

# **APPENDIX 3E**

Aquatic Resources Delineation Report and

UDOT Environmental Review for Aquatic Resources



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# Aquatic Resources Delineation Report

Kimball Junction Environmental Impact Statement

Lead Agency: Utah Department of Transportation

**UDOT PIN: 19477** 

April 25, 2024



The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being or have been carried out by UDOT pursuant to 23 United States Code Section 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration and UDOT.



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# **Executive Summary**

On behalf of the Utah Department of Transportation, HDR, Inc., has prepared this aquatic resources delineation report in support of the Environmental Impact Statement for the Kimball Junction Project in Summit County, Utah. The delineation team conducted fieldwork for the delineation on August 7 and 8, 2023. The delineation was conducted in accordance with the following delineation manuals and delineation reference guides:

- Corps of Engineers Wetlands Delineation Manual (USACE 1987)
- Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Mountains, Valleys, and Coasts Region (Version 2.0) (USACE 2010)
- National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams (USACE 2022)
- U.S. Army Corps of Engineers regulatory guidance letters and joint agency regulations, policies, references, and guidance

The entire delineation survey area is about 230 acres and contains a total of 1.08 acres of aquatic resources. These resources consist of 0.71 acre of palustrine emergent wetlands, 0.04 acre (199 linear feet) of perennial streams, 0.18 acre of open-water ponds, 0.01 acre of seeps, and 0.14 acre (1,842 linear feet) of ditches.



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### **Attachments**

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### **Acronyms and Abbreviations**

°F	degrees Fahrenheit
EIS	Environmental Impact Statement
GPS	global positioning system
I-80	Interstate 80
ID	identifier
NWPL	National Wetland Plant List
OHWM	ordinary high water mark
Proposed Project	Kimball Junction Project
SP	sampling point
spp.	multiple species
SR	state route
ssp.	subspecies
TNW	traditional navigable water
U.S.	United States
UDOT	Utah Department of Transportation
USACE	U.S. Army Corps of Engineers
USDA NRCS	U.S. Department of Agriculture, Natural Resources Conservation Service



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# **1.0 Introduction**

The Utah Department of Transportation (UDOT) is preparing an Environmental Impact Statement (EIS) to evaluate improvements at the Interstate 80 (I-80) and State Route 224 (SR-224) interchange at Kimball Junction and on SR-224 from Kimball Junction through the Olympic Parkway intersection in Summit County, Utah (Proposed Project). The EIS will evaluate the long-term mobility needs of the study area and identify solutions that consider a broad range of perspectives while avoiding and minimizing impacts to the environment.

The purpose of this report is to identify and describe aquatic resources in the delineation survey area (survey area) for the Proposed Project (see Appendix A, *Project Overview Map*). The results of the delineation are summarized in Table 4, *Aquatic Resources Summary*, on page 10. The jurisdictional status of the delineated aquatic resources is subject to determination by the U.S. Army Corps of Engineers (USACE).

# 1.1 Aquatic Resources Delineation Survey Area

The survey area for the Proposed Project is about 230 acres and is located along both sides of I-80 between mileposts 142.30 and 145.50 and along both sides of SR-224 between mileposts 10.65 and 11.65 in Summit County, Utah. The survey area includes Rasmussen Road and Kilby Road, both of which run parallel to I-80 west of Kimball Junction, and Bitner Road and Highland Drive, both of which run parallel to I-80 east of Kimball Junction. The width of the survey area varies to accommodate the proposed project elements. The survey area includes land owned by public and private entities.

The survey area can be accessed from the USACE Bountiful Field Office by heading west toward I-15, taking I-15 south until reaching the interchange with I-80, taking exit 304 for I-80 east toward Cheyenne, and continuing on I-80 east and taking exit 145 at Kimball Junction. As defined by the Public Land Survey System, the survey area is located in Township 1 South; Ranges 3 and 4 East; and Sections 12, 13, 14, 18, 19, 20, and 24. The elevation in the survey area ranges from approximately 6,340 to 6,450 feet above mean sea level.

# **1.2 Contact Information**

## 1.2.1 Project Applicant and Owner

Utah Department of Transportation, Environmental Services 4501 Constitution Blvd. Taylorsville, Utah 84129

Attention: Rod Hess (801) 830-9589 rhess@utah.gov

## 1.2.2 Land Ownership

Land in the survey area is owned by public and private entities. Contact and access information for landowners can be coordinated as necessary.



### **1.2.3** Contact Information for the Delineation Consultant

The delineation was performed by HDR.

HDR, Inc. 2825 E. Cottonwood Parkway, Suite 200 Salt Lake City, Utah 84121

#### Field Biologists:

Joshua McMillin (801) 913-8314 joshua.mcmillin@hdrinc.com

Lacey Wilder (385) 347-1162 lacey.wilder@hdrinc.com

# 2.0 Delineation Methodology

The delineation team conducted delineation fieldwork to map aquatic resources on August 7 and 8, 2023. All areas within the approximately 230-acre survey area were included in the delineation. Attachment B, *Aquatic Resources Delineation Map Series*, provides maps of the aquatic resources that were delineated in the survey area.

## 2.1 Preliminary Data Gathering

Before conducting delineation fieldwork, the delineation team reviewed information from several sources, including the following:

- Aerial images of the survey area
- Topography and surface water maps from the U.S. Geological Survey
- National Hydric Soils List for Utah (USDA NRCS 2023a)
- Prior surveys and delineations across portions of the survey area
- U.S. Fish and Wildlife Service's National Wetland Inventory maps
- U.S. Department of Agriculture, Natural Resources Conservation Service's (USDA NRCS) Web Soil Survey (USDA NRCS 2023b)
- USACE delineation manuals and delineation reference guides (described in Section 2.2, *Delineation Procedures*)

In addition, HDR conducted a previous delineation survey in August 2021 as part of the SR-224 Bus Rapid Transit Categorical Exclusion project. This survey was conducted in accordance with the applicable delineation procedures and guidance for that time. Within the areas previously surveyed that overlap with the survey area for the Proposed Project, the delineation team verified through visual observation that the hydrology and vegetation characteristics appeared consistent with the characteristics observed during the previous delineation survey. If the hydrology and vegetation characteristics were consistent, the data were incorporated into this report and the sites were not



delineated again. At sites with observed differences, the delineation team applied the procedures described below to delineate aquatic resources based on the existing conditions.

## 2.2 Delineation Procedures

The delineation was conducted in accordance with the following delineation manuals and delineation reference guides:

- Corps of Engineers Wetlands Delineation Manual (USACE 1987)
- Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Mountains, Valleys, and Coasts Region (Version 2.0) (USACE 2010)
- National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams (USACE 2022)
- U.S. Army Corps of Engineers regulatory guidance letters and joint agency regulations, policies, references, and guidance

The delineation team assessed the entire survey area to determine the presence or absence of aquatic features. The routine method was applied by selecting sampling point locations in the field. These sampling points were placed at locations where landform, vegetative, or hydrologic characteristics indicated the potential for wetlands. A minimum of one set of paired sampling points (one in a wetland and one just outside the wetland boundary) was established to help delineate each wetland or wetland complex. Additional sampling points were located as needed to help determine wetland boundaries.

The delineation team recorded detailed information about vegetation, soils, and hydrologic characteristics for each sampling point and used this information to determine whether an area qualifies as a wetland and to help identify the wetland boundaries. All datasheets are included in Attachment C, *Delineation Data Forms*, and representative sampling point photographs are included in Attachment D, *Representative Aquatic Resource Photographs*.

Based on information gathered from sampling points and observable changes in elevation and plant communities, the delineation team mapped aquatic resource boundaries in the survey area through a combination of global positioning system (GPS)-based field mapping (using ArcGIS Field Maps, a sub-meter GPS receiver, and a tablet or mobile phone) and desktop digitization using images from Hexagon from 2021. To produce aquatic resource delineation maps for the survey area, data were exported into geographic information systems (GIS) software (ArcPro 2.8.8). These data were also used to calculate the area of aquatic features in the survey area.

## 2.2.1 Wetlands

A determination of the occurrence of wetlands is based on the presence or absence of hydrophytic (wetland) vegetation, hydric (wetland) soils, and wetland hydrology. The presence of all three criteria is necessary for an area to be designated as a wetland unless problematic conditions or significant disturbance is identified and evaluated in accordance with delineation procedures. Wetland boundaries are considered to be a line across which the vegetation, soils, and hydrologic characteristics begin or cease to meet wetland criteria.



### Vegetation

Hydrophytic vegetation refers to the plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (USACE 1987). Hydrophytic vegetation indicators include (1) a prevalence of hydrophytic vegetation—that is, a majority of dominant plant species are facultative, facultative wetland, or obligate wetland plants as listed in the National Wetland Plant List (NWPL; USACE 2020)—and (2) morphological or physiological adaptations to saturated soil conditions.

Table 1 lists the most recent NWPL indicator statuses assigned to plant species for the purpose of delineating wetlands (Lichvar and others 2012). A list of plant species observed at delineation sampling points, including their indicator status, is provided in Attachment E, *Plant Species Observed*.

Indicator Status	Indicator Symbol	Definition
Obligate wetland	OBL	Plants that almost always occur in wetlands.
Facultative wetland	FACW	Plants that usually occur in wetlands but could occur in non-wetlands.
Facultative	FAC	Plants that occur in wetlands and non-wetlands.
Facultative upland	FACU	Plants that usually occur in non-wetlands but could occur in wetlands.
Upland plants	UPL	Plants that almost never occur in wetlands.
Not listed	NL	Plants that are not listed on the NWPL and therefore are assumed to be upland.

#### Table 1. Wetland Indicator Status System

Source: Lichvar and others 2012

The delineation team documented vegetation within a sample plot surrounding each sampling point location. Each polygon area was visually inspected, and plant species were identified and procedures for hydrophytic vegetation indicators were applied. Vegetation was considered hydrophytic when over 50% of the dominant species had an indicator status of facultative (FAC), facultative wetland (FACW), or obligate (OBL) or when the Prevalence Index was less than 3.0 in cases where the dominance was less than or equal to 50%.

### Soils

Hydric soils are soils that are saturated, flooded, or ponded for long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile. Anaerobic conditions favor the growth and regeneration of hydrophytic vegetation. Hydric soil indicators are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds in a saturated and anaerobic environment. The delineation team used a standard Munsell soil color chart to determine the soil matrix and mottle colors (Munsell Color 2009). In accordance with USACE methodology, soil profiles were investigated at sampling points in the survey area and were examined for indicators of hydric conditions.



### Hydrology

The term *wetland hydrology* encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on the characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively. Wetland hydrology indicators include obvious characteristics such as surface water, soil saturation, and water table depth. Other indicators include soil cracking, the presence of a salt crust, drainage patterns, water-stained leaves, and the presence of oxidized rhizospheres. The delineation team evaluated hydrology at each sampling point in the survey area.

## 2.2.2 Other (Non-wetland) Aquatic Resources

This delineation also evaluated the presence of aquatic resources other than wetlands potentially subject to USACE's jurisdiction. In non-tidal areas, USACE maintains jurisdiction over areas below the ordinary high water mark (OHWM) in water features such as navigable streams, rivers, and lakes, and tributaries to navigable waters.

The delineation team delineated non-wetland aquatic features based on the presence of a bed and bank and an OHWM (USACE 2005, 2022). Potentially jurisdictional non-wetland features were delineated along the OHWM. If a feature did not exhibit a bed and bank and an OHWM, and did not show distinct vegetation changes, it was not further evaluated as a potential aquatic resource or considered to be a potentially jurisdictional water. Additionally, if a feature exists in a culvert or pipe, it was not further evaluated as a potential aquatic resource.

# 3.0 Existing Conditions

The survey area consists primarily of roads and road shoulders; urban land developed for residential, industrial, and commercial uses; upland grass communities adjacent to roads; and some wetland areas.

The survey area is part of the Wasatch and Uinta Mountains ecoregion in the Mountain Valleys subregion (Woods and others 2001). The Mountain Valleys ecoregion is characterized by terraces, floodplains, alluvial fans, and hills. The average annual precipitation in the survey area is 21 inches, and the average annual snowfall is 95 inches. Weather data for the survey area were obtained from historical records collected in Park City, Utah (U.S. Climate Data 2023).

The delineation field reconnaissance was conducted on August 7 and 8, 2023. During the field surveys, temperatures ranged from 51 to 78 degrees Fahrenheit (°F), skies were mostly sunny to partly cloudy, and there was no measurable precipitation (NOAA 2023).

# 3.1 General Hydrology

The survey area is located in the Lower Weber River watershed (hydrologic unit code 16020102) (USGS 2023). The hydrology of the watershed is characterized by the Weber River, which flows from the Uinta Mountains to the Great Salt Lake. Water in the survey area generally flows north into East Canyon Creek, which continues northwest beyond the survey area, where water is impounded in East Canyon Reservoir. Water released from East Canyon Reservoir is returned to East Canyon



Creek, where it flows into the Weber River, eventually terminating into the Great Salt Lake, which is a traditional navigable water (TNW).

The Swaner Preserve and EcoCenter is partially within the survey area to the east of SR-224 about one-third of a mile south of Newpark Boulevard. The Preserve protects 1,200 acres of open space that includes 800 acres of wetlands, streams, and other valuable wildlife habitat. Wetland and streams in the Swaner Nature Preserve flow into Kimball Creek to the north. Kimball Creek joins an unnamed creek from the north to eventually become East Canyon Creek north of I-80.

# 3.2 General Plant Community Types

The survey area consists primarily of roads and road shoulders, commercial and residential development, uplands, and some wetland areas.

Uplands in the survey area consist primarily of road shoulders, commercial landscaping, and some upland grass communities. Common upland grass species include crested wheatgrass (*Agropyron cristatum*), western wheatgrass (*Pascopyrum smithii*), and basin wildrye (*Leymus cinereus*).

Wetland areas in the survey area consist primarily of broadleaf cattail (*Typha latifolia*), mountain rush (*Juncus arcticus* ssp. *littoralis*), sedges (*Carex* spp.), reed canarygrass (*Phalaris arundinacea*), and meadow foxtail (*Alopecurus pratensis*).

# 3.3 General Soil Conditions

Five soil types were identified in the survey area (Table 2). Minor components of Echocreek-Kovich loams, 0 to 10 percent slopes, and Wanship loam, 0 to 3 percent slopes, are listed as hydric in the Soil Survey of Utah (USDA NRCS 2023a). Soil map unit boundaries for the survey area are provided in Attachment F, *USDA NRCS Custom Soil Resource Report* (USDA NRCS 2023b).

Soil Name	Map Unit Symbol	Acreage
Agassiz-Rock outcrop complex, 30 to 70 percent slopes	101	4.5
Echocreek-Kovich loams, 0 to 10 percent slopes	127	3.0
Harter gravelly loam, 2 to 15 percent slopes	139	69.2
Manila-Ant Flat loams, 2 to 8 percent slopes	154	131.2
Wanship loam, 0 to 3 percent slopes	178	22.1
Total		230.0

Table 2.	Soil <sup>·</sup>	Types	Identified	in	the	Survey	Area
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# 4.0 Results

Section 4.0 describes the results of the aquatic resources delineation survey. The maps in Attachment B, *Aquatic Resources Delineation Map Series*, show the extent of aquatic resources in the survey area and the locations of wetland delineation sampling points. To help delineate potential wetlands in the survey area, the delineation team completed 30 wetland determination forms (see Attachment C, *Delineation Data Forms*). Table 3 summarizes the wetland delineation sampling points collected by the delineation team ordered by their locations on the map sheets in Attachment B, *Aquatic Resources Delineation Map Series*.

The entire delineation survey area is about 230 acres and contains a total of 1.08 acres of aquatic resources. These resources consist of 0.71 acre of palustrine emergent wetlands, 0.04 acre (199 linear feet) of perennial streams, 0.18 acre of open-water ponds, 0.01 acre of seeps, and 0.14 acre (1,842 linear feet) of ditches. Table 4, *Aquatic Resources Summary*, on page 10 summarizes all of the aquatic resource features that were delineated.

Map ID	Hydrophytic Vegetation Present?	Hydric Soils Present?	Wetland Hydrology Present?	Sampled Area within Wetland?	Map Sheet Number(s)ª
SP-1	Yes	Yes	Yes	Yes	4
SP-2	No	—	No	No	4
SP-3	Yes	Yes	Yes	Yes	6, 7
SP-4	No	—	No	No	6, 7
SP-5	Yes	Yes	Yes	Yes	7
SP-6	No	—	No	No	7
SP-7	Yes	Yes	Yes	Yes	7
SP-8	No	—	No	No	7
SP-9	Yes	Yes	Yes	Yes	7
SP-10	No	—	No	No	7
SP-11	Yes	Yes	Yes	Yes	8
SP-12	No	—	No	No	8
SP-13	Yes	Yes	Yes	Yes	12
SP-14	No	—	No	No	12
SP-15	Yes	Yes	Yes	Yes	12
SP-16	No	—	No	No	12
SP-17	Yes	No	No	No	12
SP-18	Yes	Yes	Yes	Yes	13
SP-19	No	—	No	No	13
SP-20	Yes	Yes	Yes	Yes	14
SP-21	Yes	Yes	Yes	Yes	14
SP-22	No	_	No	No	14
SP-23	Yes	Yes	Yes	Yes	14

#### Table 3. Wetland Delineation Sampling Points Summary



Map ID	Hydrophytic Vegetation Present?	Hydric Soils Present?	Wetland Hydrology Present?	Sampled Area within Wetland?	Map Sheet Number(s)ª
SP-24	No	—	No	No	14
SP-25	Yes	No	No	No	9
SP-26	Yes	Yes	Yes	Yes	9
SP-27	No	_	No	No	9
SP-28	Yes	Yes	Yes	Yes	9
SP-29	No	_	No	No	9
SP-30	Yes	No	No	No	10, 11

#### Table 3. Wetland Delineation Sampling Points Summary

<sup>a</sup> See Appendix B, Aquatic Resources Delineation Map Series.

## 4.1 Wetlands

Wetlands were delineated in the survey area as 17 separate polygons, all of which were identified as palustrine emergent wetlands, totaling 0.71 acre. Wetlands in the survey area are hydrologically supported by perennial streams, stormwater runoff, and shallow groundwater. Four wetlands (PEM-12a, PEM-12b, PEM-13a, and PEM-13b) are adjacent with a continuous surface connection because they physically abut relatively permanent tributaries to Kimball Creek. Six wetlands (PEM-1, PEM-2, PEM-3a, PEM-3b, PEM-5, and PEM-6) appear to lack a surface connection to a relatively permanent water or any other aquatic resources that have a downstream connection to a relatively permanent water. Other wetlands (PEM-4, PEM-7a, PEM-7b, PEM-8, PEM-9, PEM-10, and PEM-11) would be considered adjacent because they have a continuous surface connection by way of a discrete feature, such as a non-jurisdictional ditch, culvert, swale, or pipe, that eventually drains into East Canyon Creek, Kimball Creek, or Swaner Nature Preserve.

Wetlands in the survey area perform physical, chemical, and biological functions. Physical functions include surface and subsurface water storage for most wetlands in the survey area, and wetlands located along surface waters also retain particulates and dissipate energy. Chemical functions provided by all wetlands in the survey area include cycling nutrients and exporting organic carbon. Biological functions performed by wetlands in the survey area consist of supporting wetland vegetation communities and animal communities that use wetland environments to complete life cycle requirements. The extent to which each wetland provides these functions varies depending on characteristics such as condition, plant community composition, hydrogeomorphology, size, and land use.

The characteristics of the delineated wetlands are summarized in Table 4, *Aquatic Resources Summary*, on page 10, which provides descriptions for each wetland or similarly situated complex of wetlands. Table 4 also provides information about the size, classification, and location for each wetland.



# 4.2 Other (Non-wetland) Aquatic Resources

Other (non-wetland) aquatic resources identified in the survey area consist of perennial streams, open-water ponds, seeps, and ditches. Table 4 provides information about the size, classification, and location for each aquatic resource. All other (non-wetland) aquatic resources were delineated and mapped based on an OHWM determination. All streams have been mapped and delineated based on an OHWM determination following the *National OHWM Field Delineation Manual for Rivers and Streams* (USACE 2022).

### 4.2.1 Perennial Streams

Three perennial stream segments (P-1, P-2a, and P-2b) that total 0.04 acre (199 linear feet) were delineated in the survey area. All stream segments flow north and drain into either Kimball Creek or East Canyon Creek. Kimball Creek joins an unnamed creek from the north to eventually become East Canyon Creek north of I-80. East Canyon Creek flows west and north from this confluence and eventually flows into East Canyon Reservoir. Water released from East Canyon Reservoir is returned to East Canyon Creek, where it flows into the Weber River, eventually terminating into the Great Salt Lake.

Perennial stream segment P-1 supports some woody riparian vegetation before it flows into a culvert beneath I-80 and then into East Canyon Creek. Perennial stream segments P-2a and P-2b support adjacent wetland terraces and flow north into Kimball Creek.

## 4.2.2 Open-water Ponds

Four open-water ponds that total 0.18 acre were delineated in the survey area. Open-water ponds OW-1, OW-3, and OW-4 are stormwater detention basins that were constructed in uplands, and open-water pond OW-2 is an ornamental feature located on a residential property.

## 4.2.3 Seeps

One 0.01 acre seep (Seep-1) was delineated in the survey area. Seep-1 is a small seep that appears to be hydrologically supported by an ornamental feature to the west. Seep-1 has a continuous surface connection to wetland PEM-1.

## 4.2.4 Ditches

Eleven ditch segments totaling 0.14 acre (1,842 linear feet) were delineated in the survey area. All of the ditches in the survey area appear to be entirely human-made to provide drainage, were constructed in uplands, and lack a relatively permanent flow of water.



Aquatic Resource Feature Name	Cowardin Codeª	Size (acres) <sup>ь</sup>	Length (feet)º	Latituded	Longituded	Map Page Number(s) <sup>e</sup>	Description
Wetlands							
PEM-1	PEM	0.03	_	40.7335052	-111.5531921	4	Wetland PEM-1 is located in a swale on the south side of Kilby Road. This wetland is characterized by sampling point SP-1. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail and mountain rush, hydric soil indicators F3 (depleted matrix) and F6 (redox dark surface), and saturation as a primary hydrology indicator. The hydrology source for this wetland is stormwater runoff from adjacent roads. Wetland PEM-1 lacks a surface connection to a relatively permanent water or any other aquatic resources.
PEM-2	PEM	0.08	_	40.7305260	-111.550621	6, 7	Wetland PEM-2 is located in a detention basin on the south side of Kilby Road. This wetland is characterized by sampling point SP-3. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail, common spikerush, and mountain rush; and surface water as a primary hydrology indicator. Hydric soils were assumed given the dominance of obligate vegetation and the presence of surface water. The hydrology source for this wetland is stormwater runoff from adjacent roads. Wetland PEM-2 lacks a surface connection to a relatively permanent water or any other aquatic resources.
PEM-3a	PEM	0.16	_	40.7290573	-111.5496368	7	Wetlands PEM-3a and PEM-3b are located in swales on the west side of Landmark Drive. These wetlands are characterized by sampling point SP-7. Observations in these wetlands include hydrophytic vegetation with the dominance of mountain rush, hydric soil indicator F6 (redox dark
PEM-3b	PEM	0.06	_	40.7299080	-111.5499802	6, 7	source), and saturation as a primary hydrology indicator. The hydrology source for these wetlands is stormwater runoff from adjacent roads. Wetlands PEM-3a and PEM-3b drain into wetland PEM-1 through a series of culverts. Wetland PEM-1 lacks a surface connection to a relatively permanent water or any other aquatic resources.

### Table 4. Aquatic Resources Summary



Aquatic Resource Feature Name	Cowardin Codeª	Size (acres) <sup>ь</sup>	Length (feet)º	Latituded	Longitude <sup>d</sup>	Map Page Number(s) <sup>e</sup>	Description
PEM-4	PEM	<0.01	_	40.7288742	-111.5490341	7	Wetland PEM-4 is located in a channel on the east side of Landmark Drive. This wetland is characterized by sampling point SP-5. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail and surface water as a primary hydrology indicator. Hydric soils were assumed given the dominance of obligate vegetation and presence of surface water. The hydrology source for this wetland is stormwater runoff from adjacent roads. Wetland PEM-4 drains into ditch D-2, which flows into a culvert beneath I-80 and appears to drain into East Canyon Creek.
PEM-5	PEM	0.02	_	40.7280884	-111.5492706	7	Wetland PEM-5 is located in a detention basin on the south side of Landmark Drive. This wetland is characterized by sampling point SP-9. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail and surface water as a primary hydrology indicator. Hydric soils were assumed given the dominance of obligate vegetation and presence of surface water. The hydrology source for this wetland is stormwater runoff from adjacent roads. Wetland PEM-5 lacks a surface connection to a relatively permanent water or any other aquatic resources.
PEM-6	PEM	<0.01	-	40.7268982	-111.545105	8	Wetland PEM-6 is located in a detention basin on the south side of the I-80 eastbound off-ramp. This wetland is characterized by sampling point SP-11. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail and surface water as a primary hydrology indicator. Hydric soils were assumed given the dominance of obligate vegetation and presence of surface water. The hydrology source for this wetland is stormwater runoff from adjacent roads. Wetland PEM-6 lacks a surface connection to a relatively permanent water or any other aquatic resources.



Aquatic Resource Feature Name	Cowardin Codeª	Size (acres)⁵	Length (feet) <sup>c</sup>	Latitude <sup>d</sup>	Longitude <sup>d</sup>	Map Page Number(s)º	Description
PEM-7a	PEM	<0.01	_	40.7213020	-111.5453186	12	Wetlands PEM-7a and PEM-7b are located west of SR-224 and just south of Olympic Parkway. These wetlands are characterized by sampling point SP-13. Observations in these wetlands include hydrophytic vegetation with the dominance of mountain rush, hydric soil indicator F6 (redox dark
PEM-7b	PEM	<0.01	_	40.7214165	-111.5452194	12	surface), and saturation as a primary hydrology indicator. The hydrology source for these wetlands is stormwater runoff from adjacent roads. Wetlands PEM-7a and PEM-7b drain into ditch D-3, which appears to eventually drain into the Swaner Nature Preserve.
PEM-8	PEM	0.01	-	40.7211647	-111.5451279	12	Wetland PEM-8 is located west of SR-224 and just south of Olympic Parkway. This wetland is characterized by sampling point SP-15. Observations in this wetland include hydrophytic vegetation with the dominance of mountain rush and Canada thistle, hydric soil indicator F6 (redox dark surface), and surface soil cracks as a primary hydrology indicator. The hydrology source for this wetland appears to be stormwater runoff from adjacent roadways and meadows to the west. Wetland PEM-8 appears to drain into ditch D-5, which appears to eventually drain into the Swaner Nature Preserve.
PEM-9	PEM	0.07	-	40.7192612	-111.5452423	13	Wetland PEM-9 is located west of SR-224 and south of Olympic Parkway. This wetland is characterized by sampling point SP-18. Observations in this wetland include hydrophytic vegetation with the dominance of meadow foxtail, mountain rush, and water sedge; hydric soil indicator F6 (redox dark surface); and surface soil cracks as a primary hydrology indicator. The hydrology source for this wetland appears to be meadows to the west. Wetland PEM-9 drains into ditch D-7, which appears to eventually drain into Kimball Creek.
PEM-10	PEM	0.06	-	40.7148743	-111.5444489	14	Wetland PEM-10 is located east of SR-224 and is part of the Swaner Nature Preserve. This wetland is characterized by sampling points SP-20 and SP-21. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail and reed canarygrass; hydric soil indicators A4 (hydrogen sulfide) and F6 (redox dark surface); and surface water, high water table, saturation, and hydrogen sulfide odor as primary hydrology indicators. The hydrology source for this wetland is stormwater runoff from SR-224, shallow groundwater, and meadows to the west. Wetland PEM-10 is a part of the Swaner Nature Preserve.



Aquatic Resource Feature Name	Cowardin Codeª	Size (acres) <sup>ь</sup>	Length (feet)º	Latitude <sup>d</sup>	Longitude <sup>d</sup>	Map Page Number(s) <sup>e</sup>	Description	
PEM-11	PEM	0.05	_	40.7144051	-111.5450439	14	Wetland PEM-11 is located west of SR-224 and south of Bear Cub Drive. This wetland is characterized by sampling point SP-23. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail and mountain rush, and the presence of surface water, as a primary hydrology indicator. Hydric soils were assumed given the dominance of obligate vegetation and the presence of surface water. The hydrology source for this wetland is a seep to the west. Wetland PEM-11 drains into ditch D-8, which appears to flow into the Swaner Nature Preserve.	
PEM-12a	PEM	0.04	_	40.7248993	-111.5358429	9	Wetlands PEM-12a and PEM-12b are located north of I-80 between I-80 and Bitner Road. These wetlands are characterized by sampling point SP-26. Observations in these wetlands include hydrophytic vegetation with the dominance of mountain rush, hydric soil indicator F6 (redox dar	
PEM-12b	PEM	<0.01	_	40.7249451	-111.5361099	9	source for these wetlands is stormwater runoff from adjacent roads and perennial stream segment P-2a. Wetlands PEM-12a and PEM-12b are adjacent to perennial stream segment P-2a, which flows into Kimball Creek.	
PEM-13a	PEM	0.05	_	40.7241898	-111.5360870	9	Wetlands PEM-13a and PEM-13b are located south of I-80 between I-80 and Highland Drive. These wetlands are characterized by sampling point SP-28. Observations in these wetlands include hydrophytic vegetation with the dominance of bitter dock, mountain rush, Nebraska sedge, and wild mint; hydric soil indicator F3 (depleted matrix); and saturation and	
PEM-13b	PEM	0.01	_	40.7242470	-111.5362549	9	high water table as primary hydrology indicators. The hydrology source for these wetlands is stormwater runoff from adjacent roads and perennial stream segment P-2b. Wetlands PEM-13a and PEM-13b have a continuous surface connection to perennial stream segment P-2b, which flows into Kimball Creek.	



Aquatic Resource Feature Name	Cowardin Codeª	Size (acres)⁵	Length (feet)º	Latitude <sup>d</sup>	Longitude <sup>d</sup>	Map Page Number(s) <sup>e</sup>	Description		
Perennial Stream	ms								
P-1	R3UB	<0.01	18	40.7390556	-111.5587387	2	Perennial stream P-1 is located south of I-80 between I-80 and Kilby Road. The OHWM was identified primarily by changes in vegetation cover and species and a break in the bank slope. Perennial stream P-1 supports woody riparian vegetation consisting primarily of narrowleaf willow ( <i>Salix</i> <i>exigua</i> ). The delineated width to the OHWM at a representative transect measured 9 feet. Perennial stream P-1 flows north under I-80 and eventually flows into East Canyon Creek.		
P-2a	R3UB	0.01	49	40.7249260	-111.5360947	9	Perennial stream P-2 consists of two segments, P-2a and P-2b, that total 0.04 acre (181 linear feet). The OHWM was identified primarily by changes in vegetation cover and species and a break in the bank slope. Perennial stream P-2 supports adjacent low-terrace wetlands. The		
P-2b	R3UB	0.03	132	40.7241669	-111.5362244	9	delineated widths to the OHWM at representative transects of P-2a and P-2b measured 6 and 9 feet, respectively. Perennial stream segment P-2b flows north under I-80, connecting to perennial stream segment P-2a and eventually flowing into Kimball Creek.		
Open-water Ponds									
OW-1	PUB	0.08	-	40.7414322	-111.5605392	1	Open-water pond OW-1 is located south of I-80 between I-80 and Kilby Road. OW-1 is a stormwater detention basin that was constructed in uplands and captures runoff from adjacent roads. Standing water was present at the time of the survey. Open-water pond OW-1 appears to drain through a culvert beneath I-80. The outfall of this culvert was not identified during the field survey.		
OW-2	PUB	0.03	-	40.7369041	-111.5565338	3	Open-water pond OW-2 is located south of Kilby Road. OW-2 is an impoundment of an unnamed perennial stream that originates south of the survey area. Standing water was present at the time of the survey. Open-water pond OW-1 appears to drain through a culvert beneath I-80 into East Canyon Creek.		
OW-3	PUB	0.06	_	40.7292023	-111.5492477	7	Open-water pond OW-3 is located east of Landmark Drive. OW-3 is a stormwater detention basin that was constructed in uplands and captures runoff from adjacent roads. Standing water was present at the time of the survey. Open-water pond OW-3 appears to be isolated.		



Aquatic Resource Feature Name	Cowardin Codeª	Size (acres) <sup>ь</sup>	Length (feet)º	Latitude <sup>d</sup>	Longitude <sup>d</sup>	Map Page Number(s) <sup>e</sup>	Description		
OW-4	PUB	0.02	_	40.7249603	-111.5363007	9	Open-water pond OW-4 is located north of I-80 between I-80 and south of Bitner Road. OW-4 is a stormwater detention basin that was constructed in uplands and captures runoff from adjacent roads and ditch D-9. Standing water was present at the time of the survey. Open-water pond OW-4 appears to drain through a culvert into perennial stream segment P-2a, which flows into Kimball Creek.		
Seeps									
Seep-1	PUB	0.01	-	40.7333984	-111.5531387	4	Seep Seep-1 is located on a hillslope above wetland PEM-1 on the south side of Kilby Road. The hydrology source for this seep appears to be water leaching from an ornamental pond located upslope. Seep-1 drains into wetland PEM-1, which lacks a surface connection to a relatively permanent water or any other aquatic resources.		
Ditches									
D-1	R6	<0.01	54	40.7289925	-111.5492859	7	Ditch D-1 is located east of Landmark Drive. The delineated width to the OHWM at a representative transect measured 1 foot. There was no flowing water present at the time of the survey. Ditch D-1 drains into open-water pond OW-3, which appears to be isolated.		
D-2	R6	<0.01	15	40.7288780	-111.5485687	7	Ditch D-2 is located east of Landmark Drive. The delineated width to the OHWM at a representative transect measured 4 feet. There was no flowing water present at the time of the survey. Ditch D-2 continues into a culvert beneath I-80. The outfall of this culvert was not identified during the field survey.		
D-3	R6	0.01	149	40.7214050	-111.5451965	12	Ditch D-3 is located west of SR-224 and just south of Olympic Parkway. The delineated width to the OHWM at a representative transect measured 3 feet. There was no flowing water present at the time of the survey. Ditch D-3 flows southwest and connects with ditch D-4, which flows into wetland PEM-8. Wetland PEM-8 drains into ditch D-5, which continues into a culvert to the east. The outfall of this culvert was not identified during the field survey.		



Aquatic Resource Feature Name	Cowardin Codeª	Size (acres)⁵	Length (feet) <sup>c</sup>	Latitude <sup>d</sup>	Longitude <sup>d</sup>	Map Page Number(s) <sup>e</sup>	Description
D-4	R6	<0.01	30	40.7212410	-111.5454025	12	Ditch D-4 is located west of SR-224 and just south of Olympic Parkway. The delineated width to the OHWM at a representative transect measured 3 feet. There was no flowing water present at the time of the survey. Ditch D-4 connects with ditch D-3 and flows east through a culvert into wetland PEM-8, which appears to eventually drain into the Swaner Nature Preserve.
D-5	R6	0.02	184	40.7211342	-111.5440598	12	Ditch D-5 is located east of SR-224 and just south of Olympic Parkway. The delineated width to the OHWM at a representative transect measured 5 feet. There was no flowing water present at the time of the survey. Ditch D-5 continues into a culvert to the east. The outfall of this culvert was not identified during the field survey.
D-6	R6	<0.01	147	40.7210579	-111.5440216	12	Ditch D-6 is located east of SR-224 and just south of Olympic Parkway. The delineated width to the OHWM at a representative transect measured 1 foot. There was no flowing water present at the time of the survey. Ditch D-6 continues into a culvert to the east, which appears to eventually drain into the Swaner Nature Preserve.
D-7	R6	<0.01	38	40.7193947	-111.5450287	13	Ditch D-7 is located west of SR-224 and south of Olympic Parkway. The delineated width to the OHWM at a representative transect measured 5 feet. There was no flowing water present at the time of the survey. Ditch D-7 continues into a culvert to the east. The outfall of this culvert was not identified during the field survey.
D-8	R6	0.03	553	40.7149925	-111.5449829	14	Ditch D-8 is west of SR-224 and south of Bear Cub Drive. The delineated width to the OHWM at a representative transect measured 2 feet. There was no flowing water present at the time of the survey. Ditch D-8 continues into a culvert beneath SR-224, which appears to eventually drain into Kimball Creek.
D-9	R6	0.07	601	40.7252693	-111.5373917	9	Ditch D-9 is located north of I-80 between I-80 and Bitner Road. The delineated width to the OHWM at a representative transect measured 5 feet. There was no flowing water present at the time of the survey. Ditch D-9 continues east, draining into open-water pond OW-4, which appears to drain through a culvert into perennial stream segment P-2a. Perennial stream segment P-2a drains into Kimball Creek.



Aquatic Resource Feature Name	Cowardin Codeª	Size (acres)♭	Length (feet)º	Latitude <sup>d</sup>	Longitude <sup>d</sup>	Map Page Number(s)º	Description
D-10	R6	<0.01	57	40.7242661	-111.5363922	9	Ditch D-10 is located south of I-80 between I-80 and Highland Drive. The delineated width to the OHWM at a representative transect measured 2 feet. There was no flowing water present at the time of the survey. Ditch D-10 continues east, flowing into perennial stream segment P-2b, which drains into Kimball Creek.
D-11	R6	<0.01	14	40.7216187	-111.5262756	11	Ditch D-11 is located south of Highland Drive. The delineated width to the OHWM at a representative transect measured 4 feet. There was no flowing water present at the time of the survey. Ditch D-11 continues north into a culvert, which drains into Kimball Creek.

<sup>a</sup> Codes from *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin and others 1979): **PEM** (palustrine, emergent), **PUB** (unconsolidated bottom, palustrine), **R3UB** (riverine, upper perennial, unconsolidated bottom), and **R6** (a wetland, spring, stream, river, pond, or lake that exists only for a short period).

<sup>b</sup> Displayed values are rounded to two decimal places, so the totals might not match the sum of the reported values exactly.

<sup>c</sup> Displayed values are rounded to the nearest whole linear foot, so the totals might not match the sum of the reported values exactly.

<sup>d</sup> Coordinates for the center point of each feature are listed.

<sup>e</sup> See Attachment B, Aquatic Resources Delineation Map Series.

# **5.0 Delineation Summary**

All areas in the delineation survey area were assessed to determine the presence or absence of aquatic resources, including wetlands and other waters, in accordance with the procedures and guidelines established by USACE. The entire delineation survey area is about 230 acres and contains a total of 1.08 acres of aquatic resources. These resources consist of 0.71 acre of palustrine emergent wetlands, 0.04 acre (199 linear feet) of perennial streams, 0.18 acre of openwater ponds, 0.01 acre of seeps, and 0.14 acre (1,842 linear feet) of ditches. All features recorded and mapped are included in Attachment B, *Aquatic Resources Delineation Map Series*.

# 5.1 Jurisdictional Status of Delineated Aquatic Resources

Aquatic resources in the survey area do not have an identifiable connection to interstate or foreign commerce, and they do not include any interstate waters or traditional navigable waters (TNW). The descriptions included in Table 4 above provide information that USACE could use to help determine the jurisdictional status of each delineated aquatic resource feature.

# 6.0 References

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**Attachment A. Project Location Overview Map** 

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# Attachment B. Aquatic Resources Delineation Map Series

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#### LEGEND

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- Geographic Control Points
- Tenth Mile Reference Markers
- Culvert
- Surface Connection
  - Delineation Survey Area (230 acres)
  - \_\_\_] Ordinary High Water Mark (OHWM)
    - Open Water (0.18 acre)

\*Acreages displayed in the legend represent the total acreage for that aquatic resource type in the survey area.

\*This map series only includes areas containing aquatic resources.

DATA SOURCES: © 2021 HxGN Content Program, Hexagon, HDR (2021), ESRI (2021)

#### AQUATIC RESOURCES DELINEATION MAP SERIES KIMBALL JUNCTION EIS

100 200 US FEET 1 inch equals 100 feet



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#### LEGEND

- Geographic Control Points
- Tenth Mile Reference Markers
- OHWM Transects
- Culvert
- Surface Connection
- Delineation Survey Area (230 acres)
- [\_\_\_] Ordinary High Water Mark (OHWM)
  - Perennial Stream (0.04 acres, 199 linear feet)

\*Acreages displayed in the legend represent the total acreage for that aquatic resource type in the survey area.

\*This map series only includes areas containing aquatic resources.

DATA SOURCES: © 2021 HxGN Content Program, Hexagon, HDR (2021), ESRI (2021)

#### AQUATIC RESOURCES DELINEATION MAP SERIES KIMBALL JUNCTION EIS

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- Geographic Control Points
  - Tenth Mile Reference Markers
- Culvert
  - Delineation Survey Area (230 acres)
- \_\_\_\_ Ordinary High Water Mark (OHWM)
  - Open Water (0.18 acre)

\*Acreages displayed in the legend represent the total acreage for that aquatic resource type in the survey area.

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## AQUATIC RESOURCES DELINEATION MAP SERIES KIMBALL JUNCTION EIS

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- Geographic Control Points
  - Tenth Mile Reference Markers
- Delineation Survey Area (230 acres)
  - Palustrine Emergent Wetland (0.71 acre)

\*Acreages displayed in the legend represent the total acreage for that aquatic resource type in the survey area.

\*This map series only includes areas containing aquatic resources.

DATA SOURCES: © 2021 HxGN Content Program, Hexagon, HDR (2021), ESRI (2021)

#### AQUATIC RESOURCES DELINEATION MAP SERIES KIMBALL JUNCTION EIS

100 US FEET 1 inch equals 100 feet

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- Geographic Control Points
- Tenth Mile Reference Markers
- In Point Wetland
- Out Point Non Wetland
- Delineation Survey Area (230 acres)

Palustrine Emergent Wetland (0.71 acre)

\*Acreages displayed in the legend represent the total acreage for that aquatic resource type in the survey area.

\*This map series only includes areas containing aquatic resources.

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#### AQUATIC RESOURCES DELINEATION MAP SERIES KIMBALL JUNCTION EIS

100 US FEET 1 inch equals 100 feet

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- LEGEND
- Geographic Control Points
  - Tenth Mile Reference Markers
- In Point Wetland
- Out Point Non Wetland
- OHWM Transects
- Delineation Survey Area (230 acres)
- $\begin{bmatrix} \\ \end{bmatrix}$  Ordinary High Water Mark (OHWM)
  - Ditch (0.15 acres, 1,842 linear feet)
  - Open Water (0.18 acre)
  - Palustrine Emergent Wetland (0.71 acre)

\*Acreages displayed in the legend represent the total acreage for that aquatic resource type in the survey area.

\*This map series only includes areas containing aquatic resources.

DATA SOURCES: © 2021 HxGN Content Program, Hexagon, HDR (2021), ESRI (2021)

## AQUATIC RESOURCES DELINEATION MAP SERIES KIMBALL JUNCTION EIS

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- Geographic Control Points
  - Tenth Mile Reference Markers
- O In Point Wetland
- Out Point Non Wetland
- Delineation Survey Area (230 acres)

Palustrine Emergent Wetland (0.71 acre)

\*Acreages displayed in the legend represent the total acreage for that aquatic resource type in the survey area.

\*This map series only includes areas containing aquatic resources.

DATA SOURCES: © 2021 HxGN Content Program, Hexagon, HDR (2021), ESRI (2021)

# AQUATIC RESOURCES DELINEATION MAP SERIES KIMBALL JUNCTION EIS

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- Geographic Control Points
- Tenth Mile Reference Markers
- O In Point Wetland
- Out Point Non Wetland
- OHWM Transects
- Culvert
- Delineation Survey Area (230 acres)
- [\_\_\_ Ordinary High Water Mark (OHWM)
  - Ditch (0.15 acres, 1,842 linear feet)
  - Open Water (0.18 acre)
  - Palustrine Emergent Wetland (0.71 acre)
  - Perennial Stream (0.04 acres, 199 linear feet)

\*Acreages displayed in the legend represent the total acreage for that aquatic resource type in the survey area.

\*This map series only includes areas containing aquatic resources.

DATA SOURCES: © 2021 HxGN Content Program, Hexagon, HDR (2021), ESRI (2021)

#### AQUATIC RESOURCES DELINEATION MAP SERIES KIMBALL JUNCTION EIS

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- Geographic Control Points
- Tenth Mile Reference Markers
- Out Point Non Wetland

Delineation Survey Area (230 acres)

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\*Acreages displayed in the legend represent the total acreage for that aquatic resource type in the survey area.

\*This map series only includes areas containing aquatic resources.

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#### AQUATIC RESOURCES DELINEATION MAP SERIES KIMBALL JUNCTION EIS

100 US FEET 1 inch equals 100 feet

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- Geographic Control Points
- Tenth Mile Reference Markers
- OHWM Transects
- Delineation Survey Area (230 acres)
- \_\_\_\_] Ordinary High Water Mark (OHWM)
  - Ditch (0.15 acres, 1,842 linear feet)

\*Acreages displayed in the legend represent the total acreage for that aquatic resource type in the survey area.

\*This map series only includes areas containing aquatic resources.

DATA SOURCES: © 2021 HxGN Content Program, Hexagon, HDR (2021), ESRI (2021)

#### AQUATIC RESOURCES DELINEATION MAP SERIES KIMBALL JUNCTION EIS

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- Geographic Control Points
  - Tenth Mile Reference Markers

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- In Point Wetland
- Out Point Non Wetland
- OHWM Transects
- Delineation Survey Area (230 acres)
- $\begin{bmatrix} \\ \end{bmatrix}$  Ordinary High Water Mark (OHWM)
  - Ditch (0.15 acres, 1,842 linear feet)
  - Palustrine Emergent Wetland (0.71 acre)

\*Acreages displayed in the legend represent the total acreage for that aquatic resource type in the survey area.

\*This map series only includes areas containing aquatic resources.

DATA SOURCES: © 2021 HxGN Content Program, Hexagon, HDR (2021), ESRI (2021)

#### AQUATIC RESOURCES DELINEATION MAP SERIES KIMBALL JUNCTION EIS

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Bear Hotlow

- Geographic Control Points
- Tenth Mile Reference Markers
- In Point Wetland
- Out Point Non Wetland
- OHWM Transects
- Delineation Survey Area (230 acres)
- C \_ ] Ordinary High Water Mark (OHWM)
  - Ditch (0.15 acres, 1,842 linear feet)
  - Palustrine Emergent Wetland (0.71 acre)

\*Acreages displayed in the legend represent the total acreage for that aquatic resource type in the survey area.

\*This map series only includes areas containing aquatic resources.

DATA SOURCES: © 2021 HxGN Content Program, Hexagon, HDR (2021), ESRI (2021)

## AQUATIC RESOURCES DELINEATION MAP SERIES KIMBALL JUNCTION EIS

100 US FEET 1 inch equals 100 feet

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Geographic Control Points

Tenth Mile Reference Markers

In Point - Wetland

Out Point - Non Wetland

OHWM Transects

Culvert

Delineation Survey Area (230 acres)

[\_] Ordinary High Water Mark (OHWM)

Ditch (0.15 acres, 1,842 linear feet)

Palustrine Emergent Wetland (0.71 acre)

\*Acreages displayed in the legend represent the total acreage for that aquatic resource type in the survey area.

\*This map series only includes areas containing aquatic resources.

DATA SOURCES: © 2021 HxGN Content Program, Hexagon, HDR (2021), ESRI (2021)

## AQUATIC RESOURCES DELINEATION MAP SERIES KIMBALL JUNCTION EIS

100 US FEET 1 inch equals 100 feet

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**Attachment C. Delineation Data Forms** 

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U.S. Army Corp WETLAND DETERMINATION DATA SHEET – V See ERDC/EL TR-10-3; the pro	os of Enginee Vestern Mounta ponent agency	rs ns, Valleys, and 0 / is CECW-CO-	Coast Region R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Kimball Junction EIS	. <u> </u>	ity/County: Summi	it County	Sampling Date: 8/7/2023
Applicant/Owner: UDOT		<u> </u>	State: U	T Sampling Point: SP-1
Investigator(s): Joshua McMillin Lacev Wilder	Se	ection Township R	ange: S13 T1S F	33E
Landform (hillside terrace etc.): Depression	Local	relief (concave, con	vex none): Conc	ave Slope (%): 10
Subregion (LRR): LRR F. Lat: 40 733:	36411	Long: -	111 5530624	Datum: NAD83
Soil Map Unit Name: Manila-Ant Flat Joams 2 to 8 perc	ent slopes	2011g	NWI	classification:
Are climatic / bydrologic conditions on the site typical for	r this time of year	Yes	No (lf r	no explain in Remarks )
Are Vegetation Soil or Hydrology s	ignificantly disturb	ed? Are "Normal	Circumstances" pre	sent? Ves X No
Are Vegetation, Soli, or Hydrologys		ic? (If pooded of		
SUMMARY OF FINDINGS – Attach site ma	p snowing sa	mpling point ic	ocations, trans	ects, important features, etc.
Hydrophytic Vegetation Present? Yes X No		Is the Sampled A	Area	
Hydric Soil Present? Yes X No		within a Wetland	l? Yes	<u>X</u> No
Wetland Hydrology Present? Yes X No				
Remarks: Sampling point meets the criteria for a wetland.				
VEGETATION – Use scientific names of pl	ants.			
	Absolute Don	ninant Indicator	Demission Te	4
<u>Tree Stratum</u> (Plot size: <u>30 it radius</u> )	% Cover Spe	cies? Status	Dominance Tes	
2.			Are OBL, FACW	Inant Species That /. or FAC: 2 (A)
3.			Total Number of	Dominant Species
4.			Across All Strata	a: <u>2</u> (B)
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft radius</u> )	=Total	Cover	Percent of Dom Are OBL, FACW	inant Species That /, or FAC:100.0% (A/B)
2.			Prevalence Ind	ex worksheet:
3.			Total % Co	over of: Multiply by:
4.			OBL species	30 x 1 = 30
5			FACW species	70 x 2 = 140
	=Total	Cover	FAC species	0   x 3 = 0
<u>Herb Stratum</u> (Plot size: <u>5 ft radius</u> )	20		FACU species	$0 \times 4 = 0$
I ypria laulolla     Juncus arcticus ssp. littoralis	<u> </u>		Column Totals:	100 (A) $170$ (B)
3.			Prevalence	mdex = B/A = 1.70
4.				
5			Hydrophytic Ve	getation Indicators:
6			1 - Rapid Te	est for Hydrophytic Vegetation
7			X 2 - Dominar	nce Test is >50%
8			X 3 - Prevaler	ice Index is ≤3.0 <sup>°</sup>
9			4 - Morphoid data in R	emarks or on a separate sheet)
11.			5 - Wetland	Non-Vascular Plants <sup>1</sup>
	100 =Tota	Cover	Problematic	Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum         (Plot size:)           1			<sup>1</sup> Indicators of hy be present, unle	dric soil and wetland hydrology must ss disturbed or problematic.
2			Hydrophytic	
	=Total	Cover	Vegetation	<b>v</b>
% Bare Ground in Herb Stratum 0			Present?	Yes <u>X</u> No
Remarks:				

	IVIALITA		Redo	ox ⊦eatur	res			
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-2	10YR 2/2	100					Loamy/Clayey	Roots
2-10	10YR 2/1	94	7.5YR 4/6	6	С	Μ	Loamy/Clayey	Prominent redox concentrations
10-15	10YR 4/2	75	7.5YR 4/6	25	C	<u>M</u>	Loamy/Clayey	Prominent redox concentrations
Type: C=Co	oncentration, D=Depl	etion, RM=F	Reduced Matrix, C	CS=Cove	ered or Co	pated Sa	and Grains. <sup>2</sup> Loo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applica	ble to all LF	RRs, unless oth	erwise n	oted.)		Indicate	ors for Problematic Hydric Soils":
	(AI)		Sandy Ge	eyed Mat	rix (54)			n Muck (A10) (LRR A, E)
Black Hi	npedon (A2)		Sanuy Re	uux (33) Aatrix (S6	3)		II0II	-Manganese Masses (F12) (LRR D)
	n Sulfide ( $\Delta A$ )			icky Mine	) aral (E1) (	(ovcont		v Shallow Dark Surface (E22)
1 cm Mu					triv $(F2)$	except		er (Evolain in Remarks)
Depleter	Below Dark Surface	Δ11)	X Depleted	Matrix (F	3)		0	
	rk Surface (A12)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	X Redox Da	rk Surfac	c) ce (F6)		<sup>3</sup> Indicate	ors of hydrophytic vegetation and
Sandy M	lucky Mineral (S1)		Depleted	Dark Sur	face (F7)		wet	and hydrology must be present
2.5 cm N	lucky Peat or Peat (	52) (LRR G)	Redox De	pression	s (F8)		unle	ess disturbed or problematic.
Restrictive I	_ayer (if observed):							
Type:			_					
Depth (ir	nches):		_				Hydric Soil Prese	nt? Yes <u>X</u> No
Remarks: Hydric soil in	dicators F3 and F6 p	present						

welland Hydrology indicators.							
Primary Indicators (minimum of on	Secondary Indicators (2 or more required)						
Surface Water (A1)		Water-S	tained Leaves (B9) (except		Water-Stained Leaves (B9) (MLRA 1, 2		
High Water Table (A2)	_	MLR	A 1, 2, 4A, and 4B)		4A, and 4B)		
X Saturation (A3)		Salt Crus	st (B11)		Drainage Patterns (B10)		
Water Marks (B1)		Aquatic I	nvertebrates (B13)		Dry-Season Water Table (C2)		
Sediment Deposits (B2)		Hydroge	n Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)		Oxidized	Rhizospheres on Living Roo	ots (C3)	Geomorphic Position (D2)		
Algal Mat or Crust (B4)		Presence	e of Reduced Iron (C4)		Shallow Aquitard (D3)		
Iron Deposits (B5)	_	Recent I	ron Reduction in Tilled Soils	(C6)	X FAC-Neutral Test (D5)		
Surface Soil Cracks (B6)		Stunted	or Stressed Plants (D1) ( <b>LR</b> I	Raised Ant Mounds (D6) (LRR A)			
Inundation Visible on Aerial Im	nagery (B7)		Frost-Heave Hummocks (D7)				
Sparsely Vegetated Concave	Surface (B8)		—				
Field Observations:							
Surface Water Present? Yes	;	No X	Depth (inches):				
Water Table Present? Yes	;	No X	Depth (inches):				
Saturation Present? Yes	X I	No	Depth (inches): 0	Wetlan	d Hydrology Present? Yes X No		
(includes capillary fringe)							
Describe Recorded Data (stream g	gauge, monitor	ing well, aer	ial photos, previous inspecti	ons), if ava	ailable:		
Remarks:							
Hydrology present with saturation a	as a primary h	ydrology ind	icator.				
1							

U.S. Army Cor WETLAND DETERMINATION DATA SHEET – N See ERDC/EL TR-10-3: the pro	ps of Engine Western Mount	e <b>rs</b> ains, Vall	eys, and C CW-CO-F	coast Region २	OMB Control #: 0710-0 Requirement Control (Authority: AR 335-1	)24, Exp: 11/30/2024 Symbol EXEMPT: 5, paragraph 5-2a)	4
Project/Site: Kimball Junction EIS		City/Coun	tv: Summit		Sampling D		23
		Oity/Oouri	ty. Ourinin	State: U	T Sampling D	oint: SP (	20 2
Applicant/Owner. 0001		0 ti				Jint. <u>5P-2</u>	2
Investigator(s): Joshua McMillin, Lacey Wilder		Section, 10	ownship, Ra	inge: <u>\$13, 115, F</u>	(3E		
Landform (hillside, terrace, etc.): Hillslope	Loca	al relief (co	ncave, conv	vex, none): None		Slope (%):	10
Subregion (LRR): LRR E Lat: 40.733	38318		Long: -1	111.5530396	Dat	um: NAD83	,
Soil Map Unit Name: Manila-Ant Flat loams, 2 to 8 percent	cent slopes			NWI	classification:		
Are climatic / hydrologic conditions on the site typical for	or this time of yea	ar? Y	′es	No (If n	io, explain in Remar	ks.)	
Are Vegetation, Soil, or Hydrologys	significantly distu	rbed? Ar	e "Normal C	Circumstances" pre	esent? Yes X	No	
Are Vegetation, Soil, or Hydrologyr	naturally problem	natic? (If	needed, ex	plain any answers	in Remarks.)		
SUMMARY OF FINDINGS – Attach site ma	ap showing s	ampling	j point lo	cations, transe	ects, important	features, e	etc.
Hydrophytic Vegetation Present? Yes No	<u>    X    </u>	Is the	Sampled A	rea			
Hydric Soil Present? Yes No	D	within	a Wetland	? Yes	No _X		
Wetland Hydrology Present? Yes <u>No</u> No	× <u> </u>						
Remarks: No soil pit was dug due to lack of hydrophytic vegetation wetland.	on and lack of su	urface hydr	ology indica	ators. Sampling poi	nt does not meet the	criteria for a	
VEGETATION – Use scientific names of p	lants.						
	Absolute Do	ominant	Indicator				
Tree Stratum (Plot size: <u>30 ft radius</u> )	% Cover S	pecies?	Status	Dominance Tes	st worksheet:		
1				Number of Dom	inant Species That	0 (	<b>^</b> )
2				Are OBL, FACW	7, of FAC:	(/	A)
3				Total Number of	Dominant Species	1 (1	B)
T	=Tot	tal Cover		Percent of Domi	inant Spacias That	(	5)
Sapling/Shrub Stratum (Plot size: 15 ft radius )	)			Are OBL, FACW	, or FAC:	0.0% (/	A/B)
1,						(	,
2.				Prevalence Ind	ex worksheet:		
3				Total % Co	over of: M	ultiply by:	
4				OBL species	0 x 1 =	0	
5				FACW species	0 x 2 =	0	
	=Tot	tal Cover		FAC species	<u> </u>	0	
<u>Herb Stratum</u> (Plot size: <u>5 ft radius</u> )	05	Maa	FAOL	FACU species	<u>25</u> x 4 =	0	
		res	FACU	Column Totals:	$\frac{0}{25}$ (A)	100 //	D)
2				Prevalence li	23 (A)	4 00	ы)
4						4.00	
5.				Hydrophytic Ve	egetation Indicators	 ;:	
6.				1 - Rapid Te	est for Hydrophytic V	'egetation	
7.				2 - Dominar	nce Test is >50%	0	
8.				3 - Prevalen	ice Index is ≤3.0 <sup>1</sup>		
9				4 - Morpholo	ogical Adaptations <sup>1</sup> (I	Provide suppor	rting
10				data in R	emarks or on a sepa	irate sheet)	
11				5 - Wetland	Non-Vascular Plant	s	
	25=Tot	tal Cover		Problematic	Hydrophytic Vegeta	ition' (Explain)	)
Woody Vine Stratum         (Plot size:)           1.	)			<sup>1</sup> Indicators of hy be present, unle	dric soil and wetland ss disturbed or prob	l hydrology mu lematic.	ust
2				Hydrophytic			
	=Tot	tal Cover		Vegetation	Yee to	V	
% Bare Ground in Herb Stratum 75				Present?	res No	<u> </u>	
Remarks:							

	firm the absence of indicators.)
Redox Features	
$\frac{1}{10000000000000000000000000000000000$	Texture Remarks
duced Matrix, CS=Covered or Coated Sand	Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
s, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Sandy Gleyed Matrix (S4)	2 cm Muck (A10) (LRR A, E)
Sandy Redox (S5)	Iron-Manganese Masses (F12) (LRR D)
Stripped Matrix (S6)	Red Parent Material (F21)
Loamy Mucky Mineral (F1) (except ML	.RA 1) Very Shallow Dark Surface (F22)
Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Matrix (F3)	<sup>3</sup> ladiates of hydrophytic vocatotion and
Redox Dark Surface (Fo)	Indicators of hydrophytic vegetation and
Depieted Dark Surface (F7)	Welland hydrology must be present,
	uniess disturbed of problematic.
·   _	ludria Sail Brasant? Yas No
I	
edetation and lack of surface hydrology indic	Caluis.
egetation and lack of surface hydrology indi	
egetation and lack of surface hydrology indi	
check all that apply)	Secondary Indicators (2 or more required)
<u></u>	<u>Secondary Indicators (2 or more required)</u> Water-Stained Leaves (B9) ( <b>MLRA 1, 2</b>
<u>check all that apply)</u> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
<u>check all that apply</u> <u>Water-Stained Leaves (B9) (except</u> <u>MLRA 1, 2, 4A, and 4B)</u> <u>Salt Crust (B11)</u>	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10)
<u>check all that apply)</u> <u>Water-Stained Leaves (B9) (except</u> <u>MLRA 1, 2, 4A, and 4B)</u> Salt Crust (B11) <u>Aquatic Invertebrates (B13)</u> <u>Hydrogon Sulfido Odor (C1)</u>	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
<u>check all that apply)</u> <u>Water-Stained Leaves (B9) (except</u> <u>MLRA 1, 2, 4A, and 4B)</u> <u>Salt Crust (B11)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Ovidized Rhizospheres on Living Roots</u>	<u>Secondary Indicators (2 or more required)</u> Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 (C3)
<u>check all that apply</u> <u>Water-Stained Leaves (B9) (except</u> <u>MLRA 1, 2, 4A, and 4B)</u> <u>Salt Crust (B11)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres on Living Roots</u> <u>Presence of Reduced Iron (C4)</u>	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3)
<u>check all that apply)</u> <u>Check all that apply}</u> <u>Check all that apply} <u>Check all that apply}</u> <u>Check all that apply} <u>Check all that apply} <u>Check all that apply} </u> <u>Check all that apply} <u>Check all that apply} </u> <u>Check all that apply} <u>Check all that apply} </u> <u>Check all that apply} <u>Check all that apply} </u> <u>Check all that apply} <u>Check all that apply} </u> <u>Check all that apply} <u>Check all that apply} </u> <u>Check all that apply} <u>Check all that apply} </u> <u>Check all that apply} <u>Check a</u></u></u></u></u></u></u></u></u></u></u>	Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2         4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9         S (C3)       Geomorphic Position (D2)         Shallow Aquitard (D3)         26)       FAC-Neutral Test (D5)
<u>check all that apply)</u> <u>Water-Stained Leaves (B9) (except</u> <u>MLRA 1, 2, 4A, and 4B)</u> <u>Salt Crust (B11)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres on Living Roots</u> <u>Presence of Reduced Iron (C4)</u> <u>Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR)</u>	Secondary Indicators (2 or more required)          Water-Stained Leaves (B9) (MLRA 1, 2         4A, and 4B)           Drainage Patterns (B10)          Dry-Season Water Table (C2)          Saturation Visible on Aerial Imagery (C9         \$ (C3)           Shallow Aquitard (D3)         26)           Raised Ant Mounds (D6) (LRR A)
<u>check all that apply</u> ) <u> Water-Stained Leaves (B9) (except</u> <u> MLRA 1, 2, 4A, and 4B)</u> <u> Salt Crust (B11)</u> <u> Aquatic Invertebrates (B13)</u> <u> Hydrogen Sulfide Odor (C1)</u> Oxidized Rhizospheres on Living Roots <u> Presence of Reduced Iron (C4)</u> <u> Recent Iron Reduction in Tilled Soils (C</u> <u> Stunted or Stressed Plants (D1) (LRR 1</u> Other (Explain in Remarks)	Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2         4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9         s (C3)       Geomorphic Position (D2)         Shallow Aquitard (D3)         26)       FAC-Neutral Test (D5)         A)       Raised Ant Mounds (D6) (LRR A)         Frost-Heave Hummocks (D7)
<u>check all that apply</u> <u>Water-Stained Leaves (B9) (except</u> <u>MLRA 1, 2, 4A, and 4B)</u> Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR 1) Other (Explain in Remarks)	Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2         4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9         s (C3)       Geomorphic Position (D2)         Shallow Aquitard (D3)         26)       FAC-Neutral Test (D5)         A)       Raised Ant Mounds (D6) (LRR A)         Frost-Heave Hummocks (D7)
<u>check all that apply)</u> <u>Water-Stained Leaves (B9) (except</u> <u>MLRA 1, 2, 4A, and 4B)</u> <u>Salt Crust (B11)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres on Living Roots</u> <u>Presence of Reduced Iron (C4)</u> <u>Recent Iron Reduction in Tilled Soils (C</u> <u>Stunted or Stressed Plants (D1) (LRR 1)</u> <u>Other (Explain in Remarks)</u>	Secondary Indicators (2 or more required)          Water-Stained Leaves (B9) (MLRA 1, 2         4A, and 4B)           Drainage Patterns (B10)          Dry-Season Water Table (C2)          Saturation Visible on Aerial Imagery (C9         s (C3)       Geomorphic Position (D2)          Shallow Aquitard (D3)         C6)       FAC-Neutral Test (D5)         A)       Raised Ant Mounds (D6) (LRR A)          Frost-Heave Hummocks (D7)
<u>check all that apply)</u> <u>Water-Stained Leaves (B9) (except</u> <u>MLRA 1, 2, 4A, and 4B)</u> <u>Salt Crust (B11)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres on Living Roots</u> <u>Presence of Reduced Iron (C4)</u> <u>Recent Iron Reduction in Tilled Soils (C</u> <u>Stunted or Stressed Plants (D1) (LRR 1</u> <u>Other (Explain in Remarks)</u> <u>No_XDepth (inches):</u>	Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2         4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9         s (C3)       Geomorphic Position (D2)         Shallow Aquitard (D3)         C6)       FAC-Neutral Test (D5)         A)       Raised Ant Mounds (D6) (LRR A)         Frost-Heave Hummocks (D7)
<u>check all that apply</u> ) <u> Water-Stained Leaves (B9) (except</u> <u> MLRA 1, 2, 4A, and 4B)</u> <u> Salt Crust (B11)</u> <u> Aquatic Invertebrates (B13)</u> <u> Hydrogen Sulfide Odor (C1)</u> <u> Oxidized Rhizospheres on Living Roots</u> <u> Presence of Reduced Iron (C4)</u> <u> Recent Iron Reduction in Tilled Soils (C <u> Stunted or Stressed Plants (D1) (LRR 1</u>) <u> Other (Explain in Remarks)</u> <u> No Depth (inches):</u> </u>	Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2         4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9         s (C3)       Geomorphic Position (D2)         Shallow Aquitard (D3)         C6)       FAC-Neutral Test (D5)         A)       Raised Ant Mounds (D6) (LRR A)         Frost-Heave Hummocks (D7)
	Redox Features         color (moist)       %       Type <sup>1</sup> Loc <sup>2</sup>

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

No surface hydrology indicators present.

Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)

Remarks:

U.S. Army Cor	ps of Eng	gineers			OMB Control #: 0710-0024, Exp: 11/30/2024
See ERDC/EL TR-10-3; the pr	western M oponent a	ountains, Val gency is CE	ECW-CO-I	Coast Region २	Requirement Control Symbol EXEMP1: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Kimball Junction EIS		City/Cou	nty: Summi	t County	Sampling Date: 8/7/2023
Applicant/Owner: UDOT				State:	JT Sampling Point: SP-3
Investigator(s): Joshua McMillin, Lacey Wilder		Section, T	ownship, Ra	ange: <u>S13, T1S,</u>	R3E
Landform (hillside, terrace, etc.): Depression		Local relief (co	oncave, con	vex, none): Conc	cave Slope (%):20
Subregion (LRR): LRR E Lat: 40.730	)38483		Long: -	111.5505447	Datum: NAD83
Soil Map Unit Name: Manila-Ant Flat loams, 2 to 8 per	cent slopes			NWI	classification:
Are climatic / hydrologic conditions on the site typical for	or this time o	of year?	Yes	No (If	no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology	significantly	disturbed? A	re "Normal	Circumstances" pr	esent? Yes X No
Are Vegetation , Soil , or Hydrology	naturally pro	blematic? (	lf needed, ex	xplain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site ma	ap showiı	ng samplin	g point lo	cations, trans	ects, important features, etc.
Hydrophytic Vegetation Present? Yes X N	 N	Is the	Sampled 4	Area	
Hydric Soil Present? Yes X N	°	withi	n a Wetland	l? Yes	X No
Wetland Hydrology Present? Yes X	o				
Remarks:					
No soil pit dug given the dominance of obligate vegeta	ation and pre	esence of surfa	ace water. Sa	ampling point mee	ts the criteria for a wetland.
VEGETATION – Use scientific names of p	lants.	Deminant	ladiaatan		
Tree Stratum (Plot size: <u>30 ft radius</u> )	% Cover	Species?	Status	Dominance Te	st worksheet:
1 2.				Number of Dom Are OBL, FACV	ninant Species That N, or FAC: 3 (A)
3.				Total Number of	of Dominant Species
4				Across All Strat	ta: <u>3</u> (B)
Sapling/Shrub Stratum (Plot size: 15 ft radius	)	=Total Cover		Percent of Dom Are OBL, FAC	ninant Species That N, or FAC: <u>100.0%</u> (A/B
2.				Prevalence Inc	dex worksheet:
3		·		Total % C	over of: Multiply by:
4		·		OBL species	$80 \times 1 = 80$
·		=Total Cover		FAC species	$\frac{20}{0}$ x 3 = 0
Herb Stratum (Plot size: 5 ft radius )				FACU species	0   x 4 = 0
1. Typha latifolia	50	Yes	OBL	UPL species	<u>    0                                </u>
2. Eleocharis palustris	30	Yes	OBL	Column Totals:	<u>    100   (A)    120   (B)</u>
3. Juncus arcticus ssp. littoralis	20	Yes	FACW	Prevalence	Index = $B/A = 1.20$
4				Hydrophytic V	egetation Indicators:
6.	·			1 - Rapid T	est for Hydrophytic Vegetation
7.				X 2 - Domina	nce Test is >50%
8.				3 - Prevale	nce Index is $\leq 3.0^1$
9				4 - Morphol	ogical Adaptations <sup>1</sup> (Provide supporting
10					Remarks or on a separate sheet)
<sup>11</sup>	100	-Total Cover		5 - Wetland	Non-Vascular Plants
Woody Vine Stratum (Plot size:	)			<sup>1</sup> Indicators of b	vdric soil and wetland hydrology must
1				be present, unle	ess disturbed or problematic.
2				Hydrophytic	
% Bare Ground in Herb Stratum0		=Total Cover		Vegetation Present?	Yes <u>X</u> No
Remarks: Hydrophytic vegetation present.					

Depth <u>Matrix</u>		Redo	x Featur	es					
(inches) Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Tex	ture	Remarks	
Type: C=Concentration, D=Deple	etion, RM=	Reduced Matrix, C	S=Cove	red or Co	pated Sa	and Grains.	<sup>2</sup> Location	n: PL=Pore Lining, M=I	Matrix.
lydric Soil Indicators: (Applical	ble to all I	LRRs, unless othe	rwise n	oted.)			Indicators for	or Problematic Hydric	Soils <sup>°</sup> :
Histosol (A1)		Sandy Gle	yed Mat	rix (S4)			2 cm Mu	ck (A10) <b>(LRR A, E)</b>	
Histic Epipedon (A2)		Sandy Red	lox (S5)				Iron-Mar	iganese Masses (F12)	(LRR D)
Black Histic (A3)		Stripped M	atrix (S6	5)			Red Par	ent Material (F21)	
Hydrogen Sulfide (A4)		Loamy Mu	cky Mine	eral (F1)	(except	MLRA 1)	Very Sha	allow Dark Surface (F22	2)
1 cm Muck (A9) (LRR D, G)		Loamy Gle	yed Mat	rix (F2)			Other (E	xplain in Remarks)	
Depleted Below Dark Surface	(A11)	Depleted N	/latrix (F	3)					
Thick Dark Surface (A12)		Redox Dar	k Surfac	e (F6)			<sup>3</sup> Indicators of	f hydrophytic vegetatior	and
Sandy Mucky Mineral (S1)		Depleted D	ark Sur	face (F7)			wetland	hydrology must be pres	ent,
2.5 cm Mucky Peat or Peat (S	62) <b>(LRR (</b>	G) Redox Dep	pression	s (F8)			unless d	isturbed or problematic	
					T				
Type <sup>.</sup>									
1 ) po.									
Depth (inches):						Hydric S	oil Present?	Yes X	No
Depth (inches): Remarks: No soil pit dug given the dominanc	ce of oblig	ate vegetation and	presenc	e of surfa	ace wate	Hydric S	oil Present?	Yes $X$	No
Depth (inches): Remarks: No soil pit dug given the dominand	ce of oblig	ate vegetation and	presenc	e of surfa	ace wate	Hydric S	oil Present?	Yes X	No
Depth (inches): Remarks: No soil pit dug given the dominand	ce of oblig	ate vegetation and	presenc	e of surfa	ace wate	Hydric So	oil Present?	Yes X	No
Depth (inches): Remarks: No soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators:	ce of oblig	ate vegetation and	presenc	e of surfa	ace wate	Hydric S	oil Present?	Yes X	No
Depth (inches): Remarks: No soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or	ce of oblig	ate vegetation and	presenc	e of surfa	ace wate	Hydric S	oil Present? oils assumed to <u>Secondary Ir</u>	Yes X	No
Depth (inches): Remarks: To soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1)	ce of oblig	ate vegetation and ired; check all that a Water-Stai	presenc apply) ned Lea	e of surfa	ace wate	Hydric S er. Hydric so t	oil Present? oils assumed to <u>Secondary Ir</u> Water-S	Yes X	<u>No</u>
Depth (inches): Remarks: Io soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or X_Surface Water (A1) High Water Table (A2)	ce of oblig	ired; check all that a Water-Stai	presenc apply) ned Lea 1, 2, 4A,	e of surfa	ace wate	Hydric S er. Hydric so t	oil Present? oils assumed to <u>Secondary Ir</u> Water-S 4A, a	Yes X o be present. ndicators (2 or more req tained Leaves (B9) (ML nd 4B)	No uired) RA 1, 2
Depth (inches): Remarks: Io soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3)	ce of oblig	ired; check all that a Water-Stai MLRA <sup>2</sup>	presenc apply) ned Lea <b>1, 2, 4A,</b> (B11)	e of surfa ves (B9) and 4B)	ace wate	Hydric S er. Hydric so t	oil Present? oils assumed to <u>Secondary Ir</u> Water-S 4A, a Drainage	Yes X b be present. <u>Adicators (2 or more req</u> tained Leaves (B9) ( <b>ML</b> <b>nd 4B</b> ) e Patterns (B10)	No uired) RA 1, 2
Depth (inches): Remarks: To soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	ce of oblig	ired; check all that a Water-Stai MLRA 4 Salt Crust	presenc apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat	e of surfa ves (B9) and 4B) es (B13)	ace wate	Hydric S er. Hydric so t	oil Present? oils assumed to <u>Secondary Ir</u> Water-S 4A, a Drainage Dry-Sea:	Yes X b be present. Adicators (2 or more req tained Leaves (B9) (ML nd 4B) Patterns (B10) son Water Table (C2)	No uired) RA 1, 2
Depth (inches): Remarks: No soil pit dug given the dominant <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	ce of oblig	ired; check all that a Water-Stai 	presenc apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat Sulfide (	e of surfa ves (B9) and 4B) es (B13) Ddor (C1)	ace wate	Hydric S er. Hydric so t	oil Present? oils assumed to <u>Secondary Ir</u> Water-S 4A, a Drainage Dry-Seas Saturatio	Yes X b be present. Adicators (2 or more req tained Leaves (B9) (ML nd 4B) Patterns (B10) son Water Table (C2) on Visible on Aerial Ima	No uired) RA 1, 2 gery (C9)
Depth (inches): Remarks: No soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	ce of oblig	ired; check all that a Water-Stai MLRA Salt Crust Aquatic Inv Uydrogen S	presenc apply) ned Lea <b>1, 2, 4A,</b> (B11) /ertebrat Sulfide C	e of surfa ves (B9) and 4B) es (B13) Ddor (C1) eres on L	ace wate	Hydric S er. Hydric so t	oil Present? oils assumed to <u>Secondary Ir</u> Water-S 4A, a Drainage Dry-Seas Saturatic Geomor	Yes X b be present. adicators (2 or more required tained Leaves (B9) (ML nd 4B) Patterns (B10) son Water Table (C2) on Visible on Aerial Ima ohic Position (D2)	No uired) RA 1, 2 gery (C9)
Depth (inches): Remarks: No soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	ce of oblig	ired; check all that a Water-Stai Water-Stai MLRA Aquatic Inv Hydrogen S Oxidized R Presence o	presenc apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat Sulfide ( chizosph of Reduc	e of surfa ves (B9) and 4B) es (B13) Odor (C1) eres on L eres on L sed Iron (	(except iving Ro	Hydric S er. Hydric so t t	oil Present? oils assumed to <u>Secondary Ir</u> Water-S 4A, a Drainage Dry-Sea: Saturatio Geomor Shallow	Yes X b be present. adicators (2 or more required tained Leaves (B9) (ML nd 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Ima ohic Position (D2) Aquitard (D3)	No uired) RA 1, 2 gery (C9)
Depth (inches): Remarks: Io soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	ce of oblig	ired; check all that a Water-Stai Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iro	presenc apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat Sulfide C hizosph of Reduc n Reduc	e of surfa ves (B9) and 4B) es (B13) Odor (C1) eres on L ced Iron ( tion in Ti	(except (iving Rd C4)	Hydric S er. Hydric so t t	oil Present? oils assumed to <u>Secondary Ir</u> Water-S 4A, a Drainage Dry-Sea: Saturatio Geomory Shallow X FAC-Net	Yes X b be present. <u>Adicators (2 or more req</u> tained Leaves (B9) ( <b>ML</b> <b>nd 4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial Ima phic Position (D2) Aquitard (D3) utral Test (D5)	No wired) RA 1, 2 gery (C9)
Depth (inches): Remarks: Io soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	ce of oblig	ired; check all that a Water-Stai Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or	presenc apply) ned Lea 1, 2, 4A, (B11) vertebrat Sulfide ( chizosph of Reduc n Reduc Stresse	e of surfa ves (B9) and 4B) es (B13) Ddor (C1) eres on L eed Iron ( tion in Ti d Plants	(except (except Living Ro C4) Iled Soil (D1) (LI	Hydric S er. Hydric so t t s (C6)	oil Present? oils assumed to Secondary Irr Water-S 4A, a Drainage Dry-Sea: Saturatio Geomory Shallow X FAC-Neu Raised A	Yes X b be present. Adicators (2 or more real tained Leaves (B9) (ML nd 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Ima obic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A	No uired) RA 1, 2 gery (C9)
Depth (inches): Remarks: No soil pit dug given the dominant YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In	ce of oblig	ired; check all that a Water-Stai Water-Stai Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or 7) Other (Exp	presenc apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat Sulfide C sulfide C sulfide C sulfide C sulfide C sulfide C sulfide C sulfide C sulfide C	e of surfa ves (B9) and 4B) dor (C1) eres on L ered Iron ( tion in Ti d Plants emarks)	(except (except Living Ro C4) led Soil (D1) (LI	Hydric S er. Hydric so t t s (C6) RR A)	oil Present? oils assumed to <u>Secondary Ir</u> Water-S <b>4A, a</b> Drainage Dry-Seas Saturatio Geomory Shallow X FAC-Neu Raised A Frost-He	Yes X b be present. Adicators (2 or more real tained Leaves (B9) (ML nd 4B) Patterns (B10) son Water Table (C2) on Visible on Aerial Ima phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A ave Hummocks (D7)	No uired) RA 1, 2 gery (C9) A)
Depth (inches): Remarks: Io soil pit dug given the dominand <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concave	nagery (B	ired; check all that a Water-Stai Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or 7) Other (Exp B8)	presence apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat Sulfide C chizosph of Reduc n Reduc Stresse lain in R	e of surfa ves (B9) and 4B) es (B13) Ddor (C1) eres on L eres on L ised Iron ( tion in Ti d Plants emarks)	(except (except (iving Rd C4) (D1) (LI	Hydric S er. Hydric so t t s (C6) RR A)	oil Present? oils assumed to <u>Secondary Ir</u> Water-S 4A, a Drainage Dry-Seas Saturatic Geomor Shallow X FAC-Nei Raised A Frost-He	Yes X b be present. Adicators (2 or more real tained Leaves (B9) (ML nd 4B) Patterns (B10) son Water Table (C2) on Visible on Aerial Ima phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A pave Hummocks (D7)	No uired) RA 1, 2 gery (C9) A)
Depth (inches): Remarks: No soil pit dug given the dominand <b>YDROLOGY</b> <b>Netland Hydrology Indicators:</b> Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concave Field Observations:	nagery (B Surface (I	ired; check all that a Water-Stai Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or 7) Other (Exp B8)	presence apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat Sulfide C chizosph of Reduc on Reduc Stresse lain in R	e of surfa ves (B9) and 4B) es (B13) Odor (C1) eres on L eed Iron ( tion in Ti d Plants emarks)	(except (except Living Rd C4) lled Soil (D1) (Ll	Hydric S er. Hydric se t t s (C6) RR A)	oil Present? oils assumed to Secondary Ir Water-S 4A, a Drainage Dry-Seas Saturatio Geomory Shallow X FAC-Neu Raised A Frost-He	Yes X b be present. Adicators (2 or more required tained Leaves (B9) (ML nd 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Ima ohic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A vave Hummocks (D7)	No uired) RA 1, 2 gery (C9) A)
Depth (inches): Remarks: No soil pit dug given the dominand YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concave Field Observations: Surface Water Present?	nagery (Bi Surface (I	ired; check all that a Water-Stai Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Irou Stunted or 7) Other (Exp B8)	presenc apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat Sulfide ( hizosph of Reduc n Reduc Stresse lain in R	e of surfa ves (B9) and 4B) es (B13) Odor (C1) eres on L eed Iron ( tion in Ti d Plants emarks) emarks)	(except (except Living Rd C4) lied Soil (D1) (LI	Hydric S er. Hydric sa t t s (C6) RR A)	oil Present? oils assumed to Secondary Ir Water-S 4A, a Drainage Dry-Sea: Saturatio Geomory Shallow X FAC-Net Raised A Frost-He	Yes X b be present. Adicators (2 or more required tained Leaves (B9) (ML nd 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Ima phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A pave Hummocks (D7)	No uired) RA 1, 2 gery (C9) A)
Depth (inches): Remarks: No soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Water Table Present? Yes	nagery (B Surface (I	ired; check all that a Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or 7) Other (Exp B8)	presenc apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat Sulfide C hizosph of Reduc Stresse lain in R Depth (i Depth (i	e of surfa ves (B9) and 4B) es (B13) Dor (C1) eres on L eed Iron ( tion in Ti d Plants emarks) emarks):	(except (except (b) (ct) (ct) (ct) (ct) (ct) (ct) (ct) (ct	Hydric S er. Hydric so t t s (C6) RR A)	oil Present? oils assumed to <u>Secondary Ir</u> Water-S <b>4A, a</b> Drainage Dry-Sea: Saturatio Geomory Shallow X FAC-Neu Raised A Frost-He	Yes X b be present. Adicators (2 or more real tained Leaves (B9) (ML nd 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Ima phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A pave Hummocks (D7)	No uired) RA 1, 2 gery (C9) A)
Depth (inches): Remarks: No soil pit dug given the dominand IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Saturation Present? Yes	nagery (B' Surface (B Surface (B	ired; check all that a Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or 7) Other (Exp B8)	presenc apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat Sulfide ( thizosph of Reduc n Reduc Stresse lain in R Depth (i Depth (i	e of surfa ves (B9) and 4B) es (B13) Ddor (C1) eres on L ed Iron ( tion in Til d Plants emarks) mches): nches):	(except (except (b) (ct) (ct) (ct) (ct) (ct) (ct) (ct) (ct	Hydric S er. Hydric so t t s (C6) RR A)	oil Present? oils assumed to <u>Secondary Ir</u> Water-S <b>4A, a</b> Drainage Dry-Sea: Saturatio Geomory Shallow X FAC-Neu Raised A Frost-He	Yes X be present. Adicators (2 or more real tained Leaves (B9) (ML nd 4B) Patterns (B10) son Water Table (C2) on Visible on Aerial Ima ohic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A eave Hummocks (D7)	No
Depth (inches): Remarks: No soil pit dug given the dominand IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Saturation Present? Yes Saturation Present? Yes	nagery (B Surface (I s	ired; check all that a Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or 7) Other (Exp B8)	presence apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat Sulfide C chizosph of Reduc stresse lain in R Depth (i Depth (i	e of surfa ves (B9) and 4B) es (B13) Ddor (C1) eres on L eres on L ised Iron ( tion in Ti d Plants emarks) emarks): 	(except (except (iving Rd C4) (C4) (D1) (L1 (D1) (L1	Hydric S er. Hydric so t t s (C6) RR A) Wetlan	oil Present? oils assumed to <u>Secondary Ir</u> Water-S 4A, a Drainage Dry-Sea: Saturatic Geomory Shallow X FAC-Nei Raised A Frost-He d Hydrology F	Yes X be present. Adicators (2 or more required Leaves (B9) (ML nd 4B) Patterns (B10) son Water Table (C2) on Visible on Aerial Ima phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A pave Hummocks (D7) Present? Yes X	No uired) RA 1, 2 gery (C9) A)
Depth (inches): Remarks: No soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Vater Table Present? Yes Saturation Present? Yes	nagery (Bi Surface (I s	ired; check all that a Water-Stai Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or 7) Other (Exp B8)	presence apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat Sulfide C chizosph of Reduc n Reduc Stresse lain in R Depth (i Depth (i	e of surfa ves (B9) and 4B) es (B13) Ddor (C1) eres on L ed Iron ( tion in Ti d Plants emarks) nches): nches):	(except (except (iving Rd C4) (D1) (Ll 1	Hydric S er. Hydric se t t boots (C3) s (C6) RR A) Wetlan	oil Present? oils assumed to Secondary Ir Water-S 4A, a Drainage Dry-Seas Saturatic Geomory Shallow X FAC-Neu Raised A Frost-He d Hydrology F ailable:	Yes X be present. Adicators (2 or more reading tained Leaves (B9) (ML nd 4B) Patterns (B10) son Water Table (C2) on Visible on Aerial Ima bhic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A pave Hummocks (D7) Present? Yes X	No uired) RA 1, 2 gery (C9) A)
Depth (inches): Remarks: No soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concave Veter Table Present? Yes Saturation Present? Yes	nagery (B S S S gauge, mo	ate vegetation and ired; check all that a Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen 3 Oxidized R Presence o Recent Iron Stunted or 7) Other (Exp B8) No No No No No No No No No No	presence apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat Sulfide C chizosph of Reduc of Reduc Stresse lain in R Depth (i Depth (i Depth (i photos,	e of surfa ves (B9) and 4B) es (B13) Ddor (C1) eres on L ed Iron ( tion in Ti d Plants emarks) nches): nches): previous	(except (except (iving Rd C4) lied Soil (D1) (Ll 1 1 3 inspec	Hydric S er. Hydric se t t s (C3) s (C6) RR A) Wetlan tions), if ava	oil Present? oils assumed to Secondary Ir Water-S 4A, a Drainage Dry-Seas Saturatio Geomory Shallow X FAC-Neu Raised A Frost-Hee d Hydrology F ailable:	Yes X be present. Adicators (2 or more required Leaves (B9) (ML nd 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Ima ohic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A vave Hummocks (D7) Present? Yes X	No uired) RA 1, 2 gery (C9) A)
Depth (inches): Remarks: No soil pit dug given the dominand YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Saturation Present? Yes S	nagery (B Surface (B Surface (B Surface (B S Surface (B S Surface (B S Surface (B S S S S S S S	ired; check all that a Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Irou Stunted or 7) Other (Exp B8) No No No No No No No No No No	presence apply) ned Lea <b>1, 2, 4A,</b> (B11) vertebrat Sulfide C hizosph of Reduc Stresse lain in R Depth (i Depth (i Depth (i photos,	e of surfa ves (B9) and 4B) es (B13) Ddor (C1) eres on L red Iron ( tion in Ti d Plants emarks) nches): nches): previous	(except (except (iving Rd C4) (D1) (Ll 1 3 inspec	Hydric S er. Hydric sa t t boots (C3) s (C6) RR A) Wetlan tions), if ava	oil Present? oils assumed to Secondary Ir Water-S 4A, a Drainage Dry-Sea: Saturatio Geomory Shallow X FAC-Nea Raised A Frost-He d Hydrology F ailable:	Yes X b be present. Adicators (2 or more required tained Leaves (B9) (ML nd 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Ima ohic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (LRR A eave Hummocks (D7) Present? Yes X	No <u>uired)</u> RA 1, 2 gery (C9) A)

U.S. Army Cor WETLAND DETERMINATION DATA SHEET – 1 See ERDC/EL TR-10-3; the pro	<b>ps of Eng</b> Western Mo oponent a	<b>jineers</b> ountains, Va gency is CE	lleys, and C ECW-CO-F	Coast Region २	OMB Control #: 0710-0 Requirement Control (Authority: AR 335-1	024, Exp: 11/30/2024 Symbol EXEMPT: 5, paragraph 5-2a)
Project/Site: Kimball Junction EIS		City/Cou	nty: Summi	t County	Sampling D	ate: 8/7/2023
Applicant/Owner: UDOT				State: L	JT Sampling P	oint: SP-4
Investigator(s): Joshua McMillin, Lacey Wilder		Section, 1	ownship, Ra	ange: S13, T1S, I	R3E	
Landform (hillside, terrace, etc.): Hillslope		Local relief (c	oncave, conv	vex, none): None	9	Slope (%): 10
Subregion (LRR): LRR E Lat: 40.730	39246		Long: -	111.5506058	Dat	um: NAD83
Soil Map Unit Name: Manila-Ant Flat loams, 2 to 8 per	cent slopes			NWI	classification:	
Are climatic / hydrologic conditions on the site typical for	or this time o	of year?	Yes	No (If	no, explain in Remar	ks.)
Are Vegetation , Soil , or Hydrology	significantly	disturbed? A	Are "Normal (	Circumstances" pro	esent? Yes X	No
Are Vegetation , Soil , or Hydrology	naturally pro	blematic? (	lf needed, ex	plain any answers	in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	ap showir	ng samplin	g point lo	cations, trans	ects, important	features, etc.
Hydrophytic Vegetation Present?       Yes       No         Hydric Soil Present?       Yes       No         Wetland Hydrology Present?       Yes       No         Remarks:       No       No	x x x	Is the withi	e Sampled A n a Wetland	vrea I? Yes	No_X	
No soil pit was dug due to lack hydrophytic vegetation wetland.	and lack of	surface hydro	logy indicato	rs. Sampling point	does not meet the c	riteria for a
VEGETATION – Use scientific names of p	lants.	Dominant	Indiaatar			
Tree Stratum (Plot size: 30 ft radius )	% Cover	Species?	Status	Dominance Te	st worksheet:	
1				Number of Dom Are OBL, FACV	ninant Species That N, or FAC:	0 (A)
3				Total Number o Across All Strat	of Dominant Species ta:	2 (B)
Sapling/Shrub Stratum (Plot size: 15 ft radius)	)	=Total Cover	FAC	Percent of Dom Are OBL, FACV	ninant Species That N, or FAC:	(A/B
2.			1710	Prevalence Inc	dex worksheet:	
3.				Total % Co	over of: M	ultiply by:
4				OBL species	x 1 =	0
5				FACW species	<u> </u>	10
Llark Stratum (Distaire) Eft radius	3	=Total Cover		FAC species	$\frac{3}{55}$ x 3 =	9
1 Flymus elymoides	40	Yes	FACU	UPL species	$\frac{55}{0}$ x 5 =	0
2. Sonchus asper	15	Yes	FACU	Column Totals:	63 (A)	239 (B)
3. Phragmites australis	5	No	FACW	Prevalence	Index = B/A =	3.79
4.						
5.				Hydrophytic Vo 1 - Rapid T 2 - Domina 3 - Prevale 4 - Morphol	egetation Indicators est for Hydrophytic \ nce Test is >50% nce Index is ≤3.0 <sup>1</sup> ogical Adaptations <sup>1</sup> (I	ን: /egetation Provide supportint
10				data in F	Remarks or on a sepa	arate sheet)
11	60	=Total Cover		5 - Wetland Problemation	d Non-Vascular Plant c Hydrophytic Vegeta	s <sup>1</sup> ation <sup>1</sup> (Explain)
Woody Vine Stratum     (Plot size:)       1.	)			<sup>1</sup> Indicators of hyber present, unle	ydric soil and wetland ess disturbed or prob	l hydrology must lematic.
2 % Bare Ground in Herb Stratum40		=Total Cover		Hydrophytic Vegetation Present?	Yes No	X
Remarks: Hydrophytic vegeation present.						

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Depth	Matrix	-	Redo	x Featur	es					
(inches)	Color (moist)	% (	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Reman			S
Type: C=Conc	centration, D=Deple	etion, RM=Re	duced Matrix, (	 CS=Cove	red or Co	ated Sa	and Grains.	<sup>2</sup> Location:	PL=Pore Lining, N	/I=Matrix.
ydric Soil Ind	licators: (Applical	ble to all LRF	Rs, unless othe	erwise n	oted.)			Indicators for	Problematic Hyd	ric Soils <sup>3</sup> :
Histosol (A	.1)		Sandy Gle	eyed Mati	rix (S4)			2 cm Muc	k (A10) <b>(LRR A, E)</b>	
_Histic Epipe	edon (A2)		Sandy Re	dox (S5)				Iron-Mang	anese Masses (F1	2) <b>(LRR D)</b>
Black Histic	c (A3)		Stripped M	/latrix (S6	5)			Red Pare	nt Material (F21)	
_Hydrogen S	Sulfide (A4)		Loamy Mu	icky Mine	eral (F1)	except	MLRA 1)	Very Shal	low Dark Surface (I	-22)
1 cm Muck	(A9) <b>(LRR D, G)</b>		Loamy Gl	eyed Mat	rix (F2)			Other (Ex	plain in Remarks)	
Depleted B	elow Dark Surface	(A11)	Depleted	Matrix (F3	3)					
Thick Dark	Surface (A12)		Redox Da	rk Surfac	e (F6)			<sup>3</sup> Indicators of	hydrophytic vegetat	ion and
Sandy Muc	ky Mineral (S1)		Depleted	Dark Surf	face (F7)			wetland h	ydrology must be p	resent,
2.5 cm Mu	cky Peat or Peat (S	62) <b>(LRR G)</b>	Redox De	pression	s (F8)			unless dis	turbed or problema	itic.
estrictive Lay	yer (if observed):									
Туре:			_							
Depth (inch	nes):		-				Hydric So	oil Present?	Yes	No
emarks:										
lo soil pit was	dug due to lack hy	drophytic veg	etation and lacl	c of surfa	ce hydro	ogy ind	icators.			
YDROLOG	Y									
Vetland Hydro	ology Indicators:									
rimary Indicate	<u>ors (minimum of or</u>	ne is required	; check all that	apply)				Secondary Inc	licators (2 or more	required)
Surface Wa	ater (A1)		Water-Sta	ined Lea	ves (B9)	(except	t	Water-Sta	ained Leaves (B9) (	MLRA 1, 2
High Water	r Table (A2)		MLRA 1, 2, 4A, and 4B) 4A, and 4B)							

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is requir	ed; check all that apply)	Secondary Indicators (2 or more required)
Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2
High Water Table (A2)	 MLRA 1, 2, 4A, and 4B)	4A, and 4B)
Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized Rhizospheres on Living Roo	ots (C3) Geomorphic Position (D2)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Iron Deposits (B5)	(C6) FAC-Neutral Test (D5)	
Surface Soil Cracks (B6)	R A) Raised Ant Mounds (D6) (LRR A)	
Inundation Visible on Aerial Imagery (B7	Frost-Heave Hummocks (D7)	
Sparsely Vegetated Concave Surface (B	.8)	—
Field Observations:		
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No Depth (inches):	
Saturation Present? Yes	No Depth (inches):	Wetland Hydrology Present? Yes No X
(includes capillary fringe)		
Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos, previous inspection	ons), if available:
Remarks:		
No surface hydrology indicators present.		

U.S. Army Co	ps of Eng	gineers			OMB Control #: 0710-0024, Exp: 11/30/2024
WETLAND DETERMINATION DATA SHEET – See ERDC/EL TR-10-3; the pr	Western M oponent a	ountains, Va gency is CE	lleys, and ( CW-CO-	Coast Region २	Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Kimball Junction EIS		City/Cou	nty: Summi	t County	Sampling Date: 8/7/2023
Applicant/Owner: UDOT				State:	JT Sampling Point: SP-5
Investigator(s): <u>Joshua McMillin, Lacey Wilder</u>		Section, T	ownship, R	ange: <u>S18, T1S, I</u>	R4E
Landform (hillside, terrace, etc.): Depression		Local relief (co	oncave, con	vex, none): Conc	cave Slope (%):20
Subregion (LRR): LRR E Lat: 40.726	390472		Long: -	111.5492935	Datum: NAD83
Soil Map Unit Name: Manila-Ant Flat loams, 2 to 8 per	cent slopes		_	NWI	classification:
Are climatic / hydrologic conditions on the site typical for	or this time o	of year?	Yes	No(If i	no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology	significantly	disturbed? A	re "Normal	Circumstances" pre	esent? Yes X No
Are Vegetation , Soil , or Hydrology	naturally pro	blematic? (	lf needed, e	xplain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site ma	ap showiı	ng samplin	g point lo	cations, trans	ects, important features, etc.
Hydrophytic Vegetation Present? Yes X N	0	Is the	Sampled /	Area	
Hydric Soil Present? Yes X N	0	withi	n a Wetland	I? Yes	X No
Wetland Hydrology Present? Yes X N	°				
Remarks:					
No soil pit dug given the dominance of obligate veget	ation and pre	esence of surfa	ace water. S	ampling point meet	ts the criteria for a wetland.
VEGETATION – Use scientific names of p	lants.	Dominant	Indiaator	I	
Tree Stratum (Plot size: 30 ft radius )	% Cover	Species?	Status	Dominance Te	st worksheet:
1				Number of Dom Are OBL, FACV	ninant Species That V, or FAC: 1 (A)
3.				Total Number o	f Dominant Species
4.				Across All Strat	ra: <u>1</u> (B)
Sapling/Shrub Stratum (Plot size: 15 ft radius	)	=Total Cover		Percent of Dom Are OBL, FACV	ninant Species That V, or FAC: <u>100.0%</u> (A/B)
2.				Prevalence Inc	lex worksheet:
3				Total % Co	over of: Multiply by:
4				OBL species	<u>90</u> x 1 = <u>90</u>
5				FACW species	$0 \times 2 = 0$
Herb Stratum (Plot size: 5 ft radius )				FACU species	$3 \times 4 = 0$
1. Typha latifolia	90	Yes	OBL	UPL species	5 x 5 = 25
2. Rumex crispus	5	No	FAC	Column Totals:	<u>100</u> (A) <u>130</u> (B)
3. <u>Cardaria draba</u>	5	No	UPL	Prevalence I	Index = B/A =1.30
4					
5				1 Ponid T	egetation Indicators:
7				X 2 - Domina	nce Test is >50%
8.				3 - Prevaler	nce Index is $\leq 3.0^{1}$
9.				4 - Morphol	ogical Adaptations <sup>1</sup> (Provide supporting
10				data in R	Remarks or on a separate sheet)
11				5 - Wetland	l Non-Vascular Plants <sup>1</sup>
	<u>100</u>	=Total Cover		Problematio	c Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum         (Plot size:           1.         1.	)			<sup>1</sup> Indicators of hy be present, unle	ydric soil and wetland hydrology must ess disturbed or problematic.
2.				Hydrophytic	
% Bare Ground in Herb Stratum0		=Total Cover		Vegetation Present?	Yes X No
Remarks: Hydrophytic vegetation present.				1	

Depth	Matrix		Rede	ox Feature	es							
(inches)	Color (moist)	% C	color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Text	ure		Rema	rks	
Type: C=Con	centration, D=Deplet	ion, RM=Re	duced Matrix, (	CS=Cover	red or Co		and Grains.	<sup>2</sup> Loca	tion: PL=F	Pore Lining	, M=N	latrix.
lydric Soil Ind	dicators: (Applicab	e to all LRR	s, unless oth	erwise no	oted.)			Indicator	s for Prob	lematic Hy	dric	Soils <sup>3</sup> :
Histosol (A	.1)		Sandy Gle	eyed Matr	ix (S4)			2 cm	Muck (A10	) <b>(LRR A,</b>	E)	
Histic Epip	edon (A2)		Sandy Re	dox (S5)				Iron-M	Nanganese	e Masses (F	=12) <b>(</b>	LRR D)
Black Histi	c (A3)		Stripped N	/atrix (S6	)			Red F	Parent Mate	erial (F21)		
Hydrogen \$	Sulfide (A4)		Loamy M	ucky Mine	ral (F1) (	except	MLRA 1)	Very	Shallow Da	ark Surface	(F22	)
1 cm Muck	: (A9) <b>(LRR D, G)</b>		Loamy Gl	eyed Matı	rix (F2)			Other	· (Explain ir	n Remarks)	)	
Depleted B	elow Dark Surface (	A11)	Depleted	Matrix (F3	3)							
Thick Dark	Surface (A12)		Redox Da	rk Surface	e (F6)			<sup>3</sup> Indicator	s of hydrop	hytic veget	tation	and
Sandy Muc	cky Mineral (S1)		Depleted	Dark Surf	ace (F7)			wetla	nd hydrolog	gy must be	prese	ent,
2.5 cm Mu	cky Peat or Peat (S2	2) (LRR G)	Redox De	pressions	s (F8)			unles	s disturbed	l or problen	natic.	
estrictive La	yer (if observed):											
Туре:												
Depth (incl	nes):						Hydric So	oil Present	?	Yes_>	×	No_
emarks: o soil pit dug	given the dominance	e of obligate	vegetation and	l presence	e of surfa	ace wate	er. Hydric sc	ils assume	ed to be pre	esent.		
YDROLOG	Y											
Vetland Hydro	ology Indicators:							· ·		(0		
rimary Indicat	ors (minimum of one	e is required;	check all that	apply)	(5.6)	,		Secondar	y Indicator	s (2 or mor	e requ	uired)
X_Surface W	ater (A1)		Water-Sta	ained Leav	ves (B9)	(except	t	Wate	r-Stained L	eaves (B9)	) (ML	RA 1, 2
Hign Water	r Table (A2)		MLRA	1, 2, 4A,	and 4B)			44	A, and 4B)			
Saturation	(A3)		Salt Crust	(B11)				Drain	age Patteri	ns (B10)		

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required	Secondary Indicators (2 or more required)	
X Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2
High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	<b>4A, and 4B</b> )
Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized Rhizospheres on Living Roc	ots (C3) Geomorphic Position (D2)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils	(C6) X FAC-Neutral Test (D5)
Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LR	R A) Raised Ant Mounds (D6) (LRR A)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave Surface (B8)		—
Field Observations:		
Surface Water Present? Yes X	No Depth (inches):0.25_	
Water Table Present? Yes	No X Depth (inches):	
Saturation Present? Yes	No X Depth (inches):	Wetland Hydrology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monit	oring well, aerial photos, previous inspectio	ons), if available:
Remarks:		
Hydrology present with surface water as a prim	ary hydrology indicator.	

U.S. Army Corj	ps of Eng	gineers			OMB Control #: 07	10-0024, Exp	o: 11/30/2024
WETLAND DETERMINATION DATA SHEET – V See ERDC/EL TR-10-3; the pro	<b>Vestern M</b> ponent a	ountains, V gency is C	alleys, and C ECW-CO-F	Coast Region २	Requirement Co (Authority: AR 3	ntrol Symbol 35-15, paragi	I EXEMPT: raph 5-2a)
Project/Site: Kimball Junction EIS		City/Co	unty: Summi	t County	Samplin	g Date:	8/7/2023
Applicant/Owner: UDOT				State: U	T Samplin	g Point:	SP-6
Investigator(s): Joshua McMillin, Lacey Wilder		Section,	Township, Ra	ange: S18, T1S, F	R4E		
Landform (hillside, terrace, etc.): Hillslope		Local relief (	concave, con	vex, none): None		Slop	e (%): 10
Subregion (LRR): LRR E Lat: 40.728	94669		Long: -	111.549324		Datum:	NAD83
Soil Map Unit Name: Manila-Ant Flat loams, 2 to 8 perc	ent slopes			NWI	classification:		
Are climatic / hvdrologic conditions on the site typical fo	r this time c	of vear?	Yes	No (lf r	no. explain in Rer	marks.)	
Are Vegetation Soil or Hydrology s	anificantly	disturbed?	Are "Normal (	Circumstances" pre	esent? Yes	, Χ Να	
Are Vegetation Soil or Hydrology n	naturally pro	blematic?	(If needed ex	kolain any answers	in Remarks )		
SUMMARY OF FINDINGS – Attach site ma	p showii	ng sampli	ng point lo	cations, trans	ects, importa	Int feat	ures, etc.
Hydronhytic Vegetation Present? Ves No	X	le f	he Sampled /	roa			
Hydric Soil Present? Yes No	<u> </u>	wit	hin a Wetland	l? Yes	No	х	
Wetland Hydrology Present? Yes No	X			-			
Remarks: No soil pit was dug due to lack of hydrophytic vegetatio wetland.	on and lack	of surface h	ydrology indica	ators. Sampling poi	nt does not meet	t the crite	ria for a
VEGETATION – Use scientific names of pl	lants.						
	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: <u>30 ft radius</u> )	% Cover	Species?	Status	Dominance Tes	st worksheet:		
1			- <u> </u>	Number of Dom	inant Species Th	lat	0 (4)
2			<u> </u>		V, UI FAC.		<u> </u>
4.				Across All Strata	a:	les	1 (B)
		=Total Cove	r	Percent of Dom	inant Species Th	at	、
Sapling/Shrub Stratum (Plot size: 15 ft radius )				Are OBL, FACW	V, or FAC:	0.	0% (A/B)
1							
2		·	- <u> </u>	Prevalence Ind	ex worksheet:	Multiply	b. <i>4</i>
3			·			1 =	0
5.			. <u> </u>	FACW species	x	2 =	0
		=Total Cove	r	FAC species	0 x3	3 =	0
Herb Stratum (Plot size: 5 ft radius )				FACU species	100 x 4	4 =4	00
1. Iva axillaris	90	Yes	FACU	UPL species	0 x 5	5 =	0
2. Pascopyrum smithii	10	No	FACU	Column Totals:	100 (A)	4	00 (B)
3		·	·	Prevalence I	ndex = B/A =	4.00	
4		·	·	Hydrophytic Ve	agetation Indica	tors:	
6.			·	1 - Rapid Te	est for Hydrophyt	ic Vegeta	ation
7.				2 - Dominar	nce Test is >50%	,	
8				3 - Prevaler	nce Index is ≤3.0	1	
9				4 - Morpholo	ogical Adaptation	s <sup>1</sup> (Provid	e supporting
10		·		data in R	emarks or on a s	eparate s	sheet)
11	100	-Total Cava		5 - Wetland	Non-Vascular P	lants'	(Evalaia)
Woody Vine Stratum (Plot size:)	100		1	<sup>1</sup> Indicators of hy	dric soil and wet	land hydr	ology must
2				be present, unle	ess disturbed or p	roblemat	IC.
<u></u>		=Total Cove	r	Hydrophytic			
% Bare Ground in Herb Stratum0				Present?	Yes	No <u>X</u>	_
Remarks:							

Upland vegetation present. ENG FORM 6116-9, JUL 2018

Depth Matrix	Redox Features		
inches) Color (moist) % C	$\frac{1}{10000000000000000000000000000000000$	Texture	Remarks
			·
ype: C=Concentration, D=Depletion, RM=Red	duced Matrix, CS=Covered or Coated Sa	and Grains. <sup>2</sup> Loo	cation: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable to all LRR	s, unless otherwise noted.)	Indicato	ors for Problematic Hydric Soils <sup>3</sup> :
_Histosol (A1)	Sandy Gleyed Matrix (S4)	2 cr	n Muck (A10) <b>(LRR A, E)</b>
Histic Epipedon (A2)	Sandy Redox (S5)	Iron	-Manganese Masses (F12) <b>(LRR D)</b>
Black Histic (A3)	Stripped Matrix (S6)	Red	l Parent Material (F21)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (except	MLRA 1) Ver	y Shallow Dark Surface (F22)
1 cm Muck (A9) <b>(LRR D, G)</b>	Loamy Gleyed Matrix (F2)	Oth	er (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		
Thick Dark Surface (A12)	Redox Dark Surface (F6)	<sup>3</sup> Indicate	ors of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wet	land hydrology must be present,
2.5 cm Mucky Peat or Peat (S2) (LRR G)	Redox Depressions (F8)	unle	ess disturbed or problematic.
estrictive Layer (if observed):			
Туре:			
Depth (inches):		Hydric Soil Preser	nt? Yes <u>No</u>
emarks:			
lo soil pit was dug due to lack of hydrophytic ve	egetation and lack of surface hydrology i	indicators.	
YDROLOGY			
Vetland Hydrology Indicators:			
rimary Indicators (minimum of one is required;	check all that apply)	Seconda	ary Indicators (2 or more required)
Surface Water (A1)	Water-Stained Leaves (B9) (except	tWat	ter-Stained Leaves (B9) ( <b>MLRA 1, 2</b>
High Water Table (A2)	MLRA 1, 2, 4A, and 4B)		4A, and 4B)
Saturation (A3)	Salt Crust (B11)	Dra	inage Patterns (B10)
Water Marks (B1)	Aquatic Invertebrates (B13)	 Dry-	-Season Water Table (C2)
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Sat	uration Visible on Aerial Imagerv (C

- Oxidized Rhizospheres on Living Roots (C3)
  - Geomorphic Position (D2)
  - Shallow Aquitard (D3)
  - FAC-Neutral Test (D5)
  - Raised Ant Mounds (D6) (LRR A) Heave Hummocks (D7)

Inundation Visible on A	erial Imagery (	B7)0	Other	(Explain in Remarks)	Frost-
Sparsely Vegetated Co	ncave Surface	(B8)			
Field Observations:					
Surface Water Present?	Yes	No	Х	Depth (inches):	

Presence of Reduced Iron (C4)

Recent Iron Reduction in Tilled Soils (C6)

Stunted or Stressed Plants (D1) (LRR A)

Depth (inches):

Depth (inches):

Wetland Hydrology Present?	Yes	

#### Saturation Present? (includes capillary fringe)

Water Table Present?

Drift Deposits (B3)

Algal Mat or Crust (B4) Iron Deposits (B5)

Surface Soil Cracks (B6)

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

No

No

#### Remarks:

No surface hydrology indicators present.

Yes

Yes

No X

U.S. Army Corp	os of Enginee	rs		OMB Control #: 0710-0024, Exp: 11/30/2024
WETLAND DETERMINATION DATA SHEET – V See ERDC/EL TR-10-3; the pro	Vestern Mounta	ins, Valleys, and ( is CECW-CO-	Coast Region R	Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Kimball Junction EIS	0	tity/County: Summ	it County	Sampling Date: 8/7/2023
Applicant/Owner: UDOT			State:U	T Sampling Point: SP-7
Investigator(s): Joshua McMillin, Lacey Wilder	Se	ection, Township, R	ange: S13, T1S, F	R3E
Landform (hillside, terrace, etc.): Depression	Local	relief (concave, con	vex, none): Conc	ave Slope (%): 5
Subregion (LRR): LRR E Lat: 40.728	59573	Long: -	111.5496063	Datum: NAD83
Soil Map Unit Name: Manila-Ant Flat loams, 2 to 8 perc	ent slopes		NWI	classification:
Are climatic / hydrologic conditions on the site typical for	r this time of year	? Yes	No (lf r	no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology s	ignificantly disturb	ed? Are "Normal	Circumstances" pre	esent? Yes X No
Are Vegetation , Soil , or Hydrology n	aturally problema	tic? (If needed, e	xplain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site ma	p showing sa	mpling point lo	ocations, trans	ects, important features, etc.
Hydrophytic Vegetation Present? Yes X No		Is the Sampled A	Area	
Hydric Soil Present? Yes X No		within a Wetland	1? Yes	X No
Wetland Hydrology Present? Yes X No				
Remarks: Sampling point meets the criteria for a wetland.				
VEGETATION – Use scientific names of pl	ants.			
	Absolute Don	ninant Indicator		
Tree Stratum (Plot size: <u>30 ft radius</u> )	% Cover Spe	cies? Status	Dominance Tes	st worksheet:
2			Are OBL FACW	inant Species That / or FAC <sup>.</sup> 1  (A)
3.			Total Number of	Dominant Species
4.			Across All Strat	a:(B)
Sapling/Shrub Stratum (Plot size: 15 ft radius )	=Tota	Cover	Percent of Dom Are OBL, FACW	inant Species That /, or FAC:100.0% _(A/B)
1			Brovolonoo Ind	ox workshoot
3			Total % Co	over of Multiply by
4.			OBL species	$\frac{1}{0} \frac{1}{x + 1} = 0$
5.			FACW species	95 x 2 = 190
	=Tota	Cover	FAC species	5 x 3 = 15
Herb Stratum (Plot size: 5 ft radius )			FACU species	0 x 4 = 0
1. Juncus arcticus ssp. littoralis	95	Yes FACW	UPL species	$0 \times 5 = 0$
2. Rumex chspus		NO FAC	Prevalence I	100 (A) $205$ (B)
4.				
5.			Hydrophytic Ve	egetation Indicators:
6.			1 - Rapid Te	est for Hydrophytic Vegetation
7			X 2 - Dominar	nce Test is >50%
8			X 3 - Prevaler	nce Index is $\leq 3.0^{1}$
9			4 - Morpholo	ogical Adaptations (Provide supporting emarks or on a separate sheet)
10			5 - Wetland	Non-Vascular Plants <sup>1</sup>
· · ·		Cover	Problematic	Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum         (Plot size:)           1.			<sup>1</sup> Indicators of hy be present, unle	rdric soil and wetland hydrology must ass disturbed or problematic.
2.			Hydrophytic	
	=Tota	Cover	Vegetation	
% Bare Ground in Herb Stratum0			Present?	Yes X No
Remarks:				

Hydrophytic vegetation present. ENG FORM 6116-9, JUL 2018

Profile Desc	ription: (Describe	to the dept	h needed to doci	ument th	ne indica	tor or c	onfirm the	absence of	f indicators.)
Depth	Matrix		Redo	x Featur	es				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Text	ture	Remarks
0-3	10YR 2/1	100					Loamy/	Clayey	
3-7	7.5YR 4/6	100					Loamy/	Clayey	
7-15	10YR 2/1	90	7 5YR 4/6	10	<u>с</u>	M	Loamv/	Clavey	Prominent redox concentrations
	1011(2/1		1.011( #0				Louiny	olayoy	
<sup>1</sup> Type: C=Co	ncentration, D=Depl	etion, RM=I	Reduced Matrix, C	CS=Cove	red or Co	bated Sa	and Grains.	<sup>2</sup> Locat	tion: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applica	ble to all L	RRs, unless othe	erwise n	oted.)			Indicators	s for Problematic Hydric Soils <sup>3</sup> :
Histosol (	A1)		Sandy Gle	eyed Mat	rix (S4)			2 cm	Muck (A10) <b>(LRR A, E)</b>
Histic Epi	pedon (A2)		Sandy Red	dox (S5)				Iron-N	langanese Masses (F12) <b>(LRR D)</b>
Black His	tic (A3)		Stripped M	latrix (Se	3)			Red F	Parent Material (F21)
X Hydroger	n Sulfide (A4)		Loamy Mu	icky Mine	eral (F1)	(except	MLRA 1)	Very S	Shallow Dark Surface (F22)
1 cm Muo	ck (A9) <b>(LRR D, G)</b>		Loamy Gle	eyed Mat	rix (F2)			Other	(Explain in Remarks)
Depleted	Below Dark Surface	e (A11)	Depleted I	3)					
Thick Da	rk Surface (A12)		X Redox Dark Surface (F6)					<sup>3</sup> Indicators	s of hydrophytic vegetation and
Sandy M	ucky Mineral (S1)		Depleted Dark Surface (F7)				wetland hydrology must be present,		
2.5 cm M	ucky Peat or Peat (	52) (LRR G	)Redox De	pression	s (F8)			unless	s disturbed or problematic.
Restrictive L	ayer (if observed):								
Туре:									
Depth (in	ches):						Hydric So	oil Present	? Yes <u>X</u> No
Remarks:									
Hydric soil inc	licators A4 and F6 p	oresent.							

# HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required	Secondary Indicators (2 or more required)		
Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2	
High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	4A, and 4B)	
X Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)	
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)	
Sediment Deposits (B2)	X Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)	
Drift Deposits (B3)	Oxidized Rhizospheres on Living Roo	ts (C3) Geomorphic Position (D2)	
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)	
Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils	(C6) X FAC-Neutral Test (D5)	
Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRF	R A) Raised Ant Mounds (D6) (LRR A)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)	
Sparsely Vegetated Concave Surface (B8)	—		
Field Observations:			
Surface Water Present? Yes	No X Depth (inches):		
Water Table Present? Yes	No X Depth (inches):		
Saturation Present? Yes X	No Depth (inches): 0	Wetland Hydrology Present? Yes X No	
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monite	oring well, aerial photos, previous inspectio	ns), if available:	
Remarks:			
Hydrology present with saturation and hydroger	n sulfide odor as primary hydrology indicate	ors.	

U.S. Army Cor	ps of Eng	gineers			OMB Contro	l #: 0710-0024, E	xp: 11/30/2024
WETLAND DETERMINATION DATA SHEET – V See ERDC/EL TR-10-3; the pro	Vestern M ponent a	ountains, Va gency is CE	Illeys, and C ECW-CO-I	Coast Region ੨	Requireme (Authority:	nt Control Symb : AR 335-15, para	ol EXEMPT: agraph 5-2a)
Project/Site: Kimball Junction EIS		City/Cou	nty: Summi	t County	San	npling Date:	8/7/2023
Applicant/Owner: UDOT				State: U	T San	pling Point:	SP-8
Investigator(s): Joshua McMillin, Lacey Wilder		Section, 7	Township, Ra	ange: S13, T1S, F	₹3E		
Landform (hillside, terrace, etc.): Hillslope		Local relief (c	oncave, con	vex, none): None		Slo	pe (%): 5
Subregion (LRR): LRR E Lat: 40.728	57285		Long: -	111.5495911		Datum:	NAD83
Soil Map Unit Name: Manila-Ant Flat loams, 2 to 8 perc	ent slopes			NWI	classificatior	<u>–</u> ו:	
Are climatic / hydrologic conditions on the site typical fo	r this time o	of year?	Yes	No (If r	10, explain in	Remarks.)	
Are Vegetation . Soil . or Hydrology s	anificantly	disturbed?	Are "Normal	Circumstances" pre	esent? Ye	, sXN	lo
Are Vegetation . Soil . or Hydrology n	aturally pro	blematic? (	If needed. ex	, kplain anv answers	in Remarks.	.)	
SUMMARY OF FINDINGS – Attach site ma	p showi	ng samplin	g point lo	cations, trans	ects, imp	ortant fea	tures, etc.
Hydrophytic Vegetation Present? Yes No	X	Is the	e Sampled A	Area			
Hydric Soil Present? Yes No		withi	in a Wetland	I? Yes	N	οX	
Wetland Hydrology Present? Yes No	X						
Remarks: No soil pit was dug due to lack of hydrophytic vegetatio wetland.	on and lack	of surface hyd	drology indica	ators. Sampling poi	nt does not r	neet the crit	eria for a
VEGETATION – Use scientific names of pl	ants.						
	Absolute	Dominant	Indicator				
<u>Iree Stratum</u> (Plot size: <u>30 ft radius</u> )	% Cover	Species?	Status	Dominance Tes	st workshee	<i>ι</i> :	
2		·		Are OBL FACM	inant Specie	s That∶	0 (A)
3.				Total Number of	f Dominant S	necies	(/, /)
4.				Across All Strat	a:		1(B)
Sapling/Shrub Stratum (Plot size: 15 ft radius )		=Total Cover		Percent of Dom Are OBL, FACV	inant Specie √, or FAC:	s That	0.0% (A/B)
1		·		Describer of last		-4-	
2				Total % Co	ex worksne	et: Multipl	w by:
4		·			0	x 1 =	<u>y Dy.</u> 0
5.				FACW species	0	x 2 =	0
		=Total Cover		FAC species	0	x 3 =	0
Herb Stratum (Plot size: 5 ft radius )				FACU species	10	x 4 =	40
1. Convolvulus arvensis	80	Yes	UPL	UPL species	90	x 5 =	450
2. Lappula squarrosa	10	No No		Column Totals:	$\frac{100}{100}$	(A)	<u>490</u> (B)
	10		FACU	Prevalence i	nuex – D/A	- 4.9	0
5.		·		Hydrophytic Ve	equation Inc	dicators:	
6.		·		1 - Rapid Te	est for Hydro	phytic Vege	tation
7.				2 - Dominar	nce Test is >	50%	
8				3 - Prevaler	nce Index is s	≤3.0 <sup>1</sup>	
9				4 - Morpholo	ogical Adapta	ations <sup>1</sup> (Provi	ide supporting
10				data in R	emarks or or	n a separate	sheet)
11	100			5 - Wetland	Non-Vascul	ar Plants'	
Woody Vine Stratum (Plot size:)	100	- Total Cover		<sup>1</sup> Indicators of hy	dric soil and	wetland hyc	(Explain)
2.							
		=Total Cover		Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 0				Present?	Yes	No <u>X</u>	. <u> </u>
Remarks:							

Depth Matrix	Redox Features			
inches) Color (moist) % C	i) Color (moist) % Color (moist) % Type <sup>1</sup> Loc <sup>2</sup> Texture			
		Sand Grains	2 2 1 ocation: PI =Pore Lining M=Matrix	
vdric Soil Indicators: (Applicable to all I RR	s unless otherwise noted )	India	cators for Problematic Hydric Soils <sup>3</sup>	
Histosol (A1)	Sandy Gleved Matrix (S4)		2 cm Muck (A10) <b>(LRR A. E)</b>	
Histic Epipedon (A2)	Sandy Redox (S5)		Iron-Manganese Masses (F12) (LRR D)	
Black Histic (A3)	Stripped Matrix (S6)		Red Parent Material (F21)	
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (exce	ot MLRA 1)	Very Shallow Dark Surface (F22)	
1 cm Muck (A9) <b>(LRR D, G)</b>	Loamy Gleyed Matrix (F2)	, <u> </u>	Other (Explain in Remarks)	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)			
Thick Dark Surface (A12)	Redox Dark Surface (F6)	<sup>3</sup> Indi	cators of hydrophytic vegetation and	
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	,	wetland hydrology must be present,	
2.5 cm Mucky Peat or Peat (S2) (LRR G)	Redox Depressions (F8)	I	unless disturbed or problematic.	
estrictive Layer (if observed):				
Туре:				
Depth (inches):		Hydric Soil Pre	esent? Yes <u>No</u>	
emarks: lo soil pit was dug due to lack of hydrophytic ve YDROLOGY	getation and lack of surface hydrolog	/ indicators.		
Vetland Hydrology Indicators:				
rimary Indicators (minimum of one is required;	check all that apply)	Seco	ondary Indicators (2 or more required)	
Surface Water (A1)	Water-Stained Leaves (B9) (exce	pt	Water-Stained Leaves (B9) (MLRA 1, 2	
_ High Water Table (A2)	MLRA 1, 2, 4A, and 4B)		4A, and 4B)	
Saturation (A3)	Salt Crust (B11)	1	Drainage Patterns (B10)	
Water Marks (B1)	Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)	
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C	

Stunted or Stressed Plants (D1) (LRR A)

 Oxidized Rhizospheres on Living Roots (C3)
 Geomorphic Position (D2)

 Presence of Reduced Iron (C4)
 Shallow Aquitard (D3)

 Recent Iron Reduction in Tilled Soils (C6)
 FAC-Neutral Test (D5)

- FAC-Neutral Test (D5) Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Inundation Visible on A Sparsely Vegetated Co	erial Imagery (B ncave Surface (	(B8) Other (1	Explain in Remarks)	Frost-Heave Hum
Field Observations:				
Surface Water Present?	Yes	No_X	Depth (inches):	
Water Table Present?	Yes	No	Depth (inches):	
Saturation Present?	Yes	No	Depth (inches):	Wetland Hydrology Present?

#### (includes capillary fringe)

Drift Deposits (B3)

Iron Deposits (B5)

Algal Mat or Crust (B4)

Surface Soil Cracks (B6)

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

#### Remarks:

No surface hydrology indicators present.

Yes

No X

U.S. Army Co WETLAND DETERMINATION DATA SHEET - See ERDC/EL TR-10-3; the p	•rps of Eng • Western M •roponent a	<b>gineers</b> ountains, Va gency is CE	lleys, and C ECW-CO-F	oast Region २	OMB Control #: ( Requirement C (Authority: AR	0710-0024, Exp Control Symbo 335-15, parag	p: 11/30/2024 bl EXEMPT: graph 5-2a)
Project/Site: Kimball Junction FIS		City/Cou	ntv: Summi	County	Sampli	ing Date	8/7/2023
			liky: <u>Cullin</u>	State I	IT Sampli	ing Point	SP-9
Investigator(a): Joahus MaMillin Lasay Wilder		Section 7	Fourschip Dr			ng ronn.	01-9
		Section,	rownsnip, Ra	inge. <u>516, 115, r</u>	14⊑		(0() 0
Landform (hillside, terrace, etc.): Depression		Local relief (c	oncave, con	(ex, none): Conc	ave	Slop	be (%): <u>3</u>
Subregion (LRR): LRR E Lat: 40.72	2806549		Long:	11.5492096		Datum:	NAD83
Soil Map Unit Name: Manila-Ant Flat loams, 2 to 8 pe	rcent slopes			NWI	classification:		
Are climatic / hydrologic conditions on the site typical	for this time of	of year?	Yes	No (If r	no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology	significantly	disturbed?	Are "Normal (	Circumstances" pre	esent? Yes	X No	o
Are Vegetation, Soil, or Hydrology	naturally pro	blematic? (	If needed, ex	plain any answers	in Remarks.)		
SUMMARY OF FINDINGS – Attach site m	ap showi	ng samplin	g point lo	cations, trans	ects, import	ant feat	tures, etc.
Hydrophytic Vegetation Present?       Yes       X       N         Hydric Soil Present?       Yes       X       N         Wetland Hydrology Present?       Yes       X       N         Remarks:       No soil pit dug given presence of obligate vegetation       No	No No No and surface	Is the withi water. Sampli	e Sampled A in a Wetland	rea ? Yes ts the criteria for a	X No_		
VEGETATION – Use scientific names of	plants.						
	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: 30 ft radius )	% Cover	Species?	Status	Dominance Te	st worksheet:		
1				Number of Dom	inant Species T	<sup>-</sup> hat	
2		·		Are OBL, FACV	V, or FAC:		1(A)
3.		·		Total Number of	f Dominant Spe	cies	
<ul> <li><u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft radius</u></li> <li>1.</li> </ul>	<u>;</u> )	=Total Cover		Percent of Dom Are OBL, FACV	a. inant Species T V, or FAC:	<sup></sup>	<u>0.0%</u> (A/B)
2.				Prevalence Ind	lex worksheet:		
3.				Total % Co	over of:	Multiply	/ by:
4				OBL species	90 >	(1 =	90
5				FACW species	10 >	(2 =	20
		=Total Cover		FAC species	7 >	(3 =	21
Herb Stratum (Plot size: 5 ft radius )				FACU species	<u> </u>	(4 =	0
1. Typha latifolia	80	Yes	OBL	UPL species	0 >	(5 =	0
2. Rumex crispus	5	No	FAC	Column Totals:	107 (A)	11	131 (B)
3. Carex nebrascensis	10	No	OBL	Prevalence I	$ndex = B/A = _{-}$	1.22	2
4. Juncus arcticus ssp. littoralis	10	<u>No</u>	FACW				
5. Cirsium arvense	2	No	FAC	Hydrophytic Ve	egetation Indic	ators:	
6.		·			est for Hydroph	ytic Vegeta	ation
/		·	. <u> </u>	$\frac{X}{2}$ - Dominar	nce Test is >50°	% 0 <sup>1</sup>	
o				3 - Prevaler		U Dena <sup>1</sup> (Browic	
9 10		·		data in R	emarks or on a	separate	sheet)
10		·		5 - Wetland	Non-Vascular	Plants <sup>1</sup>	
· · ·		=Total Cover			: Hydrophytic V	edetation <sup>1</sup>	(Explain)
Woody Vine Stratum         (Plot size:           1.	_)			<sup>1</sup> Indicators of hy be present, unle	/dric soil and we	egotation etland hydr problema	rology must
U.S. Army Corps of Engineers         Outleys, and Coast Region         Outleys, and Coast Region           WETLAND DETERMINATION DATA SHEET - Western Mountains, Valleys, and Coast Region         Coast All properties and Coast All properties and Coast Region           ProjectRisk Kinhold Junction EIS         City/County: Summit County         Sampling Date:         M7/202           ApplicantOwner:         UDOT         Sampling Date:         Sampling Date:         M7/202           ApplicantOwner:         UDOT         Sampling Date:         M7/202           Subregion (LRR):         LRR E         Lat:         Coast relif (conceve, convex, none):         Conceve         Slope (%):           Subregion (LRR):         LRR E         Lat:         All public Mark Mark Mark Mark Mark Mark Mark Mark							
% Bare Ground in Herb Stratum 0		=Total Cover		Vegetation Present?	Yes X	No	

Remarks:

Hydrophytic vegetation present.

ENG FORM 6116-9, JUL 2018

Depth Matrix	Redox Features		
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
Type: C=Concentration, D=Depletion, RM=Re Hydric Soil Indicators: (Applicable to all LRI Histosol (A1) Histic Epipedon (A2) Black Histic (A3)		Sand Grains. <sup>2</sup> Loc Indicato 2 cn 2 cn 1ron- Red	ation: PL=Pore Lining, M=Matrix. rs for Problematic Hydric Soils <sup>3</sup> : n Muck (A10) (LRR A, E) -Manganese Masses (F12) (LRR D) Parent Material (F21)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (excep	t MLRA 1) Very	/ Shallow Dark Surface (F22)
1 cm Muck (A9) (LRR D, G)	Loamy Gleyed Matrix (F2)	Othe	er (Explain in Remarks)
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G)	Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	<sup>3</sup> Indicato weti unle	ors of hydrophytic vegetation and and hydrology must be present, ss disturbed or problematic.
Restrictive Layer (if observed):			
Depth (inches):	-	Hydric Soil Presen	nt? Yes <u>×</u> No
Remarks: No soil pit dug given the presence of obligate v	egetation and surface water. Hydric soil	s assumed to be prese	ent.
Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required	; check all that apply)	Seconda	ary Indicators (2 or more required)
	Water Stained Leaves (B0) (aver	ot Wat	er-Stained Leaves (B9) (MLRA 1, 2
X Surface Water (A1)	Water-Stained Leaves (D9) (excer		
X_Surface Water (A1) High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	4	A, and 4B)
X Surface Water (A1) High Water Table (A2) Saturation (A3)	MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	<b>4</b> Drai	A, and 4B) nage Patterns (B10)
X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	<b>4</b> Drai Drai Dry-	A, and 4B) nage Patterns (B10) Season Water Table (C2)

Primary Indicators (minimum	<u>n of one is re</u>	equired; check all	that apply)	Secondary Indicators (2 or more required)
X Surface Water (A1)		Wate	er-Stained Leaves (B9) ( <b>excep</b>	pt Water-Stained Leaves (B9) (MLRA 1, 2
High Water Table (A2)		м	LRA 1, 2, 4A, and 4B)	4A, and 4B)
Saturation (A3)		Salt (	Crust (B11)	Drainage Patterns (B10)
Water Marks (B1)		Aqua	atic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Deposits (B2)		Hydro	ogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Oxidi	ized Rhizospheres on Living F	Roots (C3) Geomorphic Position (D2)
Algal Mat or Crust (B4)		Prese	ence of Reduced Iron (C4)	Shallow Aquitard (D3)
Iron Deposits (B5)		Rece	ent Iron Reduction in Tilled Soi	ils (C6) X FAC-Neutral Test (D5)
Surface Soil Cracks (B6	)	Stunt	ted or Stressed Plants (D1) (L	<b>_RR A</b> ) Raised Ant Mounds (D6) ( <b>LRR A</b> )
Inundation Visible on Ae	rial Imagery	(B7)Othe	r (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Cor	cave Surfac	e (B8)		
Field Observations:				
Surface Water Present?	Yes X	No	Depth (inches): 0.25	
Water Table Present?	Yes	No	Depth (inches):	
Saturation Present?	Yes	No	Depth (inches):	Wetland Hydrology Present? Yes X No
(includes capillary fringe)				
Describe Recorded Data (str	eam gauge,	monitoring well,	aerial photos, previous inspec	ctions), if available:
Remarks:				
Hydrology present with surfa	ce water as	a primary hydrol	ogy indicator.	

U.S. Army Cor WETLAND DETERMINATION DATA SHEET	ps of Eng Western Mo	ineers ountains, Val	leys, and C	oast Region	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
See ERDC/EL TR-10-3; the pro	oponent ag	gency is CE	CW-CO-F	2	(,
Project/Site: Kimball Junction EIS		City/Cour	ity: Summi	County	Sampling Date: 8/7/2023
Applicant/Owner: UDOT				State:U	T Sampling Point: SP-10
Investigator(s): Joshua McMillin, Lacey Wilder		Section, T	ownship, Ra	inge: <u>S19, T1S, R</u>	4E
Landform (hillside, terrace, etc.): Hillslope	I	Local relief (co	ncave, con	vex, none): Conve	Slope (%): 2
Subregion (LRR): LRR E Lat: 40.728	305786		Long: -	111.5491867	Datum: NAD83
Soil Map Unit Name: Manila-Ant Flat loams, 2 to 8 per	cent slopes			NWI	classification:
Are climatic / hydrologic conditions on the site typical for	or this time of	f year?	Yes	No (If n	o, explain in Remarks.)
Are Vegetation, Soil, or Hydrology	significantly o	disturbed? A	re "Normal (	Circumstances" pre	sent? Yes X No
Are Vegetation, Soil, or Hydrology	naturally prot	olematic? (l	f needed, ex	plain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site ma	ap showin	g sampling	g point lo	cations, transe	ects, important features, etc.
Hydrophytic Vegetation Present? Yes No	o <u>X</u>	Is the	Sampled A	rea	
Hydric Soil Present? Yes No	°	withir	n a Wetland	? Yes_	No <u>X</u>
Wetland Hydrology Present? Yes No	o <u>X</u>				
Remarks: No soil pit was dug due to lack of hydrophytic vegetati Sampling point does not meet the criteria for a wetlan	ion, lack of su d.	urface hydrolo	gy indicators	s and sampling poir	nt location on landscaped lawn.
VEGETATION – Use scientific names of p	lants.				
	Absolute	Dominant	Indicator	Deminent Te	4
<u>I ree Stratum</u> (Plot size: <u>30 ft radius</u> )	% Cover	Species?	Status	Dominance les	
2.				Are OBL, FACW	Inant Species That /. or FAC: 0 (A)
3.				Total Number of	Dominant Species
4.				Across All Strata	a: <u>1</u> (B)
Sapling/Shrub Stratum (Plot size: 15 ft radius	)	Total Cover		Percent of Domi Are OBL, FACW	nant Species That /, or FAC: <u>0.0%</u> (A/B)
2				Prevalence Ind	ex worksheet:
3.				Total % Co	ver of: Multiply by:
4.				OBL species	0 x 1 = 0
5				FACW species	0 x 2 = 0
		=Total Cover		FAC species	0 x 3 = 0
<u>Herb Stratum</u> (Plot size: <u>5 ft radius</u> )	100		54.011	FACU species	$100 \times 4 = 400$
1. Cynodon dactylon	100	Yes	FACU	UPL species	0 x 5 = 0
3				Prevalence Ir	$\frac{100}{100}$ (R) $\frac{400}{100}$ (B)
4.					
5.				Hydrophytic Ve	getation Indicators:
6				1 - Rapid Te	est for Hydrophytic Vegetation
7				2 - Dominar	ace Test is >50%
8				3 - Prevalen	ce Index is ≤3.0'
9				4 - Morpholo	egical Adaptations (Provide supporting
10				5 - Wetland	Non-Vascular Plants <sup>1</sup>
· · ·	100 =	=Total Cover		Problematic	Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum     (Plot size:       1.	)			<sup>1</sup> Indicators of hy be present, unle	dric soil and wetland hydrology must ss disturbed or problematic.
2.				Hydrophytic	
		=Total Cover		Vegetation	
% Bare Ground in Herb Stratum 0				Present?	Yes <u>No X</u>
Remarks:					

Profile Descr	iption: (Describe	to the depth	needed to doo	cument tl	ne indica	tor or c	onfirm the	absence of in	dicators.)	
Depth	Matrix		Red	ox Featur	es					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Тех	ture	Rem	arks
				_						
17								21		
Type: C=Cor	ncentration, D=De		educed Matrix,	CS=Cove	ered or Co	bated Sa	and Grains.	Location	: PL=Pore Linin	g, M=Matrix.
Hydric Soil In	idicators: (Applic	able to all LR	Rs, unless oth	erwise n	oted.)			Indicators to	r Problematic F	lydric Solls":
	A1)		Sandy G	eyed Mat	rix (S4)			2 cm Mud	CK (A10) (LRR A	, E)
Histic Epi	pedon (A2)		Sandy Re	edox (S5)	-			Iron-Man	ganese Masses	(F12) <b>(LRR D)</b>
			Stripped	Matrix (Se	5) 			Red Pare	ent Material (F21	)
Hydrogen	Sulfide (A4)		Loamy M		eral (F1) (	except	MLRA 1)	Very Sha	llow Dark Surfac	;e (F22)
	K (A9) (LRR D, G)	(	Loamy G	leyed Ma	rix(F2)			Other (Ex	plain in Remark	s)
	Below Dark Surfac	e (A11)		Matrix (F	3)			3	h	- <b>t</b> - <b>t</b> ' - <b>u</b> - <b>u</b> - <b>t</b>
Inick Dar	k Surface (A12)		Redox Da	ark Surfac	ce (F6)			Indicators of	hydrophytic veg	etation and
Sandy Mu	icky Mineral (S1)		Depleted	Dark Sur				wetland h	nydrology must b	e present,
2.5 cm Mi	ucky Peat or Peat	(S2) (LRR G)		epression	s (F8)			unless di	sturbed or proble	matic.
Restrictive La	ayer (if observed)	:								
Type:			_							
Depth (inc	ches):		_				Hydric S	oil Present?	Yes_	No
Remarks:										
No soil pit was	s dug due to lack o	of hydrophytic v	egetation, lack	of surfac	e hydrolc	gy indic	ators and s	sampling point lo	ocation on lands	caped lawn.
HYDROLOG	GY									
Wetland Hyd	rology Indicators	:								
Primary Indica	ators (minimum of	one is required	l; check all that	apply)				Secondary In	dicators (2 or mo	ore required)
Surface W	Vater (A1)		Water-Sta	ained Lea	aves (B9)	(except	t	Water-St	ained Leaves (B	9) ( <b>MLRA 1, 2</b>
High Wate	er Table (A2)		MLRA	1, 2, 4A	, and 4B)			4A, ar	nd 4B)	
Saturation	n (A3)		Salt Crus	t (B11)				Drainage	Patterns (B10)	
Water Ma	rks (B1)		Aquatic Ir	nvertebra	tes (B13)			Dry-Seas	on Water Table	(C2)
Sediment	Deposits (B2)		Hydroger	n Sulfide (	Odor (C1)			Saturatio	n Visible on Aeri	al Imagery (C9)
Drift Depo	osits (B3)		Oxidized	Rhizosph	ieres on L	iving Ro	oots (C3)	Geomorp	hic Position (D2	)
Algal Mat	or Crust (B4)		Presence	of Redu	ced Iron (	C4)		Shallow A	Aquitard (D3)	
Iron Depo	sits (B5)		Recent Ir	on Reduc	tion in Til	led Soil	s (C6)	FAC-Neu	tral Test (D5)	
Surface S	oil Cracks (B6)		Stunted c	or Stresse	ed Plants	(D1) ( <b>LF</b>	RR A)	Raised A	nt Mounds (D6)	(LRR A)
	n Visible on Aerial	Imagery (B7)	Other (Ex	plain in F	(emarks)			Frost-Hea	ave Hummocks	(D7)
Sparsely	Vegetated Concav	e Surface (B8)								
Field Observa	ations:									
Surface Wate	r Present? Y	es	No <u>X</u>	Depth (	inches): _					
Water Table F	Present? Y	es	No	Depth (	inches):				_	
Saturation Pre	esent? Y	es	No	Depth (	inches):		Wetlan	d Hydrology P	resent? Yes	No _X
(includes capi	llary fringe)									
Describe Reco	orded Data (strean	n gauge, monit	oring well, aeri	al photos	, previous	inspect	tions), if av	allable:		

Remarks:

No surface hydrology indicators present.

U.S. Army Cor WETLAND DETERMINATION DATA SHEET - See ERDC/EL TR-10-3; the pro-	<b>ps of Eng</b> Western M oponent a	<b>gineers</b> ountains, Va gency is CE	lleys, and ( CW-CO-I	Coast Region R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Kimball Junction EIS	•	City/Cou	nty: Summi	t County	Sampling Date: 8/7/2023
Applicant/Owner: UDOT			, <u> </u>	State: l	JT Sampling Point: SP-11
Investigator(s): Joshua McMillin, Lacey Wilder		Section, T	ownship, R	ange: S19, T1S, I	
Landform (hillside, terrace, etc.): Depression		Local relief (c	oncave. con	vex. none): Conc	cave Slope (%): 5
Subregion (LRR): LRR E Lat: 40.726	688675	,	Lona: -	111.5450974	Datum: NAD83
Soil Map Unit Name: Manila-Ant Flat Joams. 2 to 8 per	cent slopes			NWI	classification:
Are climatic / hydrologic conditions on the site typical for	or this time o	of vear?	Yes	No (If	no. explain in Remarks.)
Are Vegetation Soil or Hydrology	significantly	disturbed? A	re "Normal	Circumstances" pr	esent? Yes X No
Are Vegetation Soil or Hydrology	naturally pro	blematic? (	lfneeded e	xplain any answers	sin Remarks )
SUMMARY OF FINDINGS – Attach site m	natarany pro		a noint la	cations trans	onte important foaturos oto
Hydrophytic Vegetation Present?       Yes       X       Ne         Hydric Soil Present?       Yes       X       Ne         Wetland Hydrology Present?       Yes       X       Ne         Remarks:       Kemarks:       Kemarks       Kemarks       Kemarks	0 0	Is the withi	e Sampled A	Area 1? Yes	<u>X</u> No
No soil pit dug given the presence of obligate vegetati	on and surfa	ace water. San	npling point	meets the criteria f	or a wetland.
VEGETATION – Use scientific names of p	Absolute	Dominant	Indicator		
Tree Stratum (Plot size: <u>30 ft radius</u> )	% Cover	Species?	Status	Dominance Te	est worksheet:
1				Number of Don Are OBL, FACV	ninant Species That N, or FAC: 1 (A)
3		·		Total Number of	of Dominant Species
4		=Total Cover		Across All Strat	
Sapling/Shrub Stratum (Plot size: 15 ft radius	)			Are OBL, FACV	N, or FAC:100.0% (A/B)
2.				Prevalence Inc	dex worksheet:
3				Total % C	over of: Multiply by:
4		·		OBL species	100   x   1 = 100
5			·	FACW species	$-\frac{0}{2}$ x 2 = $-\frac{0}{2}$
Herb Stratum (Plot size: 5 ft radius )				FACU species	$\frac{0}{0}$ x 4 = 0
1. Typha latifolia	100	Yes	OBL	UPL species	0   x 5 = 0
2.				Column Totals:	<u>100</u> (A) <u>100</u> (B)
3.				Prevalence	Index = B/A = 1.00
4					
5		·		Hydrophytic V	egetation Indicators:
0. 7					nce Test is >50%
8.		·		3 - Prevale	nce Index is $\leq 3.0^{1}$
9.				4 - Morphol	ogical Adaptations <sup>1</sup> (Provide supporting
10				data in F	Remarks or on a separate sheet)
11				5 - Wetland	d Non-Vascular Plants <sup>1</sup>
	100	=Total Cover		Problemati	c Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum         (Plot size:	)			<sup>1</sup> Indicators of hyber present, unle	ydric soil and wetland hydrology must ess disturbed or problematic.
2 % Bare Ground in Herb Stratum0		=Total Cover		Hydrophytic Vegetation Present?	Yes_X_ No
Remarks: Hydrophytic vegetation present.					

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Profile Descr	iption: (Describe	to the depth	needed to docu	iment the ir	ndicat	or or co	onfirm the	absence of i	ndicators.)	
Depth	Matrix		Redo	x Features						
(inches)	Color (moist)		Color (moist)	<u>%</u> Ty	ype <sup>1</sup>	Loc <sup>2</sup>	Text	ture	Rema	arks
1										
'Type: C=Cor	ncentration, D=Dep	oletion, RM=R	educed Matrix, C	S=Covered	or Co	ated Sa	nd Grains.	Locatio	n: PL=Pore Lining	g, M=Matrix.
Hydric Soil In	dicators: (Applica	able to all LR	Rs, unless othe	rwise noted	d.)			Indicators f	or Problematic H	ydric Soils":
Histosol (/	A1)		Sandy Gle	yed Matrix (	S4)			2 cm M	uck (A10) <b>(LRR A</b> ,	
Histic Epi	pedon (A2)		Sandy Red	10X (S5)				Iron-Ma	nganese Masses (	(F12) (LRR D)
	IIC (A3) Sulfide (A4)			atrix (50)	(E1)	ovoont			rent Material (F21)	o (E22)
				wed Matrix (	(F1) ( (F2)	except	WILKA I)	Other (F	Sundain in Remarks	e (F22)
T CIT Muc Depleted	Relow Dark Surfac	ο (Δ11)	Loanny Gie	/atrix (E3)	(ГZ)					>)
Depicted Thick Dar	k Surface (A12)	с (ATT)	Bedox Dar	k Surface (F	-6)			<sup>3</sup> Indicators of	of hydrophytic year	etation and
Sandy Mu	ickv Mineral (S1)		Depleted [	)ark Surface	e (F7)			wetland	hvdrology must b	e present.
2.5 cm Mi	ucky Peat or Peat (	(S2) (LRR G)	Redox Dep	pressions (F	8)			unless o	disturbed or proble	matic.
Restrictive La	aver (if observed)								-	
Type:	<b></b>	-								
Depth (ind	ches):		-				Hydric So	oil Present?	Yes	X No
Remarks:									_	
No soil pit dug	given the presend	e of obligate	vegetation and s	urface water	r. Hyd	ric soils	assumed to	be present.		
HYDROLOG	GΥ									
Wetland Hvd	rology Indicators:									
Primary Indica	ators (minimum of o	one is require	d; check all that a	apply)				Secondary I	ndicators (2 or mo	re required)
X Surface W	/ater (A1)		Water-Sta	ned Leaves	(B9)	(except		Water-S	Stained Leaves (BS	9) ( <b>MLRA 1, 2</b>
High Wate	er Table (A2)		MLRA	1, 2, 4A, and	d 4B)			4A, a	and 4B)	
Saturatior	n (A3)		Salt Crust	(B11)				Drainag	e Patterns (B10)	
Water Ma	rks (B1)		Aquatic Inv	/ertebrates (	(B13)			Dry-Sea	son Water Table	(C2)
Sediment	Deposits (B2)		Hydrogen	Sulfide Odor	r (C1)			Saturati	on Visible on Aeria	al Imagery (C9)
Drift Depo	osits (B3)		Oxidized F	Rhizospheres	s on L	iving Ro	ots (C3)	Geomo	rphic Position (D2)	)
Algal Mat	or Crust (B4)		Presence	of Reduced	Iron (	C4)		Shallow	Aquitard (D3)	
Iron Depo	sits (B5)		Recent Iro	n Reduction	in Til	ed Soils	s (C6)	X FAC-Ne	eutral Test (D5)	
Surface S	oil Cracks (B6)		Stunted or	Stressed Pl	lants (	D1) ( <b>LR</b>	<b>R A</b> )	Raised	Ant Mounds (D6) (	(LRR A)
Inundation	n Visible on Aerial	Imagery (B7)	Other (Exp	lain in Rema	arks)			Frost-H	eave Hummocks (	D7)
Sparsely V	Vegetated Concave	e Surface (B8	)							
Field Observa	ations:									
Surface Wate	r Present? Ye	es X	No	Depth (inch	es): _	1				
	Vice ant 2	-	No	Denth (inch	QC).		1			

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

Depth (inches):

No

Remarks:

Saturation Present?

Hydrology present with surface water as a primary hydrology indicator.

Yes

Wetland Hydrology Present? Yes X No
U.S. Army Co	ps of En	gineers			OMB Cont	rol #: 0710-0024	l, Exp: 11/3	0/2024	
WETLAND DETERMINATION DATA SHEET – See ERDC/EL TR-10-3; the pr	Western M oponent a	ountains, Va gency is CE	lleys, and C ECW-CO-F	Coast Region ੨	Requirer (Authori	nent Control Sy ty: AR 335-15, p	mbol EXEM paragraph 5	1PT: -2a)	
Project/Site: Kimball Junction EIS		City/Cou	nty: Summi	t County	Sa	mpling Dat	e: 8/7/	/2023	
Applicant/Owner: UDOT				State: U	IT Sa	mpling Poir	nt: S	SP-12	
Investigator(s): Joshua McMillin, Lacey Wilder Section, Township, Range: S19, T1S, R4E									
Landform (hillside, terrace, etc.): Hillslope		Local relief (c	oncave, con	vex. none): None	1	S	Slope (%	): 10	
Subregion (LBR): LBR E Lat: 40.726	386768	2000.0000000000000000000000000000000000		111 5450745		 Datur	m· ΝΔΙ	י <u>י</u> א <u>ר</u> ראס	
Soil Man Linit Name: Manila-Ant Elat Joams 2 to 8 per	cent slones		Long	NIM/	classificatio	Datai	II. <u>IN/A</u>	505	
And the standards and the stan		f	Ma a		Classificatio		<u> </u>		
Are climatic / hydrologic conditions on the site typical for	or this time c	of year?	Yes		io, explain	In Remarks	.)		
Are Vegetation, Soil, or Hydrology	significantly	disturbed? A	Are "Normal (	Circumstances" pre	esent? Y	es X	No	_	
Are Vegetation, Soil, or Hydrology	naturally pro	blematic? (	If needed, ex	xplain any answers	in Remark	s.)			
SUMMARY OF FINDINGS – Attach site ma	ap showii	ng samplin	g point lo	cations, trans	ects, imp	portant fe	atures	s, etc.	
Hydrophytic Vegetation Present? Yes N	o <u>X</u>	Is the	e Sampled A	Area					
Hydric Soil Present? Yes N	o	withi	n a Wetland	I? Yes	I	No <u>X</u>			
Wetland Hydrology Present? Yes N	o <u>X</u>								
Remarks: No soil pit was dug due to lack of hydrophytic vegetat wetland.	ion and lack	of surface hyc	lrology indica	ators. Sampling poi	int does not	t meet the c	riteria fo	ır a	
VEGETATION – Use scientific names of p	lants.								
The Charter (Dist size: 20 ft redius )	Absolute	Dominant	Indicator	Deminence Te	- 4	-			
1 (Plot size. <u>30 it radius</u> )	% Cover	Species?	Status	Dominance res					
2		·		Are OBL FACV	Inant Spec	ies That	2	(A)	
3.				Total Number of	f Dominant	- Species		_()	
4.				Across All Strat	a:	Opecies	4	(B)	
		=Total Cover		Percent of Dom	inant Speci	es That			
Sapling/Shrub Stratum (Plot size: 15 ft radius	)			Are OBL, FACV	V, or FAC:	_	50.0%	(A/B)	
1									
2		·		Prevalence Ind	lex worksh	eet:			
3		·		Total % Co	over of:	Mult	iply by:	_	
4		·			0	$- \frac{x^{1}}{x^{2}}$	0	_	
J		=Total Cover		FAC v species	35	- ×2- ×3=	105	_	
Herb Stratum (Plot size: 5 ft radius )				FACU species	15	- x 4 = -	60	_	
1. Rumex crispus	10	Yes	FAC	UPL species	10	x 5 =	50	_	
2. Cirsium arvense	20	Yes	FAC	Column Totals:	60	(A)	215	— (B)	
3. Sisymbrium altissimum	5	No	FACU	Prevalence I	ndex = B/A	A =3	3.58	_	
4. Linaria dalmatica	10	Yes	UPL						
5. <i>Epilobium brachycarpum</i>	5	No	FAC	Hydrophytic Ve	egetation I	ndicators:			
6. Cynoglossum officinale	10	Yes	FACU	1 - Rapid To	est for Hydi	rophytic Ve	getation		
7		·		2 - Dominai	nce Test is	>50%			
8		·		3 - Prevaler	nce Index is	s ≤3.0'			
9		·		data in R	emarks or	otations (Pro	ovide suj ate sheet	pporting t)	
10		·		5 - Wetland	Non-Vasci	ular Plants <sup>1</sup>		.)	
· · · ·	60	=Total Cover		Problematic	Hydronhyd	tic Venetatio	on <sup>1</sup> (Exp	lain)	
Woody Vine Stratum (Plot size:	)			<sup>1</sup> Indicators of hy	/dric soil an	d wetland h	iydrology	/ must	
2		·			รอร นเรเนเมย		matic.		
<u> </u>		=Total Cover		Hydrophytic					
% Bare Ground in Herb Stratum 40				Present?	Yes	No	х		
Remarks:				<u> </u>			<u> </u>		
nomano.									

(inches) Color (moist) Color (	% Color (m	oist) <u>%</u> Type	T	exture	Remarks	
ype: C=Concentration, D=Deple						
ype: C=Concentration, D=Deple						
ype: C=Concentration, D=Deple						
ype: C=Concentration, D=Deple						
ype: C=Concentration, D=Deple						
	ion, RM=Reduced M	/latrix, CS=Covered or	Coated Sand Grain	s. <sup>2</sup> Location: PL	=Pore Lining, M=Mat	trix.
/dric Soil Indicators: (Applicab	le to all LRRs, unle	ss otherwise noted.)		Indicators for Pro	blematic Hydric So	oils³:
Histosol (A1)	Sa	ndy Gleyed Matrix (S4)	)	2 cm Muck (A	10) <b>(LRR A, E)</b>	
_Histic Epipedon (A2)	Sa	ndy Redox (S5)		Iron-Mangane	se Masses (F12) <b>(LR</b>	R D)
_Black Histic (A3)	Str	ipped Matrix (S6)		Red Parent Ma	aterial (F21)	
_ Hydrogen Sulfide (A4)	Lo	amy Mucky Mineral (F	I) (except MLRA 1)	Very Shallow I	Dark Surface (F22)	
_ 1 cm Muck (A9) (LRR D, G)	Lo	amy Gleyed Matrix (F2	)	Other (Explain	າ in Remarks)	
_ Depleted Below Dark Surface	A11)De	pleted Matrix (F3)				
Thick Dark Surface (A12)	Re	dox Dark Surface (F6)		<sup>3</sup> Indicators of hydro	ophytic vegetation an	nd
Sandy Mucky Mineral (S1)	De	pleted Dark Surface (F	7)	wetland hydrol	logy must be present	t,
2.5 cm Mucky Peat or Peat (S2	2) <b>(LRR G)</b> Re	dox Depressions (F8)		unless disturb	ed or problematic.	
estrictive Layer (if observed):						
Туре:						
Depth (inches):			Hydric	Soil Present?	Yes N	No_
marks.						

Wetland Hydrology Indicate	ors:								
Primary Indicators (minimum of one is required; check all that apply)					Secondary Indicators (2 or more required)				
Surface Water (A1) Water-Stained Leaves (B9) (except					Water-Stained Leaves (B9) (MLRA 1, 2				
High Water Table (A2) MLRA 1, 2, 4A, and 4B)					4A, and 4B)				
Saturation (A3)		Salt Cru	st (B11)		Drainage Patterns (B10)				
Water Marks (B1)		Aquatic	Invertebrates (B13)		Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Hydroge	en Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)		Oxidized	d Rhizospheres on Living Roc	ots (C3)	Geomorphic Position (D2)				
Algal Mat or Crust (B4)		Presend	e of Reduced Iron (C4)		Shallow Aquitard (D3)				
Iron Deposits (B5)		Recent	Iron Reduction in Tilled Soils	(C6)	FAC-Neutral Test (D5)				
Surface Soil Cracks (B6)		Stunted or Stressed Plants (D1) (LRR A)			Raised Ant Mounds (D6) (LRR A)				
Inundation Visible on Ae	rial Imagery (B7)	Other (Explain in Remarks)			Frost-Heave Hummocks (D7)				
Sparsely Vegetated Con	cave Surface (B8)								
Field Observations:									
Surface Water Present?	Yes	No X	Depth (inches):						
Water Table Present?	Yes	No	Depth (inches):						
Saturation Present?	Yes	No	Depth (inches):	Wetland	d Hydrology Present? Yes No X				
(includes capillary fringe)									
Describe Recorded Data (stre	eam gauge, moni	oring well, ae	rial photos, previous inspectio	ons), if ava	ilable:				
Remarks:									
No surface hydrology indicate	ors present.								

U.S. Army Corp WETLAND DETERMINATION DATA SHEET – V See ERDC/EL TR-10-3; the pro	ps of Enginee Western Mounta oponent agenc	ers ins, Valleys, and y is CECW-CO-	Coast Region R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Kimball Junction EIS	(	- Citv/Countv: Summ	it County	Sampling Date: 8/7/2023
Applicant/Owner: UDOT			State: U	T Sampling Point: SP-13
Investigator(s): Joshua McMillin, Lacev Wilder	S	ection. Township. R	ange: S19. T1S. F	
Landform (hillside, terrace, etc.): Basin	Local	relief (concave, cor	vex. none): Conc	ave Slope (%): 5
Subregion (LRR): LRR F Lat: 40.721	30203	Long:	-111 5452957	Datum: NAD83
Soil Map Unit Name: Harter gravelly loam 2 to 15 perce	ent slopes	2011g	NWI	classification:
Are climatic / hydrologic conditions on the site typical fo	r this time of year	2 Ves	No (lf n	no evolain in Remarks )
Are Vegetation Soil or Hydrology	a this time of year	hod? Are "Normal	Circumstances" pro	sont? Vos X No
Are Vegetation, Soli, or Hydrologys		tio? (If pooded of		
SUMMARY OF FINDINGS – Attach site ma	p showing sa	ampling point le	ocations, transe	ects, important features, etc.
Hydrophytic Vegetation Present?       Yes       X       No         Hydric Soil Present?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No	) 	Is the Sampled within a Wetland	Area d? Yes_	<u>X</u> No
Remarks: Sampling point meets the criteria for a wetland.				
VEGETATION – Use scientific names of p	lants.			
· · · ·	Absolute Dor	minant Indicator		
Tree Stratum (Plot size: <u>30 ft radius</u> )	% Cover Spe	ecies? Status	Dominance Tes	st worksheet:
1	<u> </u>		Number of Dom	inant Species That
2	······			
4.			Across All Strata	a: 1 (B)
Sapling/Shrub Stratum (Plot size: 15 ft radius )	=Tota	l Cover	Percent of Domi Are OBL, FACW	inant Species That /, or FAC: <u>100.0%</u> (A/B)
2.			Prevalence Ind	ex worksheet:
3.			Total % Co	over of: Multiply by:
4			OBL species	0 x 1 = 0
5			FACW species	100 x 2 = 200
	=Tota	l Cover	FAC species	$0 \times 3 = 0$
Herb Stratum (Plot size: 5 ft radius )	100		FACU species	$0 \times 4 = 0$
	100	res FACW	Column Totals	100 (A) 200 (B)
3.			Prevalence I	mdex = B/A = 2.00
4.				
5.			Hydrophytic Ve	getation Indicators:
6			1 - Rapid Te	est for Hydrophytic Vegetation
7			X 2 - Dominar	nce Test is $>50\%$
8			<u>X</u> 3 - Prevalen	ice Index is ≤3.0 <sup>°</sup>
9 10			data in R	emarks or on a separate sheet)
11.			5 - Wetland	Non-Vascular Plants <sup>1</sup>
	100 =Tota	l Cover	Problematic	Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum         (Plot size:)           1.			<sup>1</sup> Indicators of hy be present, unle	dric soil and wetland hydrology must s disturbed or problematic.
2.			Hydrophytic	
	=Tota	l Cover	Vegetation	Mar M
% Bare Ground in Herb Stratum 0			Present?	res <u>X</u> No
Remarks:				

Profile Desc	cription: (Describe	to the dep	oth needed to doc	ument t	he indica	tor or o	confirm the absence	of indicators.)
Ueptn (inches)	Color (moist)	0/6	Color (moist)	x Featur	Type <sup>1</sup>	$loc^2$	Texture	Remarks
		100		70	Турс			
0-3	101R 2/1	100					Loanty/Clayey	- <u> </u>
3-7	10YR 2/1	96	10YR 4/6	4	<u> </u>	M	Loamy/Clayey	Prominent redox concentrations
7-10	10YR 2/1	60	10YR 4/6	20	C	М	Loamy/Clayey	Prominent redox concentrations
	10YR 6/2	20			. <u> </u>			
10-17	10YR 2/1	95	10YR 4/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
1		<u> </u>						
Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, (	CS=Cove	ered or Co	bated S	and Grains. <sup>2</sup> Loo	cation: PL=Pore Lining, M=Matrix.
Histosol		Die to all	LRRS, UNIESS OTH	erwise n	10tea.)			The matter of th
Histosol Histic Fr	(AI) Dipedon (A2)		Sandy Be	dov (S5)	unx (34)		2 Ci	Manganese Masses (E12) (I PP D)
Black Hi	istic (A3)		Stripped M	lon (00) Aatrix (Si	6)		Rec	Parent Material (F21)
Hydroge	en Sulfide (A4)		L oamy Mu	icky Min	eral (F1) (	excent	MIRA1) Ver	v Shallow Dark Surface (F22)
1 cm Mi	uck (A9) (LRR D. G)		Loamy Gle	eved Ma	trix (F2)	croch	Oth	er (Explain in Remarks)
Depleter	d Below Dark Surface	e (A11)	Depleted I	Matrix (F	3)			(,p.a)
Thick Da	ark Surface (A12)	()	X Redox Da	rk Surfa	ce (F6)		<sup>3</sup> Indicate	ors of hydrophytic vegetation and
Sandy M	/ucky Mineral (S1)		Depleted I	Dark Sur	face (F7)		wet	land hydrology must be present,
2.5 cm M	Mucky Peat or Peat (	S2) (LRR	G) Redox De	pression	is (F8)		unle	ess disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (i	nches):						Hydric Soil Prese	nt? Yes <u>X</u> No
Remarks: Hydric soil ir	ndicator F6 present.							
IYDROLC	OGY							
Wetland Hy	drology Indicators:						<b>_</b> .	
Primary Indi	cators (minimum of o	ne is requ	ired; check all that	apply)	(56)	,	Second	ary Indicators (2 or more required)
Surface	vvater (A1)		Water-Sta	ined Lea	aves (B9)	(excep	t Wa	ter-Stained Leaves (B9) (MLRA 1, 2

Primary Indicators (minimum of one is re
Surface Water (A1)
High Water Table (A2)
X Saturation (A3)
Water Marks (B1)
Sodimont Doposito (P2)

Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2		
High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	<b>4A, and 4B</b> )		
X Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)		
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)		
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Oxidized Rhizospheres on Living Roots (C3)	Geomorphic Position (D2)		
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)		
Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils (C6)	X FAC-Neutral Test (D5)		
Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRR A)	Raised Ant Mounds (D6) (LRR A)		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)		
Sparsely Vegetated Concave Surface (B8	3)			
Field Observations:				
Surface Water Present? Yes	No X Depth (inches):			
Water Table Present? Yes	No X Depth (inches):			
Saturation Present? Yes X	No Depth (inches): 11 Wetla	nd Hydrology Present? Yes X No		
(includes capillary fringe)				
Describe Recorded Data (stream gauge, mon	itoring well, aerial photos, previous inspections), if a	vailable:		
Remarks:				
Hydrology present with saturation as a primar	y hydrology indicator.			

U.S. Army Cor	ps of Enç	gineers			OMB Control #: 0710	-0024, Exp:	11/30/2024
WETLAND DETERMINATION DATA SHEET – N See ERDC/EL TR-10-3; the pro	Western M oponent a	ountains, Val gency is CE	lleys, and ( CW-CO-I	Coast Region २	Requirement Conti (Authority: AR 335	ol Symbol E -15, paragra	EXEMPT: aph 5-2a)
Project/Site: Kimball Junction EIS		City/Cou	nty: <u>Summi</u>	t County	Sampling	Date:	8/7/2023
Applicant/Owner: UDOT				State:L	IT Sampling	Point:	SP-14
Investigator(s): Joshua McMillin, Lacey Wilder		Section, T	ownship, Ra	ange: S19, T1S, F	R4E		
Landform (hillside, terrace, etc.): Hillslope		Local relief (co	oncave, con	vex, none): None	1	Slope	(%): 10
Subregion (LRR): LRR E Lat: 40.721	30203		Long: -	111.5452728	D	atum:	NAD83
Soil Map Unit Name: Harter gravelly loam, 2 to 15 perc	ent slopes			NWI	classification:	-	
Are climatic / hydrologic conditions on the site typical for	or this time o	of year?	Yes	No (If r	no, explain in Rema	arks.)	
Are Vegetation , Soil , or Hydrology	significantly	disturbed? A	re "Normal	Circumstances" pre	esent? Yes X	No	
Are Vegetation , Soil , or Hydrology r	naturally pro	blematic? (I	f needed, ex	kplain any answers	in Remarks.)		
SUMMARY OF FINDINGS – Attach site ma	ap showii	ng samplin	g point lo	cations, trans	ects, importar	ıt featu	ıres, etc.
Hvdrophytic Vegetation Present? Yes No	o X	Is the	Sampled A	rea			
Hydric Soil Present? Yes No	» <u> </u>	withi	n a Wetland	l? Yes	<u>No X</u>		
Wetland Hydrology Present? Yes No	<u>x</u>						
Remarks: No soil pit was dug due to lack of hydrophytic vegetation wetland.	on and lack	of surface hyd	rology indica	ators. Sampling po	int does not meet t	he criteri	a for a
VEGETATION – Use scientific names of p	lants.						
	Absolute	Dominant	Indicator				
<u>Iree Stratum</u> (Plot size: <u>30 ft radius</u> )	% Cover	Species?	Status	Dominance Te	st worksheet:		
2.		·		Are OBL, FACV	Inant Species Tha V. or FAC:	i C	) (A)
3.				Total Number o	f Dominant Specie	s	( )
4				Across All Strat	a:	2	(B)
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft radius</u> )	)	=Total Cover		Percent of Dom Are OBL, FACV	inant Species That V, or FAC:	0.0	1% (A/B)
1				Descelario de la d			
2		·		Total % Co	lex worksneet:	Multiply k	N/:
4.				OBL species	0 x1	= C	<u>'y.</u> )
5.				FACW species	0 x 2	= 0	)
		=Total Cover		FAC species	0 x 3	= 0	1
Herb Stratum (Plot size: 5 ft radius )				FACU species	30 x 4	= 12	:0
1. Agropyron cristatum	70	Yes	UPL	UPL species	<u>70</u> x 5	= 35	0
2. Pascopyrum smithii	30	Yes	FACU	Column Totals:	100 (A)	47	<u>0</u> (B)
۵ ۵		·		Flevalence	ndex - B/A -	4.70	
5.				Hydrophytic Ve	egetation Indicato	rs:	
6.				1 - Rapid To	est for Hydrophytic	Vegetati	ion
7.				2 - Dominai	nce Test is >50%		
8				3 - Prevaler	nce Index is $\leq 3.0^1$		
9				4 - Morphole	ogical Adaptations	(Provide	supporting
10		·		data in R	emarks or on a se	Jarate sr	ieet)
11	100			5 - Wetland	Non-Vascular Pla	nts <sup>*</sup>	Evoloin)
<u>Woody Vine Stratum</u> (Plot size:)	)			<sup>1</sup> Indicators of hy	dric soil and wetla	nd hydro	logy must
2.						Jonado	
		=Total Cover		Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 0				Present?	Yes N	o <u>X</u>	
Remarks:							

Depth	Matrix		Redox Fea	atures	2			
nches)	Color (moist)	% Color (	moist) %	6 Type'	Loc <sup>2</sup>	Text	ure	Remarks
ype: C=Con	centration, D=Depletio	n, RM=Reduced	I Matrix, CS=C	overed or Co	bated Sai	nd Grains.	<sup>2</sup> Location: PL	_=Pore Lining, M=Matrix.
dric Soil In	dicators: (Applicable	to all LRRs, un	less otherwis	e noted.)			Indicators for Pre	oblematic Hydric Soils <sup>3</sup> :
Histosol (A	41)	8	andy Gleyed I	Matrix (S4)			2 cm Muck (A	(10) <b>(LRR A, E)</b>
Histic Epip	edon (A2)	S	andy Redox (	S5)			Iron-Mangane	ese Masses (F12) <b>(LRR D</b>
Black Histi	ic (A3)	8	stripped Matrix	: (S6)			Red Parent M	laterial (F21)
Hydrogen	Sulfide (A4)	L	.oamy Mucky N	Mineral (F1)	except N	VILRA 1)	Very Shallow	Dark Surface (F22)
1 cm Muck	k (A9) <b>(LRR D, G)</b>	L	.oamy Gleyed	Matrix (F2)			Other (Explain	n in Remarks)
Depleted E	3elow Dark Surface (A1	11) <u> </u>	Depleted Matrix	x (F3)			<u> </u>	
Thick Dark	< Surface (A12)	F	Redox Dark Su	rface (F6)			<sup>3</sup> Indicators of hydr	rophytic vegetation and
Sandy Mu	cky Mineral (S1)	C	Depleted Dark	Surface (F7)			wetland hydro	ology must be present,
2.5 cm Mu	icky Peat or Peat (S2)	(LRR G) F	Redox Depress	sions (F8)			unless disturb	ped or problematic.
estrictive La	yer (if observed):							
Туре:								
Depth (inc	hes):					Hydric So	il Present?	Yes No
lo soil pit was	dug due to lack of hyd	rophytic vegetat	ion and lack o	f surface hyd	rology in	dicators.		
Vetland Hydr	ology Indicators:							
rimary Indica	tors (minimum of one is	<u>s required; chec</u>	k all that apply	()			Secondary Indicat	<u>tors (2 or more required)</u>
Surface W	/ater (A1)	v	Vater-Stained	Leaves (B9)	(except		Water-Staine	d Leaves (B9) ( <b>MLRA 1, 2</b>
High Wate	r Table (A2)		MLRA 1, 2,	4A, and 4B)			4A, and 4	<b>B</b> )
Saturation	(A3)	S	Salt Crust (B11	)			Drainage Patt	terns (B10)
	rks (B1)	A	Aquatic Inverte	brates (B13)			Dry-Season V	Vater Table (C2)
Water Mar				1. 0.1. (04)			Saturation Vis	sible on Aerial Imagery (C
Water Mar Sediment	Deposits (B2)	F	Hydrogen Sulfic	ae Odor (C1)	1		eateration in	Sible on Aerial Integery (O
Water Mar Sediment   Drift Depos	Deposits (B2) sits (B3)	f	Dxidized Rhizo	spheres on L	iving Ro	ots (C3)	Geomorphic F	Position (D2)
Water Mar Sediment   Drift Depos Algal Mat o	Deposits (B2) sits (B3) or Crust (B4)	r 	Aydrogen Sulfi Oxidized Rhizo Presence of Re	spheres on L duced Iron (	.iving Ro C4)	ots (C3)	Geomorphic F Shallow Aquit	Position (D2) tard (D3)
Water Mar Sediment   Drift Depos Algal Mat o Iron Depos	Deposits (B2) sits (B3) or Crust (B4) sits (B5)	F	Aydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re	ae Odor (C1) spheres on L aduced Iron ( duction in Til	.iving Ro C4) Ied Soils	ots (C3) (C6)	Geomorphic F Shallow Aquit	Position (D2) tard (D3) Test (D5)

Surface Soil Cracks (B	6)	Stunte	d or Stressed Plants (D1) (	LRR A)	Raised Ant Mounds (D6) (LR		
Inundation Visible on A	erial Imagery	(B7) Other (	Explain in Remarks)	_	Frost-Heave Hummocks (D7)		
Sparsely Vegetated Co	oncave Surface	e (B8)		_			
Field Observations:							
Surface Water Present?	Yes	No <u>X</u>	Depth (inches):				
Water Table Present?	Yes	No	Depth (inches):				
Saturation Present?	Yes	No	Depth (inches):	Wetland	Hydrology Present? Yes		
(includes capillary fringe)							
Describe Recorded Data (s	tream gauge,	monitoring well, a	erial photos, previous inspe	ections), if availa	able:		
Remarks:							

No surface hydrology indicators present.

**No**\_X

Project/Site: SR-224 BRT	City/County: Sur	mmit County		Sampling Date: 08/	24/2021
Applicant/Owner: Summit County			State: Utah	Sampling Point: SF	°-15
Investigator(s): <u>Josh McMillin, Katie Lueth</u>	Section, Townsh	nip, Range: <u>S1</u>	9, T1S, R4E		
Landform (hillslope, terrace, etc.): Drainage	Local relief (cor	ncave, convex,	none): <u>Concave</u>	Slope	(%): <u>1</u>
Subregion (LRR): LRR E Lat: 40.	.721158	Long:	-111.545089	Datum:	NAD83
Soil Map Unit Name: Wanship loam, 0 to 3 percent slopes			NWI classific	ation: PEM	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X	No (	If no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology significantly	/ disturbed?	Are "Normal	Circumstances" p	oresent? Yes X	No
Are Vegetation, Soil, or Hydrology naturally pro	oblematic?	(If needed, e	xplain any answer	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	g sampling p	oint locatio	ns, transects	, important feat	ures, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>×</u> Yes <u>×</u> Yes <u>×</u>	No No No	Is the Sampled Area within a Wetland?	Yes X	No
Remarks:					

Depression, sparse vegetation, surface soil cracks. Between two culverts. Sampling point meets the criteria for a wetland. \*Sampling point W-1-IN SR224 BRT Delineation Report.

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 ft radius )	% Cover	Species?	Status	Number of Dominant Species	2	
1				That Are OBL, FACW, or FAC	: 2	(A)
2				Total Number of Dominant		
3				Species Across All Strata:	2	(B)
4						
		= Total Co	ver	Percent of Dominant Species	. 100	(A/B)
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft radius</u> )		-		Provolonoo Index workshoot		(АВ)
1						
2.				Iotal % Cover of:	Multiply by:	-
3				OBL species	x 1 =	-
۵ ۸				FACW species	x 2 =	_
4				FAC species	x 3 =	_
5				FACU species	x 4 =	_
Herb Stratum (Plot size: 5 ft radius		= Total Co	ver	UPL species	x 5 =	
	30	Y	FACW	Column Totals	(A)	(B)
			FAC			_ (2)
				Prevalence Index = B/A	=	_
3				Hydrophytic Vegetation Indi	cators:	
4				1 - Rapid Test for Hydroph	nytic Vegetation	
5				2 - Dominance Test is >50	0%	
6				3 - Prevalence Index is ≤3	3.0 <sup>1</sup>	
7				4 - Morphological Adaptat	ions <sup>1</sup> (Provide sup	porting
8.				data in Remarks or on	a separate sheet)	,
9				5 - Wetland Non-Vascular	<sup>1</sup> Plants <sup>1</sup>	
10				Problematic Hydrophytic \	/egetation <sup>1</sup> (Explai	n)
				<sup>1</sup> Indicators of hydric soil and w	etland hydrology n	, nust
11	40			be present, unless disturbed o	r problematic.	luot
Woody Vine Stratum (Plot size:	40	= Total Cov	/er			
(1 10t 3120:)						
l				Hydrophytic		
2				Present? Yes X	No	
% Rara Cround in Harb Stratum 60		= Total Cov	/er			
Remarks:						
Hydrophytic vegetation present.						

(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-6	10YR 2/1	100					Silty Loam	
6-15	10YR 2/1	40	10YR 6/8	10	С	М	Silty Clay Loam	Prominent Redox
	10YR 3/3	40	N 2.5/	10	С	М	Clay Loam	
15-20	10YR 6/1	80	10YR 6/8	10	с	М	Clay	
			Gley 1 2.5/N	10	С	М	Clay	
Type: C=C	Concentration, D=De	pletion, RI	- M=Reduced Matrix, (	CS=Covere	d or Coate	ed Sand Gra	ains. <sup>2</sup> Lo	cation: PL=Pore Lining, M=Matrix.
ydric Soil	Indicators: (Applie	cable to a	II LRRs, unless oth	erwise not	ted.)		Indicato	ors for Problematic Hydric Soils <sup>3</sup> :
Histosc	ol (A1)		Sandy Redox	: (S5)			2 cr	m Muck (A10)
Histic E	Epipedon (A2)		Stripped Matr	ix (S6)			Rec	d Parent Material (TF2)
Black H	listic (A3)		Loamy Mucky	/ Mineral (F	1) (except	t MLRA 1)	Ver	y Shallow Dark Surface (TF12)
Hydrog	en Sulfide (A4)		Loamy Gleye	d Matrix (F2	2)		Oth	er (Explain in Remarks)
Deplete	ed Below Dark Surfac	ce (A11)	Depleted Mat	rix (F3)				
Thick D	ark Surface (A12)		✓ Redox Dark S	Surface (F6)	)		<sup>3</sup> Indicato	ors of hydrophytic vegetation and
Sandy	Mucky Mineral (S1)		Depleted Dar	k Surface (I	F7)		wetla	and hydrology must be present,
Sandy	Gleyed Matrix (S4)		Redox Depre	ssions (F8)			unles	ss disturbed or problematic.
Restrictive	Layer (if present):							
Type:								
Donth /!.								
Depth (If	nches):						Hydric Soil	Present? Yes X No
Remarks:	nches):						Hydric Soil	Present? Yes X No
Remarks: Hydric s	oil indicator F	6 prese	ent.				Hydric Soil	Present? Yes X No
YDROLC	oil indicator F	6 prese	ent.				Hydric Soil	Present? Yes X No
YDROLC	oil indicator F OGY vdrology Indicators	6 prese	ent.				Hydric Soil	Present? Yes X No
YDROLC Primary Ind	oil indicator F OGY /drology Indicators icators (minimum of	6 prese	ent. red; check all that ap	ply)			Hydric Soil	Present? Yes X No
YDROLC Vetland Hy Surface	oil indicator F OGY ydrology Indicators icators (minimum of e Water (A1)	6 prese	ent. red; check all that ap Water-S	ply) tained Leav	ves (B9) ( <b>e</b>	xcept	Hydric Soil	Present? Yes X No
YDROLC Vetland Hy Primary Ind High W	oil indicator F OGY ydrology Indicators icators (minimum of e Water (A1) later Table (A2)	6 prese	ent. red; check all that ap Water-S MLR	ply) tained Leav A 1, 2, 4A,	/es (B9) (e and 4B)	xcept	Hydric Soil	I Present? Yes X No No Indary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
YDROLC Vetland Hy Primary Ind Saturat	oil indicator F oil indicator F OGY ydrology Indicators icators (minimum of water (A1) 'ater Table (A2) ion (A3)	6 prese	ent. red; check all that ap Water-S MLR Salt Cru	<u>ply)</u> tained Leav <b>A 1, 2, 4A,</b> st (B11)	/es (B9) ( <b>e</b> and <b>4B)</b>	xcept	Hydric Soil	I Present? Yes X No
YDROLC Vetland Hy Primary Ind Saturat Water I	oil indicator F OGY ydrology Indicators icators (minimum of Water (A1) 'ater Table (A2) ion (A3) Marks (B1)	6 prese	ent. red; check all that ap Water-S Water-S MLR Salt Cru Aquatic.	ply) tained Leav A 1, 2, 4A, st (B11)	/es (B9) ( <b>e</b> and <b>4B)</b>	xcept	Hydric Soil	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10)
YDROLC YDROLC YDROLC Vetland Hy Primary Ind Surface High W Saturat Sedime	oil indicator F OGY ydrology Indicators icators (minimum of e Water (A1) ater Table (A2) ion (A3) Marks (B1) ext Deposits (B2)	6 prese	ent. red; check all that ap Water-S MLR Salt Cru Aquatic Hydroge	<u>ply)</u> tained Leav <b>A 1, 2, 4A,</b> st (B11) Invertebrate	/es (B9) ( <b>e</b> <b>and 4B)</b> es (B13)	xcept	Hydric Soil	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLC YDROLC YDROLC Vetland Hy Primary Ind Surface High W Saturat Saturat Sedime	oil indicator F OGY ydrology Indicators icators (minimum of a Water (A1) dater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) posite (B2)	6 prese	ent. red; check all that ap Water-S MLR Salt Cru Aquatic Hydroge Ovidized	ply) tained Leav A 1, 2, 4A, st (B11) Invertebrate en Sulfide O	ves (B9) ( <b>e</b> <b>and 4B)</b> es (B13) odor (C1)	xcept	Hydric Soil            Second            V            V            V            V            V            V	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C
	oil indicator F oil indicator F OGY ydrology Indicators icators (minimum of a Water (A1) dater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) let or Crust (P4)	6 prese	ent. red; check all that ap Water-S MLR Salt Cru Aquatic Hydroge Oxidizec Oxidizec	ply) tained Leav A 1, 2, 4A, st (B11) Invertebrate on Sulfide O I Rhizosphe	ves (B9) ( <b>e</b> <b>and 4B)</b> es (B13) odor (C1) eres along	xcept	Hydric Soil	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2)
Primary Ind Control C	oil indicator F OGY ydrology Indicators icators (minimum of e Water (A1) dater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4)	6 prese	ent. red; check all that ap Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc	tained Leav A 1, 2, 4A, st (B11) Invertebrate on Sulfide O d Rhizosphe e of Reduce	ves (B9) (e and 4B) es (B13) odor (C1) eres along ed Iron (C4	xcept	Hydric Soil	ndary Indicators (2 or more required) Nater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) Si Co Neutral Tast (D5)
Pepin (II Remarks: Iydric s YDROLC Yetland Hy Primary Ind Surface High W Saturat Water I Saturat Drift De Algal M Inn De	oil indicator F oil indicator F oGY ydrology Indicators icators (minimum of a Water (A1) dater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) a dialogo (D2)	6 prese	ent. red; check all that ap Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I	ply) tained Leav A 1, 2, 4A, st (B11) Invertebrate on Sulfide O d Rhizosphe e of Reduct	ves (B9) ( <b>e</b> <b>and 4B)</b> es (B13) odor (C1) eres along ed Iron (C4 ion in Tille	xcept Living Root 4) d Soils (C6)	Hydric Soil	ndary Indicators (2 or more required) Nater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) SAC-Neutral Test (D5)
	oil indicator F oil indicator F oGY ydrology Indicators icators (minimum of e Water (A1) dater Table (A2) ion (A3) Warks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6)	6 prese	ent. red; check all that ap Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted	ply) tained Leav A 1, 2, 4A, st (B11) Invertebrate n Sulfide O d Rhizosphe e of Reduct ron Reduct or Stressec	ves (B9) ( <b>e</b> <b>and 4B)</b> es (B13) odor (C1) eres along ed Iron (C4 ion in Tille d Plants (D	Living Root 4) d Soils (C6) 1) (LRR A)	Hydric Soil Seco V C C C S is (C3) <u>✓</u> G S 0 <u>✓</u> F F	ndary Indicators (2 or more required) Nater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Seomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
	oil indicator F oil indicator F OGY ydrology Indicators icators (minimum of e Water (A1) 'ater Table (A2) ion (A3) Warks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aerial	6 prese	ent. red; check all that ap Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted B7) Other (E	ply) tained Leav A 1, 2, 4A, st (B11) Invertebrate on Sulfide O I Rhizosphe e of Reduct or Reduct or Stressec ixplain in Re	ves (B9) ( <b>e</b> <b>and 4B)</b> es (B13) odor (C1) eres along ed Iron (C4 ion in Tille d Plants (D emarks)	xcept Living Root 4) d Soils (C6) 1) (LRR A)	Hydric Soil	ndary Indicators (2 or more required) Nater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
	oil indicator F oil indicator F OGY ydrology Indicators icators (minimum of a Water (A1) 'ater Table (A2) ion (A3) Warks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) a Soil Cracks (B6) tion Visible on Aerial ly Vegetated Concav	6 prese	ent. ed; check all that ap Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted B7) Other (E	ply) tained Leav A 1, 2, 4A, st (B11) Invertebrate on Sulfide O I Rhizosphe e of Reduct ron Reduct or Stressec ixplain in Re	ves (B9) ( <b>e</b> <b>and 4B)</b> es (B13) odor (C1) eres along ed Iron (C4 ion in Tille d Plants (D emarks)	Living Root ) d Soils (C6) 1) (LRR A)	Hydric Soil Seco V C C C S (C3) ✓ G S F F	I Present? Yes X No No No N
Perin (IT Remarks: YDROLC YDROLC YOROLC Vetland Hy Primary Ind Surface High W Saturat Saturat Saturat Nater I Saturat Nater I Surface Iron De ✓ Surface Inundat Sparse Sparse	oil indicator F oil indicator F OGY ydrology Indicators icators (minimum of a Water (A1) 'ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aerial ly Vegetated Concav rvations:	6 prese	ent. ed; check all that ap Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted B7) Other (E	ply) tained Leav A 1, 2, 4A, st (B11) Invertebrate on Sulfide O d Rhizosphe e of Reduct ron Reduct or Stressec ixplain in Re	ves (B9) ( <b>e</b> <b>and 4B)</b> es (B13) odor (C1) eres along ed Iron (C4 ion in Tille d Plants (D emarks)	xcept Living Root 4) d Soils (C6) 1) (LRR A)	Hydric Soil	I Present? Yes X No I Mary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) SAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Pepin (IT Remarks: YDROLC YDROLC Yetland Hy Primary Ind Surface High W Saturat Sedime Sedime Sedime Surface Iron De ✓ Surface Surface Sparse Surface Wa	oil indicator F oil indicator F OGY ydrology Indicators icators (minimum of a Water (A1) fater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) a Soil Cracks (B6) tion Visible on Aerial ly Vegetated Concav rvations: tter Present?	6 prese	ent. red; check all that ap Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted B7) Other (E P(B8)	ply) tained Leav A 1, 2, 4A, st (B11) Invertebrate on Sulfide O d Rhizosphe e of Reduct ron Reduct or Stressec inches):	ves (B9) ( <b>e</b> <b>and 4B)</b> es (B13) odor (C1) eres along ed Iron (C4 ion in Tille d Plants (D emarks)	xcept Living Root 4) d Soils (C6) 1) (LRR A)	Hydric Soil	I Present? Yes X No Indary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) GAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Peprin (IT Remarks: Hydric s YDROLO YDROLO Vetland Hy Primary Ind Surface High W Saturat Water I Sedime Surface Algal M Iron De ✓ Surface Inundal Sparse Surface Wa Nater Table	oil indicator F oil indicator F OGY ydrology Indicators icators (minimum of a Water (A1) dater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) aposits (B3) lat or Crust (B4) aposits (B5) a Soil Cracks (B6) tion Visible on Aerial ly Vegetated Concav rvations: ter Present?	6 prese	ent. red; check all that ap Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted B7) Other (E (B8) No X Depth (	ply) tained Leav A 1, 2, 4A, st (B11) Invertebrate on Sulfide O I Rhizosphe e of Reduct or Stressec inches): inches):	ves (B9) (e and 4B) es (B13) odor (C1) eres along ed Iron (C4 ion in Tille d Plants (D emarks)	xcept Living Root 4) d Soils (C6) 1) (LRR A)	Hydric Soil	I Present? Yes X No I Mary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) GAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

(includes capillary ininge)			
Describe Recorded Data (stream gauge	, monitoring well, aerial photos,	previous inspec	tions), if available:

Remarks:

Hydrology present with surface soil cracks as a primary hydrology indicator.

Project/Site: SR-224 BRT	_ City/County: Sum	nmit County	Sampling Date: 08/24/2021
Applicant/Owner: Summit County		State: Utah	Sampling Point: SP-16
Investigator(s):	Section, Townshi	p, Range: <u>S19, T1S, R4E</u>	
Landform (hillslope, terrace, etc.): Hillslope	Local relief (conc	ave, convex, none): <u>None</u>	Slope (%): <u>15</u>
Subregion (LRR): LRR E Lat: 4	0.721118	Long: <u>-111.54503</u>	Datum: NAD83
Soil Map Unit Name: <u>Wanship loam, 0 to 3 percent slopes</u>		NWI classific	cation:
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significan	tly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	ng sampling po	int locations, transects	, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No <u>×</u> No No <u>×</u>	Is the Sampled Area within a Wetland?	Yes	No <u>×</u>
Remarks:					

No soil pit was dug due to lack of hydrophytic vegetation and lack of surface hydrology indicators. Sampling point does not meet the criteria for a wetland.\*Sampling point W-1-OUT in SR224 BRT Delineation Report.

	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft radius )	% Cover	Species? Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC: 0 (A)
2			Total Number of Deminant
3.			Species Across All Strata: 1 (B)
4			(-)
	·	- Total Cover	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 15 ft radius			That Are OBL, FACW, or FAC: (A/B)
<u></u>			Prevalence Index worksheet:
·	·		Total % Cover of:Multiply by:
2	·		OBL species $0$ $x = 0$
3	·		FACW species $0$ x 2 = $0$
4	·		FAC species $0$ $x_3 = 0$
5	·		EACLI species $\frac{30}{x^4} = \frac{120}{x^4}$
5 ft radius		= Total Cover	
Herb Stratum (Plot size: 5 it radius )			$\begin{array}{c} \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  \underline{}  x \text{ 5} = \underline{} \\ \text{OPL species}  x \text{ 5} \\ \text{ 5} \\ \text{OPL species}  x \text{ 5} \\ $
1. Eriogonum ovalifolium	30	Y FACU	Column Totals: $30$ (A) $120$ (B)
2			Prevalence Index = $B/A = 4.0$
3			Hydrophytic Vegetation Indicators:
4.			1 - Rapid Test for Hydrophytic Vegetation
5.			2 - Dominance Test is >50%
6	·		
7	·		$\sim$ 3 - Prevalence index is $\leq$ 3.0
8			data in Remarks or on a separate sheet)
9			5 - Wetland Non-Vascular Plants <sup>1</sup>
10			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11	30		be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:	50	= Total Cover	
1			
1	·		Hydrophytic Vegetation
2	·		Present? Yes No X
% Bara Ground in Harb Stratum 70		= Total Cover	
Remarks:			
Opland vegetation present.			

(inches) Co	olor (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
ype: C=Concent	ration, D=Depl	etion, RM=Re	educed Matrix, C	S=Covered	or Coated	d Sand Gra	ins. <sup>2</sup> Lo	ocation: PL=Pore Lining, M=Matrix.
dric Soil Indica/	tors: (Applica	able to all LR	Rs, unless othe	rwise note	ed.)		Indicat	ors for Problematic Hydric Soils <sup>3</sup> :
_ Histosol (A1)			_ Sandy Redox (	S5)			2 c	m Muck (A10)
_ Histic Epipedo	n (A2)		_ Stripped Matrix	(S6)			Re	d Parent Material (TF2)
Black Histic (A	3)		Loamy Mucky I	Mineral (F1	) (except	MLRA 1)	Ve	ry Shallow Dark Surface (TF12)
_ Hydrogen Sull Depleted Belov	ide (A4) M Dark Surface	(A11)	_ Loamy Gleyed	Matrix (F∠) √ (F3)	)		Ou	ner (Explain in Remarks)
Thick Dark Su	face (A12)		Redox Dark Su	rface (F6)			<sup>3</sup> Indicat	tors of hydrophytic vegetation and
Sandy Mucky I	Mineral (S1)		Depleted Dark	Surface (F	7)		wetl	and hydrology must be present,
_ Sandy Gleyed	Matrix (S4)		_ Redox Depress	ions (F8)	,		unle	ess disturbed or problematic.
				( )				
estrictive Layer	(if present):			( )				
Type: <u>Roadfill</u>	(if present):							
Type: Roadfill Depth (inches):	(if present):		_				Hydric So	il Present? Yes No
Type: <u>Roadfill</u> Depth (inches): Remarks:	(if present):		_				Hydric So	il Present? Yes No
Type: <u>Readfill</u> Depth (inches): Remarks:	(if present):	e to lack (	_ _ of hydrophy	tic veg	etation	and lac	Hydric So	il Present? Yes No
Type: Roadfill Depth (inches): Remarks:	o o as dug due	e to lack o	 of hydrophy	tic vege	etation	and lac	Hydric So k of surf	il Present? Yes No face hydrology indicators.
estrictive Layer Type: <u>Roadfill</u> Depth (inches): emarks: O SOII pit Wa	(if present): o as dug due	e to lack o	 of hydrophy	tic vege	etation	and lac	Hydric So k of surf	il Present? Yes No face hydrology indicators.
estrictive Layer Type: <u>Roadfill</u> Depth (inches): emarks: o soil pit Wa 'DROLOGY	o o as dug due	e to lack o	 of hydrophy	tic vege	etation	and lac	Hydric So k of surf	il Present? Yes No face hydrology indicators.
Type: Roadfill Depth (inches): emarks: o soil pit wa DROLOGY etland Hydrolog	o o as dug due y Indicators:	e to lack o	 of hydrophy	tic vege	etation	and lac	Hydric So k of surf	il Present? Yes No face hydrology indicators.
Type: <u>Roadfill</u> Depth (inches): emarks: O SOII pit Wa DROLOGY etland Hydrolog	(if present): o as dug due y Indicators: (minimum of o	e to lack (		tic vege	etation	and lac	Hydric So k of surf	il Present? Yes No face hydrology indicators.
Type: Roadfill Depth (inches): emarks: O SOII pit Wa DROLOGY etland Hydrolog imary Indicators Surface Water	o as dug due y Indicators: (minimum of o (A1)	e to lack (	of hydrophy	tic vege	etation	and lac	Hydric So k of surf	il Present? Yes No face hydrology indicators.
Type: Roadfill     Depth (inches):     marks:     O SOIL pit Wa     DROLOGY     etland Hydrolog     imary Indicators     _ Surface Water     High Water Ta	(if present): as dug due y Indicators: (minimum of o (A1) ble (A2)	e to lack o	 of hydrophy <u>heck all that appl</u> Water-Sta MLRA	tic vege	etation es (B9) (ex nd 4B)	and lac	Hydric Sol k of surf	il Present? Yes <u>No</u> face hydrology indicators. ondary Indicators (2 or more required) Water-Stained Leaves (B9) ( <b>MLRA 1</b> , <b>4A, and 4B</b> )
Strictive Layer     Type: Roadfill     Depth (inches):     marks:     o soil pit wa     DROLOGY     etland Hydrolog     imary Indicators     _ Surface Water     High Water Ta     Saturation (A3	o as dug due y Indicators: (minimum of o (A1) ble (A2) )	e to lack (		tic vege y) ined Leave 1, 2, 4A, a (B11)	etation es (B9) (ex nd 4B)	and lac	Hydric Sol k of surf	il Present? Yes <u>No</u> face hydrology indicators.
Strictive Layer     Type: Roadfill     Depth (inches):     marks:     O SOII pit Wa      DROLOGY etland Hydrolog imary Indicators     Surface Water     High Water Ta     Saturation (A3     Water Marks (I	(if present): 0 as dug due y Indicators: (minimum of o (A1) ble (A2) ) B1)	e to lack (		tic vege y) ined Leave 1, 2, 4A, a (B11) vertebrates	etation es (B9) (ex nd 4B) s (B13)	and lac	Hydric So k of surf	il Present? Yes No face hydrology indicators. ondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Strictive Layer     Type: Roadfill     Depth (inches):     emarks:     O Soil pit Wa      DROLOGY      etland Hydrolog      imary Indicators     Surface Water     High Water Ta     Saturation (A3     Water Marks (I     Sediment Dep	as dug due y Indicators: (minimum of o (A1) ble (A2) B1) osits (B2)	e to lack o	 of hydrophy <u>check all that appl</u> Water-Sta Salt Crust Aquatic In Hydrogen	tic vege y) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od	etation es (B9) (ex nd 4B) s (B13) lor (C1)	and lac	Hydric So k of surf	il Present? Yes No face hydrology indicators. ondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C
Strictive Layer     Type: Roadfill     Depth (inches):     Depth (inches):     Coold pit wa     Doold pit wa     Doold pit wa     DROLOGY     etland Hydrolog     imary Indicators     Surface Water     High Water Ta     Saturation (A3     Water Marks (I     Sediment Depo     Drift Deposits	(if present): 0 as dug due y Indicators: (minimum of o (A1) ble (A2) ) B1) osits (B2) (B3)	e to lack (		tic vege ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher	etation es (B9) (ex nd 4B) s (B13) lor (C1) res along L	and lac	Hydric Sol k of surf	il Present? Yes No face hydrology indicators. ondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2)
Serifictive Layer     Type: Roadfill     Depth (inches):     emarks:     O Soil pit Wa     DROLOGY     etland Hydrolog     imary Indicators     Surface Water     High Water Ta     Saturation (A3     Water Marks (I     Sediment Dep     Drift Deposits     Algal Mat or C	(if present): 0 as dug due y Indicators: (minimum of o (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4)	e to lack (		tic vege ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced	etation es (B9) (ex nd 4B) s (B13) lor (C1) es along L d Iron (C4	and lac	Hydric Sol k of surf	il Present? Yes <u>No</u> face hydrology indicators. face hydrology indicators. pondary Indicators (2 or more required) Water-Stained Leaves (B9) ( <b>MLRA 1</b> , <b>4A, and 4B</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3)
Strictive Layer     Type: Roadfill     Depth (inches):     emarks:     O SOIL pit Wa      DROLOGY     etland Hydrolog     imary Indicators     _ Surface Water     High Water Ta     Saturation (A3     Water Marks (I     Sediment Dep     Drift Deposits     Algal Mat or C     Iron Deposits (	(if present): 0 as dug due y Indicators: (minimum of o (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5)	e to lack (		tic vege tic vege y) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reducer on Reductic	etation es (B9) (ex nd 4B) s (B13) lor (C1) res along L d Iron (C4 on in Tilled	and lac ccept	Hydric Sol k of surf	il Present? Yes No face hydrology indicators. face hydrology indicators. pondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Type: Roadfill Depth (inches): Pemarks: O Soil pit Wa DROLOGY Cetland Hydrolog Cimary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Dep Drift Deposits ( Algal Mat or Ci Iron Deposits ( Surface Soil C	(if present): 0 as dug due y Indicators: (minimum of o (A1) ble (A2) ) B1) osits (B2) (B3) rrust (B4) B5) racks (B6)	e to lack o		y) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced on Reduction r Stressed	etation es (B9) (ex nd 4B) s (B13) lor (C1) es along L d Iron (C4 pin in Tilled Plants (D1	and lac	Hydric Sol k of surf	il Present? Yes No face hydrology indicators. face hydrology indicators. face hydrology indicators. face hydrology indicators. face hydrology indicators. face hydrology indicators. (Bendary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
estrictive Layer Type: Roadfill Depth (inches): emarks: O SOIL pit Wa PROLOGY Pathematical Provided Augustication (Marcel Water Talling) Control Control Contr	(if present): 0 as dug due as dug due y Indicators: (minimum of o (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) racks (B6) ible on Aerial In	e to lack o	bf hydrophy check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted ou Other (Exp	tic vege ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced on Reduction r Stressed Iolain in Rer	etation es (B9) (ex nd 4B) s (B13) lor (C1) res along L d Iron (C4 on in Tilled Plants (D1 marks)	and lac and lac	Hydric Sol k of surf	il Present? Yes No face hydrology indicators. face hydrology indicators. ondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
estrictive Layer Type: Roadfill Depth (inches): emarks: O SOIL DIT Wa /DROLOGY /etland Hydrolog rimary Indicators _ Surface Water _ High Water Ta _ Saturation (A3 _ Water Marks (I _ Sediment Dep _ Drift Deposits ( _ Algal Mat or C _ Iron Deposits ( _ Surface Soil C _ Inundation Visi _ Sparsely Vege	(if present): 0 as dug due y Indicators: (minimum of o (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) racks (B6) ible on Aerial II tated Concave	e to lack ( ne required; c nagery (B7) Surface (B8)	bf hydrophy heck all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	tic vege tic vege ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced on Reduction Stressed olain in Rer	etation es (B9) (ex nd 4B) s (B13) lor (C1) es along L d Iron (C4 on in Tilled Plants (D1 marks)	and lac and lac	Hydric Sol	il Present? Yes No face hydrology indicators. face hydrology indicators. face hydrology indicators. face hydrology indicators. face hydrology indicators. face hydrology indicators. (Data for the second
estrictive Layer Type: Roadfill Depth (inches): emarks: O SOII pit Wa /DROLOGY /etland Hydrolog rimary Indicators 	(if present): 0 as dug due y Indicators: (minimum of o (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) rust (B4) B5) racks (B6) ible on Aerial In tated Concave s:	e to lack ( ne required; c nagery (B7) Surface (B8)		tic vege tic vege y) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced on Reductio r Stressed plain in Rer	etation es (B9) (ex nd 4B) s (B13) lor (C1) res along L d Iron (C4 on in Tilled Plants (D1 marks)	and lac and lac ccept iving Roots ) I Soils (C6) I) (LRR A)	Hydric Sol	il Present? Yes No face hydrology indicators. face hydrology indicators. ondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Type: Readfill Depth (inches): Remarks: Do Soil pit wa PDROLOGY Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Depoints ( Algal Mat or Ci Iron Deposits ( Surface Soil C Inundation Visi Sparsely Vege ield Observation urface Water Pres	(if present): 0 as dug due y Indicators: (minimum of o (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) racks (B6) ible on Aerial In tated Concave s: sent? Ye	e to lack ( ne required; c magery (B7) Surface (B8)		tic vege ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduce on Reductio r Stressed olain in Rer ches):	etation es (B9) (ex nd 4B) s (B13) lor (C1) res along L d Iron (C4 on in Tilled Plants (D1 marks)	and lac and lac ccept	Hydric Sol	il Present? Yes No face hydrology indicators. face hydrology indicators. face hydrology indicators. face hydrology indicators. face hydrology indicators. face hydrology indicators. Mater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Setrictive Layer Type: Roadfill Depth (inches): Depth (inches	(if present): 0 as dug due y Indicators: (minimum of o (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) racks (B6) ible on Aerial In tated Concave s: sent? Ye	e to lack ( me required; c magery (B7) Surface (B8) es No es No		tic vege tic vege ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduceto r Stressed olain in Rer ches): ches):	etation es (B9) (ex nd 4B) s (B13) lor (C1) res along L d Iron (C4 on in Tilled Plants (D1 marks)	and lac	Hydric Sol	il Present? Yes No face hydrology indicators. face hydrology indicators. ondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Remarks:

Saturation Present? (includes capillary fringe)

No surface hydrology indicators present.

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

U.S. Army Cor WETLAND DETERMINATION DATA SHEET - See ERDC/EL TR-10-3; the pro-	<b>ps of Eng</b> Western M oponent a	<b>gineers</b> ountains, Va gency is CE	lleys, and C ECW-CO-F	Coast Region २	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Kimball Junction EIS	•	<u> </u>	ntv: Summi	t Countv	Sampling Date: 8/7/2023
Applicant/Owner: UDOT				State: U	JT Sampling Point: SP-17
Investigator(s): Joshua McMillin. Lacev Wilder		Section.	ownship. Ra	ange: S19. T1S. F	R4E
Landform (hillside. terrace. etc.): Basin		Local relief (c	oncave. con	vex. none): Conc	cave Slope (%): 2
Subregion (LRR): LRR F Lat: 40.720	)58487	(	long -	111 5451584	Datum: NAD83
Soil Map Unit Name: Harter gravely loam, 2 to 15 percent	ent slopes			NWI	classification:
Are climatic / hydrologic conditions on the site typical for	or this time o	of year?	Yes	No (lf r	no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology	significantly	disturbed?	Are "Normal (	Circumstances" pre	esent? Yes X No
Are Vegetation , Soil , or Hydrology	naturally pro	blematic? (	If needed, ex	plain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site ma	ap showii	ng samplin	g point lo	cations, trans	ects, important features, etc.
Hydrophytic Vegetation Present?       Yes       No         Hydric Soil Present?       Yes       No         Wetland Hydrology Present?       Yes       No	o oX oX	ls the withi	e Sampled A n a Wetland	vrea I? Yes	NoX
Remarks: Sampling point does not meet the criteria for a wetlan	d.				
VEGETATION – Use scientific names of p	lants.				
Tree Stratum (Plot size: _30 ft radius )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Te	st worksheet:
1				Number of Dom Are OBL FACV	ninant Species That N or FAC <sup>2</sup> (A)
3.				Total Number o	of Dominant Species
4				Across All Strat	ta: <u>2</u> (B)
Sapling/Shrub Stratum (Plot size: 15 ft radius 1.	)	= I otal Cover		Percent of Dom Are OBL, FACV	hinant Species That N, or FAC: <u>100.0%</u> (A/B)
2.				Prevalence Ind	dex worksheet:
3				Total % Co	over of: Multiply by:
4				OBL species	$0 \times 1 = 0$
<sup>5.</sup>		=Total Cover		FAC v species	$\frac{70}{5}$ x 3 = 15
Herb Stratum (Plot size: 5 ft radius )				FACU species	$\frac{0}{0}$ x 4 = 0
1. Juncus arcticus ssp. littoralis	20	Yes	FACW	UPL species	0 x 5 = 0
2. Carex praegracilis	50	Yes	FACW	Column Totals:	75 (A) 155 (B)
3. Rumex crispus	5	No	FAC	Prevalence I	Index = B/A =2.07
4				Hydrophytic V	egetation Indicators:
6.				1 - Rapid T	est for Hydrophytic Vegetation
7.				X 2 - Dominal	nce Test is >50%
8.				3 - Prevaler	nce Index is ≤3.0 <sup>1</sup>
9				4 - Morphol	ogical Adaptations <sup>1</sup> (Provide supporting
10				data in R	Remarks or on a separate sheet)
<sup>11.</sup>		-Total Covor		5 - Wetland	d Non-Vascular Plants <sup>*</sup>
Woody Vine Stratum (Plot size:	)			<sup>1</sup> Indicators of hy	ydric soil and wetland hydrology must
2		·		be present, unle	ess disturbed or problematic.
% Bare Ground in Herb Stratum25		=Total Cover		Hydrophytic Vegetation Present?	Yes_X No
Remarks: Hydrophytic vegetation present.					

ENG FORM 6116-9, JUL 2018

Profile Des	cription: (Describe t	o the depth	needed to docu	ument the in	ndicat	or or c	onfirm the	absence of in	dicators.)	
Depth	Matrix		Redo	x Features						
(inches)	Color (moist)	%	Color (moist)	<u>%</u> T	ype	Loc <sup>∠</sup>	Tex	ture	Remarks	
0-20	10YR 2/1	100					Loamy	Clayey		
	_									
					·					
					·					
					·			<u> </u>		
					·					
<sup>1</sup> Type: C=C	Concentration, D=Depl	etion, RM=Re	educed Matrix, C	S=Covered	l or Coa	ated Sa	and Grains.	<sup>2</sup> Location	: PL=Pore Linin	ig, M=Matrix.
Hydric Soil	Indicators: (Applical	ble to all LR	Rs, unless othe	rwise note	d.)			Indicators fo	r Problematic F	lydric Soils <sup>3</sup> :
Histoso	ol (A1)		Sandy Gle	yed Matrix (	(S4)			2 cm Mu	ck (A10) <b>(LRR A</b>	, E)
Histic E	ipipedon (A2)		Sandy Red	dox (S5)				Iron-Man	ganese Masses	(F12) <b>(LRR D)</b>
Black H	listic (A3)		Stripped N	latrix (S6)				Red Pare	ent Material (F21	)
Hydrog	en Sulfide (A4)		Loamy Mu	cky Mineral	(F1) <b>(</b> €	except	MLRA 1)	Very Sha	llow Dark Surfac	ce (F22)
1 cm M	luck (A9) <b>(LRR D, G)</b>		Loamy Gle	eyed Matrix	(F2)			Other (E)	kplain in Remark	s)
Deplete	ed Below Dark Surface	(A11)	Depleted N	√atrix (F3)				2		
Thick D	)ark Surface (A12)		Redox Dar	rk Surface (I	F6)			°Indicators of	hydrophytic veg	etation and
Sandy I	Mucky Mineral (S1)		Depleted [	Jark Surface	e (F7)			wetland h	nydrology must b	oe present,
2.5 cm	Mucky Peat or Peat (S	32) <b>(LRR G)</b>	Redox Dep	pressions (F	-8)			unless di	sturbed or proble	ematic.
Restrictive	Layer (if observed):									
Type:			_							
Depth (	(inches):		_				Hydric So	oil Present?	Yes	No_X
Remarks:										
No hydric se	oil indicators present.									
HYDROLO	OGY									
Wetland Hy	ydrology Indicators:									
Primary Ind	licators (minimum of o	ne is required	<del>ا; check all that a</del>	apply)				Secondary In	dicators (2 or mo	ore required)
Surface	e Water (A1)		Water-Sta	ined Leaves	s (B9) (	except	t	Water-St	ained Leaves (B	9) ( <b>MLRA 1, 2</b>
High W	/ater Table (A2)		MLRA	1, 2, 4A, an	d 4B)			4A, ar	nd 4B)	
Saturat	ion (A3)		Salt Crust	(B11)				Drainage	Patterns (B10)	
Water I	Marks (B1)		Aquatic In	vertebrates	(B13)			Dry-Seas	on Water Table	(C2)

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one is required	; check all that apply)	Secondary Indicators (2 or more required)		
Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2		
High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	4A, and 4B)		
Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)		
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)		
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Oxidized Rhizospheres on Living Roo	ots (C3) Geomorphic Position (D2)		
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)		
Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils	(C6) X FAC-Neutral Test (D5)		
Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRI	R A) Raised Ant Mounds (D6) (LRR A)		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)		
Sparsely Vegetated Concave Surface (B8)				
Field Observations:				
Surface Water Present? Yes	No X Depth (inches):			
Water Table Present? Yes	No X Depth (inches):			
Saturation Present? Yes	No X Depth (inches):	Wetland Hydrology Present? Yes No X		
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monit	oring well, aerial photos, previous inspectio	ons), if available:		
Remarks:				
No hydrology indicators present.				

U.S. Army Cor	ps of Enginee	rs		OMB Control #: 0710-0024	, Exp: 11/30/2024
See ERDC/EL TR-10-3; the pro	ponent agenc	ins, Valleys, and y is CECW-CO-	Coast Region R	(Authority: AR 335-15, p	mbol EXEMP1: paragraph 5-2a)
Project/Site: Kimball Junction EIS	0	City/County: Summ	it County	Sampling Dat	e: 8/7/2023
Applicant/Owner: UDOT			State: U	JT Sampling Poir	nt: SP-18
Investigator(s): Joshua McMillin, Lacey Wilder	Se	ection, Township, R	ange: S19, T1S, F	R4E	
Landform (hillside, terrace, etc.): Terrace	Local	relief (concave, cor	ivex, none): Conc	ave S	Slope (%): 1
Subregion (LRR): LRR E Lat: 40.719	30695	Long:	-111.5452271	Datur	n: NAD83
Soil Map Unit Name: Harter gravelly loam, 2 to 15 perce	ent slopes		NWI	classification:	
Are climatic / hydrologic conditions on the site typical fo	r this time of year	? Yes	No (lf r	no, explain in Remarks	.)
Are Vegetation , Soil , or Hydrology s	ignificantly disturb	ed? Are "Normal	Circumstances" pre	esent? Yes X	No
Are Vegetation , Soil , or Hydrology n	aturally problema	tic? (If needed, e	xplain any answers	in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	p showing sa	mpling point lo	ocations, trans	ects, important fe	eatures, etc.
Hydrophytic Vegetation Present? Yes X No	,	Is the Sampled	Area		
Hydric Soil Present? Yes X No		within a Wetlan	d? Yes	<u>    X        No                        </u>	
Wetland Hydrology Present? Yes X No					
Remarks:					
Sampling point meets the chiena for a wetland.					
VEGETATION – Use scientific names of pl	ants.				
	Absolute Don	ninant Indicator			
Tree Stratum (Plot size: <u>30 ft radius</u> )	% Cover Spe	cies? Status	Dominance Tes	st worksheet:	
1			Number of Dom	inant Species That	3 (A)
2			Total Number of	f Deminent Species	<u> </u>
4.			Across All Strat	a:	3 (B)
	=Tota	Cover	Percent of Dom	inant Species That	
Sapling/Shrub Stratum (Plot size: 15 ft radius )			Are OBL, FACW	V, or FAC:	100.0% (A/B)
1					
2			Prevalence Ind	lex worksheet:	in had had a
3				30 x 1 -	
T			FACW species	<u>40</u> x 2 =	80
·	=Tota	Cover	FAC species	40 x 3 =	120
Herb Stratum (Plot size: 5 ft radius )			FACU species	0 x 4 =	0
1. Alopecurus pratensis	40Y	es FAC	UPL species	0 x 5 =	0
2. Carex aquatilis	<u>30 \</u>	′es OBL	Column Totals:	110 (A)	230 (B)
3. Juncus arcticus ssp. littoralis	<u>40</u>	es FACW	Prevalence I	ndex = B/A =2	2.09
4				actation Indicators.	
5				egetation indicators:	notation
7			X 2 - Dominar	nce Test is >50%	getation
8.			X 3 - Prevaler	nce Index is $\leq 3.0^1$	
9.			4 - Morpholo	ogical Adaptations <sup>1</sup> (Pro	ovide supporting
10			data in R	emarks or on a separa	ite sheet)
11			5 - Wetland	l Non-Vascular Plants <sup>1</sup>	
Weeder View Obstance (District	<u>110</u> =Tota	l Cover		c Hydrophytic Vegetatio	on <sup>1</sup> (Explain)
Woody Vine Stratum         (Plot size:)           1			<sup>1</sup> Indicators of hy be present, unle	/dric soil and wetland h ess disturbed or proble	ydrology must matic.
2			Hydrophytic		
% Bare Ground in Horb Stratum	=Tota	Cover	Vegetation Present2	Vas V Na	
			FIESEIIL!	103 <u>^</u> NO_	

Profile Des	cription: (Describe t	o the dept	n needed to doc	ument th	ne indica	tor or c	onfirm the absence of indicators.)	
Depth	Matrix		Redo	x Featur	es			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	TextureRe	emarks
0-4	10YR 2/2	100					Loamy/Clayey	
4-17	10YR 2/1	87	7.5YR 4/6	13	С	М	Loamy/Clayey Prominent red	dox concentrations
	·							
	oncontration D-Don		Poducod Matrix (		rod or C		and Grains <sup>2</sup> Location: PL = Poro Li	ning M-Matrix
Hydric Soil	Indicators: (Applica	ble to all I	RRs unless othe	rwise n	oted )	Jaleu Ja	Indicators for Problemati	c Hydric Soils <sup>3</sup>
Histosol	(A1)		Sandy Gle	ved Mat	rix (S4)		2 cm Muck (A10) (LRF	R A. E)
Histic E	pipedon (A2)		Sandy Re	dox (S5)	()		Iron-Manganese Mass	es (F12) <b>(LRR D)</b>
Black H	istic (A3)		Stripped N	1atrix (S6	5)		Red Parent Material (F	21)
Hvdroae	en Sulfide (A4)		Loamv Mu	ickv Mine	eral (F1)	(except	MLRA 1) Verv Shallow Dark Sur	face (F22)
1 cm Mi	uck (A9) (LRR D, G)		Loamy Gle	eved Mat	rix (F2)		Other (Explain in Rema	arks)
 Deplete	d Below Dark Surface	e (A11)	Depleted I	Matrix (F:	3)		、 、	,
Thick Da	ark Surface (A12)	( )	X Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicators of hydrophytic v	regetation and
Sandy N	Mucky Mineral (S1)		Depleted I	Dark Surf	face (F7)		wetland hydrology mus	st be present,
2.5 cm I	Mucky Peat or Peat (S	62) <b>(LRR G</b> )	Redox De	pressions	s (F8)		unless disturbed or pro	blematic.
Restrictive	Layer (if observed):							
Type:								
Depth (i	inches):		_				Hydric Soil Present? Ye	es <u>X</u> No
Remarks: Hydric soil ir	ndicator F6 present.							
HYDROLO	DGY							
Wetland Hv	drology Indicators:							
Drimony Indi	cators (minimum of o	na is raquir	d check all that	annly)			Secondary Indicators (2 or	more required)

Primary Indicators (minimum of one is required	; check all that apply)	Secondary Indicators (2 or more required)			
Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2			
High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	4A, and 4B)			
Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)			
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)			
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (				
Drift Deposits (B3)	Oxidized Rhizospheres on Living Roots (C3) Geomorphic Position (D2)				
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4) Shallow Aquitard (D3)				
Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils	(C6) X FAC-Neutral Test (D5)			
X Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRI	R A) Raised Ant Mounds (D6) (LRR A)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)			
Sparsely Vegetated Concave Surface (B8)					
Field Observations:					
Surface Water Present? Yes	No X Depth (inches):				
Water Table Present? Yes					
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes					
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitor	oring well, aerial photos, previous inspectio	ons), if available:			
Remarks:					
Hydrology present with surface soil cracks as a	primary hydrology indicator.				

U.S. Army Cor	ps of Eng	gineers			OMB Control #: 0	710-0024, Exp	o: 11/30/2024
WETLAND DETERMINATION DATA SHEET – V See ERDC/EL TR-10-3; the pro	<b>Vestern M</b> oponent a	ountains, Va gency is CE	lleys, and C CW-CO-I	Coast Region २	Requirement Co (Authority: AR 3	ontrol Symbo 335-15, parag	l EXEMPT: raph 5-2a)
Project/Site: Kimball Junction EIS		City/Cou	nty: Summi	t County	Samplir	ng Date:	8/7/2023
Applicant/Owner: UDOT				State: U	T Samplir	ng Point:	SP-19
Investigator(s): Joshua McMillin, Lacey Wilder		Section, T	ownship, Ra	ange: S19, T1S, F	R4E		
Landform (hillside, terrace, etc.): Hillslope		Local relief (c	oncave, con	vex, none): Conc	ave	Slop	e (%): 3
Subregion (LRR): LRR E Lat: 40.719	3222	, ,	Lona: -	111.5451813		Datum:	NAD83
Soil Map Unit Name: Harter gravelly loam 2 to 15 perc	ent slopes			NWI	classification.	Data	1
Are climatic / hydrologic conditions on the site typical fo	r this time o	of vear?	Vec	No (lfr		marke )	
Are Vignetation Call or Ludralogue		diaturhad?	re "Normel				
Are vegetation, Soll, or Hydrologys	significantiy		Are Normal	Lircumstances pre	sent? Yes_		·
Are Vegetation, Soil, or Hydrologyr	naturally pro	blematic? (	If needed, ex	cplain any answers	in Remarks.)		
SUMMARY OF FINDINGS – Attach site ma	p showir	ng samplin	g point lo	cations, trans	ects, importa	ant feat	ures, etc.
Hydrophytic Vegetation Present? Yes No	<u>    X    </u>	Is the	e Sampled A	rea			
Hydric Soil Present? Yes No	)	withi	n a Wetland	l? Yes	No	X	
Wetland Hydrology Present? Yes No	<u> </u>						
Remarks: No soil pit was dug due to lack of hydrophytic vegetation wetland.	on and lack	of surface hyc	Irology indica	ators. Sampling poi	nt does not mee	et the crite	ria for a
VEGETATION – Use scientific names of p	lants.						
Tasa Chartura (Dist size: 20 ft andius )	Absolute	Dominant	Indicator	Demineres Te			
<u>I ree Stratum</u> (Plot size: <u>30 ft radius</u> )	% Cover	Species?	Status	Dominance Te	st worksneet:		
2				Are OBL FACV	inant Species TI /_or FAC <sup>.</sup>	hat	0 (A)
3.				Total Number of	f Dominant Spor		<u> </u>
4.				Across All Strat	a:	162	1 (B)
		=Total Cover		Percent of Dom	inant Species Th	nat —	
Sapling/Shrub Stratum (Plot size: 15 ft radius )				Are OBL, FACV	V, or FAC:	0.	.0% (A/B
1							
2				Prevalence Ind	ex worksheet:		
3				Total % Co	over of:	Multiply	by:
4					<u> </u>	1 = 2 -	0
J		=Total Cover		FAC v species	X	3 = '	21
Herb Stratum (Plot size: 5 ft radius )				FACU species	<u> </u>	4 = 4	40
1. Agropyron cristatum	90	Yes	UPL	UPL species	90 x	5 = 4	150
2. Leymus cinereus	5	No	FAC	Column Totals:	107 (A)	5	511 (B)
3. Cirsium arvense	2	No	FAC	Prevalence I	ndex = B/A =	4.78	1
4. Pascopyrum smithii	10	No	FACU				
5				Hydrophytic Ve	egetation Indica	ators:	
6				1 - Rapid To	est for Hydrophy	tic Vegeta	ation
7				2 - Dominai	nce Test is >50%	б ,1	
8				3 - Prevaler	ice index is s3.0	) aa <sup>1</sup> (Dravid	lo ournorting
9				data in R	emarks or on a s	separate s	sheet)
11.				5 - Wetland	Non-Vascular F	Plants <sup>1</sup>	,
	107	=Total Cover		Problematic	Hydrophytic Ve	getation <sup>1</sup>	(Explain)
Woody Vine Stratum         (Plot size:)           1				<sup>1</sup> Indicators of hy	dric soil and we	tland hydr	ology must
2.						- coloniat	
		=Total Cover		Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 0				Present?	Yes	No X	_
Remarks:							

Color (moist)       %       Color (moist)       %       Type1       Loc2       Texture       Remarks	Color (moist)       %       Color (moist)       %       Type <sup>1</sup> Loc <sup>2</sup> Texture       Remarks	Depth Matrix	Redox Features		
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         tydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soil         Histosol (A1)       Sandy Gleyed Matrix (S4)       2 cm Muck (A10) (LRR A, E)         Histic Epipedon (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRF         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       3 <sup>1</sup> Indicators of hydrophytic vegetation and sandy Mucky Mineral (S1)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:	Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location:       PL=Pore Lining, M=Matrix         tydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils         Histosol (A1)       Sandy Gleyed Matrix (S4)       2 cm Muck (A10) (LRR A, E)         Histosol (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRR         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       3         Thick Dark Surface (A12)       Redox Dark Surface (F6)       3         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       unless disturbed or problematic.         Z.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         Type:	inches) Color (moist) % C	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         ydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soil         Histosol (A1)       Sandy Gleyed Matrix (S4)       2 cm Muck (A10) (LRR A, E)         Histosol (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRF         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F3)	ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         ydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils         Histosol (A1)       Sandy Gleyed Matrix (S4)       2 cm Muck (A10) (LRR A, E)         Histic Epipedon (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRR         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         estrictive Layer (if observed):       Type:				
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location:       PL=Pore Lining, M=Matri         ydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soil         Histosol (A1)       Sandy Gleyed Matrix (S4)       2 cm Muck (A10) (LRR A, E)         Histic Epipedon (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRR         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         sartictive Layer (if observed):       Type:	ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         ydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils         Histosol (A1)       Sandy Gleyed Matrix (S4)       2 cm Muck (A10) (LRR A, E)         Histic Epipedon (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRR         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F3)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       unless disturbed or problematic.         estrictive Layer (if observed):       Type:       pepth (inches):       Yes       No         marks:       Mucky Sil Present?       Yes       No				
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location:       PL=Pore Lining, M=Matrix         ydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soil	iype:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location:       PL=Pore Lining, M=Matrix         ydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils         Histosol (A1)       Sandy Gleyed Matrix (S4)       2 cm Muck (A10) (LRR A, E)         Histosol (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRR         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F3)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         Type:       Deplet (inches):       Hydric Soil Present?       Yes       No         emarks:       Matrix (S6)       Hydric Soil Present?       Yes       No				
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matri         ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soil         Histosol (A1)       Sandy Gleyed Matrix (S4)       2 cm Muck (A10) (LRR A, E)         Histic Epipedon (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRR         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F3)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         strictive Layer (if observed):       Type:       Depth (inches):       Hydric Soil Present?       Yes       N	ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         ydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils         Histosol (A1)       Sandy Gleyed Matrix (S4)       2 cm Muck (A10) (LRR A, E)         Histic Epipedon (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRR         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F3)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       unless disturbed or problematic.         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         stripte:       Depleth (inches):       Hydric Soil Present?       Yes       No         emarks:       Matrix (S6)       Hydric Soil Present?       Yes       No				
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soil         Histosol (A1)       Sandy Gleyed Matrix (S4)       2 cm Muck (A10) (LRR A, E)         Histic Epipedon (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRF         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F3)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         Type:	ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils         Histosol (A1)       Sandy Gleyed Matrix (S4)       2 cm Muck (A10) (LRR A, E)         Histic Epipedon (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRR         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F3)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present, unless disturbed or problematic.         estrictive Layer (if observed):       Type:	ype: C=Concentration, D=Depletion, RM=Re	duced Matrix, CS=Covered or Coated S	 Sand Grains. <sup>2</sup> Loc	ation: PL=Pore Lining, M=Matrix.
Histosol (A1)       Sandy Gleyed Matrix (S4)       2 cm Muck (A10) (LRR A, E)         Histic Epipedon (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRR         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         Type:	Histosol (A1)       Sandy Gleyed Matrix (S4)       2 cm Muck (A10) (LRR A, E)         Histic Epipedon (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRR         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Sindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present, unless disturbed or problematic.         estrictive Layer (if observed):       Type:	dric Soil Indicators: (Applicable to all LRF	s, unless otherwise noted.)	Indicato	rs for Problematic Hydric Soils <sup>3</sup> :
Histic Epipedon (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRF         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Indicators of hydrophytic vegetation and         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         Type:	Histic Epipedon (A2)       Sandy Redox (S5)       Iron-Manganese Masses (F12) (LRR         Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thick Dark Surface (A12)         Thick Dark Surface (A12)       Redox Dark Surface (F6) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         estrictive Layer (if observed):       Type:	_Histosol (A1)	Sandy Gleyed Matrix (S4)	2 cm	n Muck (A10) <b>(LRR A, E)</b>
Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thick Dark Surface (A12)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         strictive Layer (if observed):       Type:	Black Histic (A3)       Stripped Matrix (S6)       Red Parent Material (F21)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thick Dark Surface (A12)       Redox Dark Surface (F6) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         estrictive Layer (if observed):       Type:	_Histic Epipedon (A2)	Sandy Redox (S5)	Iron-	Manganese Masses (F12) <b>(LRR D</b>
Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       3Indicators of hydrophytic vegetation and         Thick Dark Surface (A12)       Redox Dark Surface (F6)       3Indicators of hydrophytic vegetation and         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         setrictive Layer (if observed):       Type:	Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F22)         1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Image: Comparison of the co	Black Histic (A3)	Stripped Matrix (S6)	Red	Parent Material (F21)
1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3) <sup>3</sup> Indicators of hydrophytic vegetation and         Thick Dark Surface (A12)       Redox Dark Surface (F6) <sup>3</sup> Indicators of hydrophytic vegetation and         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         estrictive Layer (if observed):       Type:	1 cm Muck (A9) (LRR D, G)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Indicators of hydrophytic vegetation and         Thick Dark Surface (A12)       Redox Dark Surface (F6)       Indicators of hydrophytic vegetation and         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         estrictive Layer (if observed):       Type:	_Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (excep	t MLRA 1) Very	Shallow Dark Surface (F22)
Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)         estrictive Layer (if observed):       Type:         Depth (inches):       Hydric Soil Present?	Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)         estrictive Layer (if observed):       Type:         Depth (inches):       Hydric Soil Present?         Yes       No	_1 cm Muck (A9) <b>(LRR D, G)</b>	Loamy Gleyed Matrix (F2)	Othe	er (Explain in Remarks)
	Thick Dark Surface (A12)Redox Dark Surface (F6) <sup>3</sup> Indicators of hydrophytic vegetation and Depleted Dark Surface (F7) wetland hydrology must be present, 2.5 cm Mucky Peat or Peat (S2) (LRR G)Redox Depressions (F8) unless disturbed or problematic.	_ Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		
Sandy Mucky Mineral (S1)Depleted Dark Surface (F7) wetland hydrology must be present, 2.5 cm Mucky Peat or Peat (S2) (LRR G)Redox Depressions (F8) unless disturbed or problematic. setrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes N	Sandy Mucky Mineral (S1)Depleted Dark Surface (F7) wetland hydrology must be present, Redox Depressions (F8) unless disturbed or problematic. estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No emarks:	Thick Dark Surface (A12)	Redox Dark Surface (F6)	<sup>3</sup> Indicato	rs of hydrophytic vegetation and
2.5 cm Mucky Peat or Peat (S2) (LRR G)Redox Depressions (F8) unless disturbed or problematic.  sestrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes N	2.5 cm Mucky Peat or Peat (S2) (LRR G)       Redox Depressions (F8)       unless disturbed or problematic.         estrictive Layer (if observed):       Type:       Hydric Soil Present?       Yes No         Depth (inches):       Hydric Soil Present?       Yes No	Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetla	and hydrology must be present,
sstrictive Layer (if observed):         Type:         Depth (inches):         Hydric Soil Present?	Strictive Layer (if observed):       Hydric Soil Present?       Yes       No         Type:	2.5 cm Mucky Peat or Peat (S2) (LRR G)	Redox Depressions (F8)	unles	ss disturbed or problematic.
Type:	Type:	strictive Layer (if observed):			
Depth (inches): Yes N	Depth (inches):     Hydric Soil Present?     Yes     No       emarks:     ************************************	Туре:			
	emarks:	Depth (inches):		Hydric Soil Presen	t? Yes No
emarks:		marks:			
				-	
YDROLOGY	YDROLOGY	YDROLOGY			
YDROLOGY /etland Hydrology Indicators:	YDROLOGY /etland Hydrology Indicators:	YDROLOGY /etland Hydrology Indicators:			
YDROLOGY         /etland Hydrology Indicators:         rimary Indicators (minimum of one is required; check all that apply)    Secondary Indicators (2 or more required)	YDROLOGY         /etland Hydrology Indicators:         rimary Indicators (minimum of one is required; check all that apply)         Secondary Indicators (2 or more required)	YDROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one is required;	check all that apply)	<u>Seconda</u>	ry Indicators (2 or more required)
YDROLOGY         Vetland Hydrology Indicators:         Irimary Indicators (minimum of one is required; check all that apply)         Surface Water (A1)         Water-Stained Leaves (B9) (except         Water-Stained Leaves (B9) (MLRA)	YDROLOGY         Vetland Hydrology Indicators:         trimary Indicators (minimum of one is required; check all that apply)         Surface Water (A1)         Water-Stained Leaves (B9) (except         Water-Stained Leaves (B9) (MLRA 1,	YDROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one is required; Surface Water (A1)		<u>Seconda</u>	ry Indicators (2 or more required) er-Stained Leaves (B9) (MLRA 1, 2

High Water Table (AZ)	WLRA 1, 2, 4A, and 4B)	4A, and 4B)			
Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)			
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)			
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Oxidized Rhizospheres on Living Roots (C3	) Geomorphic Position (D2)			
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4) Shallow Aquitard (D3)				
Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils (C6)	FAC-Neutral Test (D5)			
Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRR A)	Raised Ant Mounds (D6) (LRR A)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)			
Sparsely Vegetated Concave Surface (B8	)				
Field Observations:					
Surface Water Present? Yes	No X Depth (inches):				
Water Table Present? Yes	No Depth (inches):				
Saturation Present? Yes	No Depth (inches): Wet	and Hydrology Present? Yes No X			
(includes capillary fringe)					
Describe Recorded Data (stream gauge, moni	toring well, aerial photos, previous inspections), if	available:			
Remarks:					
No surface hydrology indicators present.					

U.S. Army Cor WETLAND DETERMINATION DATA SHEET – V See ERDC/EL_TR-10-3: the pro	ps of Eng Western M	gineers ountains, Va	lleys, and (	Coast Region	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Kimball Junction EIS	oponent a	City/Cou	ntv: Summi	t County	Sampling Date: 8/7/2023
Annlicant/Owner: UDOT			inty. Ournini	State I	IT Sampling Point: SP-20
Investigator(s): Joshua McMillin Lacev Wilder		Section 1	ownship R	ange: S19 T1S F	R4F
l andform (hillside terrace etc.): Terrace		Local relief (c	oncave con	vex none) <sup>.</sup> Conc	ave Slope (%): 20
Subregion (LRR): LRR F Lat: 40.715	19089		Long	111 5444489	Datum: NAD83
Soil Map Unit Name: Harter gravelly loam. 2 to 15 perce	ent slopes			NWI	classification:
Are climatic / hydrologic conditions on the site typical for	or this time o	of vear?	Yes	No (lf r	no. explain in Remarks.)
Are Vegetation Soil or Hydrology	significantly	disturbed?	re "Normal	Circumstances" pre	esent? Yes X No
Are Vegetation . Soil . or Hydrology	naturally pro	blematic? (	If needed. ex	plain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site ma	ap showii	ng samplin	g point lo	cations, trans	ects, important features, etc.
Hydrophytic Vegetation Present?       Yes       X       No         Hydric Soil Present?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No	2 2 2 2	ls the withi	e Sampled A n a Wetland	Area I? Yes	<u>X</u> No
Remarks: Sampling point meets the criteria for a wetland.					
VEGETATION – Use scientific names of p	lants.			-	
Tree Stratum (Plot size: <u>30 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Te	st worksheet:
1.       2.				Number of Dom Are OBL, FACV	ninant Species That V, or FAC: 1 (A)
3.				Total Number o	f Dominant Species
4		=Total Cover		Across All Strat	inant Species That
Sapling/Shrub Stratum (Plot size: 15 ft radius ) 1.	)			Are OBL, FACV	V, or FAC: <u>100.0%</u> (A/B)
2.				Prevalence Ind	lex worksheet:
3				Total % Co	over of: Multiply by:
4		·		OBL species	$0 \times 1 = 0$
·		=Total Cover		FAC species	$2 \times 3 = 6$
Herb Stratum (Plot size: 5 ft radius )				FACU species	0   x 4 = 0
1. Phalaris arundinacea	100	Yes	FACW	UPL species	0 x 5 = 0
2. Cirsium arvense	2	No	FAC	Column Totals:	<u>102</u> (A) <u>206</u> (B)
3				Prevalence I	Index = B/A = 2.02
<sup>4.</sup>				Hydrophytic Ve	egetation Indicators:
6.				1 - Rapid T	est for Hydrophytic Vegetation
7.				X 2 - Domina	nce Test is >50%
8				X 3 - Prevaler	nce Index is $\leq 3.0^1$
9		·		4 - Morphole	ogical Adaptations <sup>1</sup> (Provide supporting
10		·		5 - Wetland	$1 \text{ Non-Vascular Plants}^1$
'' <u></u> -	102	=Total Cover		Problematic	c Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum     (Plot size:)       1.	)			<sup>1</sup> Indicators of hy	ydric soil and wetland hydrology must
2.					
% Bare Ground in Herb Stratum0		=Total Cover		Present?	Yes X No
Remarks: Hydrophytic vegetation present.					

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epui	Matrix		Redo	x Featur	es													
nches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks										
0-6	10YR 2/1	100					Loamy/Clayey											
6-11	10YR 2/1	95	10YR 4/6	5	С	М	Loamy/Clayey	Prominent redox concentration										
11-18	10YR 2/1	88	10YR 4/6	12	С	M	Loamy/Clayey	Prominent redox concentration										
			oducod Matrix				2Loc	ation: PL-Poro Lining M-Matrix										
ype. C=CC ydric Soil I	Indicators: (Applica	ble to all LF	Rs, unless othe	erwise n	oted.)	Jaleu Sa	Indicato	rs for Problematic Hydric Soils <sup>3</sup> :										
Histosol	(A1)		Sandy Gle	eyed Mat	rix (S4)		2 cn	n Muck (A10) <b>(LRR A, E)</b>										
Histic Ep	oipedon (A2)		Sandy Re	dox (S5)			Iron-Manganese Masses (F12) <b>(</b>											
Black Hi	stic (A3)		Stripped N	Aatrix (Se	5)		Red Parent Material (F21)			Red Parent Material (F21)			Red Parent Material (F21)			Red Parent Material (F21)		
 Hydroge	n Sulfide (A4)		Loamy Mu	icky Mine	eral (F1) (	except	cept MLRA 1) Very Shallow Dark Surface (F22)											
1 cm Muck (A9) (LRR D, G)			Loamy Gle	eyed Mat	rix (F2)		Othe	er (Explain in Remarks)										
 Depleted	d Below Dark Surface	e (A11)	Depleted I	Matrix (F	3)													
Thick Da	ark Surface (A12)		X Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicato	ors of hydrophytic vegetation and										
Sandy Mucky Mineral (S1)			Depleted I	Dark Sur	face (F7)		wetl	and hydrology must be present,										
2.5 cm N	/lucky Peat or Peat (S	62) (LRR G)	Redox De	pression	s (F8)		unle	ss disturbed or problematic.										
	ayer (if observed):																	
estrictive L			_															
Type:							Hydric Soil Preser	nt? Yes <u>X</u> No_										
Type: Depth (ir	nches):		_															
Type: Depth (ir	nches):		_															
Type: Depth (ir Remarks: lydric soil in	nches): dicator F6 present.																	
Type: Depth (ir emarks: ydric soil in	nches): dicator F6 present.																	

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one is require	Secondary Indicators (2 or more required)				
Surface Water (A1)	Water-Stained Leaves (B9) (MLRA 1, 2				
High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	4A, and 4B)			
X Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)			
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)			
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Ima				
Drift Deposits (B3)	Oxidized Rhizospheres on Living Roots	(C3) Geomorphic Position (D2)			
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)			
Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils (C6	6) X FAC-Neutral Test (D5)			
Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRR A	) Raised Ant Mounds (D6) (LRR A)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)			
Sparsely Vegetated Concave Surface (B8	3)	—			
Field Observations:					
Surface Water Present? Yes	No X Depth (inches):				
Water Table Present? Yes No X Depth (inches):					
Saturation Present? Yes X	No Depth (inches): 11 V	Vetland Hydrology Present? Yes X No			
(includes capillary fringe)					
Describe Recorded Data (stream gauge, mon	itoring well, aerial photos, previous inspections	), if available:			
Remarks:					
Hydrology present with saturation as a primary	y hydrology indicator.				

Project/Site: SR-224 BRT	City/County:	Summit County		Sampling Date:	08/24/2021
Applicant/Owner: Summit County		s	itate: <sup>Utah</sup>	Sampling Point:	SP-21
Investigator(s): <u>Josh McMillin, Katie Lueth</u>	Section, Tow	nship, Range: <u>S1</u>	9, T1S, R4E		
Landform (hillslope, terrace, etc.): Depression	_ Local relief (	concave, convex, i	none): <u>Concave</u>	Slo	ope (%): <u>1</u>
Subregion (LRR): LRR E Lat: 40	.7145337	Long:	-111.5444696	Datu	ım: NAD83
Soil Map Unit Name: <u>Harter gravelly loam, 2 to 15 percent slopes</u>			NWI classific	cation: PEM	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes <u>×</u>	No (I	f no, explain in F	Remarks.)	
Are Vegetation, Soil, or Hydrology significantly	y disturbed?	Are "Normal	Circumstances"	present? Yes <u>×</u>	No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic?	(If needed, ex	kplain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	g sampling	point location	ns, transects	s, important fe	atures, etc.

Hydrophytic Vegetation Present?	Yes <u>×</u>	No			
Hydric Soil Present?	Yes <u>×</u>	No	Is the Sampled Area	× ×	
Wetland Hydrology Present?	Yes X	No	within a Wetland?	Yes	No
Remarks:					

Sampling point meets the criteria for a wetland.\*Sampling point W-3-IN in SR224 BRT Delineation Report.

	Absolute	Dominant	Indicator	Dominance Test worksheet	t:	
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u> )	% Cover	Species?	Status	Number of Dominant Species	3	
1				That Are OBL, FACW, or FAC	C: 2	(A)
2.						
3				Lotal Number of Dominant	2	(B)
				Species Across Air Strata.		(6)
4				Percent of Dominant Species	3	
Oraclinar/Ohmeth Othertenan (Distriction 15 ff radius		_ = Total Co	ver	That Are OBL, FACW, or FAC	C: 100	(A/B)
<u>Sapling/Shrub Stratum</u> (Piot size: <u>To k rudido</u> )				Prevalence Index workshee	ət:	
1				Total % Cover of:	Multiply by:	
2				OBL species	x 1 =	_
3				FACW species	x 2 =	_
4					x 2 -	_
5					x 3 =	_
		= Total Co	ver	FACU species	x 4 =	-
<u>Herb Stratum</u> (Plot size: <u>5 ft radius</u> )		-		UPL species	x 5 =	_
1. Phalaris arundinacea	60	Y	FACW	Column Totals:	(A)	_ (B)
2. Typha latifolia	30	Υ	OBL	Prevalence Index = B/A	Α =	
3				Hydrophytic Vegetation Ind	licators:	
4.				✓ 1 - Rapid Test for Hydror	obytic Vegetation	
5						
0					30% 1	
0				3 - Prevalence Index is ≤	3.0'	
7				4 - Morphological Adapta data in Remarks or or	ations <sup>1</sup> (Provide sup n a separate sheet)	porting
0				5 - Wetland Non-Vascula	ar Plants <sup>1</sup>	
5				Problematic Hydrophytic	Vegetation <sup>1</sup> (Explain	in)
10				<sup>1</sup> Indiactors of hydria soil and y	wetland hydrology r	munt
11				be present, unless disturbed	or problematic.	nusi
Marchen Miner Othersteiner (Distriction	90	= Total Co	/er			
<u>woody vine Stratum</u> (Plot size:)						
1				Hydrophytic		
2				Vegetation	No	
10		= Total Co	/er	Present? fes		
% Bare Ground in Herb Stratum 10						
Remarks:						
Hydrophytic vegetation present.						

Profile Des	cription: (Describe	to the dept	h needed to docu	ment the indicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redo	x Features	0		
(inches)	Color (moist)		<u>Color (moist)</u>	<u>% Type</u> <sup>⊥</sup> _	<u>Loc</u>	Texture	Remarks
0-13	10YR 2/1	100				Silty Loam	Hydrogen Sulfide Odor
		·					
		·					
<sup>1</sup> Type: C=C	Concentration, D=Dep	letion, RM=	Reduced Matrix, C	S=Covered or Coate	ed Sand Gr	ains. <sup>2</sup> Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all	LRRs, unless othe	rwise noted.)		Indicate	ors for Problematic Hydric Soils":
Histoso	ol (A1)		Sandy Redox (	S5)		2 ci	m Muck (A10)
Histic E	pipedon (A2)	-	Stripped Matrix	(S6) Minoral (E1) (avaan			2 Parent Material (TF2)
	an Sulfida (A4)	-	Loamy Gloved	Matrix (E2)			y Shallow Dark Sullace (TFTZ)
<u> </u>	en Sunde (A4) ad Below Dark Surfac	ρ (Δ11)	Loanty Gleyeu	(F3)		Ou	
Thick D	ark Surface (A12)		Redox Dark Su	rface (F6)		<sup>3</sup> Indicate	ors of hydrophytic vegetation and
Sandy I	Mucky Mineral (S1)	-	Depleted Dark	Surface (F7)		wetla	and hydrology must be present.
Sandy (	Gleved Matrix (S4)		Redox Depress	sions (F8)		unle	ss disturbed or problematic.
Restrictive	Layer (if present):			( )			· · · · ·
Type:							
Depth (ir	nches):					Hydric Soi	l Present? Yes <sup>X</sup> No
Remarks:						,	
Hydric s	oil indicator A	4 preser	nt.				
HYDROLC	DGY						
Wetland Hy	drology Indicators:						
Primary Indi	icators (minimum of c	one required	; check all that app	ly)		Seco	ndary Indicators (2 or more required)
✓ Surface	e Water (A1)		Water-Sta	ined Leaves (B9) ( <b>e</b>	xcept	V	Vater-Stained Leaves (B9) (MLRA 1, 2,
✓ High W	ater Table (A2)		MLRA	1, 2, 4A, and 4B)			4A, and 4B)
<u>√</u> Saturati	ion (A3)		Salt Crust	(B11)		[	Drainage Patterns (B10)
Water N	Marks (B1)		Aquatic In	vertebrates (B13)		[	Dry-Season Water Table (C2)
Sedime	ent Deposits (B2)		_∕_ Hydrogen	Sulfide Odor (C1)		_ 8	Saturation Visible on Aerial Imagery (C9)
Drift De	eposits (B3)		Oxidized I	Rhizospheres along	Living Roo	ts (C3) 🗹 (	Geomorphic Position (D2)

- \_ Shallow Aquitard (D3)
  - ✓ FAC-Neutral Test (D5)
  - \_ Raised Ant Mounds (D6) (LRR A)
  - \_ Frost-Heave Hummocks (D7)

# Field Observations

\_\_\_\_ Algal Mat or Crust (B4)

Surface Soil Cracks (B6)

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)

Iron Deposits (B5)

Field Observations.				
Surface Water Present?	Yes X No	o Depth (inches): 1		
Water Table Present?	Yes X No	o Depth (inches): _0		
Saturation Present? (includes capillary fringe)	Yes X No	> Depth (inches): 0	Wetland Hydrology Present?	Yes X No
Describe Recorded Data (stre	eam gauge, moni	toring well, aerial photos, previous ins	pections), if available:	

Recent Iron Reduction in Tilled Soils (C6)

Stunted or Stressed Plants (D1) (LRR A)

Presence of Reduced Iron (C4)

\_\_\_\_ Other (Explain in Remarks)

#### Remarks:

Hydrology present with surface water, high water table, saturation, and hydrogen sulfide odor as primary hydrology indicators.

Project/Site: SR-224 BRT	City/County: Summit Cour	nty	Sampling Date: 08/	24/2021
Applicant/Owner: Summit County		State: Utah	Sampling Point: SF	<b>-</b> -22
Investigator(s): <u>Josh McMillin, Katie Lueth</u>	Section, Township, Range	e: S19, T1S, R4E		
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concave, cor	ivex, none): <u>Concave</u>	Slope	(%): <u>1</u>
Subregion (LRR): LRR E Lat: 40.	.7145289 L	ong: <u>-111.5445123</u>	Datum:	NAD83
Soil Map Unit Name: <u>Harter gravelly loam, 2 to 15 percent slopes</u>	_	NWI classific	ation:	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "No	rmal Circumstances" p	oresent? Yes X	No
Are Vegetation, Soil, or Hydrology naturally pre-	oblematic? (If need	ed, explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	sampling point loc	ations, transects	, important feat	ures, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No <u>×</u> No No <u>×</u>	Is the Sampled Area within a Wetland?	Yes	No <u>×</u>
Remarks:					

No soil pit was dug due to lack of hydrophytic vegetation and lack of surface hydrology indicators. Sampling point does not meet the criteria for a wetland.\*Sampling point W-3-OUT in SR224 BRT Delineation Report.

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u> )	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC: 1	(A)
2				Total Number of Dominant	
3				Species Across All Strata: 4	(B)
4.				·	. ,
		= Total Co	ver	Percent of Dominant Species	(A/D)
Sapling/Shrub Stratum (Plot size: 15 ft radius )		. 10101-00			(A/D)
1				Prevalence index worksneet:	
2				Total % Cover of: Multiply by:	-
3				OBL species _0 x 1 = _0	-
0				FACW species <u>0</u> x 2 = <u>0</u>	-
4				FAC species <u>30</u> x 3 = <u>90</u>	_
5				FACU species $0$ x 4 = $0$	
Horb Stratum (Plot size: 5 ft radius)		= Total Co	ver	UPL species $70$ x 5 = $350$	-
Cirsium arvense	30	v	FAC	Column Totals: 100 (A) 440	- (B)
1		<u> </u>		(A)	_ (D)
		ř		Prevalence Index = B/A = 4.4	_
3. Agropyron cristatum	20	Y	UPL	Hydrophytic Vegetation Indicators:	
4. Epilobium brachycarpum	30	Y	UPL	1 - Rapid Test for Hydrophytic Vegetation	
5				2 - Dominance Test is >50%	
6				$3 - Prevalence Index is \leq 30^{1}$	
7.				4 - Morphological Adaptations <sup>1</sup> (Provide supr	oorting
8				data in Remarks or on a separate sheet)	Jorang
0				5 - Wetland Non-Vascular Plants <sup>1</sup>	
0				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain	n)
10				<sup>1</sup> Indicators of hydric soil and wetland hydrology m	., nuet
11	100			be present, unless disturbed or problematic.	lust
Woody Vine Stratum (Plot size:	100	= Total Cov	ver		
1				Hydrophytic	
2				Present? Yes No X	
% Dana Craund in Llank Strature		= Total Cov	ver		
Upland vegetation present.					

i iome beachprion. (Deachine to the deb		the absence of indicators )
Dopth Matrix	Podoy Eastures	the absence of mulcators.)
(inches) Color (moist) %	$\frac{1}{1} \frac{1}{1} \frac{1}$	Texture Remarks
Type: C=Concentration D=Depletion RM	=Reduced Matrix_CS=Covered or Coated Sand Gra	ins <sup>2</sup> Location: PL=Pore Lining M=Matrix
lydric Soil Indicators: (Applicable to all	LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		
Restrictive Layer (if present): Type:		
Restrictive Layer (if present): Type: Depth (inches):		Hydric Soil Present? Yes No
Restrictive Layer (if present): Type: Depth (inches): Remarks:		Hydric Soil Present? Yes No
Restrictive Layer (if present): Type: Depth (inches): Remarks: No soil pit was dug due to lac	k of hydrophytic vegetation and lac	Hydric Soil Present? Yes No k of surface hydrology indicators.
Restrictive Layer (if present): Type: Depth (inches): Remarks: No soil pit was dug due to lac	k of hydrophytic vegetation and lac	Hydric Soil Present? Yes No k of surface hydrology indicators.
Restrictive Layer (if present): Type: Depth (inches): Remarks: No soil pit was dug due to lac	k of hydrophytic vegetation and lac	Hydric Soil Present? Yes <u>No</u> No <u>k</u> of surface hydrology indicators.
Restrictive Layer (if present): Type: Depth (inches): Remarks: No soil pit was dug due to lac	k of hydrophytic vegetation and lac	Hydric Soil Present? Yes <u>No</u> No <u>k</u> of surface hydrology indicators.
Restrictive Layer (if present): Type: Depth (inches): Remarks: No soil pit was dug due to lac YDROLOGY	k of hydrophytic vegetation and lac	Hydric Soil Present? Yes No k of surface hydrology indicators.
Restrictive Layer (if present): Type: Depth (inches): Remarks: No soil pit was dug due to lac YDROLOGY Vetland Hydrology Indicators:	k of hydrophytic vegetation and lac	Hydric Soil Present? Yes No
Restrictive Layer (if present): Type: Depth (inches): Remarks: No soil pit was dug due to lac YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one require	k of hydrophytic vegetation and lac	Hydric Soil Present?       Yes No         k of surface hydrology indicators.         Secondary Indicators (2 or more required)
Restrictive Layer (if present):         Type:         Depth (inches):         Remarks:         No soil pit was dug due to lac         YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one required)         Surface Water (A1)	k of hydrophytic vegetation and lac d; check all that apply) Water-Stained Leaves (B9) ( <b>except</b>	Hydric Soil Present?       Yes No          k of surface hydrology indicators.          Secondary Indicators (2 or more required)          Water-Stained Leaves (B9) (MLRA 1, 2
Restrictive Layer (if present):         Type:         Depth (inches):         Remarks:         No soil pit was dug due to lac         YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one required)         Surface Water (A1)         High Water Table (A2)	k of hydrophytic vegetation and lac d: check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Hydric Soil Present?       Yes No         k of surface hydrology indicators. <u>Secondary Indicators (2 or more required)</u> Water-Stained Leaves (B9) (MLRA 1, 2         4A, and 4B)
Restrictive Layer (if present):         Type:         Depth (inches):         Remarks:         No soil pit was dug due to lac         YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one required)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)	k of hydrophytic vegetation and lac d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Hydric Soil Present?       Yes No         k of surface hydrology indicators.         Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2         4A, and 4B)         Drainage Patterns (B10)
Restrictive Layer (if present):         Type:         Depth (inches):         Remarks:         No soil pit was dug due to lac         YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one required)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)	k of hydrophytic vegetation and lac d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Hydric Soil Present?       Yes No         k of surface hydrology indicators.
Restrictive Layer (if present):         Type:         Depth (inches):         Remarks:         Jo soil pit was dug due to lac         YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one required)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)	k of hydrophytic vegetation and lac d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Hydric Soil Present?       Yes No         k of surface hydrology indicators.         Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2         4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (CS)
Restrictive Layer (if present):         Type:         Depth (inches):         Remarks:         Jo soil pit was dug due to lac         YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one required)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)	k of hydrophytic vegetation and lac d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots	Hydric Soil Present?       Yes No         k of surface hydrology indicators.
Restrictive Layer (if present):         Type:         Depth (inches):         Remarks:         Jo soil pit was dug due to lac         YDROLOGY         YUROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one required)	k of hydrophytic vegetation and lac d: check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots Presence of Reduced Iron (C4)	Hydric Soil Present?       Yes No         k of surface hydrology indicators.         Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2         4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (CS s (C3)         Geomorphic Position (D2)         Shallow Aquitard (D3)
Restrictive Layer (if present): Type: Depth (inches): Remarks: No soil pit was dug due to lac YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	k of hydrophytic vegetation and lac d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)	Hydric Soil Present?       Yes No         k of surface hydrology indicators.         Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2         4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9         s (C3)       Geomorphic Position (D2)         Shallow Aquitard (D3)         FAC-Neutral Test (D5)
Restrictive Layer (if present):         Type:         Depth (inches):         Remarks:         No soil pit was dug due to lac         YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)	k of hydrophytic vegetation and lac d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A)	Hydric Soil Present?       Yes No         k of surface hydrology indicators.
Restrictive Layer (if present):         Type:         Depth (inches):         Remarks:         No soil pit was dug due to lac         YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (B	k of hydrophytic vegetation and lac d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) 7) Other (Explain in Remarks)	Hydric Soil Present?       Yes No         k of surface hydrology indicators.

Field Observations:						
Surface Water Present?	Yes	No <u>X</u>	Depth (inches):			
Water Table Present?	Yes	No	Depth (inches):			
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):	Wetland Hydrology Present?	Yes	No <u>×</u>
Describe Recorded Data (strea	am gauge, n	nonitoring w	ell, aerial photos, previous inspec	tions), if available:		
Remarks:						
No surface hydrology	y indicat	ors pres	sent.			

Project/Site: SR-224 BRT	City/County: Summit Coun	ty	Sampling Date: _08/26/2021
Applicant/Owner: Summit County		State: Utah	Sampling Point: <u>SP-23</u>
Investigator(s):	Section, Township, Range	<u>-</u> S19, T1S, R4E	
Landform (hillslope, terrace, etc.): Ditch	Local relief (concave, con	vex, none): <u>Concave</u>	Slope (%): 2
Subregion (LRR): LRR E Lat: 40.	714468 Lo	ong: <u>-111.545026</u>	Datum: NAD83
Soil Map Unit Name: <u>Harter gravelly loam, 2 to 15 percent slopes</u>		NWI classific	ation: PEM
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in R	emarks.)
Are Vegetation $\underline{X}_{}$ , Soil $\underline{X}_{}$ , or Hydrology $\underline{X}_{}$ significantly	disturbed? Are "Nor	mal Circumstances" p	oresent? Yes No X
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If neede	ed, explain any answei	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point loca	ations, transects	, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes <u>×</u> Yes X	No No	Is the Sampled Area					
Wetland Hydrology Present?	Yes X	No	within a Wetland?	Yes <u>×</u>	No			
Remarks:								
Roadside ditch originally filled with Typha latifolia but was recently excavated. No soil pit taken with presence of obligate vegetation and surface water. Sampling point meets the criteria for a wetland.*Sampling point W-4-IN in SR224 BRT Delineation Report.								

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

20 ft radius	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30 it radius )	<u>% Cover</u>	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC: $2$ (A)	)
2				Total Number of Dominant	
3				Species Across All Strata: <sup>2</sup> (B)	)
4.				( /	
		= Total Co	ver	Percent of Dominant Species	(D)
Sapling/Shrub Stratum (Plot size: 15 ft radius )				That Are OBL, FACW, or FAC: 100 (A)	в)
1.				Prevalence Index worksheet:	
2				Total % Cover of:Multiply by:	
2				OBL species x 1 =	
3				FACW species x 2 =	
4				FAC species x 3 =	
5				FACU species x 4 =	
5 ft radius		= Total Co	ver		
Herb Stratum (Plot size: 0 tradius )	40	V			2
		Y	FACW		5)
2. I ypha latifolia	20	Y	OBL	Prevalence Index = B/A =	
3				Hydrophytic Vegetation Indicators:	
4				✓ 1 - Rapid Test for Hydrophytic Vegetation	
5.				$\checkmark$ 2 - Dominance Test is >50%	
6				$\frac{1}{2} = \frac{1}{2} = \frac{1}$	
7				A Mambala size Adaptations <sup>1</sup> (Desuida support	
7				4 - Morphological Adaptations" (Provide support data in Remarks or on a separate sheet)	ing
0				5 Wotland Non Vascular Plants <sup>1</sup>	
9				5 - Wetand Non-Vascular Flants	
10					
11				'Indicators of hydric soil and wetland hydrology must	
	30	= Total Co	ver	be present, unless disturbed of problematic.	
Woody Vine Stratum (Plot size:)					
1				Hydrophytic	
2				Vegetation	
		= Total Co	ver	Present? Yes <u>~</u> No	
% Bare Ground in Herb Stratum 70					
Remarks:					

Very little vegetation left in plot due to excavation. Remaining adjacent vegetation includes Juncus arcticus. Hydrophytic vegetation present.

Profile Desc	ription: (Describe t	o the depth	needed to docum	ent the i	ndicator o	or confirm	the absence of	f indicators.)		
Depth	Matrix		Redox	Features	3					
(inches)	Color (moist)	%	Color (moist)	%	<u>Type<sup>1</sup></u>	Loc <sup>2</sup>	Texture	Remarks		
<sup>1</sup> Type: C=Co	oncentration, D=Deple	etion, RM=Re	educed Matrix, CS	=Covered	or Coated	d Sand Gra	ains. <sup>2</sup> Locat	tion: PL=Pore Lining, I	M=Matrix.	
Hydric Soil	Indicators: (Applica	ble to all LR	Rs, unless other	wise note	ed.)		Indicators	for Problematic Hyd	ric Soils <sup>3</sup> :	
Histosol	(A1)		Sandy Redox (S	5)			2 cm I	Muck (A10)		
Histic Ep	oipedon (A2)		Stripped Matrix	(S6)			Red P	arent Material (TF2)		
Black Hi	stic (A3)		Loamy Mucky M	ineral (F1	) (except	MLRA 1)	Very S	Shallow Dark Surface (	TF12)	
Hydroge	n Sulfide (A4)		Loamy Gleyed N	/latrix (F2)	)		Other (Explain in Remarks)			
Depleted	d Below Dark Surface	(A11)	Depleted Matrix	(F3)						
Thick Da	ark Surface (A12)		Redox Dark Sur	face (F6)			<sup>3</sup> Indicators	of hydrophytic vegetat	tion and	
Sandy M	lucky Mineral (S1)		Depleted Dark S	Surface (F	7)		wetland	I hydrology must be pre	esent,	
Sandy G	leyed Matrix (S4)		Redox Depressi	ons (F8)			unless o	disturbed or problemat	ic.	
Restrictive I	_ayer (if present):									
Туре:			_							
Depth (ind	ches):		_				Hydric Soil P	resent? Yes X	No	
Remarks:							1			

No soil pit taken with presence of obligate vegetation and surface water. Hydric soils assumed to be present.

### HYDROLOGY

Wetland Hydrology Indicate	ors:			
Primary Indicators (minimum	of one requi	Secondary Indicators (2 or more required)		
✓ Surface Water (A1)			Water-Stained Leaves (B9) (exce	ept Water-Stained Leaves (B9) (MLRA 1, 2,
High Water Table (A2)			MLRA 1, 2, 4A, and 4B)	4A, and 4B)
Saturation (A3)		_	Salt Crust (B11)	Drainage Patterns (B10)
Water Marks (B1)		_	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Deposits (B2)		_	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		_	Oxidized Rhizospheres along Liv	ring Roots (C3) Geomorphic Position (D2)
Algal Mat or Crust (B4)		_	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6)				Soils (C6) FAC-Neutral Test (D5)
Surface Soil Cracks (B6)	)	_	Stunted or Stressed Plants (D1)	(LRR A) Raised Ant Mounds (D6) (LRR A)
Inundation Visible on Ae	rial Imagery	(B7) _	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Con	cave Surface	e (B8)		
Field Observations:				
Surface Water Present?	Yes X	No	Depth (inches):	
Water Table Present?	Yes	No	Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes	_ No	Depth (inches):	Wetland Hydrology Present? Yes X No
Describe Recorded Data (str	eam gauge, i	monitorin	g well, aerial photos, previous inspec	ctions), if available:
Remarks:				
Hydrology present v	with surfa	ace wa	ater as a primary hydrolo	bay indicator.
j				

Project/Site: SR-224 BRT	City/County: Summit County	/	Sampling Date: 08,	26/2021
Applicant/Owner: Summit County		State: Utah	Sampling Point: SI	<b>-</b> -24
Investigator(s):	Section, Township, Range:	S19, T1S, R4E		
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concave, conve	ex, none): <u>Convex</u>	Slope	: (%): <u>2</u>
Subregion (LRR): LRR E Lat: 40.	714532 Lor	ng: <u>-111.544968</u>	Datum	NAD83
Soil Map Unit Name: <u>Harter gravelly loam, 2 to 15 percent slopes</u>		NWI classifica	ation:	
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes X No	_ (If no, explain in Re	emarks.)	
Are Vegetation $\underline{X}_{}$ , Soil $\underline{X}_{}$ , or Hydrology $\underline{X}_{}$ significantly	disturbed? Are "Norn	nal Circumstances" p	resent? Yes	No
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If needed	l, explain any answer	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	sampling point locat	tions, transects,	, important feat	tures, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No <u>×</u> No <u>×</u> No <u>×</u>	Is the Sampled Area within a Wetland?	Yes	No <u>×</u>		
Remarks:							
No soil pit was dug due to lack of hydrophytic vegetation, lack of surface hydrology indicators, and sampling point location on road shoulder. Sampling point does not meet the criteria for a wetland.*Sampling point W-4-OUT in SR224 BRT Delineation Report.							

- 20 ft radius	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 50 ft radius )	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC: _'	(A)
2				Total Number of Dominant	
3				Species Across All Strata: 2	(B)
4				Percent of Dominant Species	
Or the violence Officiation (Distributed in 15 ft radius		= Total Co	ver	That Are OBL, FACW, or FAC: 50	(A/B)
Sapling/Shrub Stratum (Plot size: 19 11 Padids )				Prevalence Index worksheet:	
1				Total % Cover of:Multiply by:	
2				OBL species $0$ x 1 = $0$	
3				FACW species $0$ x 2 = $0$	
4			·	FAC species $15$ x 3 = $45$	_
5				$FACU \text{ species } 0 \qquad x 4 = 0$	_
5 ft radius		= Total Co	ver	$\frac{1}{100} \frac{1}{100} \frac{1}$	-
Herb Stratum (Plot size: 5 tradius )	15	V	FAC	Column Totolo: $55$ (A) $245$	(P)
1. Phieum pratense		Y V			_ (D)
2. Bromus inermis	40	Y		Prevalence Index = $B/A = 4.45$	
3				Hydrophytic Vegetation Indicators:	
4				1 - Rapid Test for Hydrophytic Vegetation	
5				2 - Dominance Test is >50%	
6				3 - Prevalence Index is ≤3.0 <sup>1</sup>	
7				4 - Morphological Adaptations <sup>1</sup> (Provide sup	portina
8.				data in Remarks or on a separate sheet)	3
9.				5 - Wetland Non-Vascular Plants <sup>1</sup>	
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explai	in)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology r	nust
	55	- Total Cov		be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: )		- 10tal 00v	CI		
1.				Hydrophytic	
2				Vegetation	
		= Total Cov		Present? Yes <u>No X</u>	
% Bare Ground in Herb Stratum <u>45</u>					
Remarks:				1	
Upland vegetation present.					

Depth Matrix	Redox Features	
inches) Color (moist) %	$\underline{\qquad Color (moist) \qquad \% \qquad Type^1 \qquad Loc^2}_{}$	Texture Remarks
		·
		·
		·
		0
Type: C=Concentration, D=Depletion, RM-	=Reduced Matrix, CS=Covered or Coated Sand Gr	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix
Type: C=Concentration, D=Depletion, RM: ydric Soil Indicators: (Applicable to all Historol (A1)	=Reduced Matrix, CS=Covered or Coated Sand Gr LRRs, unless otherwise noted.)	Pains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix Indicators for Problematic Hydric Soils
ype: C=Concentration, D=Depletion, RM ydric Soil Indicators: (Applicable to all Histosol (A1)	=Reduced Matrix, CS=Covered or Coated Sand Gr LRRs, unless otherwise noted.) Sandy Redox (S5) Stripped Matrix (S6)	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         Indicators for Problematic Hydric Soils        2 cm Muck (A10)         Red Parent Material (TE2)
ype: C=Concentration, D=Depletion, RM ydric Soil Indicators: (Applicable to all _ Histosol (A1) _ Histic Epipedon (A2) Black Histic (A3)	EReduced Matrix, CS=Covered or Coated Sand Gr      LRRs, unless otherwise noted.)     Sandy Redox (S5)     Stripped Matrix (S6)     Loamy Mucky Mineral (E1) (evcent MLRA 1)	Pains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         Indicators for Problematic Hydric Soils         2 cm Muck (A10)         Red Parent Material (TF2)         Very Shallow Dark Surface (TE12)
Type: C=Concentration, D=Depletion, RM ydric Soil Indicators: (Applicable to all Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4)	EReduced Matrix, CS=Covered or Coated Sand Gr      IRRs, unless otherwise noted.)     Sandy Redox (S5)     Stripped Matrix (S6)     Loamy Mucky Mineral (F1) (except MLRA 1)	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         Indicators for Problematic Hydric Soils        2 cm Muck (A10)         Red Parent Material (TF2)         Very Shallow Dark Surface (TF12)         Other (Explain in Remarks)
Type: C=Concentration, D=Depletion, RM Iydric Soil Indicators: (Applicable to all Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11)	Reduced Matrix, CS=Covered or Coated Sand Gr LRRs, unless otherwise noted.) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         Indicators for Problematic Hydric Soils        2 cm Muck (A10)        Red Parent Material (TF2)        Very Shallow Dark Surface (TF12)        Other (Explain in Remarks)
Type: C=Concentration, D=Depletion, RM Iydric Soil Indicators: (Applicable to all Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Reduced Matrix, CS=Covered or Coated Sand Gr LRRs, unless otherwise noted.) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (E6)	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         Indicators for Problematic Hydric Soils        2 cm Muck (A10)        2 cm Muck (A10)         Red Parent Material (TF2)         Very Shallow Dark Surface (TF12)         Other (Explain in Remarks)
Type: C=Concentration, D=Depletion, RM Iydric Soil Indicators: (Applicable to all Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Reduced Matrix, CS=Covered or Coated Sand Gr LRRs, unless otherwise noted.) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         Indicators for Problematic Hydric Soils        2 cm Muck (A10)        2 ed Parent Material (TF2)        Very Shallow Dark Surface (TF12)        Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present
Type: C=Concentration, D=Depletion, RM lydric Soil Indicators: (Applicable to all Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleved Matrix (S4)	Reduced Matrix, CS=Covered or Coated Sand Gr LRRs, unless otherwise noted.) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         Indicators for Problematic Hydric Soils        2 cm Muck (A10)        2 ed Parent Material (TF2)        Very Shallow Dark Surface (TF12)        Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Type: C=Concentration, D=Depletion, RM ydric Soil Indicators: (Applicable to all Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present):	<ul> <li>Reduced Matrix, CS=Covered or Coated Sand Gr</li> <li>LRRs, unless otherwise noted.)</li> <li>Sandy Redox (S5)</li> <li>Stripped Matrix (S6)</li> <li>Loamy Mucky Mineral (F1) (except MLRA 1)</li> <li>Loamy Gleyed Matrix (F2)</li> <li>Depleted Matrix (F3)</li> <li>Redox Dark Surface (F6)</li> <li>Depleted Dark Surface (F7)</li> <li>Redox Depressions (F8)</li> </ul>	Pains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         Indicators for Problematic Hydric Soils        2 cm Muck (A10)        Red Parent Material (TF2)        Very Shallow Dark Surface (TF12)        Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Type:       C=Concentration, D=Depletion, RM         ydric Soil Indicators:       (Applicable to all	Reduced Matrix, CS=Covered or Coated Sand Gr LRRs, unless otherwise noted.) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         Indicators for Problematic Hydric Soils        2 cm Muck (A10)                                       Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

No soil pit was dug due to lack of hydrophytic vegetation, lack of surface hydrology indicators, and sampling point location on road shoulder.

### HYDROLOGY

Secondary Indicators (2 or more required)
ept Water-Stained Leaves (B9) (MLRA 1, 2,
4A, and 4B)
Drainage Patterns (B10)
Dry-Season Water Table (C2)
Saturation Visible on Aerial Imagery (C9)
ring Roots (C3) Geomorphic Position (D2)
Shallow Aquitard (D3)
oils (C6) FAC-Neutral Test (D5)
(LRR A) Raised Ant Mounds (D6) (LRR A)
Frost-Heave Hummocks (D7)
Wetland Hydrology Present? Yes No X
ctions), if available:

U.S. Army Cor WETLAND DETERMINATION DATA SHEET – See ERDC/EL TR-10-3; the pr	rps of Engin Western Mour oponent age	eers ntains, Valleys, a ncy is CECW-0	and Coast Region CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Kimball Junction FIS		City/County: Su	ummit County	Sampling Date: 8/7/2023
Applicant/Owner: UDOT			State U	T Sampling Point SP-25
Investigator(s): Joshua McMillin Lacev Wilder		Section Townshi	in Range: S19 T1S F	24F
Landform (hillside terrace etc.): Basin		al relief (concave	convex none): Conc	ave Slope (%): 2
Subrogion (LPP): LPP E	530002		, convex, none). <u>conc</u>	
Soil Man Linit Name: Harter gravelly loam 2 to 15 per			Ig. <u>-111.3377804</u>	classification:
Are elimetic / hydrologic conditions on the site typical f	or this time of w		No //fr	
Are climatic / hydrologic conditions on the site typical in		ear? Yes		io, explain in Remarks.)
Are Vegetation, Soil, or Hydrology	significantly dist	urbed? Are "Nor	rmal Circumstances" pre	esent? Yes X No
Are Vegetation, Soil, or Hydrology	naturally proble	matic? (If neede	ed, explain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site ma	ap showing	sampling poir	nt locations, trans	ects, important features, etc.
Hydrophytic Vegetation Present? Yes X N	0	Is the Samp	led Area	
Hydric Soil Present? Yes N	o X	within a We	tland? Yes	No X
Wetland Hydrology Present? Yes N	0 <u>X</u>			
Remarks: Sampling point does not meet the criteria for a wetlan	d.			
VEGETATION – Use scientific names of p	olants.			
Tree Stratum (Dist size: 20 ft radius )	Absolute E	Dominant Indica		at workshoot
1			Us Dominance Tes	inant Species That
2.			Are OBL, FACW	/, or FAC: 1 (A)
3.			Total Number of	f Dominant Species
4.			Across All Strat	a: <u> </u>
Sapling/Shrub Stratum (Plot size: 15 ft radius	)=To	otal Cover	Percent of Dom Are OBL, FACW	inant Species That /, or FAC: <u>100.0%</u> (A/B)
1			Prevalence Ind	er worksheet.
3.			Total % Co	over of: Multiply by:
4.			OBL species	0   x 1 = 0
5.			FACW species	90 x 2 = 180
	=To	otal Cover	FAC species	0 x 3 = 0
Herb Stratum (Plot size: 5 ft radius )			FACU species	0 x 4 = 0
1. Juncus arcticus ssp. littoralis	80	Yes FAC	W UPL species	$0 \times 5 = 0$
2. Carex praegracilis	10	No FAC	Column Totals:	90 (A) $180$ (B)
3			Prevalence I	$\operatorname{Hdex} = \operatorname{B/A} = 2.00$
5.			Hydrophytic Ve	getation Indicators:
6.			1 - Rapid Te	est for Hydrophytic Vegetation
7.			X 2 - Dominar	nce Test is >50%
8.			3 - Prevaler	nce Index is ≤3.0 <sup>1</sup>
9			4 - Morpholo	ogical Adaptations <sup>1</sup> (Provide supporting
10			data in R	emarks or on a separate sheet)
11			5 - Wetland	Non-Vascular Plants'
Woody Vine Stratum (Plot size:	90_=To )	Dial Cover	<sup>1</sup> Indicators of hy	Hydropnytic Vegetation" (Explain)
2				ss distribed of problematic.
-:	=To	otal Cover		
% Bare Ground in Herb Stratum 10			Present?	Yes X No
Remarks:			1	

Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) % Type <sup>1</sup> Loc <sup>2</sup> Texture Rema	arks
0-13 10YR 2/1 100 Loamv/Clavey	
13-17 10VR 2/1 98 10VR 1/6 2 C M Loamy/Clayey Prominent redox	concentrations
13-17 IOTK 2/1 96 IOTK 4/6 2 C IVI LOamy/Clayey Prominent redux	concentrations
<sup>1</sup> Turner, C=Concentration, D=Depletion, PM=Beduced Matrix, CS=Covered or Costed Sand Graine, <sup>2</sup> Legation; PL=Berg Lining	~ M-Motrix
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered of Coated Sand Grains.	g, M=Maux.
Histocol (A1) Sandy Gleved Matrix (S4) 2 cm Muck (A10) (I RR A	F
Histic Eninedon (A2) Sandy Redox (S5) Iron-Manganese Masses (	(F12) <b>(I RR D)</b>
Reack Histic (Δ3)     Strinned Matrix (S6)     Red Parent Material (F21)	
Hvdrogen Sulfide (A4) Loamv Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface	≏ (F22)
1 cm Muck (Δ9) (I RR D G) Loamy Gleved Matrix (F2) Other (Explain in Remarks	2) (1 <i>22)</i>
Depleted Below Dark Surface (A11) Depleted Matrix (F3)	2)
Thick Dark Surface (A12) Redox Dark Surface (F6) <sup>3</sup> Indicators of hydrophytic year	tation and
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be	e present.
2.5 cm Mucky Peat or Peat (S2) (LRR G) Redox Depressions (F8) unless disturbed or problem	matic.
Restrictive Laver (if observed):	
Type	
Type: Depth (inches):	No X
Type: Depth (inches): Hydric Soil Present? Yes	NoX
Type: Depth (inches): Hydric Soil Present? Yes Remarks: No hvdric soil indicators present.	<u>No X</u>
Type:     Hydric Soil Present?     Yes       Depth (inches):     Hydric Soil Present?     Yes       Remarks:     No hydric soil indicators present.	<u>No X</u>
Type:	<u> </u>
Type: Depth (inches): Yes Remarks: No hydric soil indicators present. HYDROLOGY	<u>No X</u>
Type:	<u>No X</u>
Type:       Hydric Soil Present?       Yes         Depth (inches):       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       Hydric Soil Present?       Yes         HYDROLOGY       HYDROLOGY       Secondary Indicators (2 or more than the secondary Indicators (2 or more the secondary Indicators (2 or more the secondary Indicators (2 or m	No X
Type:       Hydric Soil Present?       Yes         Depth (inches):       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       Image: Soil Present Present?       Yes         HYDROLOGY       Image: Soil Present Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (2 or more surface Water (A1)         Surface Water (A1)       Water-Stained Leaves (B9) (except       Water-Stained Leaves (B9)	<u>No X</u> <u>re required)</u> 9) ( <b>MLRA 1, 2</b>
Type:       Hydric Soil Present?       Yes         Depth (inches):       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       HYDROLOGY         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (2 or mole Surface Water (A1)	<u>re required)</u> 3) (MLRA 1, 2
Type:       Hydric Soil Present?       Yes         Depth (inches):       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       HYDROLOGY         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (2 or monogenetic)         Surface Water (A1)       Water-Stained Leaves (B9) (except       Water-Stained Leaves (B9)         High Water Table (A2)       MLRA 1, 2, 4A, and 4B)       4A, and 4B)         Saturation (A3)       Salt Crust (B11)       Drainage Patterns (B10)	<u>re required)</u> 9) (MLRA 1, 2
Type:       Hydric Soil Present?       Yes         Depth (inches):       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       Hydric Soil Present?       Yes         HYDROLOGY       Hydrology Indicators:       Secondary Indicators (2 or more surface Water (A1)       Water-Stained Leaves (B9) (except       Water-Stained Leaves (B9)         Surface Water (A1)       Water-Stained Leaves (B9) (except       Water-Stained Leaves (B9)       Water-Stained Leaves (B9)         High Water Table (A2)       MLRA 1, 2, 4A, and 4B)       4A, and 4B)       4A, and 4B)         Saturation (A3)       Salt Crust (B11)       Drainage Patterns (B10)       Drainage Patterns (B10)         Water Marks (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (A2)       Dry-Season Water Table (A2)	<u>No X</u> <u>re required)</u> 9) ( <b>MLRA 1, 2</b> (C2)
Type:       Hydric Soil Present?       Yes         Depth (inches):       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       Image: Source State	<u>No X</u> <u>re required)</u> 9) ( <b>MLRA 1, 2</b> (C2) al Imagery (C9)
Type:       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       Yes         HYDROLOGY       Yetland Hydrology Indicators:       Yetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (2 or mole water-Stained Leaves (B9) (except         Might Water Table (A2)       MLRA 1, 2, 4A, and 4B)       4A, and 4B)         Saturation (A3)       Salt Crust (B11)       Drainage Patterns (B10)         Water Marks (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (0)         Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aeria         Drift Deposits (B3)       Oxidized Rhizospheres on Living Roots (C3)       Geomorphic Position (D2)	<u>re required)</u> 9) ( <b>MLRA 1, 2</b> (C2) al Imagery (C9)
Type:       Hydric Soil Present?       Yes         Depth (inches):	<u>re required)</u> 3) ( <b>MLRA 1, 2</b> (C2) al Imagery (C9)
Type:       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       Present?       Yes         HYDROLOGY       Secondary Indicators:       Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (2 or more secon	<u>re required)</u> 9) ( <b>MLRA 1, 2</b> (C2) al Imagery (C9)
Type:       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       Present?       Yes         HYDROLOGY       Vetland Hydrology Indicators:       Vetland Hydrology Indicators:       Vetland Hydrology Indicators (minimum of one is required; check all that apply)       Secondary Indicators (2 or moly thick of the secondary Indicators (2 or moly the secondary Indicat	<u>No X</u> <u>re required)</u> 9) ( <b>MLRA 1, 2</b> (C2) al Imagery (C9)
Type:       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       Hydric Soil Present?       Yes         HYDROLOGY       Wetland Hydrology Indicators:       Secondary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (2 or mole surface Water (A1)	<u>No X</u> <u>re required)</u> (MLRA 1, 2 (C2) al Imagery (C9) LRR A) D7)
Type:       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       HyDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (2 or more secondary Indicatory Indicatory Indicators (2 or more secondary Indicator	<u>re required)</u> a) ( <b>MLRA 1, 2</b> (C2) al Imagery (C9) <b>LRR A</b> ) D7)
Type:       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       HYDROLOGY         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (2 or monogenetic states (B9) (except)         Might Water Table (A2)       MLRA 1, 2, 4A, and 4B)       Water-Stained Leaves (B9) (except)         High Water Table (A2)       MLRA 1, 2, 4A, and 4B)       Drainage Patterns (B10)         Water Marks (B1)       Aquatic Invertebrates (B13)       Drainage Patterns (B10)         Water Marks (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (A2)         Mydrogen Sulfide Odor (C1)       Saturation Visible on Aeria       Oxidized Rhizospheres on Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       X FAC-Neutral Test (D5)       Raised Ant Mounds (D6) (I         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (I         Sparsely Vegetated Concave Surface (B8)       Field Observations:       Frost-Heave Hummocks (I	<u>re required)</u> (C2) (C2) (C2) (C2) (C2) (C2) (C2) (C2)
Type:       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       Hydric Soil Present?       Yes         HYDROLOGY       Wetland Hydrology Indicators:       Secondary Indicators (2 or mole streage of the strea	<u>re required)</u> (C2) (C2) (al Imagery (C9) (LRR A) D7)
Type:       Hydric Soil Present?       Yes         Remarks:       No hydric soil indicators present.       Hydric Soil Present?       Yes         HYDROLOGY       Wetland Hydrology Indicators:       Secondary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (2 or mo         Surface Water (A1)       Water-Stained Leaves (B9) (except       Water-Stained Leaves (B9)       4A, and 4B)         Saturation (A3)       Salt Crust (B11)       Drainage Patterns (B10)       Drainage Patterns (B10)         Water Marks (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (02)       MLRA 1, 2, 4A, and 4B)         Saturation (A3)       Salt Crust (B11)       Drainage Patterns (B10)       Dry-Season Water Table (02)         Mitper Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aeria       Oxidized Rhizospheres on Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       X FAC-Neutral Test (D5)       Raised Ant Mounds (D6) (02)         Surface Soil Cracks (B6)       Other (Explain in Remarks)       Frost-Heave Hummocks (D         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D </td <td><u>re required)</u> 9) (<b>MLRA 1, 2</b> (C2) al Imagery (C9) <b>LRR A</b>) D7)</td>	<u>re required)</u> 9) ( <b>MLRA 1, 2</b> (C2) al Imagery (C9) <b>LRR A</b> ) D7)

(includes capillary fringe)

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

#### Remarks:

No hydrology indicators present.

U.S. Army Corp WETLAND DETERMINATION DATA SHEET - V	os of Eng	ineers Juntains Val	levs and (	coast Region	OMB Control #: 0710-0024, E Requirement Control Syml	xp: 11/30/2024 pol EXEMPT:
See ERDC/EL TR-10-3; the pro	ponent ag	gency is CE	CW-CO-F	R	(Authority: AR 335-15, par	agraph 5-2a)
Project/Site: Kimball Junction EIS		City/Cour	nty: Summi	County	Sampling Date:	8/8/2023
Applicant/Owner: UDOT				State: U	IT Sampling Point:	SP-26
Investigator(s): Joshua McMillin, Lacey Wilder		Section, T	ownship, Ra	inge: S19, T1S, F	R4E	
Landform (hillside, terrace, etc.): Terrace	I	_ocal relief (co	oncave, con	vex, none): Conc	ave Slo	ope (%): <u>10</u>
Subregion (LRR): LRR E Lat: 40.724	93744		Long: -	111.536026	Datum:	NAD83
Soil Map Unit Name: Wanship loam, 0 to 3 percent slop	bes			NWI	classification:	
Are climatic / hydrologic conditions on the site typical fo	r this time of	year?	Yes	No (lf r	no, explain in Remarks.)	
Are Vegetation , Soil , or Hydrology s	ignificantly o	listurbed? A	re "Normal (	Circumstances" pre	esent? Yes X N	lo
Are Vegetation , Soil , or Hydrology n	aturally prob	lematic? (I	f needed, ex	plain any answers	in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	p showin	g sampling	g point lo	cations, trans	ects, important fea	itures, etc.
Hydrophytic Vegetation Present? Yes X No		Is the	Sampled A	rea		
Hydric Soil Present? Yes X No		within	n a Wetland	? Yes	X No	
Wetland Hydrology Present? Yes X No						
Remarks: Sampling point meets the criteria for a wetland.						
VEGETATION – Use scientific names of pl	ants.					
Tree Stratum (Plot size: 30 ft radius )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Tes	st worksheet	
1.				Number of Dom	inant Species That	
2.				Are OBL, FACW	V, or FAC:	1 (A)
3				Total Number of	f Dominant Species	
4				Across All Strata	a:	1(B)
Sapling/Shrub Stratum (Plot size: 15 ft radius )	<sup>=</sup>	Total Cover		Percent of Dom Are OBL, FACW	inant Species That V, or FAC:	00.0% (A/B)
1			<u> </u>			
2				Prevalence Ind	lex worksheet:	v bv/
З					0 x 1 =	<u>y by.</u> 0
5.				FACW species	80 x 2 =	160
		Total Cover		FAC species	35 x 3 =	105
Herb Stratum (Plot size: 5 ft radius )				FACU species	0 x 4 =	0
1. Atriplex prostrata	10	No	FAC	UPL species	0 x 5 =	0
2. Juncus arcticus ssp. littoralis	80	Yes	FACW	Column Totals:	<u>115</u> (A)	265 (B)
3. Polygonum aviculare	5			Prevalence I	ndex = B/A = 2.3	0
5.			1.40	Hydrophytic Ve	egetation Indicators:	
6.				1 - Rapid Te	est for Hydrophytic Vege	tation
7.				X 2 - Dominar	nce Test is >50%	
8				X 3 - Prevaler	nce Index is $\leq 3.0^1$	
9				4 - Morpholo	ogical Adaptations (Prov	ide supporting
10					New Version a separate	sneet)
<sup>11</sup>	115 =	Total Cover		o - vvetland Problematic	: Non-vascular Plants	<sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)				<sup>1</sup> Indicators of hy	dric soil and wetland hyd	drology must
2				pe present, unle	ess disturbed or problem	auc.
۲ <u>۰</u>	<u> </u>	Total Cover		Hydrophytic		
% Bare Ground in Herb Stratum 0				Present?	Yes X No	
Remarks:				1		

Depth	Matrix		Redo	ox Featur	es					
(inches)	Color (moist)	% Co	lor (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Tex	ture	Remarks	
0-6	10YR 2/1	100					Loamy/Clayey		Roots	
6-16	10YR 2/1	92 7	.5YR 4/6	8	С	М	Loamv/Clavev		Prominent redox concentrations	
				. <u> </u>						
	·			·						
	·			·				<u> </u>		
				·						
<sup>1</sup> Type: C=C	oncentration, D=Depletio	on, RM=Red	uced Matrix, (	CS=Cove	red or Co	pated Sa	and Grains.	<sup>2</sup> Loca	ation: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators: (Applicable	to all LRRs	, unless oth	erwise n	oted.)			Indicato	rs for Problematic Hydric Soils <sup>3</sup> :	
Histosol	(A1)		Sandy Gle	eyed Mat	, rix (S4)			2 cm	n Muck (A10) <b>(LRR A, E)</b>	
Histic Er	pipedon (A2)	—	Sandy Re	dox (S5)	. ,			Iron-	Manganese Masses (F12) (LRR D)	
Black Hi	istic (A3)	_	Stripped N	Matrix (Se	6)			Red	Parent Material (F21)	
Hydroge	en Sulfide (A4)	_	Loamy Mu	ucky Mine	eral (F1)	(except	MLRA 1)	Very	Shallow Dark Surface (F22)	
1 cm Mu	uck (A9) <b>(LRR D, G)</b>	—	Loamy Gl	eyed Mat	rix (F2)			Othe	er (Explain in Remarks)	
Depleted	d Below Dark Surface (A	.11)	Depleted	Matrix (F	3)					
Thick Da	ark Surface (A12)	_	X Redox Da	rk Surfac	e (F6)			<sup>3</sup> Indicator	rs of hydrophytic vegetation and	
Sandy M	/lucky Mineral (S1)	_	Depleted	Dark Sur	face (F7)			wetla	and hydrology must be present,	
2.5 cm M	Mucky Peat or Peat (S2)	(LRR G)	Redox De	pression	s (F8)			unles	ss disturbed or problematic.	
Restrictive	Layer (if observed):									
Type:										
Depth (ir	nches):						Hydric So	oil Present	t? Yes <u>X</u> No	
Remarks:										
Hydric soil in	ndicator F6 present.									
HYDROLC	OGY									
	OGY									
HYDROLC Wetland Hy	DGY drology Indicators:	is required:	beck all that	apply)				Seconda	ry Indicators (2 or more required)	
HYDROLC Wetland Hy Primary India	OGY drology Indicators: cators (minimum of one Water (A1)	is required; o	theck all that	apply)		(aycapt		Seconda Wate	ry Indicators (2 or more required)	
HYDROLC Wetland Hy Primary India Surface High Wa	OGY drology Indicators: cators (minimum of one Water (A1) ater Table (A2)	is required; o	heck all that Water-Sta	apply) ained Lea	ves (B9)	(except		Seconda	ry Indicators (2 or more required) er-Stained Leaves (B9) (MLRA 1, 2	
HYDROLC Wetland Hy Primary India Surface High Wa	DGY drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3)	is required; o	heck all that Water-Sta MLRA	<u>apply)</u> ained Lea <b>1, 2, 4A,</b>	ves (B9) and 4B)	(except		Seconda Wate	ry Indicators (2 or more required) er-Stained Leaves (B9) ( <b>MLRA 1, 2</b> <b>A, and 4B</b> )	
HYDROLC Wetland Hy Primary India Surface High Wa X Saturatio Water M	OGY drology Indicators: <u>cators (minimum of one</u> Water (A1) ater Table (A2) on (A3) darks (B1)	is required; o	check all that Water-Sta MLRA Salt Crust	<u>apply)</u> ained Lea <b>1, 2, 4A,</b> : (B11)	ves (B9) and 4B)	(except	 t	Seconda Wate 4, Drair	ry Indicators (2 or more required) er-Stained Leaves (B9) ( <b>MLRA 1, 2</b> <b>A, and 4B</b> ) nage Patterns (B10) Season Water Table (C2)	
HYDROLC Wetland Hy Primary India Surface High Wa X Saturatio Water M Sedimer	DGY drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2)	is required; o	Check all that Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen	apply) ained Lea <b>1, 2, 4A,</b> : (B11) overtebrat	ves (B9) and 4B) tes (B13)	(except		Seconda Wate 4, Drair X Dry-S	ry Indicators (2 or more required) er-Stained Leaves (B9) ( <b>MLRA 1, 2</b> <b>A, and 4B</b> ) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9)	
HYDROLC Wetland Hy Primary India Surface High Wa X Saturatio Water M Sedimer Drift Der	DGY drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3)	is required; o 	<u>heck all that</u> Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized I	apply) ained Lea <b>1, 2, 4A,</b> : (B11) ivertebrat Sulfide ( Rhizosph	ves (B9) and 4B) es (B13) Odor (C1) eres on l	(except	t	Seconda Wate 4, Drair X Dry-S Satu Geor	ry Indicators (2 or more required) er-Stained Leaves (B9) ( <b>MLRA 1, 2</b> <b>A, and 4B</b> ) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9) morphic Position (D2)	
HYDROLC Wetland Hy Primary India Surface High Wa X Saturatio Water M Sedimer Drift Dep Algal Ma	DGY drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	is required; o 	check all that Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized I Presence	apply) ained Lea <b>1, 2, 4A,</b> (B11) avertebrat Sulfide ( Rhizosph of Reduc	ves (B9) and 4B) tes (B13) Ddor (C1) eres on I ced Iron (	(except	t boots (C3)	Seconda Wate 4, Drair X Dry-5 Satu Geor Shall	ry Indicators (2 or more required) er-Stained Leaves (B9) ( <b>MLRA 1, 2</b> <b>A, and 4B</b> ) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9) morphic Position (D2) low Aguitard (D3)	
HYDROLC Wetland Hy Primary India Surface High Wa X Saturatio Water M Sedimer Drift Dep Algal Ma	DGY drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	is required; ( 	check all that Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized I Presence Recent Irr	apply) ained Lea <b>1, 2, 4A,</b> (B11) wertebrat Sulfide ( Rhizosph of Reduc	ves (B9) and 4B) tes (B13) Ddor (C1) eres on L ced Iron ( tion in Ti	(except ) .iving Ro C4)	t pots (C3)	Seconda Wate 4, Drair X Dry-S Satu Geor Shall X FAC:	ry Indicators (2 or more required) er-Stained Leaves (B9) ( <b>MLRA 1, 2</b> <b>A, and 4B</b> ) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9) morphic Position (D2) low Aquitard (D3) -Neutral Test (D5)	
HYDROLC Wetland Hy Primary India Surface High Wa X Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	DGY drology Indicators: <u>cators (minimum of one</u> Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	<u>is required; (</u>	Check all that Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized I Presence Recent Ird Stunted o	apply) ained Lea <b>1, 2, 4A,</b> (B11) wertebrat Sulfide C Rhizosph of Reduc on Reduc on Reduc	ves (B9) and 4B) ees (B13) Odor (C1) eres on I ced Iron ( tion in Ti d Plants	(except ) .iving Ro C4) Iled Soil: (D1) (LF	t pots (C3) s (C6) <b>RR A</b> )	Seconda Wate Drair X Dry-S Satu Geor Shall X FAC- Raise	ry Indicators (2 or more required) er-Stained Leaves (B9) ( <b>MLRA 1, 2</b> <b>A, and 4B</b> ) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9) morphic Position (D2) low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) ( <b>LRR A</b> )	
HYDROLC Wetland Hy Primary India Surface High Wa X Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	DGY drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial Ima	<u>is required; (</u>	Check all that Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized I Presence Recent Iro Stunted o Other (Ex	apply) ained Lea <b>1, 2, 4A,</b> (B11) overtebrat Sulfide C Rhizosph of Reduc on Reduc r Stresse plain in R	ves (B9) and 4B) des (B13) Ddor (C1 eres on L ced Iron ( tion in Ti d Plants gemarks)	( <b>except</b> iving Ro C4) Iled Soil: (D1) ( <b>LF</b>	t boots (C3) s (C6) <b>RR A</b> )	Seconda Wate Drair X Dry-S Satu Geor Shall X FAC Raise Fros	ry Indicators (2 or more required) er-Stained Leaves (B9) ( <b>MLRA 1, 2</b> <b>A, and 4B</b> ) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9) morphic Position (D2) low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) ( <b>LRR A</b> ) t-Heave Hummocks (D7)	

1		<b>(</b> -	,				
Field Observations:							
Surface Water Present?	Yes		No <u>X</u>	Depth (inches):			
Water Table Present?	Yes	Х	No	Depth (inches): 16			
Saturation Present?	Yes	Х	No	Depth (inches): 0	Wetland Hydrology Present?	Yes X	No
(includes capillary fringe)							
Describe Recorded Data (str	ream ga	uge, mon	itoring well, ae	rial photos, previous inspection	ons), if available:		

#### Remarks:

Hydrology present with saturation as a primary hydrology indicator and dry-season water table and FAC-Neutral test as secondary hydrology indicators.

U.S. Army Corp	os of Eng	gineers			OMB Control #: 0710-00	)24, Exp: 11/30/2024
WETLAND DETERMINATION DATA SHEET – V See ERDC/EL TR-10-3; the pro	Vestern Me ponent a	ountains, Val gency is CE	lleys, and C CW-CO-F	coast Region २	Requirement Control (Authority: AR 335-15	Symbol EXEMPT: , paragraph 5-2a)
Project/Site: Kimball Junction EIS		City/Cour	nty: Summi	t County	Sampling D	ate: 8/8/2023
Applicant/Owner: UDOT				State: U	T Sampling Po	oint: SP-27
Investigator(s): Joshua McMillin. Lacev Wilder		Section. T	ownship. Ra	ange: S19. T1S. F	4E	
Landform (hillside, terrace, etc.): Hillslope		Local relief (co	oncave, conv	vex, none): None		Slope (%): 5
Subregion (LRR): LRR E Lat: 40.724	38022	,	Lona: -	111.536026	Dat	um: NAD83
Soil Map Unit Name: Wanship loam 0 to 3 percent slop	es			NWI	classification.	
Are climatic / hydrologic conditions on the site typical for	r this time o	of vear?	Ves	No (lf n		
Are Vignetation Soil or the sterior	i unis unie u	diaturbad2	ro "Normal (			No.
Are vegetation, sol, or Hydrologys		historia (		unicumstances pre	isent? Yes <u> </u>	
SUMMARY OF FINDINGS – Attach site ma	n showir	na samplin	n needed, e	cations trans	in Remarks.)	foaturos otc
	p snown					
Hydrophytic Vegetation Present? Yes No	<u></u>	Is the	Sampled A	Area		
Hydric Soll Present? Yes No	<u> </u>	withi	n a wetland	res_	NO X	
Pemerke:						
No soil pit was dug due to lack of hydrophytic vegetatic Sampling point does not meet the criteria for a wetland	on, lack of s	urface hydrolo	gy indicators	s, and sampling poi	nt location on road s	houlder.
VEGETATION – Use scientific names of pl	ants.					
	Absolute	Dominant	Indicator			
Tree Stratum (Plot size: <u>30 ft radius</u> )	% Cover	Species?	Status	Dominance Tes	st worksheet:	
2				Number of Dom	inant Species That	0 (A)
3.				Total Number of	Dominant Spacias	(X)
4.				Across All Strata	a:	2 (B)
		=Total Cover		Percent of Domi	nant Species That	
Sapling/Shrub Stratum (Plot size: 15 ft radius )				Are OBL, FACW	/, or FAC:	0.0% (A/B)
1						
2				Prevalence Ind	ex worksheet:	
3					over of: Mu	Iltiply by:
4				EACW species	0 x1=	
· · · · · · · · · · · · · · · · · · ·		=Total Cover		FAC species	15 x 3 =	45
Herb Stratum (Plot size: 5 ft radius )				FACU species	60 x 4 =	240
1. Pascopyrum smithii	10	No	FACU	UPL species	30 x 5 =	150
2. Agropyron cristatum	30	Yes	UPL	Column Totals:	105 (A)	435 (B)
3. Atriplex prostrata	5	No	FAC	Prevalence li	ndex = B/A =	4.14
4. Polygonum aviculare	10	No	FAC			
5. Symphyotrichum ascendens	40	Yes	FACU	Hydrophytic Ve	getation Indicators	.:
			FACU	2 - Dominar	oce Test is >50%	egetation
8.				3 - Prevalen	ice Index is $\leq 3.0^1$	
9.				4 - Morpholo	ogical Adaptations <sup>1</sup> (F	Provide supporting
10.				data in R	emarks or on a sepa	rate sheet)
11				5 - Wetland	Non-Vascular Plant	s <sup>1</sup>
	105	=Total Cover		Problematic	Hydrophytic Vegeta	tion <sup>1</sup> (Explain)
Woody Vine Stratum         (Plot size:)           1.        )				<sup>1</sup> Indicators of hy be present, unle	dric soil and wetland ss disturbed or prob	hydrology must lematic.
2				Hydrophytic		
		=Total Cover		Vegetation		
% Bare Ground in Herb Stratum0				Present?	Yes No	<u> </u>
Remarks:						

Profile Descri	ption: (Descr	ibe to the deptl	n needed to do	cument tl	ne indica	tor or co	onfirm the	absence of indicators.)
Depth	Matr	ix	Red	lox Featur	res			
(inches)	Color (moist	t) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Tex	ture Remarks
.								
.								
<sup>1</sup> Type: C=Con	centration D=I	Depletion RM=	Reduced Matrix		ered or Co		nd Grains	<sup>2</sup> Location: PL=Pore Liping M=Matrix
Hydric Soil In	dicators: (Ann	bicable to all L	Required matrix,	erwise n	oted )			Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A	(1)		Sandy G	leved Mat	rix $(S4)$			2 cm Muck (A10) (I RR A F)
Histic Enin	edon (A2)		Candy C	edox (S5)	IIX (0+)			Iron-Manganese Masses (E12) (I RR D)
Black Histi	(A3)		Stripped	Matrix (Si	3)			Red Parent Material (E21)
Hydrogen	Sulfide (A4)			lucky Min	eral (F1)	excent		Very Shallow Dark Surface (F22)
1 cm Muck	(A9) <b>(I RR D</b>	G)	Loamy G	ileved Ma	trix (F2)	(oncopt )		Other (Explain in Remarks)
Depleted F	Relow Dark Sur	face (A11)	Depleted	Matrix (F	3)			
Thick Dark	Surface (A12)	)	Redox D	ark Surfac	ce (F6)			<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mu	ckv Mineral (S1	, 1)	Depleted	Dark Sur	face (F7)			wetland hydrology must be present.
2.5 cm Mu	cky Peat or Pe	, eat (S2) <b>(LRR G</b> )	Redox D	epression	s (F8)			unless disturbed or problematic.
Bestrictive La	vor (if observe	ed):		•	( - )			ľ
Type.	yer (il observe	eu).						
Depth (inc	hes) <sup>.</sup>		_				Hydric S	nil Present? Yes No
Deptil (ille	<u> </u>						Tiyane o	
No soil pit was	dua due to lac	k of hydrophytic	vegetation lack	of surfac	e hydrolo	av indica	ators and	sampling point location on road shoulder
			vegetation, laci	COI Sullac		gy maio	ators, and	
HYDROLOG	iΥ							
Wetland Hydr	ology Indicato	ors:						
Primary Indica	tors (minimum	of one is require	ed; check all that	t apply)				Secondary Indicators (2 or more required)
Surface W	ater (A1)		Water-St	ained Lea	aves (B9)	(except		Water-Stained Leaves (B9) (MLRA 1, 2
High Wate	r Table (A2)		MLRA	A 1, 2, 4A	, and 4B)			<b>4A, and 4B</b> )
Saturation	(A3)		Salt Crus	st (B11)				Drainage Patterns (B10)
Water Mar	ks (B1)		Aquatic I	nvertebra	tes (B13)			Dry-Season Water Table (C2)
Sediment	Deposits (B2)		Hydroger	n Sulfide (	Odor (C1)			Saturation Visible on Aerial Imagery (C9)
Drift Depos	sits (B3)		Oxidized	Rhizosph	eres on L	iving Ro	ots (C3)	Geomorphic Position (D2)
Algal Mat	or Crust (B4)		Presence	e of Redu	ced Iron (	C4)		Shallow Aquitard (D3)
Iron Depos	sits (B5)		Recent Ir	on Reduc	tion in Ti	led Soils	s (C6)	FAC-Neutral Test (D5)
Surface So	oil Cracks (B6)		Stunted of	or Stresse	d Plants	(D1) ( <b>LR</b>	<b>R A</b> )	Raised Ant Mounds (D6) (LRR A)
Inundation	Visible on Aer	ial Imagery (B7)	Other (E:	kplain in F	Remarks)			Frost-Heave Hummocks (D7)
Sparsely \	egetated Cond	cave Surface (B	3)					
Field Observa	tions:							
Surface Water	Present?	Yes	No <u>X</u>	Depth (	inches):			
Water Table P	resent?	Yes	No	Depth (	inches):			
Saturation Pres	sent?	Yes	No	Depth (	inches):		Wetlan	d Hydrology Present? Yes No _X
(includes capill	ary fringe)							
Describe Reco	rded Data (stre	eam gauge, mor	itoring well, aeri	al photos	, previous	inspecti	ions), if ava	ailable:

#### Remarks:

No surface hydrology indicators present.

U.S. Army Cor WETLAND DETERMINATION DATA SHEET – V See ERDC/EL_TR-10-3: the pro	ps of Eng Vestern M	gineers ountains, Va	lleys, and C	Coast Region	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Kimball Junction EIS	ponenta	City/Cou		t County	Sampling Data: 8/8/2023
			nty. <u>Summ</u>	Chata:	Sampling Date. <u>6/6/2023</u>
		0 11 7			Sampling Point: SP-28
Investigator(s): Joshua McMillin, Lacey Wilder		Section, 1	ownship, Ra	inge: <u>S19, T1S, F</u>	R4E
Landform (hillside, terrace, etc.): Terrace		Local relief (c	oncave, conv	/ex, none): Conc	ave Slope (%): 10
Subregion (LRR): LRR E Lat: 40.724	24698		Long: -	111.5361557	Datum: NAD83
Soil Map Unit Name: Wanship loam, 0 to 3 percent slop	bes			NWI	classification:
Are climatic / hydrologic conditions on the site typical for	r this time o	of year?	Yes	No (If r	no, explain in Remarks.)
Are Vegetation, Soil, or Hydrologys	significantly	disturbed? A	re "Normal (	Circumstances" pre	esent? Yes X No
Are Vegetation, Soil, or Hydrologyr	naturally pro	blematic? (	lf needed, ex	plain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site ma	p showi	ng samplin	g point lo	cations, trans	ects, important features, etc.
Hydrophytic Vegetation Present?       Yes       X       No         Hydric Soil Present?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No         Remarks:       K       K       K	) ) )	ls the withi	e Sampled A n a Wetland	rea ? Yes	<u>X</u> No
Sampling point meets the criteria for a wetland.					
VEGETATION – Use scientific names of p	lants.				
Tree Stratum (Plot size: <u>30 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Te	st worksheet:
1 2		·		Number of Dom Are OBL, FACV	ninant Species That V, or FAC: 4 (A)
3.				Total Number o	f Dominant Species
4		-Tatal Cause		Across All Strat	a: <u>4</u> (B)
Sapling/Shrub Stratum (Plot size: 15 ft radius ) 1.		_ = I otal Cover		Percent of Dom Are OBL, FACV	inant Species That V, or FAC: <u>100.0%</u> (A/B)
2.				Prevalence Ind	lex worksheet:
3				Total % Co	over of: Multiply by:
4				OBL species	<u> </u>
5				FACW species	75   x 2 = 150
		=Total Cover		FAC species	25 x 3 = 75
<u>Herb Stratum</u> (Plot size: <u>5 it radius</u> )	20	Vec	FACW/		0 x4 = 0
2 Juncus arcticus ssp. littoralis		Yes	FACW	Column Totals	$-\frac{0}{130}$ (A) 255 (B)
3. Rumex obtusifolius	20	Yes	FAC	Prevalence I	ndex = B/A = 1.96
4. Carex nebrascensis	20	Yes	OBL		
5. Phalaris arundinacea	5	No	FACW	Hydrophytic Ve	egetation Indicators:
6. Nasturtium officinale	10	No	OBL	1 - Rapid T	est for Hydrophytic Vegetation
7. Cirsium arvense	5	No	FAC	X 2 - Domina	nce Test is >50%
8				X 3 - Prevaler	nce Index is ≤3.0 <sup>1</sup>
9		·		4 - Morpholo data in R	ogical Adaptations '(Provide supporting Remarks or on a separate sheet)
11				5 - Wetland	Non-Vascular Plants <sup>1</sup>
	130	=Total Cover		Problematio	c Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum         (Plot size:)           1         1				<sup>1</sup> Indicators of hy	ydric soil and wetland hydrology must
2.		·			see alotanood of problomatio.
% Bare Ground in Herb Stratum0		=Total Cover		Hydrophytic Vegetation Present?	Yes X No
Remarks: Hydrophytic vegetation present.					

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Profile Desc	ription: (Describe	to the depti	n needed to docu	ument th	ne indica	tor or c	onfirm the abs	ence of	indicators	.)	
Depth	Matrix		Redo	x Featur	es						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture			Remarks	
0-4	10YR 2/1	100					Mucky Pea	at			
4-13	10YR 4/2	90	7.5YR 4/6	10	С	М	Loamy/Clay	/ey	Promine	nt redox conc	entrations
·											
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=F	Reduced Matrix, C	S=Cove	red or Co	bated Sa	and Grains.	<sup>2</sup> Locati	on: PL=Pc	ore Lining, M=	Matrix.
Hydric Soil I	ndicators: (Applica	ble to all Ll	RRs, unless othe	erwise n	oted.)		Ind	licators	for Proble	matic Hydric	: Soils <sup>3</sup> :
Histosol	(A1)		Sandy Gle	yed Mat	rix (S4)			2 cm N	luck (A10)	(LRR A, E)	
Histic Ep	ipedon (A2)		Sandy Red	dox (S5)				Iron-Ma	anganese N	Masses (F12)	(LRR D)
Black His	stic (A3)		Stripped M	latrix (Se	6)			Red Pa	arent Mater	ial (F21)	
Hydrogei	n Sulfide (A4)		Loamy Mu	icky Mine	eral (F1)	(except	MLRA 1)	Very S	hallow Dar	k Surface (F2	2)
1 cm Mu	ck (A9) <b>(LRR D, G)</b>		Loamy Gle	eyed Mat	rix (F2)			Other (	Explain in	Remarks)	
Depleted	Below Dark Surface	e (A11)	X Depleted I	Matrix (F	3)						
Thick Da	rk Surface (A12)		Redox Da	rk Surfac	e (F6)		<sup>3</sup> Inc	dicators	of hydroph	ytic vegetatio	n and
Sandy M	ucky Mineral (S1)		Depleted [	Dark Sur	face (F7)			wetland	d hydrology	/ must be pre	sent,
2.5 cm N	lucky Peat or Peat (	62) <b>(LRR G</b> )	Redox De	pression	s (F8)			unless	disturbed of	or problematio	<b>)</b> .
Restrictive L	ayer (if observed):										
Туре:	Cobble	•									
Depth (in	iches):	13	_				Hydric Soil P	resent?		Yes X	No
Remarks:											
Hydric soil in	dicator F3 present.										

#### HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required;	check all that apply)	Secondary Indicators (2 or more required)
Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2
X High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	4A, and 4B)
X Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)
Water Marks (B1)	Aquatic Invertebrates (B13)	X Dry-Season Water Table (C2)
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized Rhizospheres on Living Roo	ts (C3) Geomorphic Position (D2)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	X Shallow Aquitard (D3)
Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils	(C6) X FAC-Neutral Test (D5)
Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRF	RA) Raised Ant Mounds (D6) (LRR A)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave Surface (B8)		
Field Observations:		
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes X	No Depth (inches): 12	
Saturation Present? Yes X	No Depth (inches): 0	Wetland Hydrology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monito	pring well, aerial photos, previous inspectio	ns), if available:
Remarks:		
Hydrology present with saturation and high wate	er table as primary hydrology indicators.	

U.S. Army Cor WETLAND DETERMINATION DATA SHEET - 1 See ERDC/EL_TR-10-3: the pro-	ps of Eng Western M	gineers ountains, Val	leys, and C	Coast Region	OMB Control #: 0710-00 Requirement Control S (Authority: AR 335-15,	24, Exp: 11/30/2024 Symbol EXEMPT: paragraph 5-2a)
Project/Site: Kimball Junction EIS	sponent a	City/Cour		t County	Sampling Da	ato: 8/8/2023
			ity. <u>Summ</u>	Stata:	Sampling Da	int: SR 20
						Int: <u>5P-29</u>
Investigator(s): Joshua McMillin, Lacey Wilder		Section, I	ownship, Ra	ange: <u>S19, I1S, R</u>	(4E	
Landform (hillside, terrace, etc.): Hillslope		Local relief (co	oncave, conv	vex, none): None		Slope (%): 5
Subregion (LRR): LRR E Lat: 40.724	28513		Long:	111.5360794	Datu	im: NAD83
Soil Map Unit Name: Wanship loam, 0 to 3 percent slo	pes			NWI	classification:	
Are climatic / hydrologic conditions on the site typical for	or this time o	of year?	Yes X	No (If n	io, explain in Remark	s.)
Are Vegetation, Soil, or Hydrologys	significantly	disturbed? A	re "Normal (	Circumstances" pre	esent? Yes X	No
Are Vegetation, Soil, or Hydrology	naturally pro	blematic? (I	f needed, ex	xplain any answers	in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	ap showii	ng sampling	g point lo	ocations, transe	ects, important f	features, etc.
Hydrophylic Vegetation Present? Yes No	<u>×</u>	is the	sampled A a Wetland	area 12 Yos	No X	
Wetland Hydrology Present? Yes No	<u>x</u>	with				
Remarks:						
No soil pit was dug due to lack of hydrophytic vegetati Sampling point does not meet the criteria for a wetland	on, lack of s d.	surface hydrolo	gy indicators	s, and sampling poi	nt location on road sl	noulder.
VEGETATION – Use scientific names of p	lants.					
	Absolute	Dominant	Indicator			
<u>I ree Stratum</u> (Plot size: <u>30 ft radius</u> )	% Cover	Species?	Status	Dominance Tes	st worksneet:	
2		·		Are OBL FACW	Inant Species That	0 (A)
3.		·		Total Number of	- Dominant Species	(.)
4.				Across All Strata	a:	2 (B)
Sapling/Shrub Stratum (Plot size: 15 ft radius	)	=Total Cover		Percent of Domi Are OBL, FACW	inant Species That /, or FAC:	0.0% (A/B)
1		·		Brovalence Ind	ox workshoot:	
3		·		Total % Co	over of Mu	ltiply by
4.		·		OBL species	$\frac{1}{0} \frac{1}{x 1} = 1$	0
5.				FACW species	0 x 2 =	0
		=Total Cover		FAC species	10 x 3 =	30
<u>Herb Stratum</u> (Plot size: <u>5 ft radius</u> )				FACU species	35 x 4 =	140
1. Pascopyrum smithii	35	Yes	FACU	UPL species	<u>35</u> x 5 =	175
2. Agropyron cristatum	35	Yes		Column Totals:	80 (A)	345 (B)
3. Atriplex prostrata	10	NO	FAC	Prevalence In	ndex = B/A =	4.31
4		·		Hydrophytic Ve	actation Indicators	
6.				1 - Rapid Te	est for Hydrophytic Ve	egetation
7.				2 - Dominar	nce Test is >50%	0
8.				3 - Prevalen	ice Index is ≤3.0 <sup>1</sup>	
9.				4 - Morpholo	ogical Adaptations <sup>1</sup> (P	rovide supporting
10				data in Re	emarks or on a separ	ate sheet)
11				5 - Wetland	Non-Vascular Plants	· 1/- · · ·
Woody Vine Stratum (Plot size:	) 80	=Total Cover		Problematic <sup>1</sup> Indicators of hy	Hydrophytic Vegetal dric soil and wetland ss disturbed or proble	ion' (Explain) hydrology must
2.		·				
		=Total Cover		Hydrophytic Vegetation		
% Bare Ground in Herb Stratum 20				Present?	Yes <u>No</u>	Х
Remarks:				!		

	needed to document the indicator or co	onfirm the absence of	indicators.)
Depth Matrix	Redox Features 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 +	<b>T t</b>	Demonto
	Color (moist) % Type Loc		Remarks
ype: C=Concentration, D=Depletion, RM=Re	educed Matrix, CS=Covered or Coated Sa	nd Grains. <sup>2</sup> Locati	on: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable to all LRF	Rs, unless otherwise noted.)	Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Gleyed Matrix (S4)	2 cm N	uck (A10) <b>(LRR A, E)</b>
Histic Epipedon (A2)	Sandy Redox (S5)	Iron-Ma	anganese Masses (F12) <b>(LRR D)</b>
Black Histic (A3)	Stripped Matrix (S6)	Red Pa	rent Material (F21)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (except I	MLRA 1) Very S	nallow Dark Surface (F22)
1 cm Muck (A9) <b>(LRR D, G)</b>	Loamy Gleyed Matrix (F2)	Other(	Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	2	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	°Indicators	of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland	I hydrology must be present,
2.5 cm Mucky Peat or Peat (S2) (LRR G)	Redox Depressions (F8)	unless	disturbed or problematic.
lestrictive Laver (if observed):			
Туре:			
Type: Depth (inches): Remarks:	-	Hydric Soil Present?	Yes <u>No</u>
Type: Depth (inches): Remarks: Io soil pit was dug due to lack of hydrophytic v	- - egetation, lack of surface hydrology indica	Hydric Soil Present?	Yes <u>No</u>
Type: Depth (inches): emarks: o soil pit was dug due to lack of hydrophytic v YDROLOGY /etland Hydrology Indicators:	- regetation, lack of surface hydrology indica	Hydric Soil Present?	Yes <u>No</u>
Type: Depth (inches): emarks: o soil pit was dug due to lack of hydrophytic v YDROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one is required	egetation, lack of surface hydrology indica	Hydric Soil Present? ators, and sampling poin	Yes <u>No</u> nt location on road shoulder.
Type: Depth (inches): emarks: o soil pit was dug due to lack of hydrophytic v /DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one is required Surface Water (A1)	- regetation, lack of surface hydrology indica ; check all that apply) Water-Stained Leaves (B9) ( <b>except</b>	Hydric Soil Present? ators, and sampling poin 	Yes <u>No</u> t location on road shoulder. <u>Indicators (2 or more required)</u> Stained Leaves (B9) ( <b>MLRA 1, 2</b>
Type: Depth (inches): emarks: o soil pit was dug due to lack of hydrophytic v /DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one is required _ Surface Water (A1) High Water Table (A2)	- - - - - - - - - - - - - -	Hydric Soil Present? tors, and sampling poin <u>Secondary</u> <u>Water-</u> 4A,	Yes No Int location on road shoulder. <u>Indicators (2 or more required)</u> Stained Leaves (B9) (MLRA 1, 2 and 4B)
Type: Depth (inches): emarks: o soil pit was dug due to lack of hydrophytic v /DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one is required Surface Water (A1) _ High Water Table (A2) Saturation (A3)	- regetation, lack of surface hydrology indica ; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Hydric Soil Present? ators, and sampling poin <u>Secondary</u> <u>Water-</u> 4A, Drainag	Yes No Int location on road shoulder. <u>Indicators (2 or more required)</u> Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10)
Type: Depth (inches): emarks: o soil pit was dug due to lack of hydrophytic v YDROLOGY Yetland Hydrology Indicators: rimary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	egetation, lack of surface hydrology indica : check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Hydric Soil Present? ators, and sampling poin <u>Secondary</u> <u>Water-</u> 4A, <u>Drainag</u> X Dry-Se	Yes No
Type: Depth (inches): emarks: o soil pit was dug due to lack of hydrophytic v //DROLOGY //DROLOGY //Etland Hydrology Indicators: rimary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	<pre>egetation, lack of surface hydrology indica ; check all that apply)Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)Salt Crust (B11)Aquatic Invertebrates (B13)Hydrogen Sulfide Odor (C1)</pre>	Hydric Soil Present? ators, and sampling poin <u>Secondary</u> Water- 4A, Drainae X Dry-Se Saturat	Yes No Int location on road shoulder. Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) ion Visible on Aerial Imagery (C9
Type: Depth (inches): emarks: p soil pit was dug due to lack of hydrophytic v <b>/DROLOGY</b> <b>/etland Hydrology Indicators:</b> imary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		Hydric Soil Present? ators, and sampling poin <u>Secondary</u> <u>Water-</u> 4A, <u>Drainag</u> X Dry-Se <u>Saturat</u> bots (C3) <u>Geome</u>	Yes No Int location on road shoulder. Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) ion Visible on Aerial Imagery (C9 rphic Position (D2)
Type: Depth (inches): emarks: o soil pit was dug due to lack of hydrophytic v /DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		Hydric Soil Present? tors, and sampling poin <u>Secondary</u> <u>AA,</u> Drainag X Dry-Se Satural ots (C3) <u>Geomo</u>	Yes No nt location on road shoulder. Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) ion Visible on Aerial Imagery (C9 rphic Position (D2) v Aquitard (D3)
Type: Depth (inches): emarks: o soil pit was dug due to lack of hydrophytic v YDROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)		Hydric Soil Present? Intors, and sampling poin Mater- 4A, Drainag X Dry-Se Saturat ots (C3) (C6) FAC-N	Yes No to location on road shoulder. Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) ion Visible on Aerial Imagery (C9 rphic Position (D2) v Aquitard (D3) eutral Test (D5)
Type: Depth (inches): temarks: lo soil pit was dug due to lack of hydrophytic v YDROLOGY //etland Hydrology Indicators: rimary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	egetation, lack of surface hydrology indica (check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR	Hydric Soil Present? ators, and sampling poin Secondary Water- 4A, Drainae X Dry-Se Saturat ots (C3) Geomo Shallov (C6) FAC-N R A) Raised	Yes No nt location on road shoulder. Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) ion Visible on Aerial Imagery (C9 rphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A)
Type: Depth (inches): emarks: o soil pit was dug due to lack of hydrophytic v YDROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)		Hydric Soil Present? ators, and sampling poin <u>Secondary</u> Water- 4A, Drainag X Dry-Se Saturat ots (C3) Geomo (C6) FAC-N R A) Raised Frost-F	Yes No to location on road shoulder. Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) ion Visible on Aerial Imagery (C9 rphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A) leave Hummocks (D7)
Type: Depth (inches): emarks: o soil pit was dug due to lack of hydrophytic v <b>YDROLOGY</b> <b>/etland Hydrology Indicators:</b> rimary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)		Hydric Soil Present? ators, and sampling poin <u>Secondary</u> <u>Water-</u> <u>4A,</u> Drainag X Dry-Se Satural ots (C3) <u>Geomo</u> Shallow (C6) FAC-N <b>R</b> A) <u>Raised</u> Frost-H	Yes No net location on road shoulder.
Type: Depth (inches): temarks: Io soil pit was dug due to lack of hydrophytic v YDROLOGY Vetland Hydrology Indicators: trimary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) ield Observations:		Hydric Soil Present? tors, and sampling poin <u>Secondary</u> <u>Water-</u> 4A, Drainag X Dry-Se Satural ots (C3) Geomo Shallov (C6) FAC-N R A) Raised Frost-F	Yes No to location on road shoulder. Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) ion Visible on Aerial Imagery (C9 rphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A) leave Hummocks (D7)
Type: Depth (inches): temarks: lo soil pit was dug due to lack of hydrophytic v YDROLOGY //etland Hydrology Indicators: rimary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) ield Observations: urface Water Present? Yes	cegetation, lack of surface hydrology indication in the surface hydrology indicating hydrology indica	Hydric Soil Present? Ators, and sampling poin Mater- 4A, Drainag X Dry-Se Saturat ots (C3) (C6) R A) R A) Frost-H	Yes No t location on road shoulder. Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) ion Visible on Aerial Imagery (C9 rphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A) leave Hummocks (D7)
Type: Depth (inches): temarks: lo soil pit was dug due to lack of hydrophytic v YDROLOGY //etland Hydrology Indicators: rimary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) ield Observations: urface Water Present? Yes		Hydric Soil Present? ators, and sampling poin <u>Secondary</u> Water- 4A, Drainag X Dry-Se Saturat ots (C3) Geomo (C6) FAC-N R A) Raised Frost-F	Yes No t location on road shoulder. Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) ason Water Table (C2) ion Visible on Aerial Imagery (C9 rphic Position (D2) v Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A) leave Hummocks (D7)

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

#### Remarks:

No surface hydrology indicators present.
U.S. Army Cor	ps of Engir	neers			OMB Control	#: 0710-0024, E	xp: 11/30/2024
WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region         Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)           See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R         (Authority: AR 335-15, paragraph 5-2a)							ol EXEMPT: Igraph 5-2a)
Project/Site: Kimball Junction EIS City/County: Summit County						pling Date:	8/7/2023
Applicant/Owner: UDOT State: UT						pling Point:	SP-30
Investigator(s): Joshua McMillin, Lacey Wilder		Section, To	ownship, Ra	nge: S20, T1S, F	R4E		
Landform (hillside, terrace, etc.): Basin	Lc	– ocal relief (co	oncave, conv	ex, none): Conc	ave	Slo	pe (%): 2
Subregion (LRR): LRR E Lat: 40.721	92764		Long: -1	11.5275421		Datum:	NAD83
Soil Map Unit Name: Wanship loam, 0 to 3 percent slop	bes			NWI	classification	<b>-</b> :	
Are climatic / hydrologic conditions on the site typical fo	r this time of y	/ear? `	Yes	No (If r	no, explain in	Remarks.)	
Are Vegetation , Soil , or Hydrology s	ignificantly dis	sturbed? A	re "Normal C	Circumstances" pre	esent? Yes	X N	0
Are Vegetation , Soil , or Hydrology n	aturally proble	ematic? (I	f needed, ex	plain any answers	in Remarks.)		
SUMMARY OF FINDINGS – Attach site ma	p showing	ı samplinç	g point lo	cations, trans	ects, impo	ortant fea	tures, etc.
Hydrophytic Vegetation Present? Yes X No	)	Is the	Sampled A	rea			
Hydric Soil Present? Yes No	X	within	n a Wetland	? Yes	No	<u> </u>	
Wetland Hydrology Present? Yes <u>No</u>	<u>X</u>						
Remarks: Sampling point does not meet the criteria for a wetland	1.						
VEGETATION – Use scientific names of pl	ants.						
Tree Stratum (Plot size: 30 ft radius )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Te	st worksheet		
1.				Number of Dom	inant Species	s That	
2.				Are OBL, FACV	V, or FAC:		1(A)
3				Total Number o	f Dominant S	pecies	
4	<u> </u>			Across All Strat	a:		<u>1</u> (B)
Sapling/Shrub Stratum (Plot size: 15 ft radius )	=1	Fotal Cover		Percent of Dom Are OBL, FACV	inant Species /, or FAC:	That1	)0.0% (A/B)
1		<u> </u>					
2		·		Prevalence Ind	ex workshee	et: Multiply	v by:
3		·				$\frac{1}{x 1} =$	<u>y Dy.</u> 0
5.		·		FACW species	85	x 2 =	170
	=	Fotal Cover		FAC species	0	x 3 =	0
Herb Stratum (Plot size: 5 ft radius )				FACU species	5	x 4 =	20
1. Juncus arcticus ssp. littoralis	85	Yes	FACW	UPL species	2	x 5 =	10
2. Lepidium perfoliatum		<u>No</u>	FACU	Column Totals:	92 (	A)	<u>200</u> (B)
3. Lepidium campestre		No		Prevalence I	ndex = B/A =	2.1	<u>/</u>
5.		·		Hydrophytic Ve	egetation Ind	icators:	
6.				1 - Rapid Te	est for Hydrop	hytic Veget	tation
7	<u>.</u>			X 2 - Dominar	nce Test is >5	50%	
8		·		3 - Prevaler	nce Index is ≤	3.0 <sup>1</sup>	
9		,		4 - Morpholo	ogical Adapta	tions <sup>1</sup> (Provi	de supporting
10		,				a separate	sneet)
11	92 =7	Total Cover		5 - Wetland	Non-vascula Hydrophytic	Vegetation	<sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)				<sup>1</sup> Indicators of hy	dric soil and	wetland hyd	Irology must
1	<u> </u>			be present, unle	ess disturbed	or problema	itic.
Z	=7	Lotal Cover		Hydrophytic			
% Bare Ground in Herb Stratum 8		. 5.4. 00701		Present?	Yes X	No	
Remarks:							

Hydrophytic vegetation present. ENG FORM 6116-9, JUL 2018 SOIL

Profile Desc	cription: (Describe t	the dept	h needed to doc	ument tl	ne indica	tor or co	onfirm the	absence of indic	ators.)	
Depth	Matrix		Redo	x Featur	res	1 2	-			
(inches)	Color (moist)		Color (moist)		Туре	Loc	Text	iure	Remarks	
0-5	10YR 2/2	100					Loamy/	Clayey		
5-17	10YR 2/1	100					Loamy/	Clayey		
<sup>1</sup> Type: C=C	oncentration. D=Depl	etion. RM=	Reduced Matrix.	 S=Cove	ered or Co	bated Sa	nd Grains.	<sup>2</sup> Location: F	PL=Pore Lining. N	I=Matrix.
Hydric Soil	Indicators: (Applica	ble to all L	RRs, unless othe	erwise n	oted.)			Indicators for P	Problematic Hydr	ic Soils <sup>3</sup> :
Histosol	(A1)		Sandy Gle	yed Mat	rix (S4)			2 cm Muck (	(A10) <b>(LRR A, E)</b>	
Histic Ep	c Epipedon (A2) Sandy Redox (S5) Iron-Manganese Masses (F12) (LF				2) (LRR D)					
Black Hi	stic (A3)		Stripped Matrix (S6)Red Parent Material (F21)							
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (F2					22)					
1 cm Muck (A9) (LRR D, G) Loamy Gleyed Matrix (F2) Other (Explain in Remarks)										
Depleted Below Dark Surface (A11) Depleted Matrix (F3)										
Thick Dark Surface (A12) Redox Dark Surface (F6)						<sup>3</sup> Indicators of hydrophytic vegetation and				
Sandy Mucky Mineral (S1) Depleted Dark Surface				face (F7)			wetland hyd	rology must be pr	esent,	
2.5 cm Mucky Peat or Peat (S2) (LRR G) Redox Depressions (F8) unless disturbed or problematic.					tic.					
Restrictive	Layer (if observed):									
Type:										
Depth (ii	nches):						Hydric So	oil Present?	Yes	NoX
Remarks:										
No hydric so	il indicators present.									
HIDROLO	GT									
Wetland Hy	drology Indicators:									

Primary Indicators (minimum of one is required; check all that apply)						Secondary Indicators (2 or more required)		
Surface Water (A1) Water-Stained Leaves (B9) (except						Water-Stained Leaves (B9) (MLRA 1, 2		
High Water Table (A2)			MLR	A 1, 2, 4A, and 4B)		<b>4A, and 4B</b> )		
Saturation (A3)		S	Salt Crus	st (B11)	Drainage Patterns (B10)			
Water Marks (B1)		A	Aquatic I	nvertebrates (B13)	Dry-Season Water Table (C2)			
Sediment Deposits (B2)		Η	lydroge	n Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Oxidized Rhizospheres on Living Roots (C3)					Geomorphic Position (D2)		
Algal Mat or Crust (B4)		P	resence	e of Reduced Iron (C4)		Shallow Aquitard (D3)		
Iron Deposits (B5)		R	Recent I	ron Reduction in Tilled Soils	X FAC-Neutral Test (D5)			
Surface Soil Cracks (B6	)	Stunted or Stressed Plants (D1) (LRR A)			<b>R A</b> )	Raised Ant Mounds (D6) (LRR A)		
Inundation Visible on Aerial Imagery (B7)			Other (Explain in Remarks)			Frost-Heave Hummocks (D7)		
Sparsely Vegetated Con	cave Surface (B8)							
Field Observations:								
Surface Water Present?	Yes	No	Х	Depth (inches):				
Water Table Present?	Yes	No X Depth (inches):						
Saturation Present?	Yes	No	No X Depth (inches): Wetlan			d Hydrology Present? Yes No X		
(includes capillary fringe)								
Describe Recorded Data (str	eam gauge, monit	oring w	vell, aer	ial photos, previous inspectio	ons), if ava	ailable:		
Remarks:								
No hydrology indicators pres	ent.							

U.S. Army Corps of Engineers (USACE)
INTERIM DRAFT RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD
IDENTIFICATION DATA SHEET
The proponent agency is Headquarters USACE CECW-CO-R.

Form Approved -

OMB No. 0710-0025

Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE The public reporting burden for this collection of information, 0710-OHWM, is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.						
Project ID #: P-1 Site N	Name: Kimball Junctio	n EIS	Date and Time: 8/7/2023			
Location (lat/long): 40.73905563, -111.5587387	1	Investig	ator(s): Joshua McMillin, Lacey Wilder			
Step 1 Site overview from remote and online resources         Check boxes for online resources used to evaluate site:         gage data       LiDAR         geologic maps			Describe land use and flow conditions from online resources. Were there any recent extreme events (floods or drought)? Delineation was conducted following an abnormally wet winter.			
A aerial photos	Other:					
Step 2 Site conditions during field assessment First	t look for changes in cha	nnel sha	ne depositional and erosional features and changes in			
<ul> <li>Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.</li> <li>There were no apparent man-made structures present. Stream flows from culvert to the south and continues north beyond the survey area into an additional culvert.</li> </ul>						
Step 3 Check the boxes next to the indicators used to identify the location of the OHWM. OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.						
Geomorphic indicators						
Break in slope: x	Channel bar:		erosional bedload indicators (e.g., obstacle marks, scour,			
on the bank: x	shelving (berm	s) on ba	r: smootning, etc.)			
undercut bank:	unvegetated:		Sediment indicators			
valley bottom:	(go to veg. indi	sition cators)	Soil development:			
Other:	(go to sed. indi	ition cators)	Changes in character of soil:			
Shelving:	upper limit of deposit on bar:					
shelf at top of bank:	Instream bedforms and o bedload transport evider		e: Changes in particle-sized			
natural levee:	deposition bed	load indi ed clasts	, to			
man-made berms or levees:	gravel sheets,	etc.)	upper limit of sand-sized particles			
other berms:	other berns: silt deposits:					
Vegetation Indicators						
Change in vegetation type x and/or density:	Change in vegetation type and/or density: X forbs to: Exposed roots below intact soil laver:					
Check the appropriate boxes and select	graminoids to	:	Ancillary indicators			
the general vegetation change (e.g., WoodV Wracking/presence of			Wracking/presence of			
the vegetation transition looking from	shrubs to:		└──┘ organic litter:			
the middle of the channel, up the	deciduous		Presence of large wood:			
banks, and into the floodplain.	coniferous		Leaf litter disturbed or			
vegetation absent to: woody shrubs	Vegetation matter	down	Water staining:			
moss to:	and/or bent:		Weathered clasts or bedrock:			
Other observed indicators? Describe:						

Project ID #: P-1	
Step 4 Is additio	nal information needed to support this determination? Yes Xo If yes, describe and attach information to datasheet:
Step 5 Describe The location	rationale for location of OHWM of the OHWM was determined by the presence of bank slopes and changes in vegetation cover
and density.	Bank slopes on both sides of the channel are densely vegetated with woody shrubs.
Additional obse	rvations or notes
Attach a photo lo	o of the site. Use the table below, or attach separately
Photo	log attached? $\bigvee$ Yes $\square$ No If no, explain why not: See attachment D for photographs.
List photograph	ns and include descriptions in the table below.
Number photog	graphs in the order that they are taken. Attach photographs and include annotations of features.
Photo Number	Photograph description

U.S. Army Corps of Engineers (USACE)
INTERIM DRAFT RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD
IDENTIFICATION DATA SHEET

Form Approved -

OMB No. 0710-0025

Expires: 01-31-2025

The proponent agency is Headquarters USACE CECW-CO-R. Expires: 01-31-202					
AGENCY DISCLOSURE NOTICE					
The public reporting burden for this collection of information, 0710-OHWM, is estimated to average 30 <b>minutes</b> per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at <u>whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil</u> . Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
Project ID #: P-2a and P-2b Site	Name: Kimball Junction EIS	Date and Time: 8/8/2023			
Location (lat/long): 40.72492599, -111.5360946	67 Investi	gator(s): Joshua McMillin, Lacey	v Wilder		
Step 1 Site overview from remote and online resources used         Check boxes for online resources used         gage data       LiDAR         climatic data       satellite imagery         aerial photos       topographic maps	urces <b>to evaluate site:</b> geologic maps land use maps Other:	Describe land use and flow conditions from online resources. Were there any recent extreme events (floods or drought)? Delineation was conducted following an abnormally wet winter.			
<ul> <li>Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.</li> <li>Adjacent to the stream channel is a path separated by a concrete barrier in some areas. Path is primarily elevated above the stream channel.</li> <li>Step 3 Check the boxes next to the indicators used to identify the location of the OHWM. OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above the transition point.</li> </ul>					
Go to page 2 to describe overall rationale t	for location of OHWM, write any a	additional observations, and to attac	h a photo log.		
Geomorphic indicators         Break in slope: x         on the bank: x         undercut bank:	Channel bar: shelving (berms) on ba	ar: erosion (e.g., smooth Secondar	nal bedload indicators obstacle marks, scour, ning, etc.) <b>y channels:</b>		
vegetation transition		Sediment indicators			
Other:	(go to veg. indicators) sediment transition (go to sed. indicators) upper limit of depositio	on Soil deve	elopment: in character of soil:		
Image: Sector of the sector	Instream bedforms and or bedload transport eviden deposition bedload inc (e.g., imbricated clast gravel sheets, etc.)	ther Changes distributions transitions tra	ks: in particle-sized on: tion from to to		
other	bedforms (e.g., pools, riffles, steps, etc.):				
Vegetation Indicators			ρυσιιο.		
Change in vegetation type and/or density:	forbs to:	Expose intact so	d roots below bil layer:		
Check the appropriate boxes and select	graminoids to:	Ancillary indic	ators		
the general vegetation change (e.g., graminoids to woody shrubs). <b>Describe</b>	woody	Wracking	g/presence of		
the vegetation transition looking from	shrubs to:		of large wood:		
the middle of the channel, up the	trees to:		r disturbed or		
	coniferous trees to:	washed a	away:		
absent to:	Vegetation matted down	Water sta	aining:		
moss to: Weathered clasts or bed					
Other observed indicators? Describe:					

Project ID #: P-2	2a and P-2b
Step 4 Is additio	
Step 5 Describe	rationale for location of OHWM
Bank slones	on both sides of the channel are densely vegetated with graminoids. The east side of perennial
stream segm	ent P-2a includes a concrete barrier separating the path. The path adjacent to perennial stream
segment P-2	<i>2b</i> is wooden and elevated above the stream channel.
Additional obse	ervations or notes
Attach a photo lo	og of the site. Use the table below, or attach separately.
Photo	log attached? Yes No If no, explain why not: See attachment D for photographs.
List photograpl	hs and include descriptions in the table below.
Number photog	graphs in the order that they are taken. Attach photographs and include annotations of features.
Photo Number	Photograph description

#### Attachment D. Representative Aquatic Resource Photographs

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Orientation: Northwest Date: August 7, 2023



Orientation: Northwest Date: August 7, 2023



Orientation: Northwest Date: August 7, 2023



Orientation: Northwest Date: August 7, 2023



Orientation: East Date: August 7, 2023



Orientation: South Date: August 7, 2023





Orientation: North Date: August 7, 2023



Orientation: Southeast Date: August 7, 2023



Orientation: Northwest Date: August 7, 2023



Orientation: North Date: August 7, 2023



Orientation: North Date: August 7, 2023



Orientation: West Date: August 7, 2023



Orientation: West Date: August 7, 2023



Orientation: North Date: August 7, 2023



Orientation: West Date: August 24, 2021



Orientation: East Date: August 24, 2021



Orientation: North Date: August 7, 2023



Orientation: West Date: August 7, 2023



Orientation: North Date: August 7, 2023





Orientation: Northeast Date: August 7, 2023





Orientation: North Date: August 24, 2021



Orientation: North Date: August 24, 2021



Orientation: South Date: August 24, 2021



Orientation: South Date: August 24, 2021



Orientation: Southeast Date: August 8, 2023





Orientation: West Date: August 8, 2023



Orientation: East Date: August 8, 2023



Orientation: South Date: August 8, 2023
# Sampling Point SP-29



Orientation: East Date: August 8, 2023

#### Sampling Point SP-30



Orientation: East Date: August 8, 2023

### Perennial Stream Segment P-1



Orientation: Southwest, Upstream Date: August 7, 2023

# Perennial Stream Segment P-2a



Orientation: South, Upstream Date: August 8, 2023

### Perennial Stream Segment P-2b



Orientation: South, Upstream Date: August 8, 2023



Orientation: South Date: August 7, 2023



Orientation: West Date: August 7, 2023



Orientation: Northeast Date: August 7, 2023



Orientation: East Date: August 7, 2023



Orientation: West Date: August 7, 2023



Orientation: East Date: August 7, 2023



Orientation: East Date: August 7, 2023



Orientation: North Date: August 26, 2021



Orientation: Northwest Date: August 8, 2023



Orientation: Southeast Date: August 8, 2023



Orientation: South Date: August 8, 2023



Orientation: Southeast Date: August 7, 2023



Orientation: West Date: August 7, 2023



Orientation: North Date: August 7, 2023



Orientation: West Date: August 8, 2023 **Attachment E. Plant Species Observed** 

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#### **Appendix E. Plant Species Observed**

Scientific Name	Common Name <sup>a</sup>	Wetland Indicator Status <sup>b</sup>
Agropyron cristatum	crested wheatgrass	UPL
Alopecurus pratensis	meadow foxtail	FAC
Atriplex prostrata	triangle orache	FAC
Bassia hyssopifolia	fivehorn smotherweed	UPL
Bromus inermis	smooth brome	UPL
Cardaria draba	whitetop	UPL
Carex aquatilis	water sedge	OBL
Carex praegracilis	clustered field sedge	FACW
Carex nebrascensis	Nebraska sedge	OBL
Cirsium arvense	Canada thistle	FAC
Convolvulus arvensis	field bindweed	UPL
Cynodon dactylon	Bermudagrass	FACU
Cynoglossum officinale	gypsyflower	FACU
Eleocharis palustris	common spikerush	OBL
Elymus elymoides	squirreltail	FACU
Epilobium brachycarpum	tall annual willowherb	UPL
Eriogonum ovalifolium	cushion buckwheat	FACU
Grindelia squarrosa	curlytop gumweed	FACU
Iva axillaris	povertyweed	FACU
Juncus arcticus ssp. littoralis	mountain rush	FACW
Lappula squarrosa	European stickseed	UPL
Lepidium campestre	field pepperweed	UPL
Lepidium perfoliatum	clasping pepperweed	FACU
Leymus cinereus	basin wildrye	FAC
Linaria dalmatica	Dalmatian toadflax	UPL
Mentha arvensis	wild mint	FACW
Nasturtium officinale	watercress	OBL
Pascopyrum smithii	western wheatgrass	FACU
Phalaris arundinacea	reed canarygrass	FACW
Phleum pratense	timothy	FAC
Phragmites australis	common reed	FACW
Polygonum aviculare	prostrate knotweed	FAC

(continued on next page)



Scientific Name	Common Name <sup>a</sup>	Wetland Indicator Status <sup>b</sup>
Symphyotrichum ascendens	western aster	FACU
Rumex crispus	curly dock	FAC
Rumex obtusifolius	bitter dock	FAC
Sisymbrium altissimum	tall tumblemustard	FACU
Sonchus asper	spiny sowthistle	FAC
Typha latifolia	broadleaf cattail	OBL

FAC = facultative; FACU = facultative upland; FACW = facultative wetland; UPL = upland plants; OBL = obligate wetland

<sup>a</sup> Naming conventions according to USDA NRCS Plants Database (https://plants.usda.gov).

<sup>b</sup> Indicator status as assigned for the Western Mountains, Valleys, and Coasts in the National Wetland Plant List (USACE 2020).

#### Attachment F. USDA NRCS Custom Soil Resource Report

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United States Department of Agriculture

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants Custom Soil Resource Report for Summit Area, Utah, Parts of Summit, Salt Lake and Wasatch Counties

**Kimball Junction EIS** 



#### Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2\_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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#### **How Soil Surveys Are Made**

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

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#### Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

#### Custom Soil Resource Report Soil Map


MAP LEGEND				MAP INFORMATION		
Area of In	terest (AOI) Area of Interest (AOI)	8	Spoil Area Stony Spot	The soil surveys that comprise your AOI were mapped at 1:24,000.		
	Soil Map Unit Polygons Soil Map Unit Lines	00 V	Very Stony Spot Wet Spot	Please rely on the bar scale on each map sheet for map measurements.		
Special	Soil Map Unit Points Point Features		Other Special Line Features	Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)		
o X	Blowout Borrow Pit Clay Spot	Transport	Streams and Canals ation Rails	Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more		
×	Closed Depression Gravel Pit Gravelly Spot	~	Interstate Highways accurate calculations of distance or area are required using Routes This product is generated from the USDA-NRCS context of the version date(s) listed below.	accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.		
۵ ۸	Landfill Lava Flow	Local Roads Background		Soil Survey Area: Summit Area, Utah, Parts of Summit, Salt Lake and Wasatch Counties Survey Area Data: Version 14, Aug 29, 2022		
± ☆ ◎	Marsh or swamp Mine or Quarry Miscellaneous Water		Aerial Photography	Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.		
0	Perennial Water Rock Outcrop			Date(s) aerial images were photographed: Jun 20, 2021—Jun 21, 2021		
+	Saline Spot Sandy Spot Severely Eroded Spot	<ul> <li>Spot</li> <li>y Spot</li> <li>rely Eroded Spot</li> <li>The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.</li> </ul>				
-	Sinkhole Slide or Slip					
ýØ						

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI			
101	Agassiz-Rock outcrop complex, 30 to 70 percent slopes	4.5	1.9%			
127	Echocreek-Kovich loams, 0 to 10 percent slopes	3.0	1.3%			
139	Harter gravelly loam, 2 to 15 percent slopes	69.2	30.1%			
154	Manila-Ant Flat loams, 2 to 8 percent slopes	131.2	57.1%			
178	Wanship loam, 0 to 3 percent slopes	22.1	9.6%			
Totals for Area of Interest		230.0	100.0%			

# Map Unit Legend

# **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# Summit Area, Utah, Parts of Summit, Salt Lake and Wasatch Counties

# 101—Agassiz-Rock outcrop complex, 30 to 70 percent slopes

# **Map Unit Setting**

National map unit symbol: k1vf Elevation: 5,200 to 8,200 feet Mean annual precipitation: 16 to 22 inches Mean annual air temperature: 40 to 45 degrees F Frost-free period: 60 to 90 days Farmland classification: Not prime farmland

# **Map Unit Composition**

Agassiz and similar soils: 60 percent Rock outcrop: 25 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

# **Description of Agassiz**

# Setting

Landform: Mountain slopes Down-slope shape: Linear Across-slope shape: Convex Parent material: Colluvium derived from limestone

# **Typical profile**

A1 - 0 to 6 inches: very cobbly loam A2 - 6 to 14 inches: very cobbly loam R - 14 to 24 inches: bedrock

# Properties and qualities

Slope: 30 to 70 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 3 percent
Available water supply, 0 to 60 inches: Very low (about 1.3 inches)

# Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7e Hydrologic Soil Group: D Ecological site: R047XA446UT - Mountain Shallow Loam (mountain big sagebrush) Hydric soil rating: No

# **Description of Rock Outcrop**

# Setting

Landform: Escarpments, ridges

Down-slope shape: Linear Across-slope shape: Linear

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 8 Hydric soil rating: No

#### **Minor Components**

#### Horrocks

Percent of map unit: 10 percent Landform: Mountain slopes Down-slope shape: Linear Across-slope shape: Convex Ecological site: R047XA461UT - Mountain Stony Loam (mountain big sagebrush) Hydric soil rating: No

#### Hades

Percent of map unit: 5 percent Landform: Mountain slopes Down-slope shape: Linear Across-slope shape: Convex Ecological site: R047XA432UT - Mountain Loam (oak) Hydric soil rating: No

# 127—Echocreek-Kovich loams, 0 to 10 percent slopes

#### Map Unit Setting

National map unit symbol: k1sm Elevation: 5,200 to 8,000 feet Mean annual precipitation: 14 to 22 inches Mean annual air temperature: 40 to 45 degrees F Frost-free period: 60 to 100 days Farmland classification: Farmland of statewide importance

#### **Map Unit Composition**

*Echocreek and similar soils:* 65 percent *Kovich and similar soils:* 20 percent *Minor components:* 15 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Echocreek**

#### Setting

Landform: Stream terraces Landform position (three-dimensional): Tread Down-slope shape: Linear Across-slope shape: Linear Parent material: Alluvium derived from sandstone, quartzite and shale

# **Typical profile**

- Ap 0 to 7 inches: loam
- A1 7 to 18 inches: loam
- A2 18 to 26 inches: loam
- Bk1 26 to 38 inches: loam
- Bk2 38 to 45 inches: loam
- Bk3 45 to 60 inches: loam

# **Properties and qualities**

Slope: 2 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.6 inches)

# Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 4s Hydrologic Soil Group: B Ecological site: R047XA310UT - Upland Loam (basin wildrye) Hydric soil rating: No

# **Description of Kovich**

# Setting

Landform: Flood plains Down-slope shape: Linear Across-slope shape: Concave Parent material: Alluvium derived from sandstone, quartzite and shale

# **Typical profile**

A1 - 0 to 9 inches: loam

A2 - 9 to 22 inches: clay loam

A3 - 22 to 29 inches: clay loam

- 2C 29 to 44 inches: fine sandy loam
- 3C 44 to 60 inches: very gravelly loamy fine sand

# **Properties and qualities**

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: NoneRareOccasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

#### Interpretive groups

Land capability classification (irrigated): 6w Land capability classification (nonirrigated): 7w Hydrologic Soil Group: C/D Ecological site: R047XA008UT - Interzonal Wet Fresh Meadow (sedge) Hydric soil rating: Yes

#### **Minor Components**

#### Toddspan

Percent of map unit: 10 percent Landform: Flood plains Down-slope shape: Linear Across-slope shape: Concave Ecological site: R047XA008UT - Interzonal Wet Fresh Meadow (sedge) Hydric soil rating: Yes

#### Wanship

Percent of map unit: 5 percent Landform: Stream terraces Landform position (three-dimensional): Tread Down-slope shape: Linear Across-slope shape: Linear Ecological site: R047XA004UT - Interzonal Cold Semi-wet Fresh Meadow (meadow sedge/tufted hairgrass) Hydric soil rating: No

# 139—Harter gravelly loam, 2 to 15 percent slopes

# Map Unit Setting

National map unit symbol: k1t0 Elevation: 6,100 to 7,000 feet Mean annual precipitation: 16 to 22 inches Mean annual air temperature: 40 to 45 degrees F Frost-free period: 60 to 90 days Farmland classification: Farmland of statewide importance

#### Map Unit Composition

Harter and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Harter**

#### Setting

Landform: Fan remnants Down-slope shape: Linear Across-slope shape: Convex

#### **Typical profile**

A1 - 0 to 5 inches: gravelly loam

- A2 5 to 12 inches: gravelly loam
- AB 12 to 19 inches: gravelly loam
- Bt1 19 to 24 inches: gravelly clay loam
- Bt2 24 to 33 inches: gravelly clay
- Bt3 33 to 60 inches: gravelly clay

#### **Properties and qualities**

Slope: 2 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

#### Interpretive groups

Land capability classification (irrigated): 4e Land capability classification (nonirrigated): 4e Hydrologic Soil Group: C Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush) Hydric soil rating: No

#### Minor Components

#### Yeates hollow

Percent of map unit: 5 percent Landform: Mountain slopes Down-slope shape: Linear Across-slope shape: Convex Ecological site: R047XA461UT - Mountain Stony Loam (mountain big sagebrush) Hydric soil rating: No

#### Ant flat

Percent of map unit: 4 percent Landform: Fan remnants Down-slope shape: Linear Across-slope shape: Convex Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush) Hydric soil rating: No

#### Henefer

Percent of map unit: 3 percent Landform: Fan remnants Down-slope shape: Linear Across-slope shape: Linear Ecological site: R047XA432UT - Mountain Loam (oak) Hydric soil rating: No

#### Snyderville

Percent of map unit: 3 percent Landform: Outwash terraces, stream terraces Down-slope shape: Linear Across-slope shape: Convex Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush) Hydric soil rating: No

# 154—Manila-Ant Flat loams, 2 to 8 percent slopes

# Map Unit Setting

National map unit symbol: k1tk Elevation: 6,200 to 7,800 feet Mean annual precipitation: 16 to 22 inches Mean annual air temperature: 40 to 45 degrees F Frost-free period: 60 to 90 days Farmland classification: Prime farmland if irrigated

# Map Unit Composition

Manila and similar soils: 50 percent Ant flat and similar soils: 35 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

# **Description of Manila**

#### Setting

Landform: Fan remnants Down-slope shape: Linear Across-slope shape: Concave Parent material: Slope alluvium derived from conglomerate, sandstone and shale

# **Typical profile**

A1 - 0 to 4 inches: loam A2 - 4 to 15 inches: loam Bt1 - 15 to 22 inches: clay loam Bt2 - 22 to 40 inches: clay Bt3 - 40 to 46 inches: gravelly clay Bt4 - 46 to 60 inches: clay

# **Properties and qualities**

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.8 inches)

#### Interpretive groups

Land capability classification (irrigated): 4e

Land capability classification (nonirrigated): 4e Hydrologic Soil Group: C Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush) Hydric soil rating: No

# **Description of Ant Flat**

#### Setting

*Landform:* Fan remnants *Down-slope shape:* Convex *Across-slope shape:* Convex *Parent material:* Slope alluvium derived from conglomerate, sandstone and shale

#### **Typical profile**

A - 0 to 13 inches: loam Bt1 - 13 to 19 inches: clay loam Bt2 - 19 to 30 inches: clay Bk1 - 30 to 45 inches: clay loam Bk2 - 45 to 60 inches: clay loam

# **Properties and qualities**

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.0 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 3e Hydrologic Soil Group: C Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush) Hydric soil rating: No

# **Minor Components**

#### Henefer

Percent of map unit: 10 percent Landform: Fan remnants Down-slope shape: Linear Across-slope shape: Linear Ecological site: R047XA432UT - Mountain Loam (oak) Hydric soil rating: No

#### Horrocks

Percent of map unit: 5 percent Landform: Mountain slopes Down-slope shape: Linear Across-slope shape: Convex Ecological site: R047XA461UT - Mountain Stony Loam (mountain big sagebrush) Hydric soil rating: No

# 178—Wanship loam, 0 to 3 percent slopes

# Map Unit Setting

National map unit symbol: k1v7 Elevation: 6,300 to 7,200 feet Mean annual precipitation: 16 to 22 inches Mean annual air temperature: 40 to 45 degrees F Frost-free period: 60 to 90 days Farmland classification: Farmland of statewide importance

# Map Unit Composition

*Wanship and similar soils:* 90 percent *Minor components:* 10 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

# **Description of Wanship**

# Setting

Landform: Stream terraces Landform position (three-dimensional): Tread Down-slope shape: Linear Across-slope shape: Linear Parent material: Alluvium derived from sandstone and conglomerate

# **Typical profile**

A1 - 0 to 8 inches: loam
A2 - 8 to 14 inches: loam
A3 - 14 to 24 inches: loam
2C1 - 24 to 26 inches: extremely cobbly loamy sand
2C2 - 26 to 60 inches: extremely cobbly loamy sand

# **Properties and qualities**

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: About 20 to 30 inches
Frequency of flooding: NoneRareVery rare
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

# Interpretive groups

Land capability classification (irrigated): 4w Land capability classification (nonirrigated): 4w Hydrologic Soil Group: B *Ecological site:* R047XA004UT - Interzonal Cold Semi-wet Fresh Meadow (meadow sedge/tufted hairgrass) *Hydric soil rating:* No

#### **Minor Components**

#### Snyderville

Percent of map unit: 5 percent Landform: Outwash terraces, stream terraces Down-slope shape: Linear Across-slope shape: Convex Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush) Hydric soil rating: No

#### Kovich

Percent of map unit: 5 percent Landform: Flood plains Down-slope shape: Linear Across-slope shape: Concave Ecological site: R047XA008UT - Interzonal Wet Fresh Meadow (sedge) Hydric soil rating: Yes

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# MEMORANDUM

- Monday, February 3, 2025 Date:
- To: Carissa Watanabe **UDOT Environmental Program Manager**
- From: Rod Hess UDOT Senior Landscape Architect Rod Hew 07:47:49 -07'00'

ENVIRONMENTAL REVIEW FOR AQUATIC RESOURCES RE: Environmental Impact Statement (EIS)

# **PROJECT PURPOSE, DESCRIPTION AND SCOPE OF WORK**

The Utah Department of Transportation (UDOT) is preparing an Environmental Impact Statement (EIS) to evaluate proposed transportation improvements at the Interstate 80 (I-80) and State Route 224 (SR-224) interchange at Kimball Junction in Summit County, Utah. The EIS will be prepared according to the provisions of the National Environmental Policy Act (NEPA) and other laws, regulations, and guidelines of the Federal Highway Administration (FHWA). This document conforms to the requirements of UDOT, the project sponsor and lead agency.

The purpose of the Kimball Junction Project is to address transportation-related safety and mobility issues for all users of the Kimball Junction area by:

- Improving operations and travel times on SR-224 from the I-80 interchange through Olympic Parkway;
- Improving safety by reducing vehicle queue lengths on I-80 off-ramps;
- Improving pedestrian and bicyclist mobility and accessibility throughout the needs assessment evaluation area; and
- Maintaining or improving transit travel times throughout the evaluation area.

Through the Draft EIS Alternatives Analysis, the project has considered and studied many different alternatives that would meet the project's purpose and need. To determine the potential alternatives, UDOT conducted a four-level screening evaluation that spanned the Area Plan and EIS process. As a result of this Alternatives Development and Screening process, UDOT has selected Alternative C as its preferred alternative.

Alternative C includes spot improvements and widening areas of existing pavement while keeping most of the existing Kimball Junction area layout and pavement in place.

HDR has completed an Aquatic Resources Delineation Report (2023) within the environmental study area footprint to complete aquatic resource impact analysis as part of the Kimball Junction EIS. UDOT has reviewed the delineation report and provides the following summary and mitigation recommendations.



#### Aquatic Resources and Wetlands:

Within EIS environmental study limits, HDR did identify and map any potential aquatic resources including wetlands, streams, open-water, ponds, seeps and ditches that may be considered either waters of the U.S. (WOTUS), including wetlands, subject to Clean Water Act (CWA) jurisdiction by the U.S. Army Corps of Engineers (Army Corps), and natural streams regulated by the State of Utah as part of the State Alteration Permit Program.

Results of the Aquatic Resource Delineation Report shows a total of 1.08 acres of aquatic resources occurring within the EIS study boundary which include 0.71 acres of palustrine emergent (PEM) wetland habitat, 0.04 acres (199 linear feet) of perennial streams, 0.18 acres of open-water ponds, 0.01 acre of seeps, and 0.14 acres (1,842 linear feet) of ditches.

Many of these mapped aquatic resources are likely jurisdictional WOTUS and regulated by the Army Corps. The project must obtain an appropriate Department of Army Permit based on the total acreage of impacts to jurisdictional aquatic resources. As part of the Army Corps permit application, UDOT may prepare and submit an Approved Jurisdictional Determination (AJD) to the Army Corps. By completing an AJD, the Army Corps would definitively determine which of all the mapped aquatic resources are considered jurisdictional WOTUS and the finalized Army Corps permit type will be determined based on total permanent impacts to those aquatic resources identified in the AJD as jurisdictional.

Based on the Draft EIS analysis of the Alternative C, preferred alternative, very minor impacts of approximately 0.004 acres to existing drainage ditches (Ditch 5 and Ditch 6) would occur. Alternative C would not impact any of the mapped wetland habitats, perennial streams or seeps.

Since the only aquatic resource impact associated with the design and construction of Alternative C would occur to existing drainage ditches, the project may or may not be required to obtain any type of Department of Army Permit. During the design phase of Alternative C, the project must compare the 0.004 acres of existing drainage ditch impacts to the current Army Corps regulations to determine if a Department of Army Permit would be required, including the potential for these ditches to meet the regulatory definition of a WOTUS. If required, the project must apply for and obtain a Department of Army Permit.

#### **Mitigation Commitments:**

- 1. During the design phase of Alternative C, complete a thorough review of current Army Corps regulation, if it is determined that a Department of Army Permit would be required to impact the 0.004 acres of existing ditch, the project must apply for and obtain an appropriate Department of Army Permit. (UDOT)
- 2. If a Department of Army Permit is required and obtained, the awarded contractor must follow the requirements and special conditions of the Army Corps permit. (Awarded Contractor).



#### **Utah Pollutant Discharge Elimination System (UPDES):**

The construction of Alternative C will disturb more than one (1) acre of earth and is required to comply with the Utah Pollutant Discharge Elimination System (UPDES) Utah Construction General Permit (CGP).

#### **Mitigation Commitments:**

- 1. Comply with CGP, by preparing the Stormwater Pollution Prevention Plan (SWPPP) during project design; provide SWPPP to the project awarded contractor before Notice to Proceed. (UDOT)
- 2. Comply with CGP, by finalizing the SWPPP before beginning any earth disturbing activities and submit Notice of Intent (NOI); implement and maintain the project SWPPP according to CGP requirements throughout project construction. (Awarded Contractor)

Federal Emergency Management Agency (FEMA) Floodplains:

Based on the Draft EIS analysis, Alternative D would not impact any FEMA floodplains and therefore would not be required to obtain a Floodplain Development Permit from the Local Floodplain Authority.

#### **Mitigation Commitments:**

None

#### **Invasive and Noxious Weeds:**

To reduce the introduction and spread of noxious weed species and to comply with Utah Noxious Weed Act (Utah Administrative Code, Rule R68-9), the project is required to: (1) properly clean earthmoving construction equipment before mobilizing onto site as required in UDOT General Provision Section 01355 (ENVIRONMENTAL COMPLIANCE) and (2) treat any noxious weeds found on the project as as required in UDOT Standard Section 02924 (NOXIOUS WEED CONTROL).

#### **Mitigation Commitments:**

- 1. Include UDOT Standard Section 02924 (NOXIOUS WEED CONTROL) in the contract documents to require identify and treat all noxious weeds found on the project site. (UDOT)
- 2. Comply with UDOT General Provision Section 01355 (ENVIRONMENTAL COMPLIANCE) and Standard Section 02924 (NOXIOUS WEED CONTROL). (Awarded Contractor)

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