time)
- Facultative Wetland (FACW) if they usually occur in wetlands (67-99 percent of the time)
- Facultative (FAC) if they are equally likely to occur in wetlands and non-wetlands (34-66 percent of the time)
- Facultative Upland (FACU) if they usually occur in non-wetlands (67-99 percent of the time)
- Obligate Upland (UPL) if they almost always occur in non-wetlands (>99 percent of the time)

A no indicator (NI) status is recorded for those species for which insufficient information is available to determine an indicator status.

Hydrophytic (wetland) vegetation is considered prevalent where more than 50% of the dominant species in a plant community have an indicator status of OBL, FACW, or FAC. However, in cases where the vegetation community does not meet this hydrophytic threshold, but indicators of hydric soils and wetlands hydrology are present, the prevalence index can be applied. Calculation of this index is based on consideration of both dominant and non-dominant plants in the vegetation community, whereby each indicator status category is given a numeric code and weighted by absolute percent cover. The prevalence index ranges from 1 to 5 and an index of 3.0 or less signifies that hydrophytic vegetation is present. In the current delineation, and as shown on the wetland determination data forms in Attachment 2, a prevalence index was calculated for each sample point's vegetation community.

4.2.3 Soils

Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper horizons. Anaerobic conditions created by repeated or prolonged
saturation or flooding result in permanent changes in soil color and chemistry. The changes in soil color are used to differentiate hydric from non-hydric soils.

At each sample point, in areas where the absence of inundation or heavy saturation allowed, a pit was excavated to a depth of at least 16 inches to reveal soil profiles and to determine whether or not positive indicators of hydric soils were present. Hydric soil indicators relate to color, structure, organic content, and the presence of reducing conditions. Color characteristics (Hue, Value, and Chroma) were recorded using Munsell® Charts.

5.0 Results

5.1 Map and Database Review

5.1.1 USGS Topographic Maps

The USGS Lancaster, Texas 7.5-minute topographic Quad map from 2019 was reviewed to assess the surface topography within the project area. A review of the topographic map indicates that elevation varies slightly throughout the project area. Topography within the southern half of the project area slopes in a general southern direction within the Headwaters of Red Oak Creek sub watershed. Topography within the northern half of the project area slopes in a general northern direction within the Middle Red Oak Creek sub watershed. Both sub watersheds are within the Red Oak Creek watershed. Refer to Figure 3 in Attachment 1 for an illustration of topography.

5.1.2 USFWS NWI Data

No NWI features were identified within the project area. Refer to Figure 4 in Attachment 1 for an illustration of NWI features surrounding the project area.

5.1.3 NRCS Soil Survey Data

The table below summarizes the soil units represented within the project area based on information collected from the Web Soil Survey database. Refer to Figure 5 in Attachment 1 for an illustration of the mapped soil units in and surrounding the project area.

\[
\textbf{Table 1: NRCS Soil Units}
\]

<table>
<thead>
<tr>
<th>Soil Unit</th>
<th>Soil Unit Name</th>
<th>Description</th>
<th>Hydric/Non hydric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dallas County</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Austin silty clay, 1 to 3 percent slopes</td>
<td>Found in landform ridges, well drained and high runoff class, farmland of statewide importance</td>
<td>Non-hydric</td>
</tr>
<tr>
<td>44</td>
<td>Houston black clay, 1 to 3 percent slopes</td>
<td>Found in landform ridges, moderately well drained and a very high runoff class, all areas are prime farmland</td>
<td>Non-hydric</td>
</tr>
<tr>
<td>Ellis County</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AuB</td>
<td>Austin silty clay, 1 to 3 percent slopes</td>
<td>Found in landform ridges, well drained and high runoff class, farmland of statewide importance</td>
<td>Non-hydric</td>
</tr>
</tbody>
</table>
Table 1: NRCS Soil Units

<table>
<thead>
<tr>
<th>Soil Unit</th>
<th>Soil Unit Name</th>
<th>Description</th>
<th>Hydric/Non hydric</th>
</tr>
</thead>
<tbody>
<tr>
<td>HaB</td>
<td>Houston Black clay, 1 to 3 percent slopes</td>
<td>Found in landform ridges, moderately well drained and a very high runoff class, all areas are prime farmland</td>
<td>Non-hydric</td>
</tr>
</tbody>
</table>

5.1.4 Aerial Photography

Historic aerial imagery for the project and surrounding areas was evaluated using images provided by GeoSearch™ and Google Earth. The table below summarizes observations for the project area for each year reviewed. Attachment 3 contains copies of the historic aerial photographs reviewed for the project area.

Table 2: Historic Aerial Photography Observations

<table>
<thead>
<tr>
<th>Year</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1958</td>
<td>The 1958 aerial photograph depicts the majority of the project area and the surrounding area as predominantly rural and agricultural land use. IH 35E is visible in the photograph.</td>
</tr>
<tr>
<td>1968</td>
<td>Residential development began along IH 35E, north of the project area, between 1958 and 1968.</td>
</tr>
<tr>
<td>1981</td>
<td>Residential development began along Red Oak Creek and Little Creek west of the project area and continued in the surrounding areas. Development within the project area along IH 35E continued between 1972 and 1981.</td>
</tr>
<tr>
<td>1995</td>
<td>Residential development continued along IH 35E north and east of the project area as well as within the city of Glenn Heights between 1981 and 1995.</td>
</tr>
<tr>
<td>2016</td>
<td>Development has increased steadily from 1958 to present in the areas surrounding the project area, land use within the project area is a mix of rural, residential, and commercial.</td>
</tr>
</tbody>
</table>

5.1.5 FEMA FIRM

A review of FEMA FIRMs indicated that the project area is located outside of the floodplain. Refer to Figure 6 in Attachment 1 for an illustration of the FEMA FIRM data surrounding the project area.
5.1.6 LiDAR

A review of LiDAR data indicated the topography within the southern half of the project area is generally sloping from the north to the south while the topography within the northern half of the project area is generally sloping from the south to the north. Refer to Figure 7 in Attachment 1 for an illustration of LiDAR data within the project area.

5.2 Waters of the U.S. Delineation

The table below summarizes the waterbodies/wetlands identified within the project area. Refer to Figure 8 in Attachment 1 for a depiction of the boundaries of each waterbody/wetland feature, as well as the location within the project area where sample point data were collected. Refer to Attachment 2, Wetland Determination Data Forms, for the completed wetland determination data forms for the project. Refer to Attachment 4, Site Photos, for photographs of the project area.

Table 3: Summary of Waterbody/Wetland Features

<table>
<thead>
<tr>
<th>Waterbody or Wetland Number</th>
<th>Name</th>
<th>Type</th>
<th>Latitude, Longitude</th>
<th>Acres within project area (all waterbodies and wetlands)</th>
<th>Linear feet within project area (waterbodies only)</th>
<th>Potentially Jurisdictional (Section 404)?</th>
<th>Potentially Navigable (Section 10)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pond 10</td>
<td>Pond</td>
<td>Man-made Pond</td>
<td>32.546524, -96.825042</td>
<td>0.03</td>
<td>NA</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>0.03</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NA Not Applicable; used to denote when a feature is not measured in that unit

5.2.1 Hydrology

Normal hydrologic circumstances were present within the project area. The table below summarizes wetland hydrological indicators identified within the project area. Refer to the wetland determination data forms in Attachment 2 to see the specific hydrology recorded at each sample point.

Table 4: Wetland Hydrological Indicators

<table>
<thead>
<tr>
<th>Wetland Type</th>
<th>Sample Point Name(s)</th>
<th>Primary Wetland Hydrological Indicators</th>
<th>Secondary Wetland Hydrological Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>DPB060</td>
<td>N/A</td>
<td>Geomorphic Position</td>
</tr>
</tbody>
</table>
5.2.2 Vegetation

Normal circumstances were present within the project area. Representative dominant taxa for each distinct habitat type encountered within the project area are listed in the tables below. Indicator status for each species was obtained from the 2016 NWPL.

**Table 5: Disturbed Prairie Dominant Plant Species**

<table>
<thead>
<tr>
<th>Strata</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>NWPL Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sapling/Shrub</td>
<td><em>Juniperus virginiana</em></td>
<td>Eastern red cedar</td>
<td>UPL</td>
</tr>
<tr>
<td>Sapling/Shrub</td>
<td><em>Maclura pomifera</em></td>
<td>Osage orange</td>
<td>FACU</td>
</tr>
<tr>
<td>Herb</td>
<td><em>Cynodon dactylon</em></td>
<td>Bermuda grass</td>
<td>FACU</td>
</tr>
<tr>
<td>Herb</td>
<td><em>Sorghum halepense</em></td>
<td>Johnson grass</td>
<td>FACU</td>
</tr>
</tbody>
</table>

**Table 6: Urban Dominant Plant Species**

<table>
<thead>
<tr>
<th>Strata</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>NWPL Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herb</td>
<td><em>Lolium perenne</em></td>
<td>Ryegrass</td>
<td>FACU</td>
</tr>
<tr>
<td>Herb</td>
<td><em>Cynodon dactylon</em></td>
<td>Bermuda grass</td>
<td>FACU</td>
</tr>
</tbody>
</table>

5.2.3 Soils

Common soils found within the project area include clay, clay loam, dark matrix color with a chroma of 2 or 3 and low value of 1 or 2. Normal circumstances were present throughout the project area. No sample points exhibited hydric soils within the project area. Refer to the wetland determination data forms in Attachment 2 to see the specific soil data recorded at each sample point.

6.0 Conclusion

A WOTUS delineation was conducted for the Loop 9, Segment B from IH 35E to IH 45 in Dallas and Ellis counties, Texas (CSJ 2964-10-005). The field delineation was completed on January 29 and May 1, 2019. Refer to Section 5.2, above, for a table summarizing the aquatic resources (i.e., waterbodies/wetlands) identified within the project area.

Based on observations and data collected in the field, as well as desktop delineations where field access was not available, 0.03 acres of open water features were delineated within the project area. Based on best professional judgment, it was determined that 0.0 acres of open water features delineated within the project area would be considered jurisdictional.

Pond 10 is a man-made feature excavated in an upland area of the proposed project area. Pond 10 is located outside of the 100-year floodplain with no surface water connections observed; therefore, Pond 10 is considered potentially non-jurisdictional.

The professional opinion offered in this report is based on best professional judgement. It should be noted that the USACE makes the final determination on the location of waterbody and wetland boundaries and their jurisdictional status. To obtain an official jurisdictional determination (JD) from the USACE, this report must be
submitted to the USACE Fort Worth District Office, along with a JD request form and, if appropriate, a pre-construction notification / permit application.
7.0 References


8.0 Attachments

1. Figures
2. Wetland Determination Data Forms
3. Historical Aerial Photographs
4. Site Photographs
Attachment 1 - Figures
Project Area

Loop 9, Segment B: IH 35E to IH 45
CSJ: 2964-10-005
Vicinity Map

Dallas & Ellis Counties, Texas

DATE: March 2020

Project Alignment Sources: 2020-01-15-LP9 ULT-Alternative 1.kmz (includes IH 35E)
Project Alignment Sources: 2020-01-15-LP9 ULT-Alternative 1.kmz (includes IH 35E)
Loop 9, Segment B: IH 35E to IH 45
CSJ: 2964-10-005
USGS Topographic Map

Dallas & Ellis Counties, Texas

Figure 3

Date: March 2020

Project Alignment Sources: 2020-01-15-LP9 ULT-Alternative 1.kmz (includes IH 35E)
Loop 9, Segment B: IH 35E to IH 45
CSJ: 2964-10-005
NWI Wetlands Overview
Dallas & Ellis Counties, Texas

DATE: March 2020
Loop 9, Segment B: IH 35E to IH 45
CSJ: 2964-10-005
NRCS Soils Overview
Dallas & Ellis Counties, Texas

DATE:
March 2020
Project Alignment Sources: 2020-01-15-LP9 ULT-Alternative 1.kmz (includes IH 35E)

Sources: ESRI Imagery 2018; Open Street Map; TIGER Roads 2015; NRCS Soils, Accessed Soil Data Access 2019

FIGURE 5
Sheet 1

DATE: March 2020

PROJECT AREA
23 - Dalco clay, 1 to 3 percent slopes
30 - Eddy-Stephen complex, 1 to 5 percent slopes
44 - Houston Black clay, 1 to 3 percent slopes
5 - Austin silty clay, 1 to 3 percent slopes

LOOP 9, SEGMENT B: IH 35E TO IH 45
CSJ: 2964-10-005
NRCS SOILS MAP

DALLAS & ELLIS COUNTIES, TEXAS
Loop 9, Segment B: IH 35E to IH 45
CSJ: 2964-10-005
NRCS Soils Map

Dallas & Ellis Counties, Texas

DATE: March 2020

FIGURE 5
Sheet 2

Project Alignment Sources: 2020-01-15-LP9 ULT-Alternative 1.kmz (includes IH 35E)
LOOP 9, SEGMENT B: IH 35E TO IH 45
CSJ: 2964-10-005
NRCS SOILS MAP

DALLAS & ELLIS COUNTIES, TEXAS

FIGURE 5
Sheet 3

DATE: MARCH 2020

Project Alignment Sources: 2020-01-15-LP9 ULT-Alternative 1.kmz (includes IH 35E)

Sources: ESRI Imagery 2018; Open Street Map; TIGER Roads 2015; NRCS Soils, Accessed Soil Data Access 2019

Legend:
- Project Area
  - AuB - Austin silty clay, 1 to 3 percent slopes
  - AuC2 - Austin silty clay, 2 to 5 percent slopes, eroded
  - HAB - Houston Black clay, 1 to 3 percent slopes

DATE: March 2020

0 125 250 Feet
Loop 9, Segment B: IH 35E to IH 45
CSJ: 2964-10-005
FEMA Floodplains Map

Dallas & Ellis Counties, Texas

DATE: March 2020

Project Alignment Sources: 2020-01-15-LP9 ULT-Alternative 1.kmz (includes IH 35E)
Loop 9, Segment B: IH 35E to IH 45
CSJ: 2964-10-005
Waters of the U.S. Delineation Overview
Dallas & Ellis Counties, Texas

DATE:
March 2020

Project Alignment Sources: 2020-01-15-LP9-ULT-Alternative1.kmz (includes IH 35E)
LOOP 9, SEGMENT B: IH 35E TO IH 45
CSJ: 2964-10-005
WATERS OF THE U.S. DELINEATION MAP
DALLAS & ELLIS COUNTIES, TEXAS

DATE: MARCH 2020

Figure 8
Sheet 1
LOOP 9, SEGMENT B: I-35E TO I-45
CSJ: 2964-10-005
WATERS OF THE U.S. DELINEATION MAP
DALLAS & ELLIS COUNTIES, TEXAS

DATE: MARCH 2020

Project Alignment Sources: 2020-01-15-LP9 ULT-Alternative 1.kmz (includes I-35E)
Attachment 2 - Wetland Determination Data Forms
**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Loop 9, Segment B  
**County:** Ellis  
**Sampling Date:** January 29, 2019

**Applicant/Owner:** TxDOT-Dallas District  
**State:** Texas  
**Sampling Point:** DPB012

**Investigator(s):** Grahme Borchardt and Sally Clark

**Landform (hillslope, terrace, etc.):** Flat  
**Local relief (concave, convex, none):** None  
**Slope (%):** 00-05

**Subregion (LRR):** LRR J  
**Lat:** -96.82490  
**Long:** 32.54646  
**Datum:** NAD 1983 (CONUS)

**Soil Map Unit Name:** Austin silty clay, 1 to 3 percent slopes  
**NWI Classification:** Upland

**Are climatic / hydrologic conditions on the site typical for this time of year?** Yes X  
**No** (if no, explain in Remarks.)

**Are Vegetation** No  
**Soil** No  
**Or Hydrology** No  
**significantly disturbed? Are "Normal Circumstances" present?** Yes X  
**No**

**Are Vegetation** No  
**Soil** No  
**Or Hydrology** No  
**naturally problematic?** (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

<table>
<thead>
<tr>
<th>Hydrophytic Vegetation Present?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
</tbody>
</table>

**Is the Sampled Area** within a Wetland?  
**Yes**  
**No**  
**X**

**Remarks:**  
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

**VEGETATION - Use scientific names of plants.**

**Tree Stratum** (Plot size: 30 ft.)

<table>
<thead>
<tr>
<th>Species?</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>None Observed</td>
<td></td>
</tr>
<tr>
<td>None Observed</td>
<td></td>
</tr>
<tr>
<td>None Observed</td>
<td></td>
</tr>
<tr>
<td>None Observed</td>
<td></td>
</tr>
<tr>
<td>None Observed</td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
</tr>
</tbody>
</table>

**Sapling/Shrub Stratum** (Plot size: 15 ft.)

<table>
<thead>
<tr>
<th>Species?</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>None Observed</td>
<td></td>
</tr>
<tr>
<td>None Observed</td>
<td></td>
</tr>
<tr>
<td>None Observed</td>
<td></td>
</tr>
<tr>
<td>None Observed</td>
<td></td>
</tr>
<tr>
<td>None Observed</td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
</tr>
</tbody>
</table>

**Herb Stratum** (Plot size: 5 ft.)

<table>
<thead>
<tr>
<th>Species?</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorghum halepense</td>
<td>FACU</td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Woody Vine Stratum** (Plot size: 30 ft.)

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>None Observed</td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Hydrophytic Vegetation Indicators:**

1. Rapid Test for Hydrophytic Vegetation
2. Dominance Test is >50%
3. Prevalence Index is ≤ 3.0
4. Morphological Adaptations (Explain)

**Problematic Hydrophytic Vegetation** (Explain)

**Hydrophytic Vegetation Present?**  
**Yes**  
**No**  
**X**

**Remarks:**  
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).
### Profile Description:
(Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Color (moist)</th>
<th>%</th>
<th>Color (moist)</th>
<th>%</th>
<th>Type</th>
<th>Loc</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20</td>
<td>10YR 2/1</td>
<td>100</td>
<td>None</td>
<td></td>
<td>—</td>
<td>—</td>
<td>Clay Loam</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Type 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Location</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Remarks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Hydric Soils Indicators:
(Applicable to all LRRs, unless otherwise noted.)

<table>
<thead>
<tr>
<th>Type</th>
<th>Depth (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Histosol (A1)</td>
<td>Sandy Gleyed Matrix (S4)</td>
</tr>
<tr>
<td>Histic Epipedon (A2)</td>
<td>Sandy Redox (S5)</td>
</tr>
<tr>
<td>Black Histic (A3)</td>
<td>Stripped Matrix (S6)</td>
</tr>
<tr>
<td>Hydrogen Sulfide (A4)</td>
<td>Loamy Mucky Mineral (F1)</td>
</tr>
<tr>
<td>Stratified Layers (A5) (LRR F)</td>
<td>Loamy Gleyed Matrix (F2)</td>
</tr>
<tr>
<td>1 cm Muck (A9) (LRR F, G, H)</td>
<td>Depleted Matrix (F3)</td>
</tr>
<tr>
<td>Depleted Below Dark Surface (A11)</td>
<td>Redox Dark Surface (F6)</td>
</tr>
<tr>
<td>Thick Dark Surface (A12)</td>
<td>Depleted Dark Surface (F7)</td>
</tr>
<tr>
<td>Sandy Mucky Mineral (S1)</td>
<td>Redox Depressions (F8)</td>
</tr>
<tr>
<td>2.5 cm Mucky Peat or Peat (S2) (LRR G, H)</td>
<td>High Plains Depressions (F16)</td>
</tr>
<tr>
<td>5 cm Mucky Peat or Peat (S3) (LRR F)</td>
<td>(MLRA 72 &amp; 73 of LRR H)</td>
</tr>
</tbody>
</table>

### Indicator for Problematic Hydric Soils:

<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
<th>Depth (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 cm Muck (A9) (LRR I, J)</td>
<td>Coast Prairie Redox (A16) (LRR F, G, H)</td>
<td></td>
</tr>
<tr>
<td>Dark Surface (S7) (LRR G)</td>
<td>Reduced Vertic (F18)</td>
<td></td>
</tr>
<tr>
<td>High Plains Depressions (F16)</td>
<td>Very Shallow Dark Surface (TF12)</td>
<td></td>
</tr>
<tr>
<td>Red Parent Material (TF2)</td>
<td>Other (Explain in Remarks)</td>
<td></td>
</tr>
<tr>
<td>Reduced Vertic (F18)</td>
<td>Other (Explain in Remarks)</td>
<td></td>
</tr>
<tr>
<td>High Plains Depressions (F16)</td>
<td>Other (Explain in Remarks)</td>
<td></td>
</tr>
<tr>
<td>(where tilled)</td>
<td>Other (Explain in Remarks)</td>
<td></td>
</tr>
<tr>
<td>Clay Inundation (B7) (LRR F)</td>
<td>Other (Explain in Remarks)</td>
<td></td>
</tr>
</tbody>
</table>

### Restrictive Layer (if observed):

<table>
<thead>
<tr>
<th>Type</th>
<th>Depth (inches):</th>
</tr>
</thead>
</table>

Hydric Soil Present? Yes No X

Remarks:
No positive indication of hydric soils was observed.

### HYDROLOGY

**Wetland hydrology Indicators:**

<table>
<thead>
<tr>
<th>Primary Indicators (minimum of one is required; check all that apply)</th>
<th>Secondary Indicators (minimum of two required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Water (A1)</td>
<td>Salt Crust (B11)</td>
</tr>
<tr>
<td>High Water Table (A2)</td>
<td>Aquatic Invertebrates (B13)</td>
</tr>
<tr>
<td>Saturation (A3)</td>
<td>Hydrogen Sulfide Odor (C1)</td>
</tr>
<tr>
<td>Water Marks (B1)</td>
<td>Dry-Season Water Table (C2)</td>
</tr>
<tr>
<td>Sediment Deposits (B2)</td>
<td>Oxidized Rhizospheres on Living Roots (C3)</td>
</tr>
<tr>
<td>Drift Deposits (B3)</td>
<td>(where not tilled)</td>
</tr>
<tr>
<td>Algal Mat or Crust (B4)</td>
<td>Presence of Reduced Iron (C4)</td>
</tr>
<tr>
<td>Iron Deposits (B5)</td>
<td>Thin Muck Surface (C7)</td>
</tr>
<tr>
<td>Inundation Visible on Aerial Imagery (B7)</td>
<td>Other (Explain in Remarks)</td>
</tr>
<tr>
<td>Water-Stained Leaves (B9)</td>
<td>Fuzzy-Rough Texture (D5)</td>
</tr>
</tbody>
</table>

**Field Observations:**

<table>
<thead>
<tr>
<th>Surface Water Present? Yes No X</th>
<th>Depth (inches): N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Table Present? Yes No X</td>
<td>Depth (inches): N/A</td>
</tr>
<tr>
<td>Saturation Present? Yes No X</td>
<td>Depth (inches): N/A</td>
</tr>
</tbody>
</table>

Wetland Hydrology Present? Yes No X

Remarks:
No positive indication of wetland hydrology was observed.
WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: Loop 9, Segment B  
County: Ellis  
Sampling Date: January 29, 2019

Applicant/Owner: TxDOT-Dallas District  
State: Texas  
Sampling Point: DPB013

Investigator(s): Grahme Borchardt and Sally Clark  
Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Flat  
Local relief (concave, convex, none): None  
Slope (%): 00-05

Subregion (LRR): LRR J  
Lat: -96.82471  
Long: 32.54561  
Datum: NAD 1983 (CONUS)

Soil Map Unit Name: Houston black clay, 1 to 3 percent slopes  
NWI Classification: Upland

Hydrophytic Vegetation Present? Yes  
Hydric Soil Present? No  
Wetland Hydrology Present? Yes  
Is the Sampled Area within a Wetland? Yes

Remarks:  
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

<table>
<thead>
<tr>
<th>Tree Stratum</th>
<th>Absolute Dominant Indicator</th>
<th>Absolute Dominant Indicator</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Plot size: 30 ft.)</td>
<td>% cover</td>
<td>Species?</td>
<td>Status</td>
</tr>
<tr>
<td>1. None Observed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sapling/Shrub Stratum</th>
<th>(Plot size: 15 ft.)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Maclura pomifera</td>
<td>3</td>
<td>Yes</td>
<td>FACU</td>
</tr>
<tr>
<td>2. Juniperus virginiana</td>
<td>5</td>
<td>Yes</td>
<td>UPL</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Herb Stratum</th>
<th>(Plot size: 5 ft.)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cynodon dactylon</td>
<td>97</td>
<td>Yes</td>
<td>FACU</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Woody Vine Stratum</th>
<th>(Plot size: 30 ft.)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. None Observed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

% Bare Ground in Herb Stratum 3

Hydrophytic Vegetation Present? Yes

Remarks:  
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).
## SOM:

### Profile Description:

(Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Matrix</th>
<th>Redox Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20</td>
<td>Color (moist)</td>
<td>%</td>
</tr>
<tr>
<td>10YR 2/1</td>
<td>100</td>
<td>None</td>
</tr>
</tbody>
</table>

### Hydric Soils Indicators:

(Applicable to all LRRs, unless otherwise noted.)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Histosol (A1)</td>
<td>Sandy Gleyed Matrix (S4)</td>
</tr>
<tr>
<td>Histic Epipedon (A2)</td>
<td>Sandy Redox (S5)</td>
</tr>
<tr>
<td>Black Histic (A3)</td>
<td>Stripped Matrix (S6)</td>
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<td>Loamy Mucky Mineral (F1)</td>
</tr>
<tr>
<td>Stratified Layers (A5) (LRR F)</td>
<td>Loamy Gleyed Matrix (F2)</td>
</tr>
<tr>
<td>1 cm Muck (A9) (LRR F, G, H)</td>
<td>Depleted Matrix (F3)</td>
</tr>
<tr>
<td>Depleted Below Dark Surface (A11)</td>
<td>Redox Dark Surface (F6)</td>
</tr>
<tr>
<td>Thick Dark Surface (A12)</td>
<td>Depleted Dark Surface (F7)</td>
</tr>
<tr>
<td>Sandy Mucky Mineral (S1)</td>
<td>Redox Depressions (F8)</td>
</tr>
<tr>
<td>2.5 cm Mucky Peat or Peat (S2) (LRR G, H)</td>
<td>High Plains Depressions (F16)</td>
</tr>
<tr>
<td>5 cm Mucky Peat or Peat (S3) (LRR F)</td>
<td>MLRA 72 &amp; 73 of LRR H</td>
</tr>
</tbody>
</table>

### Indicators for Problematic Hydric Soils:

1 cm Muck (A9) (LRR I, J)
Coast Prairie Redox (A16) (LRR F, G, H)
Dark Surface (S7) (LRR G)
Red Parent Material (TF2)
Very Shallow Dark Surface (TF12)
Reduced Vertic (F18)
High Plains Depressions (F16)
(TFR H outside of MLRA 72 & 73)

### Restrictive Layer (if observed):

<table>
<thead>
<tr>
<th>Type</th>
<th>Depth (inches):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hydric Soil Present?</td>
</tr>
</tbody>
</table>

### Remarks:

No positive indication of hydric soils was observed.

## HYDROLOGY

### Wetland hydrology Indicators:

<table>
<thead>
<tr>
<th>Primary Indicators (minimum of one is required; check all that apply)</th>
<th>Secondary Indicators (minimum of two required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Water (A1)</td>
<td>Salt Crust (B11)</td>
</tr>
<tr>
<td>High Water Table (A2)</td>
<td>Aquatic Invertebrates (B13)</td>
</tr>
<tr>
<td>Saturation (A3)</td>
<td>Hydrogen Sulfide Odor (C1)</td>
</tr>
<tr>
<td>Water Marks (B1)</td>
<td>Dry-Season Water Table (C2)</td>
</tr>
<tr>
<td>Sediment Deposits (B2)</td>
<td>Oxidized Rhizospheres on Living Roots (C3)</td>
</tr>
<tr>
<td>Drift Deposits (B3)</td>
<td>(where not tilled)</td>
</tr>
<tr>
<td>Algal Mat or Crust (B4)</td>
<td>Presence of Reduced Iron (C4)</td>
</tr>
<tr>
<td>Iron Deposits (B5)</td>
<td>Thin Muck Surface (C7)</td>
</tr>
<tr>
<td>Inundation Visible on Aerial Imagery (B7)</td>
<td>Other (Explain in Remarks)</td>
</tr>
<tr>
<td>Water-Stained Leaves (B9)</td>
<td>FAC-Neutral Test (D5)</td>
</tr>
</tbody>
</table>

### Field Observations:

<table>
<thead>
<tr>
<th>Surface Water Present?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
<th>Depth (inches):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Table Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
<td>Depth (inches):</td>
</tr>
<tr>
<td>Saturation Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
<td>Depth (inches):</td>
</tr>
</tbody>
</table>

### Wetland Hydrology Present?

Yes | No | X

### Remarks:

No positive indication of wetland hydrology was observed.
WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site:  Loop 9, Segment B  County:  Ellis  Sampling Date:  May 1, 2019
Applicant/Owner:  TxDOT- Dallas District  State:  TX  Sampling Point:  DPB058
Investigator(s):  Grahme Borchardt and Jason Voight  Section, Township, Range:  N/A
Landform (hillslope, terrace, etc.):  Ditch  Local relief (concave, convex, none):  Concave  Slope (%):  00-05
Soil Map Unit Name:  Austin silty clay, 1 to 3 percent slopes  NWI Classification:  Upland
Are climatic / hydrologic conditions on the site typical for this time of year?  Yes No    (if no, explain in Remarks.)
Are Vegetation No   Soil Yes  or Hydrology No  significantly disturbed?  Are "Normal Circumstances" present?  Yes X No
Are Vegetation No   Soil No  or Hydrology No  naturally problematic?  (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?  Yes No  X
Hydric Soil Present?  Yes No  X
Wetland Hydrology Present?  Yes No  X
Is the Sampled Area within a Wetland?  Yes No  X
Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.
Entire soil profile consisted of fill material from construction of the adjacent roadway facility.

VEGETATION - Use scientific names of plants.

Dominance Test worksheet:
Number of Dominant Species
That Are OBL, FACW, or FAC:  0   (A)
Total Number of Dominant Species Across All Strata:  2   (B)
Percent of Dominant Species
That Are OBL, FACW, or FAC:  0   (A/B)
Prevalence Index Worksheet:
Total % Cover of:  Multiply by:
OBL species  0   x 1 =  0
FACW species  0   x 2 =  0
FAC species  0   x 3 =  0
FACU species  90   x 4 =  360
UPL species  0   x 5 =  0
Column Totals:  90   (A)  360   (B)
Prevalence Index = B/A =  4.00

Hydrophytic Vegetation Indicators:
1 - Rapid Test for Hydrophytic Vegetation
2 - Dominance Test is >50%
3 - Prevalence Index is ≤ 3.01
4 - Morphological Adaptations1 (Explain)
Problematic Hydrophytic Vegetation1 (Explain)

Hydrophytic Vegetation Present?  Yes No  X
Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).
### Profile Description:
(Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Color (moist)</th>
<th>%</th>
<th>Color (moist)</th>
<th>%</th>
<th>Type</th>
<th>Loc</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20</td>
<td>10YR 3/1</td>
<td>85</td>
<td>None</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Clay Loam</td>
</tr>
<tr>
<td>0-20</td>
<td>None</td>
<td>15</td>
<td>None</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Gravel</td>
</tr>
</tbody>
</table>

1. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.
2. Location: PL=Pore Lining, M=Matrix.

**Hydric Soils Indicators:** (Applicable to all LRRs, unless otherwise noted.)

- *Histosol (A1)*
  - Sandy Gleyed Matrix (S4)
- *Histic Epipedon (A2)*
  - Sandy Redox (S5)
- *Black Histic (A3)*
  - Stripped Matrix (S6)
- *Hydrogen Sulfide (A4)*
  - Loamy Mucky Mineral (F1)
- *Stratified Layers (A5) (LRR F)*
  - Loamy Gleyed Matrix (F2)
- *1 cm Muck (A9) (LRR F, G, H)*
  - Depleted Matrix (F3)
- *Depleted Below Dark Surface (A11)*
  - Redox Dark Surface (F6)
- *Thick Dark Surface (A12)*
  - Depleted Dark Surface (F7)
- *Sandy Mucky Mineral (S1)*
  - Redox Depressions (F8)
- *2.5 cm Mucky Peat or Peat (S2) (LRR G, H)*
  - High Plains Depressions (F16)
- *5 cm Mucky Peat or Peat (S3) (LRR F)*
  - (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- *High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)*
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

**Restrictive Layer (if observed):**

<table>
<thead>
<tr>
<th>Type:</th>
<th>Depth (inches):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hydric Soil Present?** Yes No X

**Remarks:** No positive indication of hydric soils was observed.

### HYDROLOGY

**Wetland hydrology Indicators:**

- **Primary Indicators (minimum of one is required; check all that apply):**
  - Surface Water (A1)
  - High Water Table (A2)
  - Saturation (A3)
  - Water Marks (B1)
  - Sediment Deposits (B2)
  - Drift Deposits (B3) (where not tilled)
  - Algal Mat or Crust (B4)
  - Iron Deposits (B5)
  - Inundation Visible on Aerial Imagery (B7)
  - Water-Stained Leaves (B9)

- **Secondary Indicators (minimum of two required):**
  - Salt Crust (B11)
  - Aquatic Invertebrates (B13)
  - Hydrogen Sulfide Odor (C1)
  - Dry-Season Water Table (C2)
  - Oxidized Rhizospheres on Living Roots (C3)
  - Thin Muck Surface (C7)
  - Presence of Reduced Iron (C4)
  - Oxidized Rhizospheres on Living Roots (C3)
  - Oxidized Rhizospheres on Living Roots (C3)

**Field Observations:**

- **Surface Water Present?** Yes No X Depth (inches): N/A
- **Water Table Present?** Yes No X Depth (inches): N/A
- **Saturation Present?** Yes No X Depth (inches): N/A

**Wetland Hydrology Present?** Yes No X

**Remarks:** No positive indication of wetland hydrology was observed.
**WETLAND DETERMINATION DATA FORM - Great Plains Region**

Project/Site: Loop 9, Segment B  
County: Dallas  
Sampling Date: May 1, 2019  
Applicant/Owner: TxDOT - Dallas District  
State: TX  
Sampling Point: DPB059  
Investigator(s): Grahme Borchardt and Jason Voight  
Landform (hillslope, terrace, etc.): Ditch  
Local relief (concave, convex, none): Concave  
Subregion (LRR): LRR J  
Soil Map Unit Name: Austin silty clay, 1 to 3 percent slopes  
NWI Classification: Upland  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No  
Are Vegetation No Soil Yes or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No  
Are Vegetation No Soil No or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS** - Attach site map showing sampling point locations, transects, important features, etc.

<table>
<thead>
<tr>
<th>Hydrophytic Vegetation Present?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>Is the Sampled Area within a Wetland?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
</tbody>
</table>

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

Entire soil profile consisted of fill material from construction of the adjacent roadway facility.

**VEGETATION - Use scientific names of plants.**

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Plot Size</th>
<th>% Cover</th>
<th>Species</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree Stratum</td>
<td>30 ft.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. None Observed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sapling/Shrub Stratum</td>
<td>15 ft.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. None Observed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
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<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herb Stratum</td>
<td>5 ft.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Cynodon dactylon</td>
<td>60</td>
<td>Yes</td>
<td>FACU</td>
<td></td>
</tr>
<tr>
<td>2. Lolium perenne</td>
<td>30</td>
<td>Yes</td>
<td>FACU</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
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<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woody Vine Stratum</td>
<td>30 ft.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. None Observed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Bare Ground in Herb Stratum</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dominance Test worksheet:**

<table>
<thead>
<tr>
<th>Number of Dominant Species</th>
<th>That Are OBL, FACW, or FAC:</th>
<th>0</th>
<th>(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Dominant Species Across All Strata</td>
<td>2</td>
<td>(B)</td>
<td></td>
</tr>
<tr>
<td>Percent of Dominant Species</td>
<td>That Are OBL, FACW, or FAC:</td>
<td>0</td>
<td>(A/B)</td>
</tr>
</tbody>
</table>

**Prevalence Index Worksheet:**

<table>
<thead>
<tr>
<th>Total % Cover of:</th>
<th>Multiply by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL species</td>
<td>0 x 1 = 0</td>
</tr>
<tr>
<td>FACW species</td>
<td>0 x 2 = 0</td>
</tr>
<tr>
<td>FAC species</td>
<td>0 x 3 = 0</td>
</tr>
<tr>
<td>FACU species</td>
<td>90 x 4 = 360</td>
</tr>
<tr>
<td>UPL species</td>
<td>0 x 5 = 0</td>
</tr>
<tr>
<td>Column Totals:</td>
<td>90 x 4 = 360</td>
</tr>
<tr>
<td>Prevalence Index = B/A =</td>
<td>4.00</td>
</tr>
</tbody>
</table>

**Hydrophytic Vegetation Indicators:**

1. Rapid Test for Hydrophytic Vegetation
2. Dominance Test is >50%
3. Prevalence Index is ≤ 3.01
4. Morphological Adaptations1 (Explain)
5. Problematic Hydrophytic Vegetation1 (Explain)

1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).
### Profile Description:
(Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Matrix</th>
<th>Redox Features</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Color (moist)</td>
<td>%</td>
</tr>
<tr>
<td>0-18</td>
<td>None</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.*

**Hydric Soils Indicators:** (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (A1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)

**Indicators for Problematic Hydric Soils:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16)
- (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

**Restrictive Layer (if observed):**

<table>
<thead>
<tr>
<th>Type</th>
<th>Depth (inches):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Remarks:**
No positive indication of hydric soils was observed. Entire soil profile consisted of fill material from construction of the adjacent roadway facility.

### HYDROLOGY

#### Wetland hydrology Indicators:

- Primary Indicators (minimum of one is required; check all that apply):
  - Surface Water (A1) (Salt Crust (B11))
  - High Water Table (A2) (Aquatic Invertebrates (B13))
  - Saturation (A3) (Hydrogen Sulfide Odor (C1))
  - Water Marks (B1) (Dry-Season Water Table (C2))
  - Sediment Deposits (B2) (Oxidized Rhizospheres on Living Roots (C3))
  - Drift Deposits (B3) (where not tilled)
  - Algal Mat or Crust (B4) (Presence of Reduced Iron (C4))
  - Iron Deposits (B5) (Thin Muck Surface (C7))
  - Inundation Visible on Aerial Imagery (B7) (Other (Explain in Remarks))
  - Water-Stained Leaves (B9)

- Secondary Indicators (minimum of two required):
  - Surface Soil Cracks (B6)
  - Sparsely Vegetated Concave Surface (B8)
  - Drainage Patterns (B10)
  - Oxidized Rhizospheres on Living Roots (C3) (where tilled)
  - Crayfish Burrows (C8)
  - Saturation Visible on Aerial Imagery (C9)
  - Geomorphic Position (D2)
  - FAC-Neutral Test (D5)
  - Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

- Surface Water Present? Yes No X Depth (inches): N/A
- Water Table Present? Yes No X Depth (inches): N/A
- Saturation Present? Yes No X Depth (inches): N/A

**Wetland Hydrology Present?** Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**
No positive indication of wetland hydrology was observed.
WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: Loop 9, Segment B
County: Ellis
State: TX
Sampling Date: May 1, 2019
Applicant/Owner: TxDOT- Dallas District
State: TX
Sampling Point: DPB060

Investigator(s): Grahme Borchardt and Jason Voight
Section, Township, Range: N/A
Landform (hillslope, terrace, etc.): Ditch
Local relief (concave, convex, none): Concave
Slope (%): 00-05
Subregion (LRR): LRR J
Lat: 32.54207
Long: -96.82244
Datum: NAD 1983 (CONUS)

Soil Map Unit Name: Houston Black clay, 1 to 3 percent slopes
NWI Classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No
If no, explain in Remarks.
Are Vegetation No Soil Yes or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
If needed, explain any answers in Remarks.
Are Vegetation No Soil No or Hydrology No naturally problematic? Yes X No

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

<table>
<thead>
<tr>
<th>Hydrophytic Vegetation Present?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>Is the Sampled Area within a Wetland?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
</tbody>
</table>

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

Entire soil profile consisted of fill material from construction of the adjacent roadway facility

VEGETATION - Use scientific names of plants.

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size: 30 ft.)</th>
<th>Absolute % cover</th>
<th>Dominant Species?</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. None Observed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sapling/Shrub Stratum (Plot size: 15 ft.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Celtis laevigata</td>
<td>20</td>
<td>Yes</td>
<td>FAC</td>
</tr>
<tr>
<td>2. Juniperus virginiana</td>
<td>20</td>
<td>Yes</td>
<td>UPL</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herb Stratum (Plot size: 5 ft.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Lolium perenne</td>
<td>60</td>
<td>Yes</td>
<td>FACU</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woody Vine Stratum (Plot size: 30 ft.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. None Observed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Bare Ground in Herb Stratum</td>
<td>40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

Hydrophytic Vegetation Present? Yes X No

Hydrophytic Vegetation Indicators:
1. Rapid Test for Hydrophytic Vegetation
2. Dominance Test is >50%
3. Prevalence Index is ≤ 3.0
4. Morphological Adaptations
Problematic Hydrophytic Vegetation

Prevalence Index Worksheet:

<table>
<thead>
<tr>
<th>Total % Cover of:</th>
<th>Multiply by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL species</td>
<td>0 x 1 = 0</td>
</tr>
<tr>
<td>FACW species</td>
<td>0 x 2 = 0</td>
</tr>
<tr>
<td>FAC species</td>
<td>20 x 3 = 60</td>
</tr>
<tr>
<td>FACU species</td>
<td>60 x 4 = 240</td>
</tr>
<tr>
<td>UPL species</td>
<td>20 x 5 = 100</td>
</tr>
<tr>
<td>Column Totals:</td>
<td>100 x 400</td>
</tr>
</tbody>
</table>

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Present? Yes X No
### SOIL

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Matrix</th>
<th>Redox Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-16</td>
<td>None</td>
<td>100</td>
</tr>
</tbody>
</table>

**SOIL Profile Description:**

- **Redox Features**
  - **Matrix**
  - **Color (moist)**
  - **%**
  - **Color (moist)**
  - **%**
  - **Type**
  - **Loc**
  - **Texture**
  - **Remarks**

**Redox Features:**

- **Matrix**
  - **Color (moist)**
  - **%**
  - **Color (moist)**
  - **%**
  - **Type**
  - **Loc**
  - **Texture**
  - **Remarks**

**Indicators of Problematic Hydric Soils:**

- **Histosol (A1)**
- **Sandy Gleyed Matrix (S4)**
- **1 cm Muck (A9) (LRR I, J)**
- **Coast Prairie Redox (A16) (LRR F, G, H)**
- **Black Histic (A3)**
- **Sandy Redox (S5)**
- **Dark Surface (S7) (LRR G)**
- **Hydrogen Sulfide (A4)**
- **Stripped Matrix (S6)**
- **Red Plains Depressions (F16)**
- **Histic Epipedon (A2)**
- **Sandy Redox (S5)**
- **(LRR F, G, H)**
- **Coast Prairie Redox (A16) (LRR F, G, H)**
- **Stratified Layers (A5) (LRR F)**
- **Loamy Mucky Mineral (F1)**
- **Reduced Vertic (F18)**
- **1 cm Muck (A9) (LRR F, G, H)**
- **Depleted Matrix (F3)**
- **Red Parent Material (TF2)**
- **Depleted Below Dark Surface (A11)**
- **Redness Dark Surface (F5)**
- **Very Shallow Dark Surface (TF12)**
- **Thin Dark Surface (A12)**
- **Depleted Dark Surface (F7)**
- **Other (Explain in Remarks)**
- **Sandy Mucky Mineral (S1)**
- **Redox Depressions (F8)**
- **2.5 cm Mucky Peat or Peat (S2) (LRR G, H)**
- **High Plains Depressions (F16)**
- **5 cm Mucky Peat or Peat (S3) (LRR F)**
- **(MLRA 72 & 73 of LRR H)**

**Restrictive Layer (if observed):**

- **Type:**
- **Depth (inches):**
- **Hydric Soil Present?**
- **Yes**
- **No**
- **X**

**Remarks:**

No positive indication of hydric soils was observed.

Entire soil profile consisted of fill material from the construction of the adjacent roadway facility.

### HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one is required; check all that apply):**

- **Surface Water (A1)**
- **Salt Crust (B11)**
- **High Water Table (A2)**
- **Aquatic Invertebrates (B13)**
- **Saturation (A3)**
- **Hydrogen Sulfide Odor (C1)**
- **Water Marks (B1)**
- **Dry-Season Water Table (C2)**
- **Sediment Deposits (B2)**
- **Oxidized Rhizospheres on Living Roots (C3)**
- **Drift Deposits (B3)**
- **(where not tillled)**
- **Algal Mat or Crust (B4)**
- **Presence of Reduced Iron (C4)**
- **Iron Deposits (B5)**
- **Thin Muck Surface (C7)**
- **Inundation Visible on Aerial Imagery (B7)**
- **Other (Explain in Remarks)**
- **Water-Stained Leaves (B9)**

**Secondary Indicators (minimum of two required):**

- **Surface Soil Cracks (B6)**
- **Sparsely Vegetated Concave Surface (B8)**
- **Drainage Patterns (B10)**
- **Oxidized Rhizospheres on Living Roots (C3)**
- **Crayfish Burrows (C8)**
- **Saturation Visible on Aerial Imagery (C9)**
- **Geomorphic Position (D2)**
- **FAC-Neutral Test (D5)**
- **Frost-Heave Hummocks (D7) (LRR F)**

**Field Observations:**

- **Surface Water Present?**
- **Yes**
- **No**
- **X**
- **Depth (inches):**
- **N/A**

- **Water Table Present?**
- **Yes**
- **No**
- **X**
- **Depth (inches):**
- **N/A**

- **Saturation Present?**
- **Yes**
- **No**
- **X**
- **Depth (inches):**
- **N/A**

**Wetland Hydrology Present?**

- **Yes**
- **No**
- **X**

**Remarks:**

No positive indication of wetland hydrology was observed.

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No positive indication of wetland hydrology was observed.
Attachment 3 – Historical Aerial Photographs
Photo 1: Pond 10 within an overgrown field in the middle of the project area near DPB012. Photo taken April 2020. (32.546454°, -96.824894°)

Photo 2: Photo looking into an open field in the middle of the project area near DPB059. Photo facing west. Photo taken April 2020. (32.547815°, -96.822577°)
Photo 3: Photo of maintained urban vegetation along IH 35E. Photo facing northwest. Photo taken May 2019. (32.549558°, -96.822612°)

Photo 4: Photo looking into an agricultural field in the southern portion of the project. Photo facing west. Photo taken in April 2020. (32.544749°, -96.822585°)