



01 April 2022

Mr. James Bullington  
Freedom Development  
<<Submitted via E-mail>>

Re: ACIS McKinney - Waters of the United States Delineation  
Approximately 8.133 acres located approximately 1,500 feet south of the southeastern corner of Bloomdale Road and U.S. Highway 75 in the City of McKinney, Collin County, Texas

Dear Mr. Bullington,

Integrated Environmental Solutions, LLC (IES) performed a site survey to identify any aquatic features that meet a definition of a water of the United States on approximately 8.133 acres located the approximately 1,500 feet south of the southeastern corner of Bloomdale Road and U.S. Highway (US) 75 in the City of McKinney, Collin County, Texas (**Attachment A, Figure 1**). This report will ultimately assess and delineate potentially jurisdictional aquatic features to ensure compliance with Clean Water Act (CWA) Sections 401 and 404.

#### **INTRODUCTION**

Waters of the United States are protected under guidelines outlined in CWA Sections 401 and 404, in Executive Order (EO) 11990 (Protection of Wetlands), and by the review process of the Texas Commission on Environmental Quality (TCEQ). Agencies that regulate impacts to the nation's water resources within Texas include the U.S. Army Corps of Engineers (USACE), the U.S. Environmental Protection Agency (USEPA), the U.S. Fish and Wildlife Service (USFWS), and the TCEQ. The USACE has the primary regulatory authority for enforcing CWA Section 404 requirements for waters of the United States.

The decision for whether a CWA Section 404 permit is required on a property is determined if there are waters of the United States present and the extent of losses of those features. The USACE and USEPA have gone through rulemaking to define what is a water of the United States, independently and jointly, several times since the initial CWA. The longest standing definitions of waters of the United States were those published in 1986; however, these definitions were challenged in 2001 and 2007 U.S. Supreme Court decisions. Since then, both the Obama and Trump administration completed rulemaking to modify the definitions of waters of the United States in the Clean Water Rule in 2016 and the Navigable Water Protection Rule (NWPR) in 2020. A recent federal district court decision in Arizona struck down the NWPR but was silent on which definitions of waters of the United States would replace it. As of the date of this letter report, the USACE Fort Worth District has provided verbal guidance that the USACE will be utilizing the pre-2015 definitions (i.e., 1986 definitions combined with the *Rapanos* and *Carabell* U.S. Supreme Court decisions) to define waters of the United States. USEPA has indicated that the pre-2015 definitions will be in place until new definitions have been developed as part of the new definitions rulemaking process that was started in June 2021, prior to the Arizona court decision.

### 1986 Waters of the United States Definitions and Rapanos Decision

The definition of waters of the United States, in 33 Code of Federal Regulations (CFR) 328.3, includes waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, wetlands, sloughs, wet meadows, or natural ponds and all impoundments of waters otherwise defined as waters of the United States. Also included are wetlands adjacent to waters (other than waters that are themselves wetlands). The term *adjacent* is defined as bordering, contiguous, or neighboring. Jurisdictional wetlands are a category of waters of the United States and have been defined by the USACE 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.

Waters of the United States are defined in 33 CFR 328.3 (a), 13 November 1986, as:

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;*
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 purposes by industries in interstate commerce;*
4. *All impoundments of waters otherwise defined as waters of the United States under the definition;*
5. *Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;*
6. *The territorial seas;*
7. *Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)-(6) of this section.*

On 05 June 2007, the USACE and the USEPA issued joint guidance on delineation of waters on the United States based on the U.S. Supreme Court decisions in *Rapanos* and *Carabell*. Under this guidance, potential waters of the United States have been classified as traditional navigable waters (TNW), relatively permanent waters (RPW) (i.e., having flow most of the year or at least seasonally), or non-RPWs. This guidance states that TNWs and RPWs and contiguous or adjacent wetlands to these aquatic features are waters of the United States. Wetlands that are bordering, contiguous, or neighboring another water of the United States is considered adjacent. Additionally, wetlands that are within the 100-year floodplain of another water of the United States are also considered adjacent. Non-RPWs, wetlands contiguous or adjacent to non-RPWs, and isolated wetlands must undergo a “significant nexus” test on a case-by-case basis to determine the jurisdictional nature of these aquatic features. Under the “significant nexus” test a water feature must have substantial connection to a TNW by direct flow, or by indirect biological, hydrologic, or chemical connection. Under the “significant nexus” test the USACE District Engineer must submit the jurisdictional determination (JD) to the regional USEPA office, which makes the decision whether to move the JD to Headquarters USACE to make the final determination.

This guidance does not void the January 2001 decision of the U.S. Supreme Court in *Solid Waste Agency of Northern Cook County (SWANCC) v. USACE* which disallowed regulation of isolated wetlands under the CWA through the “Migratory Bird Rule.” Previously, the USACE assumed jurisdiction over isolated waters of the United States based on its 1986 preamble stating that migratory birds used these habitats. The “Migratory Bird Rule” provided the nexus to interstate commerce and thus protection under the CWA. However, the new guidance does require that the “significant nexus” test be performed in addition to an analysis of other potential interstate commerce uses for isolated waters.

## METHODOLOGY

Prior to conducting fieldwork, the U.S. Geological Survey (USGS) topographic map (**Attachment A, Figures 2A and 2B**), the *Soil Survey of Collin County, Texas*, and the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) digital soil databases for Collin County (**Attachment A, Figure 3**), the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) (**Attachment A, Figure 4**), and recent and historic aerial photographs of the proposed survey area were studied to identify possible aquatic features that could meet the definition of waters of the United States and areas prone to wetland development. Tyler Frohlich and Claire Unruh of IES conducted the delineation in the field in accordance with the USACE procedures on 24 March 2022.

Wetland determinations and delineations were performed on location using the methodology outlined in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineer Wetland Delineation Manual: Great Plains Region (Version 2.0). The presence of a wetland is determined by the positive indication of three criteria (i.e., hydrophytic vegetation, hydrology, and hydric soils). Potential jurisdictional boundaries for other water features (i.e., non-wetland) were delineated in the field at the ordinary high-water mark (OHWM). The 33 CFR 328.3 (c)(7) defines OHWM as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Water feature boundaries were recorded on a Trimble GeoExplorer XT Global Positioning System (GPS) unit capable of sub-meter accuracy. Photographs were also taken at representative points within the survey area (**Attachment B**). Routine wetland determination data forms are provided in **Attachment C**. Historic aerial photographs, from Environmental Data Resources, Inc. (EDR), were used in the jurisdictional determination of some aquatic features, are included in **Attachment D**.

## RESULTS

### *Background Review*

#### Topographic Setting

The USGS topographic map (McKinney West 7.5' Quadrangle 1960, revised 1978) illustrates one blue line feature, oriented south-to-north, in the east (see **Attachment A, Figure 2A**). The 2019 McKinney West 7.5' Quadrangle map illustrates the blue line feature in similar alignment (see **Attachment A, Figure 2B**). The overall site topography was illustrated with slopes oriented southwest-to-northeast or southeast-to-northwest, towards the blue line feature. The maximum site elevation was approximately 640 feet above mean sea level (amsl) and a minimum elevation of approximately 600 feet amsl.

#### Soils

The USDA NRCS Web Soil Survey identified four soil map units within the survey area, Altoga silty clay, 5 to 8 percent slopes, eroded; Austin silty clay, 1 to 3 percent slopes; Austin silty clay, 2 to 5 percent slopes, eroded; and Eddy gravelly clay loam, 3 to 8 percent slopes, eroded. None of these soil map units were listed as a hydric soil on the Hydric Soils of Texas list prepared by the National Technical Committee for Hydric Soils (accessed 21 March 2022, Collin County, Texas) (see **Attachment A, Figure 3**). Hydric soils are described as those soils that are sufficiently wet in the upper part to develop anaerobic conditions during the growing season.

#### FEMA FIRM

The FEMA FIRM (Collin County; Map Panel 48453C0280J; effective 18 August 2014) shows the entire survey area within Zone X (Areas determined to be outside the 0.2 percent annual chance floodplain) (see **Attachment A, Figure 4**).

#### Historic Aerial Photographs

Historic aerial photographs from an aerial photograph decade package from EDR were also reviewed to understand the sequence of events that have occurred in the survey area (see **Attachment D**). The following paragraphs provide a description of the aerial photographs based on site conditions:

1942 – The survey area is characterized as an active agricultural field comprised of plowed fields in the west and indications of planted tree rows in the east, a drainage course bisects the property originating to the south and flowing out of the northern boundary. A homestead is visible in the southwest. Surrounding properties consist of similar land use including plowed fields, terraces, roads, drainages, and homesteads.

1951 – The southwestern homestead is no longer visible. The western plowed field appears as pastureland, which is no longer actively plowed. The trees in the eastern field appear larger. The drainage course is still visible with indication of further downcutting and erosion off the fields.

1968 – Tree cover increases along the drainage course and sporadically in the west. The trees in the eastern field are no longer apparent; however, the rows are clearing visible. Construction has begun on US 75 to the west. A linear drainage ditch has been cut along the northern boundary of the western field originating at the roadside ditch on the northbound US 75. Erosion scars are evident from the end of the linear ditch toward the drainage course.

1972 – The drainage ditch is still apparent from US 75 with less erosional scarring evident in this photograph. The drainage course has a strong woody canopy with clear evidence of downcutting to bedrock on the eastern bank. The eastern field still appears maintained as there is little woody encroachment.

2005-2012 – The property directly north has developed, while the drainage ditch, just to the south of the new development is still maintained. Woody cover has claimed the entire western portion to the drainage course along with some woody encroachment in the eastern field. A small pad site is evident beginning in the 2005 aerial photograph in the far southeastern corner.

#### Weather History

The weather history for Wunderground.com McKinney Historic District weather station (KTXMCKIN170) recorded a total of 1.67 inches of precipitation during the 7-day period and a total of 3.12 inches during the 30-day period, prior to the site visit.

#### *Field Investigation*

The project site was predominantly comprised of upland forested areas surrounding a forested riparian corridor. The communities observed included a **forested upland** community, a **forested riparian corridor** community, and small portions of **grasslands**. The **forested upland** community was dominated by several species of deciduous hardwood species, including sugarberry (*Celtis laevigata*), cedar elm (*Ulmus crassifolia*), eastern redcedar (*Juniperus virginiana*), honey locust (*Gleditsia triacanthos*), Osage-orange (*Maclura pomifera*), and Shumard oak (*Quercus shumardii*). The understory was comprised of woody vines and shrubs such as poison-ivy (*Toxicodendron radicans*), greenbrier (*Smilax* spp.), eastern coralberry (*Symphoricarpos orbiculatus*), Chinese privet (*Ligustrum sinense*), and Japanese honeysuckle (*Lonicera japonica*). The **forested riparian corridor** was dominated by deciduous hardwood species, including black willow (*Salix nigra*), chinkapin oak (*Quercus muehlenbergii*), green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), and cedar elm. The understory was comprised of inflated narrow-leaf sedge (*Carex grisea*). The **grassland** areas observed within the project site was dominated by Bermudagrass (*Cynodon dactylon*), giant ragweed (*Ambrosia trifida*), King Ranch bluestem (*Bothriochloa ischaemum*), meadow dropseed (*Sporobolus asper* var. *drummondii*), perennial rye grass (*Lolium perenne*), and Virginia wildrye (*Elymus virginicus*).

Water from the survey area flows northeast into an unnamed drainageway, into Honey Creek, into the East Fork Trinity River, and ultimately into the Trinity River, a TNW. **Table 1** and the following paragraphs detail the aquatic features identified within the survey area at the time of evaluation (**Attachment A, Figure 5**).

**Table 1. Aquatic Features Identified within the Survey Area**

<b>Water Identification</b>	<b>Hydrology Characteristics</b>	<b>Area (Acre)</b>	<b>Length (Linear Feet)</b>
Tributary 1	Intermittent	0.14	957
Wetland 1	Seasonally Saturated	0.05	---
Ditch 1	Ephemeral	0.01	209
EF 1	Ephemeral	0.05	342
EF 2	Ephemeral	0.01*	75

\*Actual acreage less than 0.01 acre

**Tributary 1** was an intermittent tributary which bisects the project site, similar to the location illustrated on the USGS topographic map. The tributary was delineated by an OHWM identified by the destruction of terrestrial vegetation, bed and bank, waterline, a natural line impressed in the bank, and sediment sorting. The average OHWM width was between 4 to 9 feet in width and was incised into the landscape between 1 to 4 feet in depth with water depths between 6 inches to 2 feet. The channel substrate composition was largely comprised of fine sediments such as silt, clay, sand, and some gravel. At the time of survey, the tributary was observed with several pooled areas and surface flow between the pools, throughout the length of the tributary. Based on the amount of flowing water, the size of the watershed, and the channel geometry, it is IES's professional opinion that Tributary 1 would be considered an intermittent tributary.

**Wetland 1** was identified centrally abutting Tributary 1. Wetland 1 was a forested wetland dominated by American elm, cedar elm, green ash, and inflated narrow-leaf sedge. Hydric soil for Wetland 1 was indicated by Redox Dark Surface with a matrix of 10YR 3/2 with redoximorphic concentrations of 5YR 4/6 in the and matrix. Hydrologic indicators consisted of high water table, saturation, water marks, sediment deposits, drift deposits, water stained leaves, and drainage patterns. Given the location of Wetland 1 in the landscape, this wetland is likely saturated seasonally after flooding or rainfall events.

**Ditch 1** was observed originating from a culvert outfall under the east side of US 75, along the western boundary of the project site. The ditch was identified as a man-made ditch, constructed to direct flow to the east across the project site and away from US 75 and the associated service road. A review of aerial photography illustrated Ditch 1 was created between the 1951 and the 1968 aerial photographs when US 75 was constructed. Portions of Ditch 1 were vegetated with both woody and herbaceous species. The project site received approximately 1.54 inches of precipitation within 72 hours prior to the field investigation, and water was pooled in Ditch 1 at the time of evaluation. As such, it is IES's professional opinion that Ditch 1 would be considered to have ephemeral flow.

**Erosion Features 1 and 2** were identified as ephemeral erosion features characterized by the presence of inconsistent OHWM characteristics and sporadic channel scours. EF 1 originated at the terminal end of Ditch 1. The confined stormwater flowing through the drainage ditch appears to have been further accelerated down the hillside. Evidence from historic aerial photographs indicates the hillside was covered in herbaceous vegetation with sparse woody cover at the time the drainage ditch was constructed, circa 1968. Since that time, the site has been left fallow and woody brush has enveloped the area. EF 1 was approximately 4 to 8 feet in width and was incised into the landscape between 6 to 12 feet in depth. Given the narrow nature of the feature compared to the depth at which it has eroded, the position of the feature in relation to the man-made drainage ditch, lack of evidence of an existing tributary from historic aerial photographs, inconsistent bed and banks, and exposed tree roots across the feature, it was determined that EF 1 was the result of artificially accelerated down the natural gradient, across erodible soils in the upland setting. The project site received approximately 1.54 inches of precipitation within 72 hours prior to the field investigation, and water was pooled in EF 1 at the time of evaluation. As such, it is IES's professional opinion that EF 1 would be considered to have ephemeral flow. EF 2 originated from a hillside swale along a steep slope with inconsistent bed and banks as well as exposed tree root beds across the feature. EF 2 was dry at the time of evaluation. Given the erosion features high location in the watershed, lack of flowing or pooled water, and lack of seasonal hydrology indicators, it is IES's professional opinion that EF 2 would be considered to have ephemeral flow.

**POTENTIAL JURISDICTIONAL ASSESSMENT**

The 05 June 2007 USACE and USEPA jointly published instructional guidebook is intended to provide the USACE field staff a national standard operating procedure for conducting jurisdictional determinations. The guidebook was prepared by combining all prior applicable provisions, regulations, statutes, and case laws pertaining to the CWA. All terms, definitions, and conclusions regarding the jurisdictional nature of the aquatic features used within this report are derived directly, as they are practiced, from the guidance. The following outlines the applicable interpretations of the guidance appropriate for this situation. **Table 2** provides an overview of the jurisdictional assessment of the aquatic features under the 1986 Waters of the United States definitions and the *Rapanos* decision (**Attachment A, Figure 5**).

**Table 2. Jurisdictional Assessment of Aquatic Features Under the 1986 Definitions**

Water Identification	Post-Rapanos Water Classification	33 CFR 328.3 Definition
<b>Jurisdictional Features</b>		
Tributary 1	RPW	(a)(5)
Wetland 1	Abutting a RPW	(a)(7)
<b>Non-Jurisdictional Features</b>		
Ditch 1	Ditch	---
EF 1	Erosion Feature	---
EF 2	Erosion Feature	---

*Jurisdictional Features – Tributary 1 and Wetland 2*

It was determined that Tributary 1 had intermittent, seasonal flow and would be considered a RPW tributary. Wetland 1 was abutting Tributary 1. As such, Tributary 1 and Wetland 1 meet a definition of a water of the United States and would be subject to regulation under Section 404 of the CWA.

*Non-Jurisdictional Features*

Ditch 1

Given the location of the ditch near the top of the watershed and the lack of evidence of an existing tributary from historic aerial photographs, it was determined that Ditch 1 was constructed wholly in the upland setting. The USGS topographic map does not illustrate a blue line feature in the location of Ditch 1, and the linear nature of the channel indicates the ditch was a man-made feature, constructed in an upland area. Current site conditions indicate that the ditch is ephemeral and does not carry a relatively permanent flow. Under the 2007 guidance:

Drainage ditches would not be subject to jurisdiction under CWA Section 404 by definition, as such features;

- are not tributaries of waters, impoundment of waters, or are waters as defined in paragraphs (a)(1) through (7) of the CWA 33 CFR 328.3;
- are not TNW’s or wetlands adjacent to a TNW, nor are they non-navigable tributaries of a TNW with relatively permanent flow or wetlands that abut such tributaries; and
- in accordance with the *Rapanos* guidance, ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water, are generally not considered to be waters of the United States.

Generally, under the guidance, features that do not have the physical characteristics of a tributary or a wetland and only convey sporadic flow with a speculative connection to a TNW are not considered waters of the United States.

Erosion Features 1 and 2

Erosion Features 1 and 2 were inconsistent, poorly defined eroded channels identified at the top of the watershed. These features lacked consistent OHWM characteristics and were observed with indicators that the channels formed recently as roots were often observed crossing the erosion features. It is evident that these features formed because of land use practices that led to their creation via erosion.

Under the 2007 guidance, certain geographic features, generally, are not jurisdictional:

- Swales, erosional features (e.g., gullies) and small washes characterized by low volume, infrequent, and short duration flow; and
- Uplands transporting overland flow generated from precipitation (i.e., rain events and snowmelt).

However, certain geographic features (e.g., swales, ditches, pipes) may contribute to a surface hydrological connection and be considered jurisdictional where the features:

- Replace and relocate a water of the United States, or
- Connect a water of the United States to another water of the United States, or
- Provide a relatively permanent flow to water of the United States.

Thus, it is IES' professional opinion that Erosion Features 1 through 3 would not be considered a water of the United States under the 2007 guidance and would therefore not be regulated under CWA Section 404.

## CONCLUSIONS

To summarize the delineation, one tributary, one wetland, one ditch, and two erosion features were identified and delineated within the survey area. A summary of the jurisdictional assessment is presented in **Table 2** under the 1986 waters of the United States definition and the *Rapanos* decision.

Under the **1986 waters of the United States definitions** and the *Rapanos* decision, **Tributary 1** would be considered jurisdictional as an RPW, and **Wetland 1** would be considered jurisdictional as a wetland abutting a RPW. **Ditch 1**, **EF 1**, and **EF 2** would not be regulated under CWA Section 404.

This delineation is based on professional experience in the approved methodology and from experience with the USACE Fort Worth District regulators; however, this delineation does not constitute a jurisdictional determination of waters of the United States. This delineation has been based on the professional experience of IES staff and our interpretation of USACE regulations at 33 CFR 328.3, the joint USACE/USEPA guidance regarding the *Rapanos* and *Carabell* decisions and the Regulatory Guidance Letter (RGL) 08-02. While IES believes our delineation to be accurate, final authority to interpret the regulations lies solely with the USACE and USEPA. The USACE Headquarters in association with the USEPA often issue guidance that changes the interpretation of published regulations. USACE/USEPA guidance issued after the date of this report has the potential to invalidate the report conclusions and/or recommendations, which may create the need to reevaluate the report conclusions. IES has no regulatory authority, as such, proceeding based solely upon this report does not protect the Client from potential sanction or fines from the USACE/USEPA. The Client acknowledges that they have the opportunity to submit this report to the USACE for a preliminary jurisdictional determination for concurrence prior to proceeding with any work within aquatic features located on the survey area. If the Client elects not to do so, then the Client proceeds at their sole risk.

IES appreciates the opportunity to work with you and Freedom Development on this project, and we hope we may be of assistance to you in the future. If you have any comments, questions, or concerns, please do not hesitate to contact us. We can be reached at 972-562-7672 or by email at [skipp@intenvsol.com](mailto:skipp@intenvsol.com) or [rreinecke@intenvsol.com](mailto:rreinecke@intenvsol.com).

Sincerely,

Integrated Environmental Solutions, LLC.

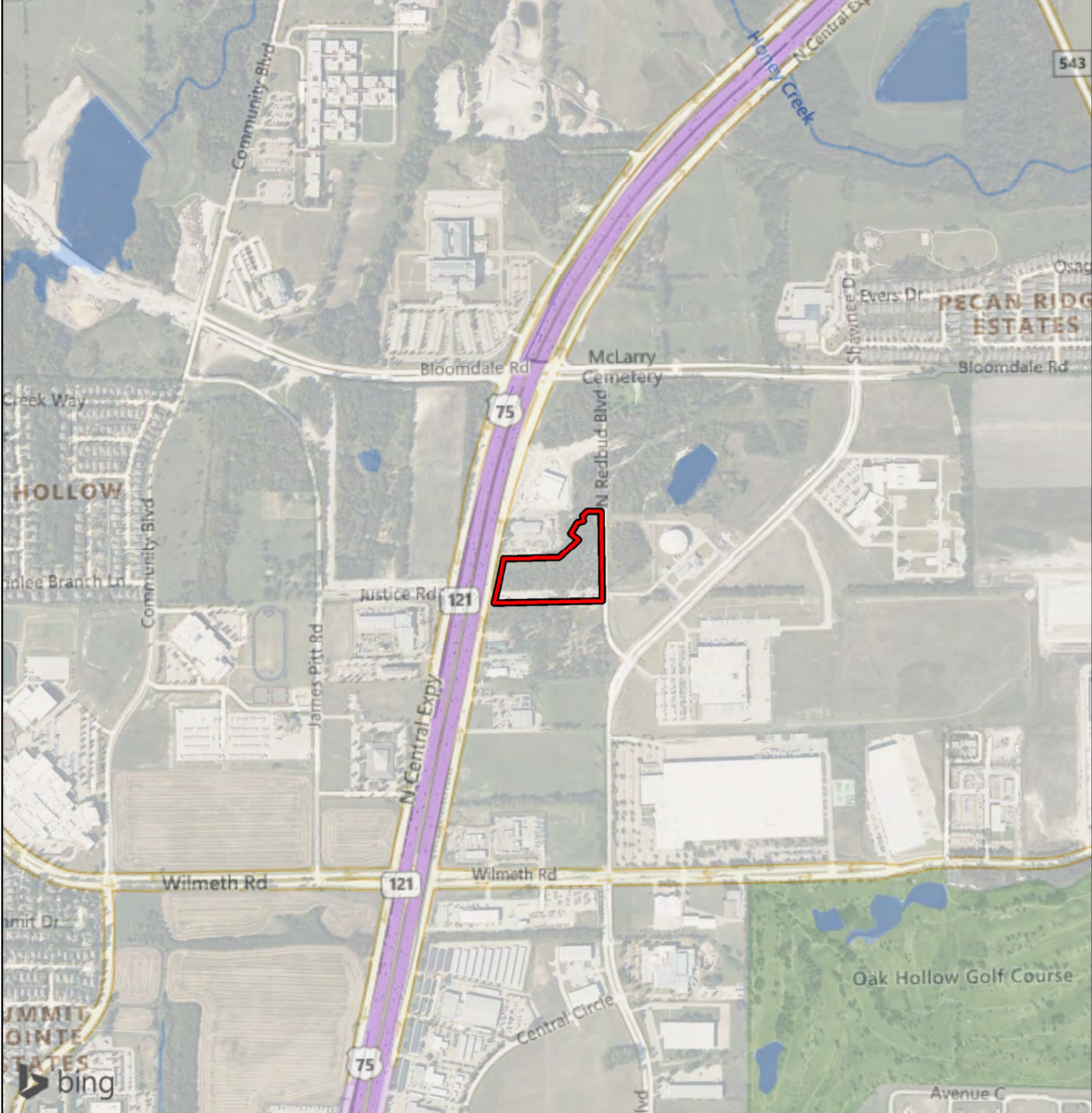


Mr. Shae Kipp  
Ecologist

Attachments

File ref: 04.082.011.002

**ATTACHMENT A**  
Figures



**Figure 1.  
General Location Map**

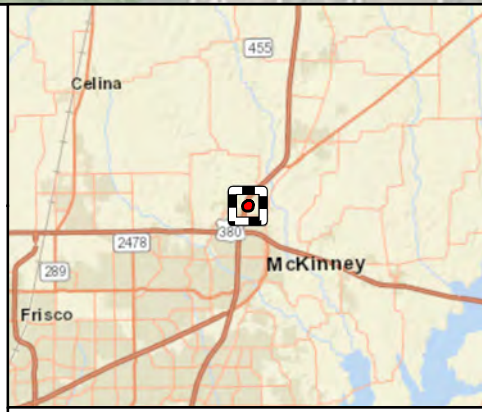
 Survey Area

ACIS McKinney  
City of McKinney  
Collin County, Texas

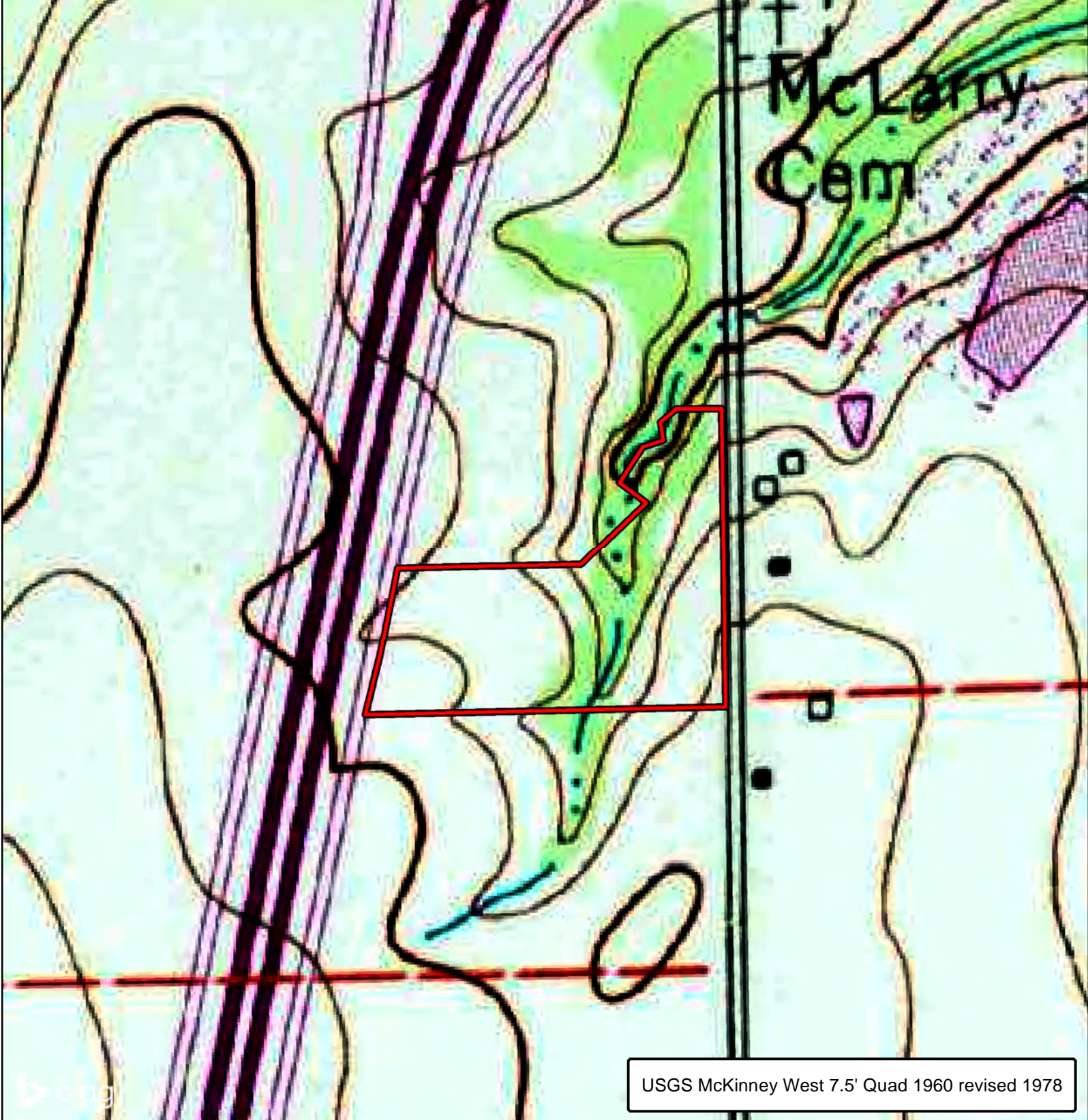
1 in = 1,000 feet 



File Ref. 04.082.011.002  
Date: 3/24/2022

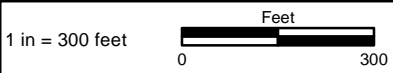


**Area of Detail** Scale: 1 inch equals 10 miles



**Figure 2A.**  
**Topographic Setting**

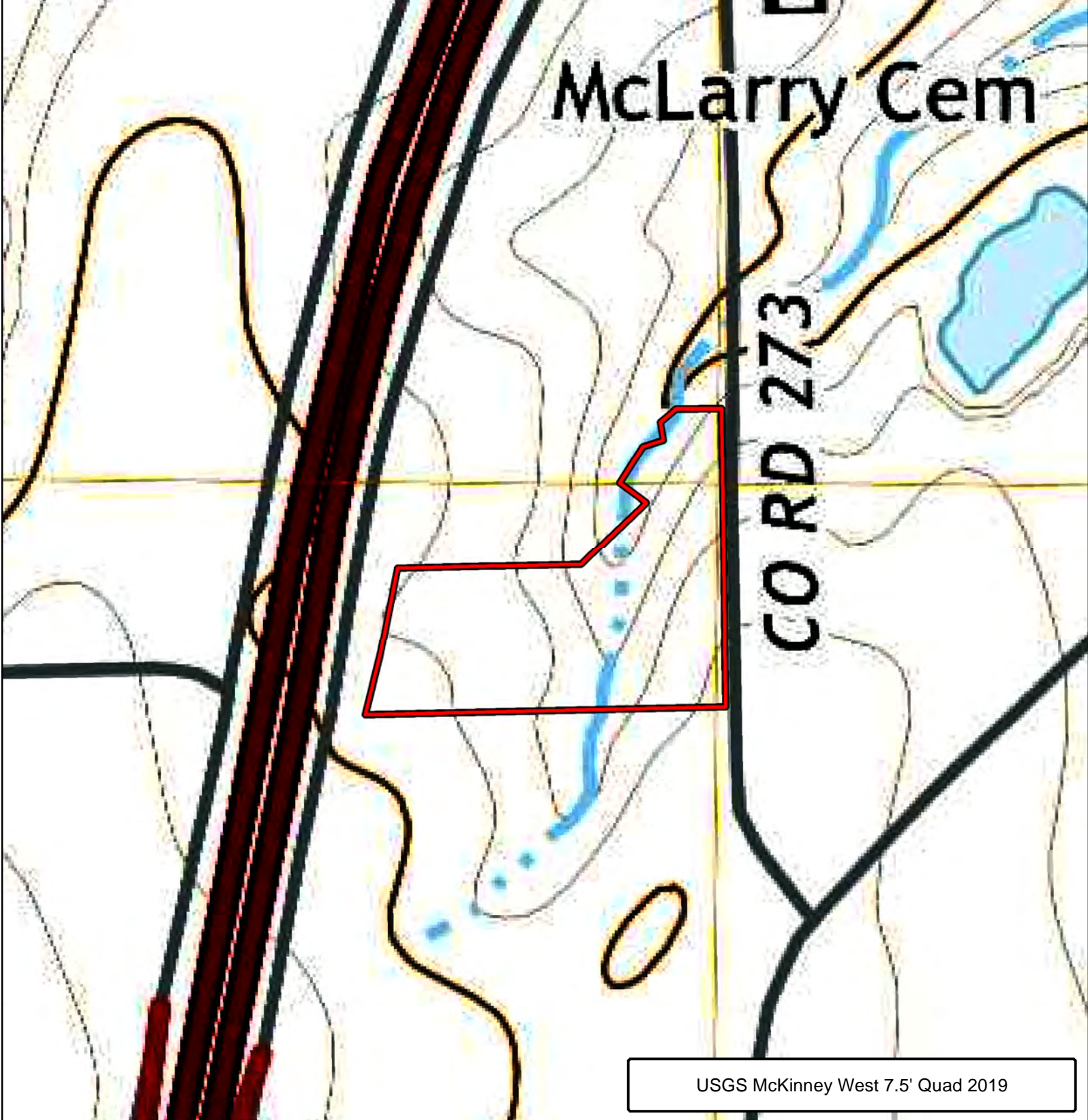
ACIS McKinney  
City of McKinney  
Collin County, Texas



File Ref. 04.082.011.002  
Date: 3/21/2022

USGS McKinney West 7.5' Quad 1960 revised 1978

 Survey Area

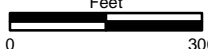


USGS McKinney West 7.5' Quad 2019

**Figure 2B.**  
**Topographic Setting**

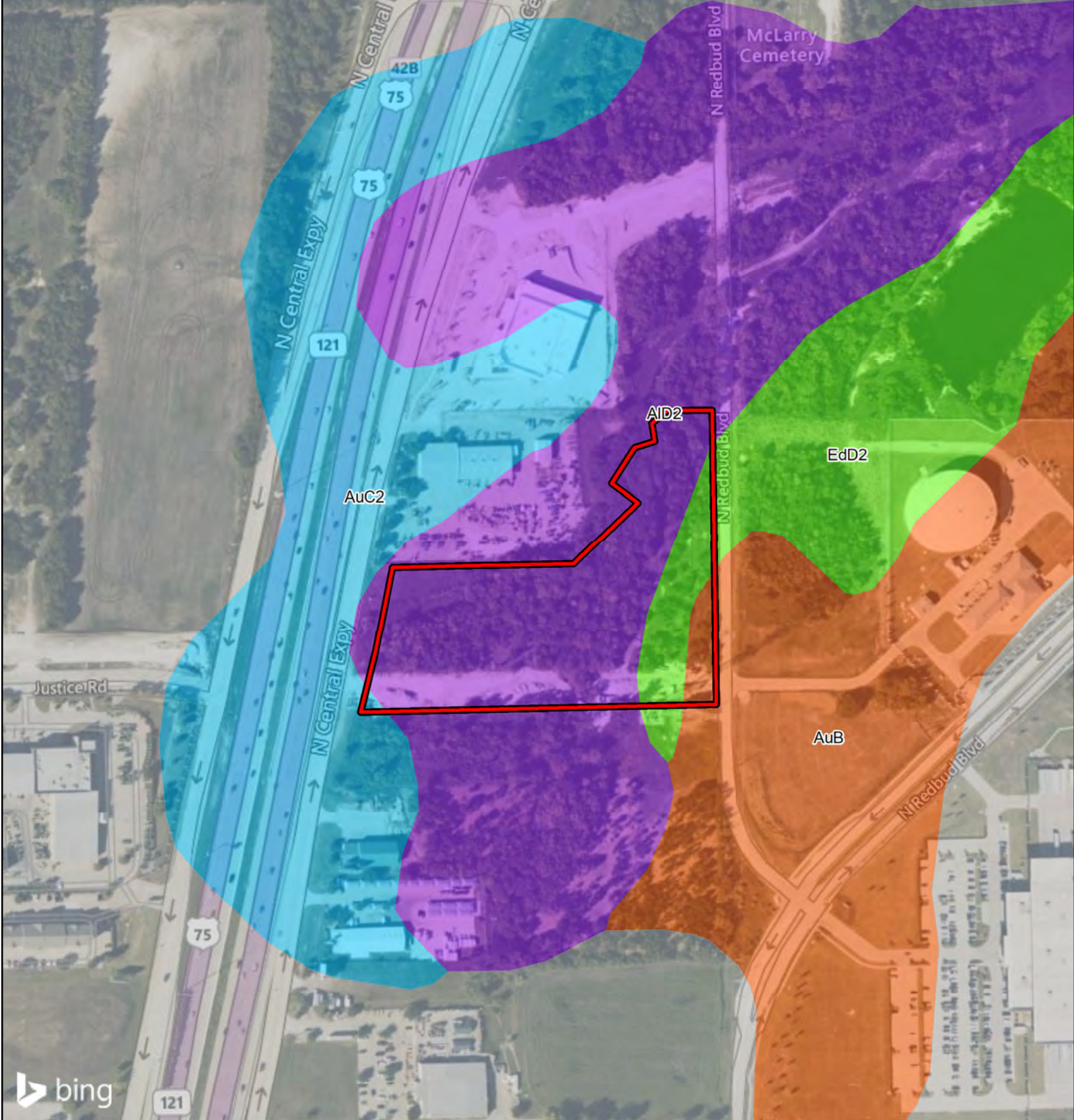
ACIS McKinney  
City of McKinney  
Collin County, Texas

 Survey Area

1 in = 300 feet 

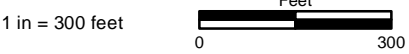


File Ref. 04.082.011.002  
Date: 3/21/2022



**Figure 3.  
Soils Map**

ACIS McKinney  
City of McKinney  
Collin County, Texas



File Ref. 04.082.011.002  
Date: 3/21/2022

Survey Area

Soil map units outside the survey area

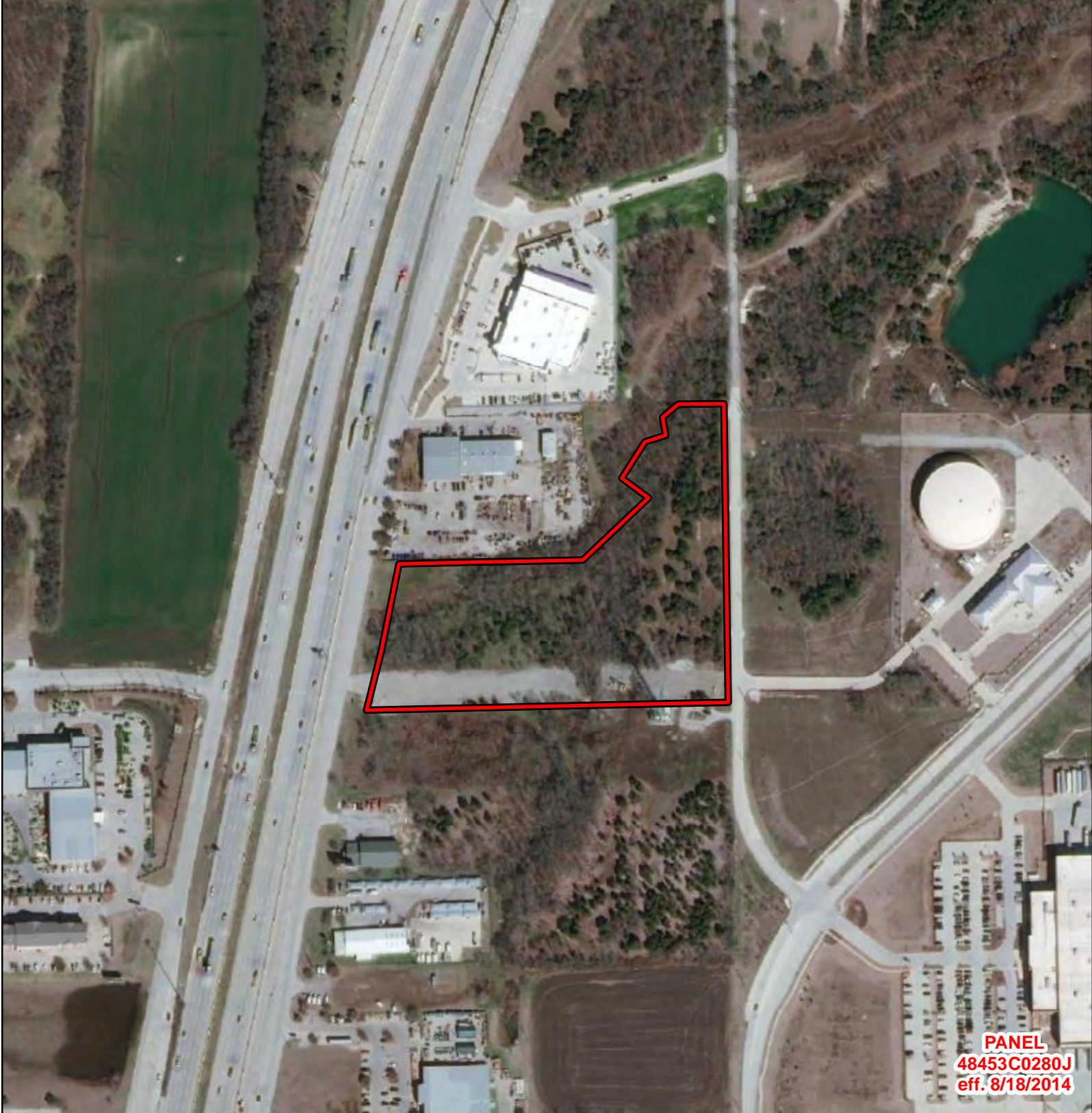
**Soil Map Units**

AID2 - Altoga silty clay, 5 to 8 percent slopes, eroded

AuB - Austin silty clay, 1 to 3 percent slopes

AuC2 - Austin silty clay, 2 to 5 percent slopes, eroded

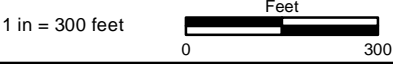
EdD2 - Eddy gravelly clay loam, 3 to 8 percent slopes, eroded









**PANEL**  
**48453C0280J**  
**eff. 8/18/2014**

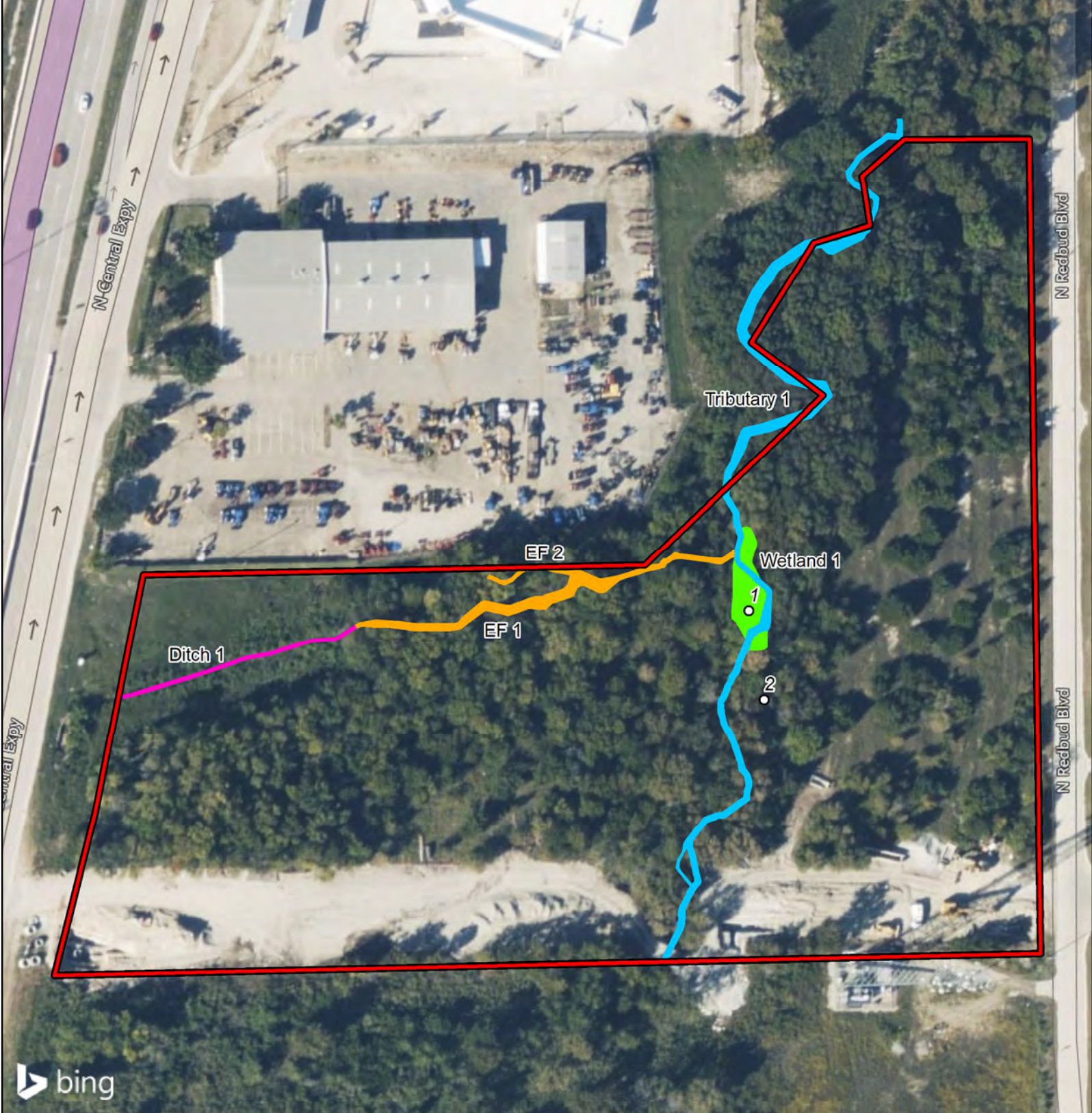
**Figure 4.**  
**Federal Emergency**  
**Management Agency**  
**Flood Insurance Rate Map**

ACIS McKinney  
 City of McKinney  
 Collin County, Texas



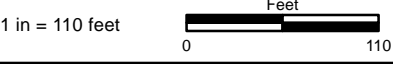
File Ref. 04.082.011.002  
 Date: 3/21/2022

-  Survey Area
- FEMA FIRM Zone Descriptions**
-  Zone X - Areas determined to be outside the 0.2% annual chance floodplain
-  Zone X - Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood
-  Zone A - Special Flood Hazard Areas subject to inundation by the 1% annual chance flood; No base flood elevations determined
-  Zone AE - Special Flood Hazard Areas subject to inundation by the 1% annual chance flood; Base flood elevations determined
-  Zone AE - Floodway areas in Zone AE



**Figure 5.**  
**Aquatic Resources Identified**  
**within the Survey Area**

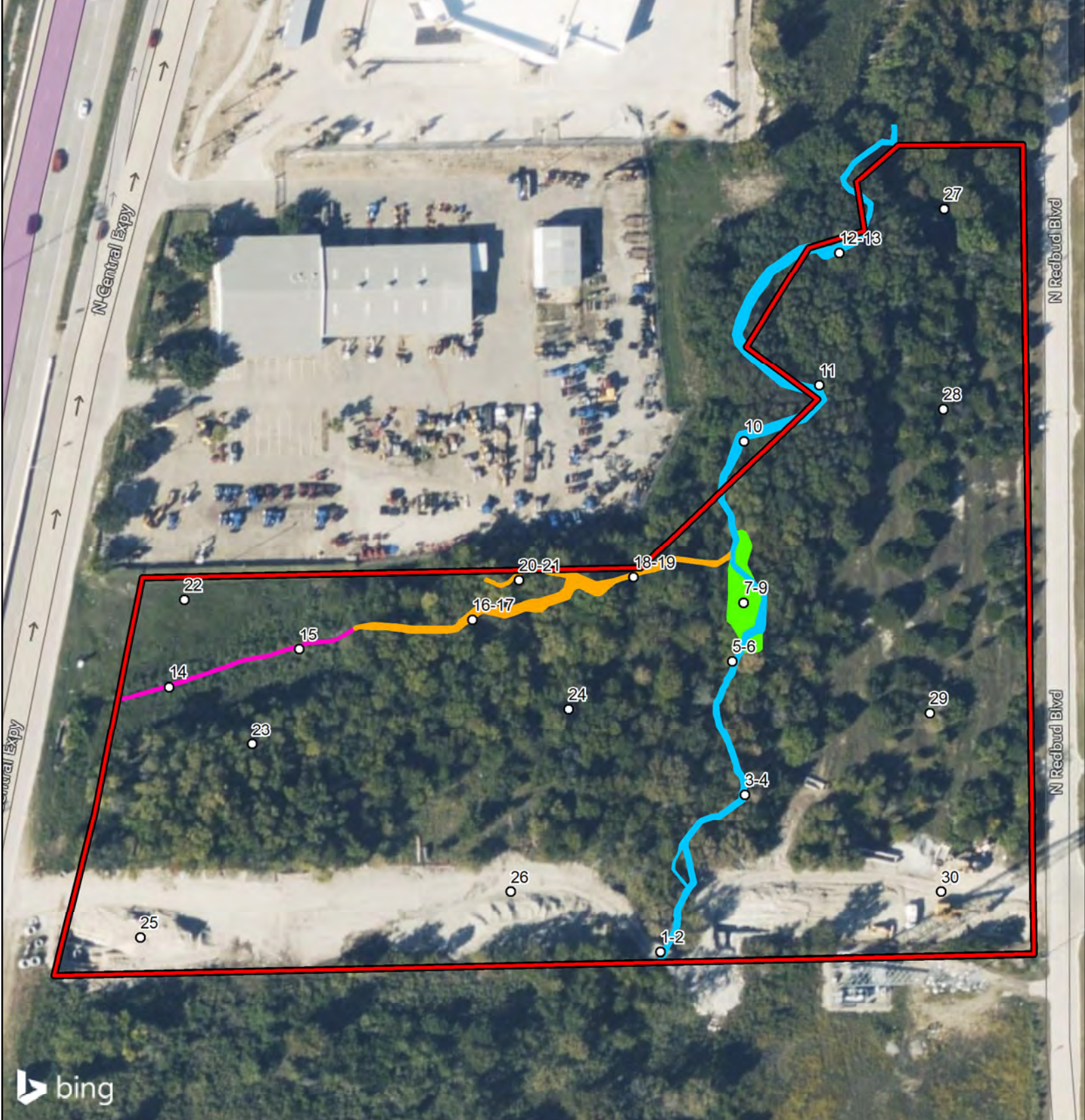
ACIS McKinney  
 City of McKinney  
 Collin County, Texas



File Ref.04.082.011.002  
 Date: 3/28/2022

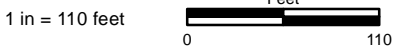
- Survey Area
- Wetland Determination Data Form
- Features that Meet a Definition of a Water of the United States**
- Intermittent Tributary
- Wetland
- Excluded Aquatic Features**
- Erosion Feature
- Ditch

**ATTACHMENT B**  
Site Photographs



**Photograph Location Map**

ACIS McKinney  
 City of McKinney  
 Collin County, Texas



File Ref04.082.011.002  
 Date: 3/30/2022

Survey Area

Photograph Location

**Features that Meet a Definition of a Water of the United States**

Intermittent Tributary

Wetland

**Excluded Aquatic Features**

Erosion Feature

Ditch



Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



Photograph 7



Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14



Photograph 15



Photograph 16



Photograph 17



Photograph 18



Photograph 19



Photograph 20



Photograph 21



Photograph 22



Photograph 23



Photograph 24



Photograph 25



Photograph 26



Photograph 27



Photograph 28



Photograph 29



Photograph 30

**ATTACHMENT C**  
Routine Wetland Determination Data Forms

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: ACIS McKinney City/County: McKinney/Collin Sampling Date: 03/24/2022  
 Applicant/Owner: Freedom Development State: Texas Sampling Point: 1  
 Investigator(s): Tyler Frohlich; Claire Unruh Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope %: 0-1  
 Subregion (LRR): J Lat: 33.23578 N Long: -96.628906 W Datum: NAD 1983  
 Soil Map Unit Name: AID2 - Altoga silty clay, 5 to 8 percent slopes, eroded NWI Classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are vegetation,  Soil,  Or hydrology  Significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are vegetation,  Soil,  Or hydrology  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 <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: <u>Wetland fringe abutting tributary</u>					

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

Tree Stratum (Plot Size: <u>30' Radius</u> )	Absolute % Coverage	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Fraxinus pennsylvanica</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>4</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
4. _____	_____	_____	_____		
	<u>15</u>	= Total Cover			
Sapling/Shrub Stratum (Plot Size: <u>15' Radius</u> )	Absolute % Coverage	Dominant Species?	Indicator Status	Prevalence Index Worksheet:	
1. <u>Ulmus crassifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	Total % Cover of: _____ Multiply By: _____	
2. <u>Ulmus americana</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	OBL species _____ x 1 = _____	
3. _____	_____	_____	_____	FACW species _____ x 2 = _____	
4. _____	_____	_____	_____	FAC species _____ x 3 = _____	
5. _____	_____	_____	_____	FACU species _____ x 4 = _____	
	<u>15</u>	= Total Cover		UPL species _____ x 5 = _____	
				Column Totals: _____ (A) _____ (B)	
				Prevalence Index = B/A = _____	
Herb Stratum (Plot Size: <u>5' Radius</u> )	Absolute % Coverage	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:	
1. <u>Carex grisea</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	_____ 1 - Rapid Test for Hydrophytic Vegetation	
2. _____	_____	_____	_____	<u>X</u> 2 - Dominance Test is > 50%	
3. _____	_____	_____	_____	_____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
4. _____	_____	_____	_____	_____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
5. _____	_____	_____	_____	_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
6. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
	<u>5</u>	= Total Cover			
Woody Vine Stratum (Plot Size: <u>15' Radius</u> )	Absolute % Coverage	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
1. <u>N/A</u>	_____	_____	_____		
2. _____	_____	_____	_____		
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>95</u>					
Remarks:					

**SOILS**

Sampling Point: 1

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-16	10YR 3/2	95	5YR 4/6	5	C	M	Clay	

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

<p><b>Hydric Soil indicators: (Applicable to all LRRs, unless otherwise noted.)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Histosol (A1)</li> <li><input type="checkbox"/> Histic Epipedon (A2)</li> <li><input type="checkbox"/> Black Histic (A3)</li> <li><input type="checkbox"/> Hydrogen Sulfide (A4)</li> <li><input type="checkbox"/> Stratified Layers (A5) (LRR F)</li> <li><input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)</li> <li><input type="checkbox"/> Depleted below Dark Surface (A11)</li> <li><input type="checkbox"/> Thick Dark Surface (A12)</li> <li><input type="checkbox"/> Sandy Mucky Mineral (S1)</li> <li><input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)</li> <li><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Sandy Gleyed Matrix (S4)</li> <li><input type="checkbox"/> Sandy Redox (S5)</li> <li><input type="checkbox"/> Stripped Matrix (S6)</li> <li><input type="checkbox"/> Loamy Mucky Mineral (F1)</li> <li><input type="checkbox"/> Loamy Gleyed Matrix (F2)</li> <li><input type="checkbox"/> Depleted Matrix (F3)</li> <li><input checked="" type="checkbox"/> Redox Dark Surface (F6)</li> <li><input type="checkbox"/> Depleted Dark Surface (F7)</li> <li><input type="checkbox"/> Redox Depressions (F8)</li> <li><input type="checkbox"/> High Plains Depressions (F16 (MLRA 72 &amp; 73 of LRR H))</li> </ul>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> 1 CM Muck (A9) (LRR I, J)</li> <li><input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)</li> <li><input type="checkbox"/> Dark Surface (S7) (LRR G)</li> <li><input type="checkbox"/> High Plains Depressions (F16) (LRR H outside of MLRA 72 &amp; 73)</li> <li><input type="checkbox"/> Reduced Vertic (F18)</li> <li><input type="checkbox"/> Red Parent Material (TF2)</li> <li><input type="checkbox"/> Very Shallow Dark Surface (TF12)</li> <li><input type="checkbox"/> Other (Explain in Remarks)</li> </ul> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless distributed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>N/A</u></p> <p>Depth (inches): <u>N/A</u></p>	<p><b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
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Remarks:

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p>Primary indicators (minimum of one required; check all that apply)</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Surface Water (A1)</li> <li><input checked="" type="checkbox"/> High Water Table (A2)</li> <li><input checked="" type="checkbox"/> Saturation (A3)</li> <li><input checked="" type="checkbox"/> Water Marks (B1)</li> <li><input checked="" type="checkbox"/> Sediment Deposits (B2)</li> <li><input checked="" type="checkbox"/> Drift Deposits (B3)</li> <li><input type="checkbox"/> Algal Mat or Crust (B4)</li> <li><input type="checkbox"/> Iron Deposits (B5)</li> <li><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</li> <li><input checked="" type="checkbox"/> Water Stained Leaves (B9)</li> <li><input type="checkbox"/> Salt Crust (B11)</li> <li><input type="checkbox"/> Aquatic Invertebrates (B13)</li> <li><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</li> <li><input type="checkbox"/> Dry-Season Water Table (C2)</li> <li><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where not tilled)</li> <li><input type="checkbox"/> Presence of Reduced Iron (C4)</li> <li><input type="checkbox"/> Thin Muck Surface</li> <li><input type="checkbox"/> Other (Explain in Remarks)</li> </ul>		<p>Secondary Indicators (minimum of two required)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Surface Soil Cracks (B6)</li> <li><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</li> <li><input checked="" type="checkbox"/> Drainage patterns (B10)</li> <li><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where tilled)</li> <li><input type="checkbox"/> Crayfish Burrows (C8)</li> <li><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</li> <li><input type="checkbox"/> Geomorphic Position (D2)</li> <li><input type="checkbox"/> FAC-Neutral Test (D5)</li> <li><input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)</li> </ul>
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<p><b>Field Observations:</b></p> <p>Surface Water Present? Yes? <input type="checkbox"/> No? <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes? <input checked="" type="checkbox"/> No? <input type="checkbox"/> Depth (inches): <u>4</u></p> <p>Saturation Present? (includes capillary fringe) Yes? <input checked="" type="checkbox"/> No? <input type="checkbox"/> Depth (inches): <u>0</u></p>	<p><b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: ACIS McKinney City/County: McKinney/Collin Sampling Date: 03/24/2022  
 Applicant/Owner: Freedom Development State: Texas Sampling Point: 2  
 Investigator(s): Tyler Frohlich; Claire Unruh Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope %: 5-10  
 Subregion (LRR): J Lat: 33.235574 N Long: -96.628868 W Datum: NAD 1983  
 Soil Map Unit Name: AID2 - Altoga silty clay, 5 to 8 percent slopes, eroded NWI Classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are vegetation,  Soil,  Or hydrology  Significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are vegetation,  Soil,  Or hydrology  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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: <u>Hillslope upslope of tributary and depression</u>			

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

Tree Stratum (Plot Size: <u>30' Radius</u> )	Absolute % Coverage	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Ulmus crassifolia</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-):	<u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>40</u> (A/B)
4. _____	<u>20</u> = Total Cover	_____	_____		
Sapling/Shrub Stratum (Plot Size: <u>15' Radius</u> )				<b>Prevalence Index Worksheet:</b>	
1. <u>Ligustrum sinense</u>	<u>12</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of:	Multiply By:
2. <u>Ulmus crassifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	OBL species _____ x 1 = _____	_____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____	_____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____	_____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____	_____
	<u>17</u> = Total Cover	_____	_____	UPL species _____ x 5 = _____	_____
Herb Stratum (Plot Size: <u>5' Radius</u> )				Column Totals:	<u>_____</u> (A) <u>_____</u> (B)
1. <u>Galium aparine</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	Prevalence Index = B/A = _____	
2. <u>Lonicera japonica</u>	<u>3</u>	<u>Y</u>	<u>FACU</u>		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	<u>8</u> = Total Cover	_____	_____		
Woody Vine Stratum (Plot Size: <u>15' Radius</u> )				<b>Hydrophytic Vegetation Indicators:</b>	
1. <u>N/A</u>	_____	_____	_____	_____ 1 - Rapid Test for Hydrophytic Vegetation	
2. _____	_____	_____	_____	<u>X</u> 2 - Dominance Test is > 50%	
	_____	_____	_____	_____ 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>	
	_____	_____	_____	_____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
	_____	_____	_____	_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
% Bare Ground in Herb Stratum <u>92</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Remarks:				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks:

**SOILS**

Sampling Point: 2

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-16	10YR 5/2	99	5YR 4/6	1	C	M	Clay Loam	

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

<p><b>Hydric Soil indicators: (Applicable to all LRRs, unless otherwise noted.)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Histosol (A1)</li> <li><input type="checkbox"/> Histic Epipedon (A2)</li> <li><input type="checkbox"/> Black Histic (A3)</li> <li><input type="checkbox"/> Hydrogen Sulfide (A4)</li> <li><input type="checkbox"/> Stratified Layers (A5) (LRR F)</li> <li><input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)</li> <li><input type="checkbox"/> Depleted below Dark Surface (A11)</li> <li><input type="checkbox"/> Thick Dark Surface (A12)</li> <li><input type="checkbox"/> Sandy Mucky Mineral (S1)</li> <li><input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)</li> <li><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Sandy Gleyed Matrix (S4)</li> <li><input type="checkbox"/> Sandy Redox (S5)</li> <li><input type="checkbox"/> Stripped Matrix (S6)</li> <li><input type="checkbox"/> Loamy Mucky Mineral (F1)</li> <li><input type="checkbox"/> Loamy Gleyed Matrix (F2)</li> <li><input type="checkbox"/> Depleted Matrix (F3)</li> <li><input type="checkbox"/> Redox Dark Surface (F6)</li> <li><input type="checkbox"/> Depleted Dark Surface (F7)</li> <li><input type="checkbox"/> Redox Depressions (F8)</li> <li><input type="checkbox"/> High Plains Depressions (F16 (MLRA 72 &amp; 73 of LRR H)</li> </ul>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> 1 CM Muck (A9) (LRR I, J)</li> <li><input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)</li> <li><input type="checkbox"/> Dark Surface (S7) (LRR G)</li> <li><input type="checkbox"/> High Plains Depressions (F16) (LRR H outside of MLRA 72 &amp; 73)</li> <li><input type="checkbox"/> Reduced Vertic (F18)</li> <li><input type="checkbox"/> Red Parent Material (TF2)</li> <li><input type="checkbox"/> Very Shallow Dark Surface (TF12)</li> <li><input type="checkbox"/> Other (Explain in Remarks)</li> </ul> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless distributed or problematic.</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: <u>N/A</u></p> <p>Depth (inches): <u>N/A</u></p>	<p><b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Remarks:

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p>Primary indicators (minimum of one required; check all that apply)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Surface Water (A1)</li> <li><input type="checkbox"/> High Water Table (A2)</li> <li><input type="checkbox"/> Saturation (A3)</li> <li><input type="checkbox"/> Water Marks (B1)</li> <li><input type="checkbox"/> Sediment Deposits (B2)</li> <li><input type="checkbox"/> Drift Deposits (B3)</li> <li><input type="checkbox"/> Algal Mat or Crust (B4)</li> <li><input type="checkbox"/> Iron Deposits (B5)</li> <li><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</li> <li><input type="checkbox"/> Water Stained Leaves (B9)</li> </ul>		<ul style="list-style-type: none"> <li><input type="checkbox"/> Salt Crust (B11)</li> <li><input type="checkbox"/> Aquatic Invertebrates (B13)</li> <li><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</li> <li><input type="checkbox"/> Dry-Season Water Table (C2)</li> <li><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where not tilled)</li> <li><input type="checkbox"/> Presence of Reduced Iron (C4)</li> <li><input type="checkbox"/> Thin Muck Surface</li> <li><input type="checkbox"/> Other (Explain in Remarks)</li> </ul>	<p>Secondary Indicators (minimum of two required)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Surface Soil Cracks (B6)</li> <li><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</li> <li><input type="checkbox"/> Drainage patterns (B10)</li> <li><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where tilled)</li> <li><input type="checkbox"/> Crayfish Burrows (C8)</li> <li><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</li> <li><input type="checkbox"/> Geomorphic Position (D2)</li> <li><input type="checkbox"/> FAC-Neutral Test (D5)</li> <li><input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)</li> </ul>
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<p><b>Field Observations:</b></p> <p>Surface Water Present? Yes? <input type="checkbox"/> No? <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes? <input type="checkbox"/> No? <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes? <input type="checkbox"/> No? <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)</p>	<p><b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**ATTACHMENT D**  
Historic Aerial Photographs

ACIS Mckinney

N Central Expy

Mckinney, TX 75071

Inquiry Number: 4877774.1

March 14, 2017

## The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

**Site Name:**

ACIS Mckinney  
 N Central Expy  
 Mckinney, TX 75071  
 EDR Inquiry # 4877774.1

**Client Name:**

Integrated Env. Solutions, Inc.  
 610 Elm St Suite 300  
 McKinney, TX 75069  
 Contact: Rudi Reinecke



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

**Search Results:**

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2008	1"=500'	Flight Year: 2008	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1995	1"=500'	Acquisition Date: March 08, 1995	USGS/DOQQ
1989	1"=500'	Flight Date: March 22, 1989	USGS
1981	1"=500'	Flight Date: September 21, 1981	USDA
1972	1"=500'	Flight Date: February 24, 1972	USDA
1968	1"=500'	Flight Date: May 01, 1968	USGS
1951	1"=500'	Flight Date: December 30, 1951	USDA
1942	1"=500'	Flight Date: March 21, 1942	USDA

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INQUIRY #: 4877774.1

YEAR: 2012

— = 500'





INQUIRY #: 4877774.1

YEAR: 2010

— = 500'





INQUIRY #: 487774.1

YEAR: 2008

— = 500'





INQUIRY #: 4877774.1

YEAR: 2006

— = 500'





INQUIRY #: 487774.1

YEAR: 2005

— = 500'





INQUIRY #: 4877774.1

YEAR: 1995

— = 500'





INQUIRY #: 4877774.1

YEAR: 1989

— = 500'





INQUIRY #: 4877774.1

YEAR: 1981

— = 500'





INQUIRY #: 4877774.1

YEAR: 1972

— = 500'





INQUIRY #: 4877774.1

YEAR: 1968

— = 500'





INQUIRY # 4877774.1

YEAR: 1951

— = 500'





INQUIRY #: 487774.1

YEAR: 1942

— = 500'

