
APPENDIX 3M

Aquatic Resources Delineation Report

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MEMORANDUM

Date: Tuesday, October 1, 2024

To: Brandon Weston
UDOT Environmental Services Director

From: Rod Hess
UDOT Senior Landscape Architect

2024.10.01
16:03:54 -06'00'

RE: ENVIRONMENTAL REVIEW FOR AQUATIC RESOURCES

PROJECT PURPOSE, DESCRIPTION AND SCOPE OF WORK

The Utah Department of Transportation (UDOT) has initiated an Environmental Impact Statement (EIS) for the Interstate 15 (I-15): Farmington to Salt Lake City Project according to the provisions of the National Environmental Policy Act (NEPA) and its implementing regulations, as well as other pertinent environmental laws and regulations and relevant Federal Highway Administration (FHWA) guidelines. UDOT, as the project sponsor and lead agency for the project, is responsible for preparing the I-15 EIS. The environmental review, consultation, and other actions required by applicable federal environmental laws for this action have been carried out by UDOT pursuant to 23 United States Code (USC) Section 327 and a May 26, 2022, Memorandum of Understanding between FHWA and UDOT.

The needs assessment study area for the I-15 EIS extends from the U.S. Highway 89 (U.S. 89)/Legacy Parkway/Park Lane interchange (I-15 milepost 325) in Farmington to the Interstate 80 (I-80) West/400 South interchange (I-15 milepost 308) in Salt Lake City (see attached, Figure S.1-1). The study area also includes the ramps that begin or end at these termini.

The purpose of the I-15 project is to improve safety, replace aging infrastructure, provide better mobility for all travel modes, strengthen the state and local economy, and better connect communities along I-15 from Farmington to Salt Lake City. The project purpose consists of the following objectives, which are organized by UDOT's Quality of Life Framework categories of Good Health, Connected Communities, Strong Economy, and Better Mobility.

HDR, Inc. (HDR), a hired environmental consultant, has completed an Aquatic Resources Delineation Report within the EIS study area footprint (see attached). UDOT has reviewed the delineation report and provides the following summary and mitigation recommendations.

Aquatic Resources and Wetlands:

Within the EIS study area, HDR did identify and map any potential aquatic resources including streams, ponds, ditches and wetland habitat 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 99.86 acres of aquatic resources which include the following:

- 70.95 acres of palustrine emergent wetlands
- 5.39 acres of mudflats
- 2.28 acres (7,104 LF) of perennial streams
- 0.21 acres (1,733 LF) of intermittent streams
- 3.80 acres (18,223 LF) of ditches
- 0.96 acres (2,338 LF) of Canals,
- 16.27 acres of open-water ponds

Many of these 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 will prepare and submit an Approved Jurisdictional Determination (AJD) to the Army Corps. By completing an AJD, the Army Corps will 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.

In addition to obtaining an appropriate Department of Army Permit, the project must also apply for and obtain a Stream Alteration Permit from the State of Utah for any within or adjacent to streams which are considered a natural stream by the State of Utah and regulated as part of the Stream Alteration Program.

Mitigation Commitments:

1. **Apply for and obtain an appropriate Department of Army Permit. (UDOT)**
2. **Comply with all conditions included in the Department of Army Permit. (Awarded Contractor)**
3. **Apply for and obtain Stream Alteration Permits from the Utah Division of Water Rights for any streams regulated as part of the Stream Alteration Program. (UDOT)**
4. **Comply with all conditions and findings included in the Stream Alteration Permits. (Awarded Contractor)**

Utah Pollutant Discharge Elimination System (UPDES):

This project 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:

FEMA Floodplain maps within the project area do several show a Special Flood Hazard Areas (SFHA). Work within any of the mapped SFHA floodplains will require the project to obtain a floodplain development permit from the various Local Floodplain Authorities.

Mitigation Commitments:

- 1. Before construction begins, coordinate with the appropriate Local Floodplain Authorities to apply for and obtain Floodplain Development Permits. (UDOT)**
- 2. Comply with the Floodplain Development Permits throughout project construction. (Awarded Contractor)**

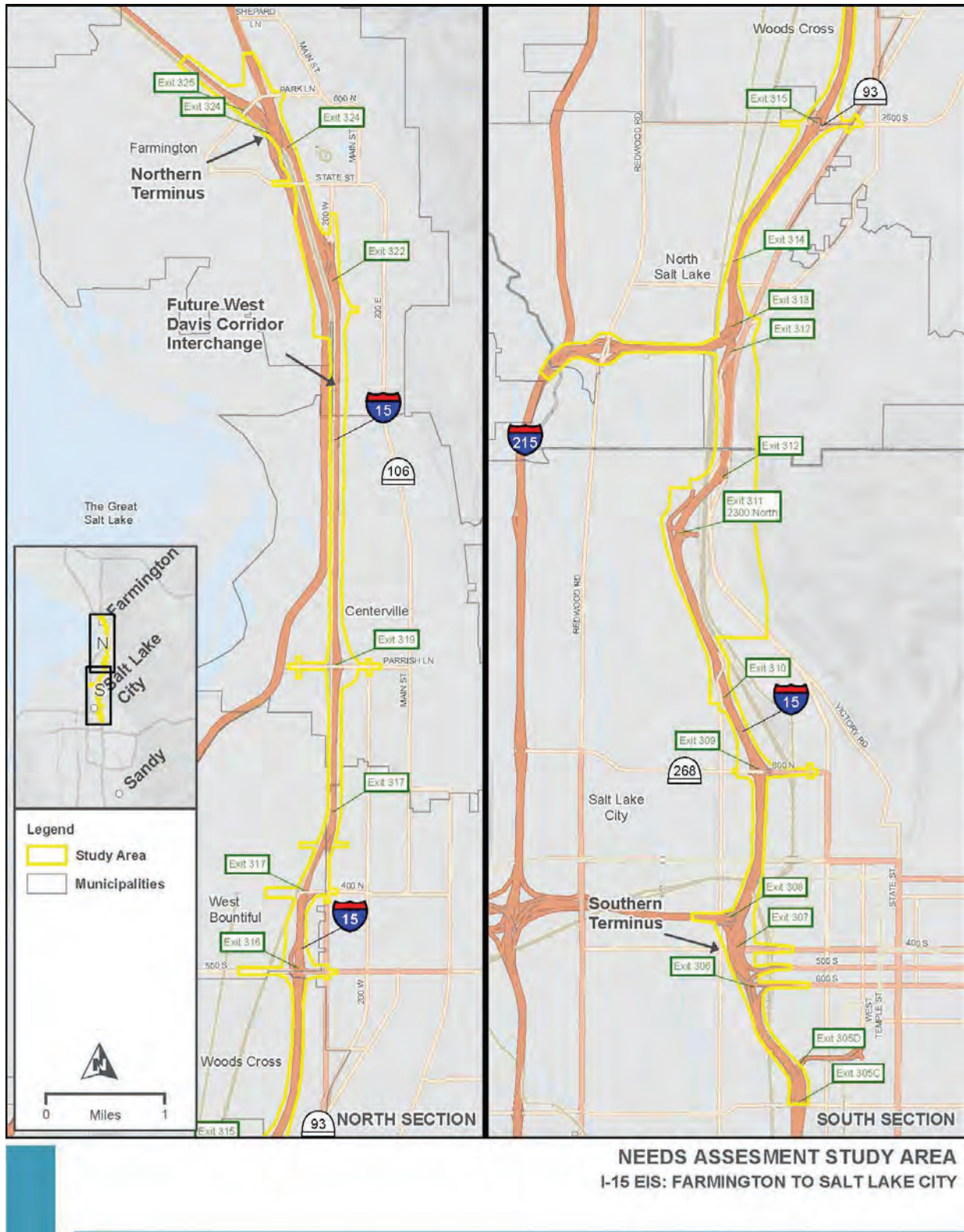
Invasive and Noxious Weeds:

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)**

Figure S.1-1. Needs Assessment Study Area for the I-15 EIS



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Aquatic Resources Delineation Report

I-15 Farmington to Salt Lake City Environmental Impact Statement

Lead agency:
Utah Department of Transportation

UDOT PIN: 18857

August 23, 2024

The environmental review, consultation, and other actions required by applicable federal environmental laws for this action have been carried out by UDOT pursuant to 23 United States Code (USC) Section 327 and a May 26, 2022, Memorandum of Understanding between FHWA 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 Interstate 15 Farmington to Salt Lake City Project in Davis and Salt Lake Counties, Utah. The delineation team conducted fieldwork for the delineation during the fall seasons of 2021 and 2022, the spring and summer of 2023, and the spring of 2024. 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: Arid West Region (Version 2.0)* (USACE 2008)
- *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 2,866 acres and contains a total of 105.20 acres of aquatic resources. These resources consist of 75.69 acres of palustrine emergent wetlands, 5.47 acres of mudflats, 2.28 acres (7,104 linear feet) of perennial streams, 0.21 acre (1,733 linear feet) of intermittent streams, 4.17 acres (19,798 linear feet) of ditches, 0.96 acre (2,338 linear feet) of canals, and 16.42 acres of open-water ponds.

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Acronyms and Abbreviations

°F	degrees Fahrenheit
FAC	facultative
GIS	geographic information systems
GPS	global positioning system
I-15	Interstate 15
I-215	Interstate 215
I-80	Interstate 80
ID	identifier
NWPL	National Wetland Plant List
OHWM	ordinary high water mark
Proposed Project	I-15 Farmington to Salt Lake City Project
RPW	relatively permanent water
spp.	multiple species
ssp.	subspecies
TNW	traditional navigable water
U.S.	United States
UDOT	Utah Department of Transportation
UP	Union Pacific Railroad
U.S. 89	U.S. Highway 89
USACE	U.S. Army Corps of Engineers
USDA NRCS	U.S. Department of Agriculture, Natural Resources Conservation Service

1.0 Introduction

On behalf of the Utah Department of Transportation (UDOT), HDR, Inc. (HDR), has prepared this aquatic resources delineation report in support of the Interstate 15 (I-15) Farmington to Salt Lake City Project (Proposed Project) in Davis and Salt Lake Counties, Utah. The environmental review, consultation, and other actions required by applicable federal environmental laws for this action have been carried out by UDOT pursuant to 23 United States Code Section 327 and a May 26, 2022, Memorandum of Understanding between FHWA and UDOT.

The purpose of this report is to identify and describe aquatic resources in the delineation survey area (survey area) for the Proposed Project (see Attachment A, *Project Overview Maps*). The results of the delineation are summarized in Table 3 through Table 7. 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 is located in Salt Lake and Davis Counties. It measures about 18 miles north-south and extends from the U.S. 89/Legacy Parkway/Park Lane interchange (I-15 milepost 325) in Farmington to the I-80 West/400 South interchange (I-15 milepost 308) in Salt Lake City. The width of the survey area varies. The boundaries for the survey area extend beyond the north and south termini of the project to include ramps that begin or end at these interchanges. In addition, the survey area includes each of the I-15 interchanges between the northern and southern termini and extends to the east and west to include the next major intersection. The survey area covers about 2,866 acres and includes land owned by public and private entities.

The survey area can be accessed from the USACE Bountiful Field Office by heading toward I-15 and then continuing on I-15 to either the north or the south. The survey area extends for about 18 miles and is located between mileposts 308 and 325. As defined by the Public Land Survey System, the northern extent of the survey area is located in Sections 13 and 14, Township 3 North, Range 1 West, and the southern extent of the survey area is located in Section 12, Township 1 South, Range 1 West. The elevation in the survey area ranges from approximately 4,210 to 4,710 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

Delineation Lead:

Michael Perkins
(801) 913-8314
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Field Biologists:

Amy Croft, Joshua McMillin, and Lacey Wilder

2.0 Delineation Methodology

The survey team conducted delineation fieldwork to map aquatic resources during the fall seasons of 2021 and 2022, the spring and summer of 2023, and the spring of 2024. All areas within the approximately 2,866-acre survey area were included in the delineation.

Previous surveys have been conducted on portions of the proposed project area. HDR conducted aquatic resources delineation surveys for UDOT's West Davis Corridor Project in 2012, 2016, and 2017; for the Dominion Energy FL 122 Replacement Project in 2019; for the Shepard Lane Environmental Assessment in 2019; and for the Salt Lake City Department of Public Utilities 1800 North Sewer Realignment Project in 2019. These previous surveys were conducted in accordance with currently applicable delineation procedures and guidance. Within the areas surveyed previously 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 surveys. If the hydrology and vegetation characteristics were consistent with the previous delineation surveys completed during 2016, 2017, or 2019, 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 in Section 2.2, *Delineation Procedures*, to delineate aquatic resources based on the existing conditions. At one site that had not been delineated since 2012, delineation survey data from 2012 was incorporated into this report because site access was restricted, and the delineation team verified through visual observation that the hydrology and vegetation characteristics appeared consistent with the characteristics observed during the 2012 delineation survey. At all other sites that had not been delineated since 2012, the delineation team applied the procedures described in Section 2.2, *Delineation Procedures*, including establishing new sampling points.

2.1 Preliminary Data Gathering

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

- Aerial images of the Proposed Project area
- Topography and surface water maps from the U.S. Geological Survey
- National Hydric Soils List for Utah (USDA NRCS 2023)
- Prior surveys and delineations across portions of the survey area
- U.S. Fish and Wildlife Service's National Wetland Inventory maps (see Attachment D, *National Wetlands Inventory Map Series*)
- U.S. Department of Agriculture, Natural Resources Conservation Service's (USDA NRCS) Web Soil Survey (USDA NRCS 2024a)
- USACE delineation manuals and delineation reference guides (described in Section 2.2, *Delineation Procedures*)

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: Arid West Region (Version 2.0)* (USACE 2008)
- *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams* (USACE 2022)
- USACE regulatory guidance letters and joint agency regulations, policies, references, and guidance

Attachment B, *Aquatic Resources Delineation Map Series*, provides the aquatic resources delineation maps. The delineation data displayed in these maps were also used to calculate the area of aquatic features in the survey area.

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 and representative sampling point photographs are included in Attachment C, *Delineation Sampling Points and Photos*.

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 GIS software (ArcPro 2.8.8).

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 2022)—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*.

Table 1. Wetland Indicator Status System

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.

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, 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 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. Multiple features cross the survey area in a culvert or pipe including Barnard Creek, City Creek, Lone Pine Creek, and Parrish Creek.

3.0 Existing Conditions

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

The survey area is part of the Moist Wasatch Front Footslopes subregion in the Central Basin and Range Ecoregion (Woods and others 2001). The Moist Wasatch Front Footslopes supports the majority of Utah's population and commercial activity, and it is fed by perennial streams and aqueducts that originate in the Wasatch Range. The average annual precipitation in the survey area is 18.57 inches (U.S. Climate Data 2024). Although October 2021 was abnormally wet, receiving 3.48 inches of precipitation, the survey area experienced severe to exceptional drought from 2020 through the fall of 2022. Precipitation was above

normal during the winter of 2022–2023 and the spring of 2023 and near normal during the winter of 2023–2024 and the spring of 2024 (National Integrated Drought Information System 2024; Weather Underground 2024).

The delineation fieldwork was conducted during the fall of 2021 and 2022, the spring and summer of 2023, and the spring of 2024. During the field surveys in 2021, temperatures ranged from about 32 to 70 degrees Fahrenheit (°F) with mostly sunny to partly cloudy skies. During the field surveys in 2022, temperatures ranged from about 26 to 45°F with mostly sunny to partly cloudy skies. During the field surveys in 2023, temperatures ranged from about 55 to 95°F with mostly sunny to partly cloudy skies. During the field surveys in 2024, temperatures ranged from about 49 to 64°F with partly cloudy to mostly cloudy skies (Weather Underground 2024).

3.1 General Hydrology

The survey area is located within two watersheds: the Jordan to the south (hydrologic unit code 16020204) and the Lower Weber to the north (hydrologic unit code 16020102) (USGS 2023). The Jordan River originates at Utah Lake; flows north through the Salt Lake Valley, west of the survey area; and discharges to the Great Salt Lake. The Weber River originates east of the survey area in the northwest corner of the Uinta Mountains where it continues west through Echo and Rockport Reservoirs, eventually terminating into the Great Salt Lake. Water in the survey area generally flows west toward the Jordan River or the Great Salt Lake.

The surface waters in the survey area include nine named streams (Barton Creek, Davis Creek, DSB Drain, Farmington Creek, Jordan River, Mill Creek, Ricks Creek, Shepard Creek, and Steed Creek), two named canals (600 North Drain, Oil Drain), one unnamed canal, and many ditches.

3.2 General Soil Conditions

Fifty-six soil types were identified in the survey area (Table 2), the following 10 of which are listed as hydric in the National Hydric Soils List for Utah (USDA NRCS 2023):

- Arave-Saltair complex, 0 to 1 percent slopes
- Chance loam, 0 to 3 percent slopes
- Cobbly alluvial land
- Cudahy silt loam, 0 to 1 percent slopes
- Logan silty clay loam, 0 to 3 percent slopes
- Logan silty clay loam, shallow water table, 0 to 3 percent slopes
- Roshe Springs silt loam, drained, clayey substratum, 0 to 3 percent slopes
- Roshe Springs silt loam, 0 to 3 percent slopes
- Woods Cross silty clay loam, 0 to 3 percent slopes
- Woods Cross silty clay loam, drained, 0 to 3 percent slopes

Table 2 lists the 56 soil types that were identified in the survey area. Soil map unit boundaries for the survey area are provided in Attachment F, *USDA NRCS Custom Soil Resource Report* (USDA NRCS 2024a).

Table 2. Soil Types Identified in the Survey Area

Soil Name	Map Unit Symbol	Acreage
Ackmen loam, 1 to 3 percent slopes	AdB	25.0
Ackmen loam, 3 to 6 percent slopes	AbC	9.2
Ackmen loam, 6 to 10 percent slopes	AbD	21.0
Airport silt loam, 0 to 2 percent slopes	Ac	35.7
Arave-Saltair complex, 0 to 1 percent slopes	AS	4.8
Chance loam, 0 to 3 percent slopes	CaA	21.8
Chipman silty clay loam, 0 to 1 percent slopes	Ch	8.1
Cobbly alluvial land	Co	5.4
Cudahy silt loam, 0 to 1 percent slopes	CuA	7.5
Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes	Dk	143.6
Draper loam, 0 to 1 percent slopes	DaA	79.0
Draper loam, 1 to 3 percent slopes	DaB	11.2
Draper loam, drained, 0 to 1 percent slopes	DrA	171.0
Draper loam, drained, 1 to 3 percent slopes	DrB	144.5
Draper gravelly loam, gravelly subsoil variant, 1 to 3 percent slopes	DsB	4.7
Draper gravelly loam, gravelly subsoil variant, 3 to 6 percent slopes	DsC	5.4
Dumps	Du	0.0
Gravel pits	GP	229.9
Hillfield soils, 10 to 20 percent slopes, eroded	HnE2	1.1
Hillfield-Timpanogos-Parleys complex, 20 to 30 percent slopes, eroded	HTF2	0.1
Ironton silt loam, 0 to 1 percent slopes	IaA	123.7
Ironton silt loam, 1 to 3 percent slopes	IaB	78.1
Ironton silt loam, 3 to 6 percent slopes	IaC	2.9
Ironton silt loam, saline, sodic, 0 to 1 percent slopes	IcA	9.8
Ironton-Draper complex, 0 to 3 percent slopes	IDA	10.4
Kidman fine sandy loam, 6 to 10 percent slopes	KaD	27.4
Kilburn-Francis association, 30 to 50 percent slopes, eroded	KFG2	68.3
Kilburn gravelly sandy loam, 1 to 3 percent slopes	KgB	52.8
Kilburn gravelly sandy loam, 3 to 6 percent slopes	KgC	3.8
Kilburn gravelly sandy loam, 6 to 10 percent slopes	KgD	0.6
Kilburn cobbly sandy loam, 3 to 10 percent slopes	KIC	0.2
Loamy borrow pits	Lo	29.1
Logan silty clay loam, 0 to 3 percent slopes	Lt	34.3
Logan silty clay loam, shallow water table, 0 to 3 percent slopes	Lw	30.6
Made land	Ma	284.1

(continued on next page)

Table 2. Soil Types Identified in the Survey Area

Soil Name	Map Unit Symbol	Acreage
Parleys loam, 0 to 4 percent slopes	1000	151.5
Parleys loam, 3 to 8 percent slopes	8012	22.6
Parleys loam, 6 to 10 percent slopes	PaD	5.1
Parleys loam, 10 to 20 percent slopes, eroded	PaE2	0.1
Payson-Warm Springs complex, 0 to 3 percent slopes	PNA	68.9
Roshe Springs silt loam, drained, clayey substratum, 0 to 3 percent slopes	Rt	17.0
Roshe Springs silt loam, 0 to 3 percent slopes	Rw	30.7
Sterling gravelly loam, 6 to 10 percent slopes	SfD	40.9
Sterling cobbly loam, 8 to 20 percent slopes	SgE	55.8
Stony terrace escarpments	SP	80.5
Sunset loam, drained, 1 to 3 percent slopes	SkB	4.0
Timpanogos loam, 0 to 1 percent slopes	TbA	0.3
Timpanogos loam, 1 to 3 percent slopes	TbB	103.3
Timpanogos loam, 3 to 6 percent slopes	TbC	19.4
Timpanogos loam, 6 to 10 percent slopes, eroded	TbD2	0.7
Timpanogos loam, 10 to 20 percent slopes, eroded	TbE2	4.0
Urban land	UL	464.5
Warm Springs fine sandy loam, 0 to 1 percent slopes	WaA	15.2
Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes	WgA	10.0
Water	W	1.2
Woods Cross silty clay loam, 0 to 3 percent slopes	Ws	11.6
Woods Cross silty clay loam, drained, 0 to 3 percent slopes	Wt	71.2
Total		2,865.9

3.3 General Plant Community Types

In general, the survey area consists primarily of urban land developed for residential, industrial, and commercial uses; disturbed uplands adjacent to roads; and some wetland and riparian areas.

3.3.1 Upland Communities

Common upland species include alfalfa (*Medicago sativa*), Canada thistle (*Cirsium arvense*), cheatgrass (*Bromus tectorum*), crested wheatgrass (*Agropyron cristatum*), intermediate wheatgrass (*Thinopyrum intermedium*), and rubber rabbitbrush (*Ericameria nauseosa*). Plant species' naming conventions are according to the USDA NRCS Plants Database (USDA NRCS 2024b).

3.3.2 Wetland Communities

All wetlands in the survey area were delineated as palustrine emergent wetlands. These wetland communities range in hydrologic regime from being inundated temporarily or only seasonally or intermittently saturated to inundated semipermanently or permanently. Common species in these communities include common reed (*Phragmites australis*), common spike-rush (*Eleocharis palustris*), hardstem bulrush (*Schoenoplectus acutus*), broadleaf cattail (*Typha latifolia*), foxtail barley (*Hordeum jubatum*), mountain rush (*Juncus arcticus* ssp. *littoralis*), sedges (*Carex* spp.), reed canarygrass (*Phalaris arundinacea*), saltgrass (*Distichlis spicata*), three-square (*Schoenoplectus pungens*), Utah swampfire (*Sarcocornia utahensis*), and western seepweed (*Suaeda occidentalis*).

3.3.3 Mudflat Communities

The survey area includes some small depressional areas that are seasonally inundated and are highly saline or alkaline. These features delineated as mudflats have overall absolute vegetation cover less than 5% and exhibit an OHWM. Mudflats in the survey area generally include a narrow fringe of higher-cover vegetation along the mudflat edges and little to no vegetation farther inside the mudflat. Common species along mudflat fringes include saltgrass (*Distichlis spicata*), Pursh seepweed (*Suaeda calceoliformis*), red swampfire (*Salicornia rubra*), and little barley (*Hordeum pusillum*).

3.3.4 Riparian Communities

Riparian communities in the survey area are located primarily adjacent to streams and some canals and ditches. Common woody riparian species include boxelder (*Acer negundo*), Fremont cottonwood (*Populus fremontii*), narrowleaf cottonwood (*Populus angustifolia*) and Russian olive (*Elaeagnus angustifolia*) in addition to herbaceous species found in upland and wetland communities.

4.0 Results

Section 4.0 describes the results of the aquatic resource delineation. The maps in Attachment B, *Aquatic Resource 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 205 wetland determination forms (see Attachment C-1, *Wetland Determination Data Forms and Wetland Delineation Photographs*). Attachment C-2, *Wetland Determination Sampling Points Summary*, summarizes the wetland delineation sampling points collected by the delineation team ordered by their locations on the map sheets in Attachment B, *Aquatic Resource Delineation Map Series*.

The entire delineation survey area is about 2,866 acres and contains a total of 105.20 acres of aquatic resources. These resources consist of 75.69 acres of palustrine emergent wetlands, 5.47 acres of mudflats, 2.28 acres (7,104 linear feet) of perennial streams, 0.21 acre (1,733 linear feet) of intermittent streams, 4.17 acres (19,798 linear feet) of ditches, 0.96 acre (2,338 linear feet) of canals, and 16.42 acres of open-water ponds. The following subsections describe the delineated features by each aquatic resource type.

4.1 Wetlands

Wetlands were delineated in the survey area as 108 separate polygons, all of which were identified as palustrine emergent wetlands totaling 75.69 acres. Attachment B, *Aquatic Resource Delineation Map Series*, includes maps of delineated wetlands and associated wetland delineation sampling point locations. Photo 1 and Photo 2 provide representative photos of wetlands in the survey area.

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 provide particulate retention and energy dissipation. Nutrient cycling and organic carbon export are chemical functions provided by all wetlands in the survey area. 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.

Characteristics of delineated wetlands are summarized in Table 3, which provides descriptions for each wetland or similarly situated complex of wetlands. Table 3 also provides information about the size, classification, and location for each wetland.

Photo 1. Palustrine Emergent Wetland in Farmington



Photo of wetland PEM-10a (location shown in Attachment B, pages 2 and 3).

Photo 2. Palustrine Emergent Wetland in Salt Lake City



Photo of wetland PEM-62 (location shown in Attachment B, page 48).

Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-1	PEM	0.32	40.9956632	-111.9148846	2	Wetland PEM-1 is located on the east side of I-15, north of the convergence of I-15 and U.S. 89 in Farmington. This wetland is characterized by wetland sampling point W-3-IN. Observations in this wetland include hydrophytic vegetation with the dominance of saltgrass, hydric soil indicator F8 (redox depressions), and the presence of saturation as a primary hydrology indicator. The hydrology source for this wetland is irrigation from an adjacent golf course. This wetland is near ditch D-2b in the survey area and appears to abut this ditch just outside of the survey area. Ditch D-2b is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-2a	PEM	1.36	40.9944295	-111.9128796	2	Wetlands PEM-2a, PEM-2b, PEM-2c, PEM-2d, and PEM-2e are located on the east side of I-15 north of the convergence of I-15 and U.S. 89 in Farmington. These wetlands are characterized by sampling points W-4-IN and W-5-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of foxtail barley, reed canarygrass, salt grass, and <i>Suaeda</i> spp.; hydric soil indicator F6 (redox dark surface); and high water table and saturation as primary hydrology indicators. The hydrology sources for these wetlands are ditch D-2a, ponding of precipitation, and stormwater drainage. These wetlands abut ditch D-1a, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-2b	PEM	0.14	40.9951672	-111.9145153	2	
PEM-2c	PEM	0.95	40.9948527	-111.9133980	2	
PEM-2d	PEM	0.06	40.9949257	-111.9139667	2	
PEM-2e	PEM	0.02	40.9948820	-111.9139638	2	
PEM-3	PEM	0.44	40.9501599	-111.8900373	16	Wetland PEM-3 is located east of I-15 south of 1700 South in Centerville. This wetland is characterized by wetland sampling point W-34-IN. Observations in this wetland include hydrophytic vegetation with the dominance of Torrey's rush (<i>Juncus torreyi</i>), mountain rush, and common threesquare (<i>Schoenoplectus pungens</i>); hydric soil indicator F2 (loamy gleyed matrix); and the presence of surface soil cracks as a primary hydrology indicator. The hydrology source for this wetland appears to be irrigation. This wetland appears to be isolated.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-4	PEM	0.26	40.9957612	-111.9154548	1, 2	Wetland PEM-4 is located on the east side of I-15 north of the convergence of I-15 and U.S. 89 in Farmington. This wetland is characterized by sampling point W-2-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed and common spikerush; hydric soil indicator F3 (depleted matrix); and surface water, high water table, and saturation as primary hydrology indicators. The hydrology sources for this wetland appear to be stormwater drainage and ponding of precipitation. This wetland is near ditch D-1a in the survey area and appears to have a surface connection to this ditch just outside of the survey area. Ditch D-1a is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-5	PEM	1.50	40.9936211	-111.9116875	2	Wetland PEM-5 is located on the east side of I-15 north of the convergence of I-15 and U.S. 89 in Farmington. This wetland is characterized by sampling point W-6-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, hydric soil indicator F8 (redox depressions), and high water table and saturation as primary hydrology indicators. The hydrology sources for this wetland appear to be stormwater drainage and ponding of precipitation. This wetland drains into ditch D-1b, which eventually drains into the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-6	PEM	1.43	40.9927695	-111.9096104	2, 3	Wetland PEM-6 is located on the east side of I-15 north of the convergence of I-15 and U.S. 89 in Farmington. This wetland is characterized by sampling point W-7-IN. Observations in this wetland include hydrophytic vegetation with the dominance of mountain rush, common spikerush, and reed canarygrass; the presence of hydrogen sulfide odor indicating hydric soils; and high water table, saturation, and hydrogen sulfide odor as primary hydrology indicators. The hydrology sources for this wetland appear to be stormwater drainage and ponding of precipitation. This wetland drains into wetland PEM-10a, which eventually drains into the Great Salt Lake.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-7	PEM	0.35	40.9924941	-111.9099250	2, 3	Wetland PEM-7 is located on the east side of I-15 north of the convergence of I-15 and U.S. 89 in Farmington. This wetland is characterized by sampling point W-8-IN. Observations in this wetland include hydrophytic vegetation with the dominance of reed canarygrass and saltgrass, the presence of hydric soil indicator F8 (redox depressions), and saturation as a primary hydrology indicator. The hydrology source for this wetland appears to be ponding of precipitation. This wetland drains into wetland PEM-8, which eventually drains into the Great Salt Lake.
PEM-8	PEM	0.41	40.9916709	-111.9083400	3, 5	Wetland PEM-8 is located on the east side of I-15 north of the convergence of I-15 and U.S. 89 in Farmington. This wetland is characterized by sampling point W-9-IN. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail and surface water, high water table, and saturation as primary hydrology indicators. Hydric soil was assumed given the presence of obligate vegetation and surface water. The hydrology source for this wetland is Shepard Creek. This wetland drains into Shepard Creek, which terminates into the Great Salt Lake.
PEM-9	PEM	2.20	40.9911163	-111.9064629	5	Wetland PEM-9 is located north of the convergence of I-15 and U.S. 89 in Farmington. This wetland is characterized by sampling point W-10-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed and reed canarygrass, the presence of hydric soil indicator A11 (depleted matrix below dark surface), and saturation as a primary hydrology indicator. The hydrology source for this wetland is Shepard Creek. This wetland drains into wetland PEM-8, which eventually drains into the Great Salt Lake.
PEM-10a	PEM	1.03	40.9921159	-111.9074015	3	Wetlands PEM-10a and PEM-10b are located north of the convergence of I-15 and U.S. 89 in Farmington. These wetlands are characterized by wetland sampling point W-9-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of broadleaf cattail and the presence of surface water, high water table, and saturation as primary hydrology indicators. Hydric soils were assumed given the presence of obligate vegetation and surface water. The hydrology source for these wetlands is open-water pond OW-2, which receives water from Shepard Creek, which terminates into the Great Salt Lake.
PEM-10b	PEM	0.02	40.9921463	-111.9065008	3	

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-11a	PEM	1.23	40.9917515	-111.9060459	3, 5	Wetlands PEM-11a, PEM-11b, PEM-11c, and PEM-11d are located north of the convergence of I-15 and U.S. 89. These wetlands are characterized by wetland sampling points W-12-IN, W-14-IN, W-15-IN, W-17-IN, W-18-IN, and W-19-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of reed canarygrass, common reed, broadleaf cattail, and willow species; the presence hydric soil indicators F6 (redox dark surface) and F3 (depleted matrix); and the presence of saturation, high water table, surface water, and oxidized rhizospheres along living roots as a primary hydrology indicators. The hydrology sources for these wetlands are stormwater drainage and Shepard Creek, which terminates into the Great Salt Lake.
PEM-11b	PEM	6.56	40.9930754	-111.9051224	3, 5, 6	
PEM-11c	PEM	0.96	40.9926984	-111.9060296	3	
PEM-11d	PEM	0.03	40.9915922	-111.9076345	5	
PEM-12a	PEM	0.14	40.9917637	-111.9043408	3, 6	Wetlands PEM-12a and PEM-12b are located north of the convergence of I-15 and U.S. 89 in Farmington. These wetlands are characterized by wetland sampling point W-16-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of common reed and reed canarygrass and the presence of hydric soil indicator F3 (depleted matrix). Hydrology was considered problematic since the delineation was conducted during the dry time of the year. The hydrology source for these wetlands is stormwater runoff. These wetlands are located near Shepard Creek, which terminates into the Great Salt Lake.
PEM-12b	PEM	0.04	40.9921886	-111.9041907	3	
PEM-13	PEM	0.10	40.9958867	-111.9057942	3	Wetland PEM-13 is located on the west side of U.S. 89 north of the convergence of I-15 and U.S. 89 in Farmington. This wetland is characterized by wetland sampling point W-20-IN. Observations in this wetland include hydrophytic vegetation with the dominance of Russian olive, box elder, common reed, and reed canarygrass; the presence hydric soil indicator F3 (depleted matrix); and the presence of high water table and saturation as primary hydrology indicators. The hydrology source for this wetland is Shepard Creek, which terminates into the Great Salt Lake.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-14	PEM	0.55	40.9932853	-111.9027545	3, 4	Wetland PEM-14 is located east of U.S. 89 and north of Park Lane in Farmington. This wetland is characterized by wetland sampling point W-21-IN. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail and the presence of surface water as a primary hydrology indicator. Hydric soils were assumed given the presence of obligate vegetation and surface water. The hydrology source for this wetland appears to be adjacent irrigation. This wetland drains through a culvert beneath U.S. 89 into Shepard Creek, which terminates into the Great Salt Lake.
PEM-15	PEM	0.10	40.9921765	-111.9021473	4	Wetland PEM-15 is located east of U.S. 89 and north of Park Lane in Farmington. This wetland is characterized by wetland sampling point W-22-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed and reed canarygrass, and hydric soil indicator F6 (redox dark surface). Hydrology was considered problematic since the delineation was conducted during the dry time of the year. The hydrology source for this wetland appears to be adjacent irrigation. This wetland drains through a culvert north into wetland PEM-14, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-16	PEM	2.36	40.9897961	-111.9033990	6	Wetland PEM-16 is located south of Park Lane between I-15 and U.S. 89 in Farmington. This wetland is characterized by wetland sampling point W-23-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, Russian olive, and cottonwood species; the presence of hydric soil indicator F3 (depleted matrix); and saturation as a primary hydrology indicator. Wetland PEM-16 is a constructed stormwater retention basin that captures runoff from adjacent roadways.
PEM-17	PEM	0.70	40.9828301	-111.8995252	7	Wetland PEM-17 is located north of State Street between Legacy Parkway and I-15 in Farmington. This wetland is characterized by wetland sampling point W-24-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, and surface water, high water table, and saturation as primary hydrology indicators. Hydric soils were assumed given the presence of obligate vegetation and surface water. Wetland PEM-17 is a constructed stormwater detention basin that captures runoff from adjacent roadways.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-18a	PEM	0.46	40.9751833	-111.8939991	8	Wetlands PEM-18a and PEM-18b are located east of Lagoon Drive in Farmington. These wetlands are characterized by wetland sampling point W-25-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of reed canarygrass, the presence of hydric soil indicator F6 (redox dark surface), and saturation as a primary hydrology indicator. The hydrology source for these wetlands appears to be ponding of precipitation and stormwater runoff from adjacent roadways. These wetlands appear to be isolated.
PEM-18b	PEM	0.07	40.9756066	-111.8941999	8	
PEM-19	PEM	0.37	40.9734141	-111.8954105	10	Wetland PEM-19 is located between Legacy Parkway and I-15 in Farmington. This wetland is characterized by wetland sampling point W-27-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed and the presence of hydric soil indicator F3 (depleted matrix). Hydrology was considered problematic since the delineation was conducted during the dry time of the year. The hydrology source for this wetland appears to be ponding of precipitation and stormwater runoff from adjacent roadways. This wetland appears to be isolated.
PEM-20	PEM	0.09	40.9737396	-111.8925407	11	Wetland PEM-20 is located east of I-15 near 200 West in Farmington. This wetland is characterized by wetland sampling point W-26-IN. Observations in this wetland include hydrophytic vegetation with the dominance of Nebraska sedge, Fremont cottonwood, and Russian olive, and the presence of a surface water, high water table, and saturation as primary hydrology indicators. Hydric soils were assumed given the presence of obligate vegetation and surface water. The hydrology source for this wetland appears to be ponding of precipitation and stormwater runoff from adjacent roadways. This wetland appears to be isolated.
PEM-21	PEM	0.81	40.9666689	-111.8903383	13	Wetland PEM-21 is located between I-15 and South Frontage Road in Farmington. This wetland is characterized by wetland sampling point W-28-IN. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail and surface water, high water table, and saturation as primary hydrology indicators. Hydric soils were assumed given the presence of obligate vegetation and surface water. The hydrology source for this wetland appears to be ponding of precipitation and stormwater drainage. This wetland appears to be isolated.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-22	PEM	0.50	40.9640770	-111.8921411	13	Wetland PEM-22 is located between Legacy Parkway and I-15 in Farmington. This wetland is characterized by wetland sampling point W-29-IN. Observations in this wetland include hydrophytic vegetation with the dominance of Fuller's teasel (<i>Dipsacus fullonum</i>) and reed canarygrass; the presence of hydric soil indicator A12 (thick dark surface); and surface water, high water table, and saturation as primary hydrology indicators. The hydrology source for this wetland appears to be stormwater runoff from adjacent roadways and Steed Creek. This wetland drains into Davis Creek, which drains into Farmington Bay of the Great Salt Lake.
PEM-23	PEM	0.78	40.9622994	-111.8920582	13, 14	Wetland PEM-23 is located between Legacy Parkway and I-15 in Farmington. This wetland is characterized by wetland sampling point W-30-IN. Observations in this wetland include hydrophytic vegetation with the dominance of Fuller's teasel, mountain rush, and reed canarygrass; the presence of hydric soil indicator A11 (depleted below a dark surface); and saturation visible on imagery and FAC-neutral test as secondary hydrology indicators. The hydrology source for this wetland appears to be ponding of precipitation and stormwater runoff from adjacent roadways. This wetland appears to be isolated.
PEM-24	PEM	0.77	40.9344873	-111.8933527	18	Wetland PEM-24 is located west of Legacy Parkway and north of 1275 North in Centerville. This wetland is characterized by wetland sampling point W-36-IN. Observations in this wetland include hydrophytic vegetation with the dominance of saltgrass and Pursh seepweed (<i>Suaeda calceoliformis</i>), the presence of hydric soil indicator F3 (depleted matrix), and oxidized rhizospheres along living roots as a primary hydrology indicator. The hydrology source for this wetland appears to be ponding of precipitation and stormwater runoff from adjacent roadways. This wetland appears to drain into wetland PEM-25, which is hydrologically connected to the Great Salt Lake.
PEM-25	PEM	0.51	40.9336221	-111.8934399	18, 19	Wetland PEM-25 is located west of Legacy Parkway and north of 1275 North in Centerville. This wetland is characterized by wetland sampling point W-89-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, hydric soil indicator F3 (depleted matrix), and high water table and saturation as primary hydrology indicators. The hydrology source for this wetland appears to be ponding of precipitation and stormwater drainage. Drainage flows from culverts under I-15 and Legacy Parkway drain through PEM-25 and PEM-76 to a culvert that drains into Ditch D-43, which eventually drains into the Great Salt Lake.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-26a	PEM	0.01	40.9348159	-111.8923816	18	Wetlands PEM-26a, PEM-26b, and PEM-26c are located between Legacy Parkway and I-15 in Centerville. These wetlands are characterized by wetland sampling point W-89-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of common reed, hydric soil indicator F3 (depleted matrix), and high water table and saturation as primary hydrology indicators. The hydrology sources for these wetlands appear to be ponding from precipitation and stormwater drainage. These wetlands drain into ditch D-13 and other ditches and culverts beyond the survey area that drain into the Great Salt Lake.
PEM-26b	PEM	0.48	40.9344017	-111.8923043	18	
PEM-26c	PEM	1.11	40.9333592	-111.8924109	18, 19	
PEM-27a	PEM	0.50	40.9559697	-111.8900313	15	Wetlands PEM-27a, PEM-27b, PEM-27c, PEM-27d, and PEM-27e are located east of I-15 and north of 1600 South in Farmington. These wetlands are characterized by wetland sampling points W-31-IN and W-32-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of clustered field sedge (<i>Carex praegracilis</i>), mountain rush, and saltgrass; the presence of hydric soil indicators A12 (thick dark surface) and F3 (depleted matrix); and saturation and oxidized rhizospheres along living roots as primary hydrology indicators. The hydrology sources for these wetlands appear to be ponding from precipitation, stormwater drainage, and ditch D-38. These wetlands drain into ditch D-38, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-27b	PEM	<0.01	40.9556202	-111.8902997	15	
PEM-27c	PEM	0.02	40.9552635	-111.8901935	15	
PEM-27d	PEM	0.65	40.9552009	-111.8898968	15	
PEM-27e	PEM	0.80	40.9545305	-111.8898728	15	
PEM-28a	PEM	0.08	40.9540147	-111.8900060	15	Wetlands PEM-28a and PEM-28b are located east of I-15 and north of 1600 South in Farmington. These wetlands are characterized by wetland sampling point W-33-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, the presence of hydric soil indicator F7 (depleted dark surface), and saturation as a primary hydrology indicator. The hydrology source for these wetlands appears to be adjacent irrigation. These wetlands drain west beneath I-15 through a culvert, eventually draining into the Great Salt Lake.
PEM-28b	PEM	0.14	40.9538797	-111.8898046	15	

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-29a	PEM	0.56	40.9478446	-111.8903860	16	Wetlands PEM-29a and PEM-29b are located east of I-15 near 2025 North in Centerville. These wetlands are characterized by wetland sampling point W-35-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of common reed, the presence of hydric soil indicator F3 (depleted matrix), and saturation as a primary hydrology indicator. The hydrology source for these wetlands appears to be ponding from precipitation and stormwater runoff. These wetlands drain beneath I-15 through a culvert into wetlands that drain into the Great Salt Lake.
PEM-29b	PEM	0.10	40.9466115	-111.8904051	16	
PEM-30	PEM	0.41	40.9322535	-111.8902288	19	Wetland PEM-30 is located in a detention basin east of I-15 and north of 1175 North in Centerville. This wetland is characterized by wetland sampling point W-37-IN. Observations in this wetland include hydrophytic vegetation with the dominance of rough barnyardgrass (<i>Echinochloa muricata</i>), foxtail barley, and annual rabbitsfoot grass (<i>Polypogon monspeliensis</i>); the presence of hydric soil indicator F3 (depleted matrix); and the presence of oxidized rhizospheres along living roots as a primary hydrology indicator. The hydrology source for this wetland appears to be ponding from precipitation and stormwater runoff. This wetland drains into ditch D-16, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-31	PEM	0.13	40.9226898	-111.8921644	21	Wetland PEM-31 is located west of I-15 and north of 400 North in Centerville. This wetland is characterized by wetland sampling point W-38-IN. Observations in this wetland include hydrophytic vegetation with the dominance of poison hemlock (<i>Conium maculatum</i>) and Fuller's teasel, and the presence of hydric soil indicator A12 (thick dark surface). Hydrology was considered problematic since the delineation was conducted during the dry time of the year. The hydrology source for this wetland appears to be ponding from precipitation and stormwater drainage. This wetland drains into ditch D-21b, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-32	PEM	0.53	40.9217573	-111.8973453	20, 22	Wetland PEM-32 is located west of I-15 and north of 400 North in Centerville. This wetland is characterized by wetland sampling point W-38-IN. Observations in this wetland include hydrophytic vegetation with the dominance of poison hemlock and Fuller's teasel, and the presence hydric soil indicator A12 (thick dark surface). Hydrology was considered problematic since the delineation was conducted during the dry time of the year. The hydrology sources for this wetland appear to be ponding of precipitation and shallow groundwater. This wetland drains into ditch D-22, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-33	PEM	0.03	40.8422993	-111.9161497	32	Wetland PEM-33 is located west of I-15 and north of Center Street in North Salt Lake. This wetland is characterized by wetland sampling point W-39-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed and honeylocust (<i>Gleditsia triacanthos</i>); the presence of a hydric soil indicator F3 (depleted matrix); and saturation as a primary hydrology indicator. The hydrology sources for this wetland appear to be ponding of precipitation and stormwater runoff from adjacent roadways. This wetland appears to be isolated.
PEM-34	PEM	0.32	40.8329646	-111.9136466	37	Wetland PEM-34 is located east of I-15 and north of Orchard Drive in North Salt Lake. This wetland is characterized by wetland sampling point W-48-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, mountain rush, and saltgrass; the presence of a hydric soil indicator F3 (depleted matrix); and surface water, high water table, and saturation as primary hydrology indicators. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. Wetland PEM-34 is a constructed stormwater detention basin that captures runoff from adjacent roadways.
PEM-35	PEM	0.32	40.8343548	-111.9345810	34, 35	Wetland PEM-35 is located at the interchange of Interstate 215 (I-215) and Redwood Road in North Salt Lake. This wetland is characterized by wetland sampling point W-44-IN. Observations in this wetland include hydrophytic vegetation with the dominance of saltgrass; the presence of hydric soil indicator F3 (depleted matrix); and surface water, high water table, and saturation as primary hydrology indicators. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. Wetland PEM-35 is a constructed stormwater detention basin that captures runoff from adjacent roadways.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-36	PEM	1.25	40.8332917	-111.9348272	34, 35	Wetland PEM-36 is located at the interchange of I-215 and Redwood Road in North Salt Lake. This wetland is characterized by wetland sampling points W-45-IN, W-46-IN, and W-47-IN. Observations in this wetland include hydrophytic vegetation with the dominance of saltgrass and burningbush (<i>Bassia scoparia</i>); the presence of hydric soil indicator F3 (depleted matrix); and saturation and high water table as primary hydrology indicators. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. Wetland PEM-36 is a constructed stormwater detention basin that captures runoff from adjacent roadways.
PEM-37	PEM	0.54	40.8333771	-111.9374861	34	Wetland PEM-37 is located at the interchange of I-215 and Redwood Road in North Salt Lake. This wetland is characterized by wetland sampling point W-41-IN. Observations in this wetland include hydrophytic vegetation with the dominance of saltgrass; the presence of hydric soil indicator F3 (depleted matrix); and surface water, high water table, and saturation as primary hydrology indicators. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. Wetland PEM-37 is a constructed stormwater detention basin that captures runoff from adjacent roadways.
PEM-38	PEM	0.02	40.8343247	-111.9376403	34	Wetland PEM-38 is located at the interchange of I-215 and Redwood Road in North Salt Lake. This wetland is characterized by wetland sampling point W-40-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed; the presence of hydric soil indicator F3 (depleted matrix); and high water table and saturation as primary hydrology indicators. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. Wetland PEM-38 is a constructed stormwater detention basin that captures runoff from adjacent roadways.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-39	PEM	1.36	40.8260986	-111.9173856	36, 38, 39	Wetland PEM-39 is located west of I-15 between I-15 and the Union Pacific Railroad (UP) and Utah Transit Authority (UTA) railroad tracks in North Salt Lake. This wetland is characterized by wetland sampling points W-50-IN and W-52-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed; the presence of hydric soil indicator F3 (depleted matrix); and high water table, saturation, and oxidized rhizospheres along living roots as primary hydrology indicators. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland drains into an open-water pond west of the study area, which eventually drains into the Great Salt Lake.
PEM-40	PEM	0.41	40.8304370	-111.9167310	36	Wetland PEM-40 is located between I-15 and U.S. 89 in North Salt Lake. This wetland is characterized by wetland sampling point W-51-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, narrowleaf cottonwood (<i>Populus angustifolia</i>), Russian olive, and five-stamen tamarisk (<i>Tamarix chinensis</i>); the presence of hydrogen sulfide odor indicating hydric soils; and high water table, saturation, and hydrogen sulfide odor as primary hydrology indicators. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland appears to drain west through a culvert under U.S. 89 into wetland PEM-39, which eventually drains into the Great Salt Lake.
PEM-41a	PEM	0.14	40.8182836	-111.9183950	39	Wetlands PEM-41a and PEM-41b are located between I-15 and Beck Street in Salt Lake City. These wetlands are characterized by wetland sampling point W-53-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of common reed and saltgrass, the presence of a hydric soil indicator F3 (depleted matrix), and saturation as a primary hydrology indicator. The hydrology sources for these wetlands appear to be ponding from precipitation and stormwater runoff from adjacent roadways. These wetlands appear to drain into a wetland complex west of the survey area, which eventually drains into the Great Salt Lake.
PEM-41b	PEM	0.14	40.8187498	-111.9180962	39	

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-42	PEM	0.11	40.8182684	-111.9204239	39	Wetland PEM-42 is located west of I-15 north of Warm Springs Road in Salt Lake City. This wetland is characterized by wetland sampling point W-54-IN. Observations in this wetland include hydrophytic vegetation with the dominance of mountain rush and surface water, high water table, and saturation as primary hydrology indicators. Hydric soils were assumed given the presence of hydrophytic vegetation and surface water. The hydrology source for this wetland appears to be shallow groundwater. This wetland appears to drain into a wetland complex west of the survey area, which eventually drains into the Great Salt Lake.
PEM-43	PEM	0.53	40.8175026	-111.9219532	39, 41	Wetland PEM-43 is located west of I-15 north of Warm Springs Road in Salt Lake City. This wetland is characterized by wetland sampling point W-55-IN. Observations in this wetland include hydrophytic vegetation with the dominance of saltgrass and alkali sacaton, the presence of hydric soil indicators F3 (depleted matrix) and A11 (depleted below dark surface), and saturation as a primary hydrology indicator. The hydrology source for this wetland appears to be shallow groundwater. This wetland appears to drain into a wetland complex west of the survey area, which eventually drains into the Great Salt Lake.
PEM-44	PEM	10.76	40.8074708	-111.9242969	40, 41, 42	Wetland PEM-44 is located west of I-15 and south of Warm Springs Road in Salt Lake City. This wetland is characterized by wetland sampling points W-57-IN, W-60-IN, W-61-IN, W-66-IN, and W-70-IN. Observations in this wetland include hydrophytic vegetation with the dominance of burningbush, saltgrass, and Utah swampfire; the presence of hydric soil indicator F3 (depleted matrix); and high water table, surface water, and saturation as primary hydrology indicators. The hydrology sources for this wetland appear to be shallow groundwater and pond OW-10. This wetland abuts open-water pond OW-10, which eventually drains into the Great Salt Lake.
PEM-45	PEM	4.00	40.8137499	-111.9235626	40, 41	Wetland PEM-45 is located west of I-15 adjacent to exit 311 in Salt Lake City. This wetland is characterized by wetland sampling points W-58-IN and W-59-IN. Observations in this wetland include hydrophytic vegetation with the dominance of saltgrass and Utah swampfire, the presence of hydric soil indicators F3 (depleted matrix) and F8 (redox depressions), and high water table and saturation as primary hydrology indicators. The hydrology sources for this wetland appear to be open-water pond OW-11 and stormwater. This wetland drains west through a culvert under 1100 West into wetland PEM-44, which eventually drains into the Great Salt Lake.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-46	PEM	0.83	40.8114969	-111.9226155	40, 41	Wetland PEM-46 is located west of I-15 adjacent to exit 311 in Salt Lake City. This wetland is characterized by wetland sampling point W-63-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, the presence of hydric soil indicator F3 (depleted matrix), and saturation as a primary hydrology indicator. The hydrology sources for this wetland appear to be shallow groundwater and stormwater runoff from adjacent roadways. This wetland appears to drain into wetland PEM-48 through a culvert to the south, which eventually drains into the Great Salt Lake.
PEM-47	PEM	0.67	40.8111085	-111.9231955	40, 42	Wetland PEM-47 is located west of I-15 adjacent to exit 311 in Salt Lake City. This wetland is characterized by wetland sampling point W-62-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed and saltgrass; the presence of hydric soil indicator F3 (depleted matrix); and high water table, surface water, and saturation as primary hydrology indicators. The hydrology sources for this wetland appear to be open-water pond OW-13 and stormwater runoff from adjacent roadways. This wetland abuts open-water pond OW-13, which appears to drain through a culvert into open-water pond OW-12, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-48	PEM	1.66	40.8085916	-111.9230561	42, 43	Wetland PEM-48 is located east of I-15 and west of Warm Springs Road in Salt Lake City. This wetland is characterized by wetland sampling point W-64-IN. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail, and surface water, high water table, and saturation as primary hydrology indicators. Hydric soils were assumed given obligate vegetation and surface water. The hydrology sources for this wetland appear to be shallow groundwater and stormwater runoff from adjacent roadways. This wetland drains into canal C-2 through a culvert beneath I-15, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-49a	PEM	0.56	40.8108829	-111.9201602	41, 43	Wetlands PEM-49a and PEM-49b are located east of I-15 adjacent to the UP railroad tracks in Salt Lake City. These wetlands are characterized by wetland sampling point W-63-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of common reed, the presence of hydric soil indicator F3 (depleted matrix), and saturation as a primary hydrology indicator. The hydrology sources for these wetlands appear to be shallow groundwater and stormwater runoff from the adjacent railroad embankments. These wetlands are near wetland PEM-48, which eventually drains into the Great Salt Lake.
PEM-49b	PEM	0.02	40.8114361	-111.9199392	41, 43	
PEM-50	PEM	0.21	40.8088752	-111.9213434	43	Wetland PEM-50 is located east of I-15 and just north of 1935 North in Salt Lake City. This wetland is characterized by wetland sampling point W-68-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, the presence of hydric soil indicator F3 (depleted matrix), and high water table and saturation as primary hydrology indicators. The hydrology sources for this wetland appear to be shallow groundwater and stormwater runoff from adjacent roadways. This wetland drains into wetland PEM-51a through a culvert, which eventually drains into the Great Salt Lake.
PEM-51a	PEM	0.70	40.8086049	-111.9211721	43	Wetlands PEM-51a and PEM-51b are located just south of 1935 North in Salt Lake City. These wetlands are characterized by wetland sampling point W-71-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of common reed; the presence of hydric soil indicators F3 (depleted matrix) and A4 (hydrogen sulfide odor); and surface water, high water table, saturation, and hydrogen sulfide odor as primary hydrology indicators. The hydrology sources for these wetlands appear to be ponding from shallow groundwater and stormwater drainage. These wetlands drain into wetland PEM-48, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-51b	PEM	0.07	40.8086337	-111.9223936	42, 43	
PEM-52	PEM	0.98	40.8111690	-111.9248790	40, 42	Wetland PEM-52 is located west of I-15 adjacent to exit 311 in Salt Lake City. This wetland is characterized by wetland sampling point W-65-IN. Observations in this wetland include hydrophytic vegetation with the dominance of saltgrass and media sandspurry (<i>Spergularia maritima</i>), and the presence of hydric soil indicator F3 (depleted matrix). Hydrology was considered problematic since the delineation was conducted during the dry time of the year. The hydrology sources for this wetland appear to be open-water pond OW-12 and stormwater runoff from adjacent roadways. This wetland abuts open-water pond OW-12, which drains through a culvert into wetland PEM-44.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-53	PEM	1.45	40.8058725	-111.9204612	43	Wetland PEM-53 is located east of Warm Springs Road and just south of 1935 North in Salt Lake City. This wetland is characterized by wetland sampling point W-69-IN. Observations in this wetland include hydrophytic vegetation with the dominance of saltgrass, the presence of hydric soil indicator F3 (depleted matrix), and high water table and saturation as primary hydrology indicators. The hydrology sources for this wetland appear to be open-water pond OW-16 and stormwater runoff from adjacent roadways and railroad embankments. This wetland drains into wetland PEM-48 through a culvert, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-54a	PEM	0.27	40.8052697	-111.9204340	45	Wetlands PEM-54a and PEM-54b are located east of Warm Springs Road between the road and the UP railroad tracks in Salt Lake City. These wetlands are characterized by wetland sampling points W-94-IN and W-95-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of common reed and hardstem bulrush (<i>Schoenoplectus acutus</i>); the presence of hydric soil indicators A9 (1 centimeter muck) and F3 (depleted matrix); and high water table, saturation, and hydrogen sulfide odor as primary hydrology indicators. The hydrology sources for these wetlands appear to be shallow groundwater and stormwater runoff from adjacent roadways and railroad embankments. These wetlands drain into wetland PEM-48 through a culvert, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-54b	PEM	1.76	40.8013104	-111.9198512	45, 46	Wetlands PEM-54a and PEM-54b are located east of Warm Springs Road between the road and the UP railroad tracks in Salt Lake City. These wetlands are characterized by wetland sampling points W-94-IN and W-95-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of common reed and hardstem bulrush (<i>Schoenoplectus acutus</i>); the presence of hydric soil indicators A9 (1 centimeter muck) and F3 (depleted matrix); and high water table, saturation, and hydrogen sulfide odor as primary hydrology indicators. The hydrology sources for these wetlands appear to be shallow groundwater and stormwater runoff from adjacent roadways and railroad embankments. These wetlands drain into wetland PEM-48 through a culvert, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-55	PEM	0.07	40.8049475	-111.9207364	44	Wetland PEM-55 is located east of I-15 and west of Warm Springs Road in Salt Lake City. This wetland is characterized by wetland sampling point W-94-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed; the presence of hydric soil indicators A9 (1 centimeter muck) and F3 (depleted matrix); and high water table, saturation, and hydrogen sulfide odor as primary hydrology indicators. The hydrology sources for this wetland appear to be shallow groundwater and stormwater runoff from adjacent roadways. This wetland drains into wetland PEM-54a through a culvert.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-56	PEM	0.14	40.8044941	-111.9217581	44	Wetland PEM-56 is located east of I-15 and west of Warm Springs Road in Salt Lake City. This wetland is characterized by wetland sampling point W-72-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, the presence of hydric soil indicator F3 (depleted matrix), and saturation as a primary hydrology indicator. The hydrology sources for this wetland appear to be shallow groundwater and stormwater runoff from adjacent roadways. This wetland drains into ditch D-31, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource connections.
PEM-57	PEM	0.10	40.8038438	-111.9209467	44	Wetland PEM-57 is located east of I-15 and west of Warm Springs Road in Salt Lake City. This wetland is characterized by wetland sampling point W-73-IN. Observations in this wetland include hydrophytic vegetation with the dominance of saltgrass and five-stamen tamarisk; the presence of hydric soil indicator F3 (depleted matrix); and surface water, high water table, and saturation as primary hydrology indicators. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland appears to drain into wetland PEM-56 through a culvert, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource connections.
PEM-58a	PEM	0.47	40.7970565	-111.9169277	46	Wetlands PEM-58a and PEM-58b are located east of Warm Springs Road between Warm Springs Road and the UP railroad tracks in Salt Lake City. These wetlands are characterized by wetland sampling point W-75-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of saltgrass and common reed, and the presence of hydric soil indicator F3 (depleted matrix). Hydrology was considered problematic since the delineation was conducted during the dry time of the year. The hydrology sources for these wetlands appear to be ponding from precipitation and stormwater runoff from adjacent roadways and railroad embankment. These wetlands drain into ditch D-32, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource connections.
PEM-58b	PEM	0.15	40.7962043	-111.9163164	46	

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-59	PEM	0.25	40.7959041	-111.9172038	46	Wetland PEM-59 is located east of I-15 and west of 900 West in Salt Lake City. This wetland is characterized by wetland sampling points W-74-IN and W-76-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed and saltgrass, and the presence of hydric soil indicator F3 (depleted matrix). Hydrology was considered problematic since the delineation was conducted during the dry time of the year. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland appears to drain into a storm drainage system that is hydrologically connected to the Great Salt Lake through a series of different aquatic resource connections.
PEM-60	PEM	0.85	40.7939653	-111.9162778	46, 47	Wetland PEM-60 is located east of I-15 and west of Warm Springs Road in Salt Lake City. This wetland is characterized by wetland sampling point W-77-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed and saltgrass, the presence of hydric soil indicator F3 (depleted matrix), and saturation as a primary hydrology indicator. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland appears to drain into a storm drainage system that is hydrologically connected to the Great Salt Lake through a series of different aquatic resource connections.
PEM-61	PEM	2.07	40.7883632	-111.9138612	47, 48	Wetland PEM-61 is located east of I-15 west of Warm Springs Road in Salt Lake City. This wetland is characterized by wetland sampling points W-78-IN and W-79-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, the presence of hydric indicator F3 (depleted matrix), and saturation as a primary hydrology indicator. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland appears to drain into wetland PEM-60, which eventually drains into the Great Salt Lake.
PEM-62	PEM	0.35	40.7835756	-111.9123782	48	Wetland PEM-62 is located west of I-15 and north of 600 North in Salt Lake City. This wetland is characterized by wetland sampling point W-80-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed and five-stamen tamarisk, the presence of hydric soil indicator F6 (redox dark surface), and saturation as a primary hydrology indicator. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland drains into ditch D-33 through a culvert, which eventually drains into the Great Salt Lake.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-63a	PEM	0.08	40.7837860	-111.9099726	48	Wetlands PEM-63a and PEM-63b are located east of I-15 and north of 600 North in Salt Lake City. These wetlands are characterized by wetland sampling point W-81-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of common reed, and the presence of hydric soil indicator F3 (depleted matrix). Hydrology was considered problematic since the delineation was conducted during the dry time of the year. The hydrology sources for these wetlands appear to be ponding from precipitation and stormwater runoff from adjacent roadways. These wetlands appear to be isolated.
PEM-63b	PEM	0.14	40.7833579	-111.9090940	48, 49	
PEM-64	PEM	0.46	40.7817190	-111.9119601	50	Wetland PEM-64 is located east of I-15 and south of 600 North in Salt Lake City. This wetland is characterized by wetland sampling point W-84-IN. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail and softstem bulrush (<i>Schoenoplectus tabernaemontani</i>), the presence of hydric soil indicator F3 (depleted matrix), and saturation as a primary hydrology indicator. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland drains into a culvert to the south.
PEM-65	PEM	0.14	40.7641961	-111.9180782	53	Wetland PEM-65 is located at the interchange of I-15 and Interstate 80 (I-80) in Salt Lake City. This wetland is characterized by wetland sampling point W-85-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, the presence of hydric soil indicator F3 (depleted matrix), and high water table and saturation as primary hydrology indicators. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland drains into a culvert to the north.
PEM-66	PEM	0.14	40.7634632	-111.9153031	54	Wetland PEM-66 is located at the interchange of I-15 and I-80 in Salt Lake City. This wetland is characterized by wetland sampling point W-86-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, and the presence of hydric soil indicator F3 (depleted matrix). Hydrology was considered problematic since the delineation was conducted during the dry time of the year. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland appears to be isolated.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-67	PEM	1.00	40.7576487	-111.9120958	55	Wetland PEM-67 is located at the interchange of I-15 and 500 South in Salt Lake City. This wetland is characterized by wetland sampling point W-87-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed and saltgrass, the presence of hydric soil indicator F3 (depleted matrix), and saturation as a primary hydrology indicator. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland appears to be isolated.
PEM-68a	PEM	1.21	40.7569328	-111.9136373	55	Wetlands PEM-68a and PEM-68b are located west of I-15 near 600 South in Salt Lake City. These wetlands are characterized by wetland sampling point W-88-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of common reed, and the presence of hydric soil indicator F3 (depleted matrix). Hydrology was considered problematic since the delineation was conducted during the dry time of the year. The hydrology sources for these wetlands appear to be ponding from precipitation and stormwater runoff from adjacent roadways. These wetlands appear to be isolated.
PEM-68b	PEM	0.69	40.7557626	-111.9126798	55	
PEM-69	PEM	0.22	40.8057368	-111.9246461	42	Wetland PEM-69 is located west of I-15 north of Reclamation Road in Salt Lake City. This wetland is characterized by wetland sampling point W-92-IN. Observations in this wetland include hydrophytic vegetation with the dominance of saltgrass, the presence of hydric soil indicator F3 (depleted matrix), and high water table and saturation as primary hydrology indicators. The hydrology source for this wetland appears to be canal C-2. This wetland drains into the Oil Drain canal west of the survey area, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-70	PEM	0.28	40.9966789	-111.9171138	1	Wetland PEM-70 is located on the east side of I-15 north of the convergence of I-15 and U.S. 89 in Farmington. This wetland is characterized by sampling point W-1-IN. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail and common reed; and surface water, high water table, and saturation as primary hydrology indicators. Hydric soils were assumed given the presence of obligate vegetation and surface water. The hydrology source for this wetland appears to be irrigation from an adjacent golf course. This wetland drains into ditch D-1a, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-71a	PEM	0.05	40.9528071	-111.8935836	15	Wetlands PEM-71a and PEM-71b are located west of Legacy Parkway south of Glovers Lane in Centerville. These wetlands are characterized by wetland sampling point W-96-IN. Observations in these wetlands include hydrophytic vegetation with the dominance of little barley, mountain rush, and Nebraska sedge; the presence of hydric soil indicator F6 (redox dark surface); and saturation as a primary hydrology indicator. The hydrology sources for these wetlands appear to be from irrigation. These wetlands drain into a ditch beyond the survey area, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-71b	PEM	<0.01	40.9523991	-111.8935590	15	
PEM-72	PEM	0.01	40.9446949	-111.8933510	17	Wetland PEM-72 is located on the west side of Legacy Parkway south of Glovers Lane in Centerville. This wetland is characterized by sampling point W-97-IN. Observations in this wetland include hydrophytic vegetation with the dominance of broadleaf cattail and Nebraska sedge; and surface water, high water table, and saturation as primary hydrology indicators. Hydric soils were assumed given the presence of obligate vegetation and surface water. The hydrology source for this wetland appears to be irrigation. This wetland drains into a ditch beyond the survey area, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-73	PEM	0.81	40.9439074	-111.8939145	17	Wetland PEM-73 is located on the west side of Legacy Parkway south of Glovers Lane in Centerville. This wetland is characterized by sampling point W-99-IN. Observations in this wetland include hydrophytic vegetation with the dominance of mountain rush, the presence of hydric soil indicator F6 (redox dark surface), and saturation as a primary hydrology indicator. The hydrology source for this wetland appears to be irrigation. This wetland continues beyond the survey area, where it is hydrologically connected to the Great Salt Lake through a series of different aquatic resource and culvert connections.
PEM-74	PEM	0.09	40.7730501	-111.9097822	52	Wetland PEM-102 is located on the east side of I-15 in Salt Lake City. This wetland is characterized by sampling point W-102-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, the presence of hydric soil indicator F6 (redox dark surface), and saturation as a primary hydrology indicator. The hydrology source for this wetland appears to be stormwater runoff from adjacent roadways. This wetland appears to be isolated.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-75	PEM	0.01	40.7868578	-111.9115810	48	Wetland PEM-75 is located east of I-15 west of Warm Springs Road in Salt Lake City. This wetland is characterized by wetland sampling point W-130-IN. Observations in this wetland include hydrophytic vegetation with the dominance of mountain rush, the presence of hydric indicator F3 (depleted matrix), and surface soil cracks as a primary hydrology indicator. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland appears to drain into wetland PEM-61, which eventually drains into the Great Salt Lake.
PEM-76	PEM	0.16	40.9334138	-111.8938766	18,19	Wetland PEM-76 is located east of wetlands PEM-77 and PEM-79, west of the Legacy Parkway trail, and north of 1275 North in Centerville. This wetland is characterized by wetland sampling point W-89-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, hydric soil indicator F3 (depleted matrix), and high water table and saturation as primary hydrology indicators. The hydrology source for this wetland appears to be ponding of precipitation and stormwater runoff from adjacent roadways. This wetland includes drainage flows from culverts under I-15 and Legacy Parkway that drain from PEM-76 to a culvert that drains into Ditch D-43, which eventually drains into the Great Salt Lake.
PEM-77	PEM	1.21	40.9334609	-111.8952471	18,19	Wetland PEM-77 is located near wetlands PEM-76 and PEM-79, west of the Legacy Parkway trail, and north of 1275 North in Centerville. This wetland is characterized by wetland sampling point W-105-IN. Observations in this wetland include hydrophytic vegetation with the dominance of strawberry clover, timothy, and Kentucky bluegrass, hydric soil indicator A12 (thick dark surface), and high water table and saturation as primary hydrology indicators. The hydrology source for this wetland appears to be shallow groundwater, ponding of precipitation, and stormwater runoff from adjacent roadways. This wetland abuts Ditch D-43, which eventually drains into the Great Salt Lake.
PEM-78	PEM	0.31	40.9682179	-111.8903736	11, 13	Wetland PEM-78 is located east of I-15 and a frontage road in Farmington. This wetland is characterized by wetland sampling point W-104-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed, hydric soil indicator A4 (hydrogen sulfide), and surface water, high water table, saturation, and hydrogen sulfide odor as primary hydrology indicators. The hydrology source for this wetland appears to be stormwater drainage. This wetland drains into a culvert that appears to roadside ditch D-9, which eventually drains into the Great Salt Lake.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-79	PEM	0.13	40.9332946	-111.8946242	19	Wetland PEM-79 is located near wetlands PEM-76 and PEM-77, west of the Legacy Parkway trail, and north of 1275 North in Centerville. This wetland is characterized by wetland sampling point W-106-IN. Observations in this wetland include hydrophytic vegetation with the dominance of saltgrass, hydric soil indicator F3 (depleted matrix), and saturation as a primary hydrology indicator. The hydrology source for this wetland appears to be shallow groundwater, ponding of precipitation, and stormwater runoff from adjacent roadways. This wetland is located near Ditch D-43, but it does not have a continuous surface connection to D-43 or any other downstream waters.
PEM-80	PEM	0.46	40.7457542	-111.9060514	56	Wetland PEM-80 is located west of I-15 and east of 500 West in Salt Lake City. This wetland is characterized by wetland sampling point W-107-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed; hydric soil indicator A4 (hydrogen sulfide); and surface water, high water table, saturation, and hydrogen sulfide odor as primary hydrology indicators. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland appears to be isolated.
PEM-81	PEM	0.12	40.9902204	-111.9061382	5	Wetland PEM-81 is located east of I-15 and north of Park Lane in Farmington. This wetland is characterized by wetland sampling point W-110-IN. Observations in this wetland include hydrophytic vegetation with the dominance of common reed and hydric soil indicator F3 (depleted matrix). Hydrology was considered problematic since the delineation was conducted during the dry time of the year. The hydrology sources for this wetland appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This wetland drains into ditch D-44, which eventually drains into the Great Salt Lake.

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Table 3. Wetlands in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
PEM-82	PEM	0.21	40.9712193	-111.8925519	10, 11	Wetland PEM-82 is located east of I-15 and near Lagoon Drive in Farmington. This wetland is characterized by wetland sampling point W-113-IN. Observations in this wetland include hydrophytic vegetation with the dominance of Indianhemp (<i>Apocynum cannabinum</i>) and hydric soil indicators F3 (depleted matrix) and F6 (redox dark surface). Hydrology was considered problematic since the delineation was conducted during the dry time of the year. The hydrology sources for this wetland appear to be ditch D-45, ponding from precipitation, and stormwater runoff from adjacent roadways. This wetland appears to be isolated.

^a Codes from *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin and others 1979): PEM (emergent, palustrine).

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

^c Coordinates for the center point each feature are listed.

^d See Attachment B, *Aquatic Resource Delineation Map Series*.

4.2 Other (Non-wetland) Aquatic Resources

Other (non-wetland) aquatic resources identified in the survey area consist of streams, mudflats, open-water ponds, canals, and ditches.

4.2.1 Streams

A total of 2.28 acres (7,104 linear feet) of perennial stream channels and 0.21 acre (1,733 linear feet) of intermittent stream channels were delineated in the survey area. These resources consist of nine named streams: Shepard Creek (P-1), Farmington Creek (P-3), Barton Creek (P-4), Jordan River (P-5), Mill Creek (P-6), Ricks Creek (P-2), DSB Drain (P-7), Steed Creek (I-1), and Davis Creek (I-2). The DSB Drain is the name for the drainage that includes Deuel Creek, Stone Creek, and Barton Creek after they have converged in the survey area. All of these streams carry a relatively permanent flow of water. Davis and Steed Creeks were identified as intermittent streams, and all others were identified as perennial streams. Attachment B, *Aquatic Resource Delineation Map Series*, includes maps of delineated streams.

As described in Section 3.1, *General Hydrology*, perennial streams in or near the survey area discharge into the Great Salt Lake and are used primarily as stormwater drainage. Most streams in the survey area have been straightened and channelized for urban development, although some segments support woody riparian vegetation, and some segments maintain natural meanders. The OHWM of streams was indicated by physical characteristics including breaks in bank slopes, changes in vegetation cover and species, and flow observations.

The Jordan River is the largest stream in the survey area. Most of the aquatic resources in the southern portion of the survey area drain into the Jordan River. The width of the Jordan River in the survey area varies from approximately 40 to 70 feet, and its condition is moderately degraded with steep banks, high invasive species cover, and adjacent roadway disturbances. The one segment of the Jordan River that occurs in the survey area maintains natural meanders and supports some woody riparian vegetation.

The other named streams in the survey area are smaller perennial or intermittent streams with widths varying from 4 to 18 feet. All of these waterways originate east of the survey area in the Wasatch Range and were delineated as either perennial or intermittent based on review of available resources and observed flow characteristics. These streams have largely been straightened and channelized for urban development.

The primary functions of stream segments in the survey area that maintain natural meanders with low floodplain terraces include supporting riparian and wetland habitats, providing aquatic habitat, slowing runoff, and storing flood water. Channelized areas have limited floodplain functionality and are generally unable to support adjacent wetlands. Photo 3 and Photo 4 provide representative photos of streams in the survey area. Table 4 provides a description and information about size, classification, and location for each stream segment delineated in the survey area.

Photo 3. Shepard Creek



Photo of perennial stream segment P-1e (location shown in Attachment B, page 5).

Photo 4. Farmington Creek



Photo of perennial stream segment P-3b (location shown in Attachment B, page 7).

Table 4. Streams in the Survey Area

Stream ID (Name)	Cowardin Code ^a	Size (acres) ^b	Length (feet) ^c	Latitude ^d	Longitude ^d	Map Page Number(s) ^e	Description
<i>Perennial Streams</i>							
P-1a (Shepard Creek)	R3UB	0.01	80	40.9915885	-111.9110426	5	Perennial stream P-1 (Shepard Creek) consists of 7 segments (P-1a through P-1g) in the survey area that total 0.54 acre (3,013 linear feet). Shepard Creek's headwaters begin east of the survey area in the Wasatch Range. Shepard Creek supports adjacent low terrace wetlands, and segments P-1c, P-1d, and P-1e include woody riparian vegetation. The average delineated width to the OHWM is 8 feet. Shepard Creek terminates into the Great Salt Lake.
P-1b (Shepard Creek)	R3UB	0.05	207	40.9915595	-111.9082365	5	
P-1c (Shepard Creek)	R3UB	0.12	561	40.9915618	-111.9067355	3, 5	
P-1d (Shepard Creek)	R3UB	0.18	1,288	40.9921222	-111.9061675	3	
P-1e (Shepard Creek)	R3UB	0.03	261	40.9915351	-111.9054392	3, 5	
P-1f (Shepard Creek)	R3UB	0.05	300	40.9931120	-111.9050407	3	
P-1g (Shepard Creek)	R3UB	0.08	396	40.9956031	-111.9057124	3	
P-2 (Ricks Creek)	R3UB	0.07	213	40.9430689	-111.8901646	17	Perennial stream P-2 (Ricks Creek) consists of 1 segment in the survey area that totals 0.07 acre (213 linear feet). Ricks Creek's headwaters begin east of the survey area in the Wasatch Range. Ricks Creek supports some woody riparian vegetation, but no low terrace wetlands, and the stream is concrete-lined in the survey area. The average delineated width to the OHWM is 17 feet. Ricks Creek terminates into the Great Salt Lake.
P-3a (Farmington Creek)	R3UB	0.01	39	40.9818624	-111.8961165	7	Perennial stream P-3 (Farmington Creek) consists of 3 segments in the survey area that total 0.11 acre (350 linear feet). Farmington Creek's headwaters begin east of the survey area in the Wasatch Range. Farmington Creek supports woody riparian vegetation but no low terrace wetlands. The average delineated width to the OHWM is 16 feet. Farmington Creek terminates into the Great Salt Lake.
P-3b (Farmington Creek)	R3UB	0.06	207	40.9815056	-111.8966836	7	
P-3c (Farmington Creek)	R3UB	0.04	104	40.9809285	-111.8982976	7	

(continued on next page)

Table 4. Streams in the Survey Area

Stream ID (Name)	Cowardin Code ^a	Size (acres) ^b	Length (feet) ^c	Latitude ^d	Longitude ^d	Map Page Number(s) ^e	Description
P-4a (Barton Creek)	R3UB	0.01	70	40.8973278	-111.8919186	28	Perennial stream P-4 (Barton Creek) consists of 2 segments in the survey area that total 0.02 acre (85 linear feet). Barton Creek's headwaters begin east of the survey area in the Wasatch Range. Segment P-4a supports woody riparian vegetation, but neither segment supports low terrace wetlands. The average delineated width to the OHWM is 8 feet. Barton Creek joins Deuel and Stone Creek to form the DSB Drain. The DSB Drain terminates into the Great Salt Lake.
P-4b (Barton Creek)	R3UB	0.01	15	40.8985010	-111.8935071	28	
P-5 (Jordan River)	R3UB	1.03	819	40.8319706	-111.9443349	33	Perennial stream P-5 (Jordan River) consists of 1 segment in the survey area that totals 1.11 acres (819 linear feet). The Jordan River originates from Utah Lake, south of the survey area, and continues north, terminating into the Great Salt Lake. The Jordan River does not support any low terrace wetlands or woody riparian vegetation in the survey area. The average delineated width to the OHWM is 55 feet.
P-6a (Mill Creek)	R3UB	<0.01	12	40.8827631	-111.8920114	30	Perennial stream P-6 (Mill Creek) consists of 3 segments in the survey area that total 0.23 acre (942 linear feet). Mill Creek's headwaters begin east of the survey area in the Wasatch Range. Mill Creek is concreted-lined in the survey area and does not support low terrace wetlands or woody riparian vegetation. The average delineated width to the OHWM is 10 feet. Mill Creek terminates into the Great Salt Lake.
P-6b (Mill Creek)	R3UB	0.08	268	40.8839437	-111.8975846	29	
P-6c (Mill Creek)	R3UB	0.14	662	40.8857634	-111.8989982	29	
P-7 (DSB Drain)	R3UB	0.31	1602	40.9088955	-111.8918447	24, 25	Perennial stream P-7 (DSB Drain) consists of 1 segment in the survey area that totals 0.31 acre (1,602 linear feet). The DSB Drain is a combination of Barton, Deuel, and Stone Creeks. The DSB Drain does not support low terrace wetlands or woody riparian vegetation, and the stream is concrete-lined in the survey area. The average delineated width to the OHWM is 9 feet. The DSB Drain terminates into the Great Salt Lake.

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Table 4. Streams in the Survey Area

Stream ID (Name)	Cowardin Code ^a	Size (acres) ^b	Length (feet) ^c	Latitude ^d	Longitude ^d	Map Page Number(s) ^e	Description
<i>Intermittent Streams</i>							
I-1a (Steed Creek)	R4	0.04	436	40.9743142	-111.8914962	9, 11	Intermittent stream I-1 (Steed Creek) consists of 3 segments in the survey area that total 0.17 acre (1,344 linear feet). Steed Creek's headwaters begin east of the survey area in the Wasatch Range. The average delineated width to the OHWM is 6 feet. Steed Creek terminates into the Great Salt Lake.
I-1b (Steed Creek)	R4	0.02	119	40.9646034	-111.8922460	13	
I-1c (Steed Creek)	R4	0.11	789	40.9626082	-111.8932251	12, 13, 14	
I-2a (Davis Creek)	R4	0.01	96	40.9637348	-111.8894579	13	Intermittent stream I-2 (Davis Creek) consists of 3 segments in the survey area that total 0.04 acre (390 linear feet). Davis Creek's headwaters begin east of the survey area in the Wasatch Range. The average delineated width to the OHWM is 4 feet. Davis Creek terminates into the Great Salt Lake.
I-2b (Davis Creek)	R4	0.02	205	40.9636386	-111.8903170	13	
I-2c (Davis Creek)	R4	0.01	89	40.9635603	-111.8921324	13	

^a Codes from *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin and others 1979): **R3UB** (riverine, upper perennial, unconsolidated bottom) and **R4** (riverine, intermittent).

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

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

^d Coordinates for the center point each feature are listed.

^e See Attachment B, *Aquatic Resource Delineation Map Series*.

4.2.2 Mudflats

Four mudflats totaling 5.47 acres were delineated in the survey area. These features delineated as mudflats have overall absolute vegetation cover less than 5% and exhibit an OHWM (Photo 5). The OHWM of mudflats was indicated by physical characteristics including salt crust, lack of vegetation cover, and water marks. Table 5 summarizes the mudflat features delineated in the survey area.

Photo 5. Mudflat in the Survey Area



Photo of mudflat Mudflat-1 (location shown in Attachment B, page 34).

Table 5. Mudflats in the Survey Area

Wetland ID	Cowardin Code ^a	Size (acres) ^c	Latitude ^d	Longitude ^d	Map Page Number(s) ^e	Description
Mudflat-1	PUB	0.16	40.8328656	-111.9353099	34	Mudflat-1 is located at the interchange of I-215 and Redwood Road in North Salt Lake. Mudflat-1 is surrounded by wetland PEM-36 and is largely devoid of vegetation. The hydrology sources for this mudflat appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This mudflat is in a constructed stormwater detention basin that captures runoff from adjacent roadways.
Mudflat-2	PUB	2.70	40.8099220	-111.9255436	42	Mudflat-2 is located west of I-15 between I-15 and Reclamation Road in Salt Lake City. Mudflat-2 is surrounded by wetland PEM-44 and is mostly devoid of vegetation. The hydrology sources for this mudflat appear to be shallow groundwater, ponding from precipitation, and stormwater runoff from adjacent roadways. This mudflat abuts wetland PEM-44.
Mudflat-3	PUB	0.35	40.8079136	-111.9246033	42	Mudflat-3 is located west of I-15 between I-15 and Reclamation Road in Salt Lake City. Mudflat-3 abuts wetland PEM-44 and OW-15a and is mostly devoid of vegetation. The hydrology sources for this mudflat appear to be ponding from precipitation and stormwater runoff from adjacent roadways.
Mudflat-4	PUB	2.26	40.8064313	-111.9243441	42	Mudflat-4 is located west of I-15 between I-15 and Reclamation Road in Salt Lake City. Mudflat-4 is connected to wetland PEM-44 and OW-15a and is mostly devoid of vegetation. The hydrology sources for this mudflat appear to be ponding from precipitation and stormwater runoff from adjacent roadways. This mudflat abuts and drains into canal C-2, which is hydrologically connected to the Great Salt Lake through a series of different aquatic resource connections.

^a Codes from *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin and others 1979): PUB (unconsolidated bottom, palustrine).

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

^c Coordinates for the center point each feature are listed.

^d See Attachment B, *Aquatic Resource Delineation Map Series*.

4.2.3 Open-water Ponds

Twenty open-water ponds totaling 16.42 acres were delineated in the survey area. Delineated open-water features generally consist of constructed impoundments such as stock ponds and stormwater basins, and some naturally occurring open-water ponds (Photo 6). Table 6 summarizes the open-water features delineated in the survey area.

Photo 6. Open-water Pond in the Survey Area



Photo of open-water pond OW-10b (location shown in Attachment B, page 40).

Table 6. Open-water Ponds in the Survey Area

Open Water ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
OW-1	PUB	0.29	40.9956580	-111.9146837	2	Open-water pond OW-1 is located east of I-15 near residential development in Farmington. OW-1 appears to be a constructed detention basin for a golf course and is surrounded by wetland PEM-1. No standing water was present at the time of survey.
OW-2	PUB	1.35	40.9922457	-111.9077521	3	Open-water pond OW-2 is located north of the convergence of I-15 and U.S. 89 in Farmington. OW-2 is an impoundment of Shepard Creek and is surrounded by wetland PEM-10a. Shepard Creek continues west of the survey area, eventually terminating into the Great Salt Lake.
OW-3	PUB	0.48	40.9950656	-111.9056928	3	Open-water pond OW-3 is located west of U.S. 89 in Farmington. OW-3 is an impoundment of Shepard Creek. Shepard Creek continues west of the survey area, eventually terminating into the Great Salt Lake.
OW-4	PUB	0.20	40.9924070	-111.9020736	4	Open-water pond OW-4 is located east of U.S. 89 in Farmington. OW-4 is a constructed stormwater detention basin that captures runoff from U.S. 89. Standing water was present at the time of survey.
OW-5	PUB	0.91	40.9826320	-111.8994323	7	Open-water pond OW-5 is located south of Park Lane and west of I-15 in Farmington. OW-5 is a constructed stormwater detention basin that captures runoff from adjacent roadways and is surrounded by wetland PEM-17. Standing water was present at the time of survey.
OW-6a	PUB	0.87	40.9277346	-111.8904276	19, 21	Open-water ponds OW-6a and OW-6b are constructed stormwater detention basins that are located east of I-15 adjacent to 800 West in Centerville. OW-6a and OW-6b drain into ditch D-19 to the north, which eventually drains into the Great Salt Lake.
OW-6b	PUB	0.06	40.9268623	-111.8903688	21	
OW-7	R6	0.22	40.9205743	-111.8888519	23	Open-water pond OW-7 is located east of 800 West in Centerville. OW-7 is a constructed stormwater detention basin that appears to be designed to capture stormwater. No standing water was present at the time of survey.
OW-8	R6	0.10	40.9192202	-111.8897861	23	Open-water pond OW-8 is located east of 800 West in Centerville. OW-8 is a constructed stormwater detention basin that appears to be designed to capture stormwater. No standing water was present at the time of survey.
OW-9	PUB	0.10	40.9099061	-111.8903203	25	Open-water pond OW-9 is located east of 475 West in Centerville. OW-9 appears to be a holding pond for a private company. Standing water was present at the time of survey.
OW-10a	PUB	0.06	40.8142964	-111.9255775	40	Open-water ponds OW-10a and OW-10b are located west of I-15 south of Warm Springs Road in Salt Lake City. OW-10a and OW-10b detain runoff from I-15 and are surrounded by wetland PEM-44. OW-10a and OW-10b continue west beyond the survey area and drain into the Oil Drain canal, which eventually drains into the Great Salt Lake
OW-10b	PUB	4.28	40.8130610	-111.9260067	40	
OW-11	PUB	3.34	40.8129732	-111.9244716	40	Open-water pond OW-11 is located west of I-15 near exit 311 in Salt Lake City. OW-11 captures runoff from I-15 and is surrounded by wetland PEM-45. Standing water was present at the time of survey. OW-11 drains through a culvert into OW-10b.

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Table 6. Open-water Ponds in the Survey Area

Open Water ID	Cowardin Code ^a	Size (acres) ^b	Latitude ^c	Longitude ^c	Map Page Number(s) ^d	Description
OW-12	PUB	1.67	40.8114524	-111.9245975	40, 42	Open-water pond OW-12 is located west of I-15 near exit 311 in Salt Lake City. OW-12 captures runoff from I-15 and is surrounded by wetland PEM-52. Standing water was present at the time of survey. OW-12 drains through a culvert into wetland PEM-44.
OW-13	PUB	0.34	40.8112450	-111.9232685	40, 42	Open-water pond OW-13 is located east of I-15 near exit 311 in Salt Lake City. OW-13 captures runoff from I-15 and is surrounded by wetland PEM-47. Standing water was present at the time of survey. OW-13 drains through a culvert into wetland PEM-48.
OW-14	PUB	0.03	40.8096761	-111.9215288	43	Open-water pond OW-14 is located east of I-15 adjacent to railroad tracks in Salt Lake City. OW-14 is a constructed stormwater detention basin that captures runoff from the adjacent railroad embankment. Standing water was present at the time of survey.
OW-15a	PUB	0.68	40.8076085	-111.9247875	42	Open-water ponds OW-15a and OW-15b are located west of I-15 north of Reclamation Road in Salt Lake City. OW-15a and OW-15b capture runoff from I-15 and are surrounded by wetland PEM-44 and mudflats mudflat-3 and mudflat-4. OW-15a and OW-15b drain into canal C-2, which eventually drains into the Great Salt Lake.
OW-15b	PUB	0.03	40.8066564	-111.9247149	42	
OW-16	PUB	1.15	40.8070213	-111.9204665	43	Open-water pond OW-16 is located east of Warm Springs Road adjacent to railroad tracks in Salt Lake City. OW-16 is a constructed stormwater detention basin that captures runoff from the adjacent railroad embankment. Standing water was present at the time of survey.
OW-17	R6	0.25	40.8744215	-111.8961295	31	Open-water pond OW-17 is located east of I-15 and south of 1500 South in Woods Cross. OW-17 is a constructed stormwater detention basin that appears to be designed to capture stormwater. No standing water was present at the time of survey.

^a Codes from *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin and others 1979): **PUB** (palustrine unconsolidated bottom), **R6** (a wetland, spring, stream, river, pond, or lake that only exists for a short period).

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

^c Coordinates for the center point each feature are listed.

^d See Attachment B, *Aquatic Resource Delineation Map Series*.

4.2.4 Canals and Ditches

A total of 0.96 acre (2,338 linear feet) of canals and 4.17 acres (19,798 linear feet) of ditches were delineated in the survey area. These resources consist of two named canals (Oil Drain [Photo 7] and 600 North Drain) and 59 unnamed features. Of the 59 unnamed features, 1 was delineated as a canal and 58 were delineated as ditches. All of these features have a defined bed and bank and have an OHWM.

All of these features appear to be entirely human-made to provide water delivery or drainage functions. Some segments of these features contain little vegetation, while others are dominated by upland vegetation. Some features contain hydrophytic vegetation along banks and sometimes within channel features where not regularly maintained. Conversely, drainage features that appear completely naturalized and filled in with wetland vegetation were delineated as wetlands and are included in Section 4.1, *Wetlands*. Table 7 summarizes the canals and ditches delineated in the survey area.

Photo 7. Oil Drain Canal



Photo of canal C-1b (location shown in Attachment B, page 33).

Table 7. Canals and Ditches in the Survey Area

Feature ID (Name)	Cowardin Code ^a	Size (acres) ^b	Length (feet) ^c	Latitude ^d	Longitude ^d	Map Page Number(s) ^e	Description
Canals							
C-1a (Oil Drain Canal)	R5	0.30	398	40.8338119	-111.9425300	33	Large canal that consists of 2 segments in the survey area that total 0.74 acre (1,631 linear feet). The Oil Drain canal begins west of the survey area in Salt Lake City where it receives flows from the Northwest Oil Drain canal. The average delineated width to the OHWM is 28 feet. The Oil Drain canal carries a relatively permanent flow of water and terminates at the Great Salt Lake.
C-1b (Oil Drain Canal)	R5	0.44	1,233	40.8329300	-111.9401062	34	
C-2	R5	0.19	429	40.8058694	-111.9241885	42	Unnamed canal that consists of 1 segment in the survey area that totals 0.19 acre (429 linear feet) and is located west of I-15 north of Reclamation Road in Salt Lake City. This unnamed canal carries a relatively permanent flow of water and drains into the Oil Drain canal. The average delineated width to the OHWM is 18 feet. The Oil Drain canal drains into the Jordan River, which terminates into the Great Salt Lake.
C-3a (600 North Drain)	R5	0.02	146	40.7825660	-111.9059112	49	Canal that consists of 2 segments in the survey area that total 0.03 acre (278 linear feet). The 600 North Drain canal is located east of I-15 north of 600 North in Salt Lake City and continues north, draining into the Northwest Oil Drain canal. The average delineated width to the OHWM is 7 feet. The 600 North Drain canal eventually drains into the Great Salt Lake.
C-3b (600 North Drain)	R5	0.01	132	40.7819937	-111.9057384	51	
Ditches							
D-1a	R5	0.26	1,456	40.9943231	-111.9135600	1, 2	Roadside ditches that total 0.52 acre (2,191 linear feet). Ditch D-1a drains into ditch D-1b, which continues south, draining into Shepard Creek. Shepard Creek terminates into the Great Salt Lake. Ditches D-1a and D-1b carry a relatively permanent flow of water.
D-1b	R5	0.49	1,455	40.9928163	-111.9110110	2, 5	
D-2a	R5	0.03	167	40.9949539	-111.9141193	2	Ditches that total 0.06 acre (293 linear feet). Ditch D-2b drains into ditch D-2a, which continues south, draining into Ditch D-1a. Ditch D-1a eventually drains into the Great Salt Lake. Ditches D-2a and D-2b carry a relatively permanent flow of water.
D-2b	R5	0.03	126	40.9954240	-111.9142143	2	
D-4	R6	<0.00	76	40.9871574	-111.9000889	6	Roadside ditch that totals <0.01 acre (76 linear feet). Ditch D-4 dissipates into uplands. Ditch D-4 does not carry a relatively permanent flow of water.
D-5a	R5	0.02	127	40.9838871	-111.8999070	7	Ditches that total 0.02 acre (273 linear feet). Ditch D-5a drains into ditch D-5b, which continues south, draining into open-water pond OW-5. Open-water pond OW-5 eventually drains into the Great Salt Lake. Ditches D-5a and D-5b carry a relatively permanent flow of water.
D-5b	R5	<0.00	46	40.9836607	-111.8999985	7	

(continued on next page)

Table 7. Canals and Ditches in the Survey Area

Feature ID (Name)	Cowardin Code ^a	Size (acres) ^b	Length (feet) ^c	Latitude ^d	Longitude ^d	Map Page Number(s) ^e	Description
D-6	R6	0.01	88	40.9833915	-111.8994238	7	Ditch that totals 0.01 acre (88 linear feet). Ditch D-6 drains into open-water pond OW-5, which eventually drains into the Great Salt Lake. Ditch D-6 does not carry a relatively permanent flow of water.
D-7a	R6	0.01	305	40.9830133	-111.8990194	7	Ditches that total 0.05 acre (847 linear feet). Ditch D-7a drains into ditch D-7b, which drains into ditch D-7c. Ditch D-7c drains into Farmington Creek, which terminates into the Great Salt Lake. Ditches D-7a, D-7b, and D-7c do not carry a relatively permanent flow of water.
D-7b	R6	0.01	115	40.9822470	-111.8985987	7	
D-7c	R6	0.03	427	40.9816261	-111.8983478	7	
D-8	R5	0.09	826	40.9802366	-111.8965485	7, 8	Roadside ditch that totals 0.09 acre (826 linear feet). Ditch D-8 continues north, draining into Farmington Creek, which terminates into the Great Salt Lake. Ditch D-8 carries a relatively permanent flow of water.
D-9	R5	0.28	941	40.9595981	-111.8903576	14	Roadside ditch that totals 0.28 acre (941 linear feet). Ditch D-9 continues south through a culvert beneath I-15, eventually draining into the Great Salt Lake. Ditch D-9 carries a relatively permanent flow of water.
D-10	R6	0.03	88	40.9461733	-111.8903861	16	Roadside ditch that totals 0.03 acre (88 linear feet). Ditch D-10 drains into wetland PEM-29b, which is culverted beneath I-15 where it continues west, connecting to a wetland complex adjacent to the Great Salt Lake. Ditch D-10 does not carry a relatively permanent flow of water.
D-11	R6	0.01	254	40.9456105	-111.8903535	16	Roadside ditch that totals 0.01 acre (254 linear feet). Ditch D-11 drains into ditch D-10, which drains into wetland PEM-29b. Wetland PEM-29b is culverted beneath I-15 where it continues west, connecting to a wetland complex adjacent to the Great Salt Lake. Ditch D-11 does not carry a relatively permanent flow of water.
D-12	R5	0.02	77	40.9439068	-111.8904132	17	Roadside ditch that totals 0.02 acre (77 linear feet). Ditch D-12 drains into Ricks Creek, which continues west, eventually terminating into the Great Salt Lake. Ditch D-12 carries a relatively permanent flow of water.
D-13	R5	0.11	354	40.9342370	-111.8921012	18	Ditch that parallels the UP tracks and totals 0.11 acre (354 linear feet). Ditch D-13 is adjacent to wetlands PEM-26a and PEM-26b, which drain into an unnamed stream west of the survey area. This unnamed stream continues west, terminating into the Great Salt Lake. Ditch D-13 carries a relatively permanent flow of water.
D-14	R5	0.94	1,467	40.9367220	-111.8904291	18	Roadside ditch that totals 0.94 acre (1,467 linear feet). Ditch D-14 continues west beneath I-15 through a culvert where it drains into ditch D-13, which eventually drains into the Great Salt Lake. Ditch D-14 carries a relatively permanent flow of water.

(continued on next page)

Table 7. Canals and Ditches in the Survey Area

Feature ID (Name)	Cowardin Code ^a	Size (acres) ^b	Length (feet) ^c	Latitude ^d	Longitude ^d	Map Page Number(s) ^e	Description
D-15a	R6	0.02	105	40.9349697	-111.8901508	18	Roadside ditches that total 0.03 acre (139 linear feet). Ditch D-15a drains into ditch D-15b, which continues west beneath I-15 through a culvert, draining into ditch D-13. Ditch D-13 eventually drains into the Great Salt Lake. Ditches D-15a and D-15b do not carry a relatively permanent flow of water.
D-15b	R6	<0.00	34	40.9349461	-111.8904903	18	
D-16	R5	0.06	311	40.9322795	-111.8905478	19	Roadside ditch that totals 0.06 acre (311 linear feet). Ditch D-16 continues north beneath I-15, eventually draining into the Great Salt Lake. Ditch D-16 carries a relatively permanent flow of water.
D-17a	R6	0.01	98	40.9316115	-111.8905285	19	Roadside ditches that total 0.02 acre (308 linear feet). Ditch D-17b drains into D-17a, which continues north through a culvert, draining into ditch D-16. Ditch D-16 eventually drains into the Great Salt Lake. Ditches D-17a and D-17b do not carry a relatively permanent flow of water.
D-17b	R6	0.01	210	40.9313469	-111.8905162	19	
D-18	R6	0.01	220	40.9306553	-111.8905320	19	Roadside ditch that totals 0.01 acre (220 linear feet). Ditch D-18 continues north, draining into Ditch D-17b, which eventually drains into the Great Salt Lake. Ditch D-18 does not carry a relatively permanent flow of water.
D-19	R5	0.40	480	40.9298140	-111.8904507	19	Roadside ditch that totals 0.40 acre (480 linear feet). Ditch D-19 continues west beneath I-15, eventually draining into the Great Salt Lake. Ditch D-19 carries a relatively permanent flow of water.
D-20	R6	0.03	736	40.9239772	-111.8905120	21	Roadside ditch that totals 0.03 acre (736 linear feet). Ditch D-20 dissipates into uplands. Ditch D-20 does not carry a relatively permanent flow of water.
D-21a	R6	0.02	408	40.9217885	-111.8930076	23	Roadside ditches that total 0.05 acre (1,051 linear feet). Ditch D-21a drains into ditch D-21b, which continues west, draining into ditch D-22. Ditch D-22 eventually drains into the Great Salt Lake. Ditches D-21a and D-21b do not carry a relatively permanent flow of water.
D-21b	R6	0.03	643	40.9217613	-111.8953990	22	
D-22	R5	0.07	366	40.9216694	-111.8977151	22	Roadside ditch that totals 0.07 acre (366 linear feet). Ditch D-22 continues west, eventually draining into the Great Salt Lake. Ditch D-22 carries a relatively permanent flow of water.
D-23	R6	0.01	180	40.9197968	-111.8903562	23	Roadside ditch that totals 0.01 acre (180 linear feet). Ditch D-23 dissipates into uplands. Ditch D-23 does not carry a relatively permanent flow of water.
D-24a	R6	0.01	124	40.9147847	-111.8901965	24	Roadside ditches that total 0.02 acre (267 linear feet). Ditch D-24a and ditch D-24c drain into ditch D-24b, which continues west beneath I-15, draining into the DSB Drain. The DSB Drain terminates into the Great Salt Lake. Ditches D-24a, D-24b, and D-24c do not carry a relatively permanent flow of water.
D-24b	R6	<0.00	26	40.9147570	-111.8905078	24	
D-24c	R6	0.01	117	40.9144059	-111.8905196	24	

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Table 7. Canals and Ditches in the Survey Area

Feature ID (Name)	Cowardin Code ^a	Size (acres) ^b	Length (feet) ^c	Latitude ^d	Longitude ^d	Map Page Number(s) ^e	Description
D-25	R5	0.09	1014	40.9102779	-111.8908454	24, 25	Roadside ditch that totals 0.09 acre (1,014 linear feet). Ditch D-25 continues west beneath I-15 and drains into the DSB Drain, which terminates into the Great Salt Lake. Ditch D-25 carries a relatively permanent flow of water.
D-26	R5	0.01	170	40.9101662	-111.8903710	25	Ditch that totals 0.01 acre (170 linear feet). Ditch D-26 drains into ditch D-25, which eventually drains into the Great Salt Lake. Ditch D-26 carries a relatively permanent flow of water.
D-27a	R6	0.02	219	40.9097907	-111.8906384	25	Roadside ditches that total 0.04 acre (367 linear feet). Ditch D-27b drains into ditch D-27a, which continues north, draining into ditch D-26. Ditch D-26 eventually drains into the Great Salt Lake. Ditches D-27a and D-27b do not carry a relatively permanent flow of water.
D-27b	R6	0.02	158	40.9089301	-111.8906312	25	
D-28	R6	0.03	370	40.9059802	-111.8909123	25	Ditch that totals 0.03 acre (370 linear feet). Ditch D-28 dissipates into uplands. Ditch D-28 does not carry a relatively permanent flow of water.
D-29	R6	0.01	159	40.9008652	-111.8912866	26, 27	Ditch that totals 0.01 acre (159 linear feet). Ditch D-29 dissipates into uplands. Ditch D-29 does not carry a relatively permanent flow of water.
D-30	R5	0.02	145	40.9003046	-111.8919845	26	Roadside ditch that totals 0.02 acre (145 linear feet). Ditch D-30 continues south through a culvert draining into Burton Creek, which eventually drains into the Great Salt Lake. Ditch D-30 carries a relatively permanent flow of water.
D-31	R5	0.06	315	40.8052841	-111.9221589	42, 43, 44	Roadside ditch that totals 0.06 acre (315 linear feet). Ditch D-31 continues north draining into wetland PEM-48, which eventually drains into the Great Salt Lake. Ditch D-31 carries a relatively permanent flow of water.
D-32	R5	0.11	298	40.7982594	-111.9177060	46	Roadside ditch that totals 0.11 acre (298 linear feet). Ditch D-32 continues north draining into wetland PEM-54b, which eventually drains into the Great Salt Lake. Ditch D-32 carries a relatively permanent flow of water.
D-33	R5	0.18	1331	40.7865565	-111.9136110	47, 48	Roadside ditch that totals 0.18 acre (1,331 linear feet). Ditch D-33 continues east through a culvert beneath I-15 and drains into wetland PEM-61, which eventually drains into the Great Salt Lake. Ditch D-33 carries a relatively permanent flow of water.
D-34	R6	0.03	304	40.7930768	-111.9157494	47	Roadside ditch that totals 0.03 acre (304 linear feet). Ditch D-34 dissipates into uplands. Ditch D-34 does not carry a relatively permanent flow of water.
D-35	R6	0.01	79	40.8320560	-111.9428712	33	Ditch that totals 0.01 acre (79 linear feet). Ditch D-35 dissipates into uplands. Ditch D-35 does not carry a relatively permanent flow of water.

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Table 7. Canals and Ditches in the Survey Area

Feature ID (Name)	Cowardin Code ^a	Size (acres) ^b	Length (feet) ^c	Latitude ^d	Longitude ^d	Map Page Number(s) ^e	Description
D-36	R5	0.01	108	40.9911993	-111.905210	5	Ditch that totals 0.01 acre (108 linear feet). Ditch D-36 continues north draining into Shepard Creek, which terminates into the Great Salt Lake. Ditch D-36 carries a relatively permanent flow of water.
D-37	R6	0.01	73	40.9950796	-111.9054008	3	Roadside ditch that totals 0.01 acre (73 linear feet). Ditch D-37 dissipates into uplands. Ditch D-37 does not carry a relatively permanent flow of water.
D-38	R5	0.08	281	40.9547526	-111.8897841	15	Ditch that totals 0.08 acre (281 linear feet). Ditch D-38 continues west beneath I-15 through a culvert, eventually draining into the Great Salt Lake. Ditch D-38 carries a relatively permanent flow of water.
D-39	R6	0.01	63	40.9444136	-111.8920270	17	Ditch that parallels the UP tracks and totals 0.01 acre (63 linear feet). Ditch D-39 continues south, draining into Ricks Creek, which eventually drains into the Great Salt Lake. Ditch D-13 does not carry a relatively permanent flow of water.
D-40	R6	0.02	230	40.9287785	-111.8921283	19	Ditch that parallels the UP tracks and totals 0.02 acre (230 linear feet). Ditch D-40 continues south, draining into wetland PEM-31, which eventually drains into the Great Salt Lake. Ditch D-40 does not carry a relatively permanent flow of water.
D-41a	R6	0.01	143	40.9182666	-111.8921977	23	Ditches that total 0.03 acre (197 linear feet). Ditch D-41a drains into ditch D-41b, which continues south, draining into ditch D-41c. Ditch D-41 eventually drains into the Great Salt Lake. Ditches D-41a, D-41b, and D-41c do not carry a relatively permanent flow of water.
D-41b	R6	<0.01	35	40.9179702	-111.8922046	23	
D-41c	R6	<0.01	19	40.9178364	-111.8922065	23	
D-42	R6	0.01	256	40.7868894	-111.9122479	48	Ditch that totals 0.01 acre (256 linear feet). Ditch D-42 continues west, draining into wetland PEM-61, which eventually drains into the Great Salt Lake. Ditch D-42 does not carry a relatively permanent flow of water.
D-43	R6	0.29	572	40.9333175	-111.8949242	18, 19	Drainage ditch west of Legacy Parkway in Centerville that totals 0.29 acre (572 linear feet) and abuts wetland PEM-77. Ditch D-43 continues west, then it drains south into a culvert under 1275 West, which eventually drains into the Great Salt Lake.
D-44	R6	0.03	195	40.9903971	-111.9067286	5	Ditch that totals 0.03 acre (195 linear feet). Ditch D-44 continues west into a culvert under I-15, which eventually drains into the Great Salt Lake. Ditch D-44 does not carry a relatively permanent flow of water.

(continued on next page)

Table 7. Canals and Ditches in the Survey Area

Feature ID (Name)	Cowardin Code ^a	Size (acres) ^b	Length (feet) ^c	Latitude ^d	Longitude ^d	Map Page Number(s) ^e	Description
D-45	R6	0.04	596	40.9721091	-111.8930216	10, 11	Ditch that totals 0.04 acre (596 linear feet). Ditch D-45 continues south, draining into wetland PEM-82. Ditch D-45 does not carry a relatively permanent flow of water.
D-46	R6	0.01	211	40.9816243	-111.8969704	7	Ditch that totals 0.04 acre (596 linear feet). Ditch D-46 continues south, draining into Farmington Creek. Ditch D-46 does not carry a relatively permanent flow of water.

^a Codes from *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin and others 1979): R5 (unknown perennial, riverine), R6 (a wetland, spring, stream, river, pond, or lake that only exists for a short period).

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

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

^d Coordinates for the center point each feature are listed.

^e See Attachment B, *Aquatic Resource 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. There are a total of 105.20 acres of aquatic resources. These resources consist of 75.69 acres of palustrine emergent wetlands, 5.47 acres of mudflats, 2.28 acres (7,104 linear feet) of perennial streams, 0.21 acre (1,733 linear feet) of intermittent streams, 4.17 acres (19,798 linear feet) of ditches, 0.96 acre (2,338 linear feet) of canals, and 16.42 acres of open-water ponds. All features recorded and mapped are included in Attachment B, *Aquatic Resource 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). Descriptions included in Table 3 through Table 7 above provide information USACE could use to help determine the jurisdictional status of each delineated aquatic resource feature.

Typically, an applicant is required to submit an approved jurisdictional determination request with a delineation report in order for USACE to determine the jurisdictional status of delineated aquatic resources. As a delineation report, this document does not provide information regarding the expected impacts of the Proposed Project. The permit applicant would coordinate with USACE before constructing the Proposed Project to determine permitting requirements under Section 404 of the Clean Water Act.

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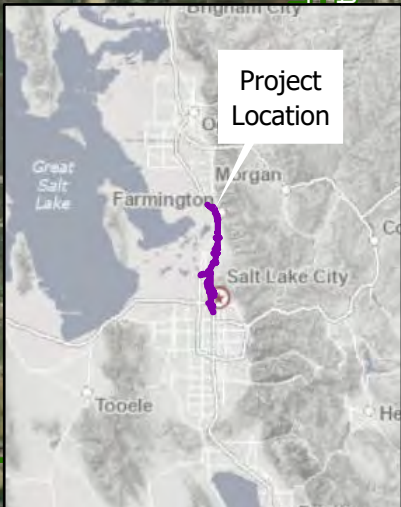
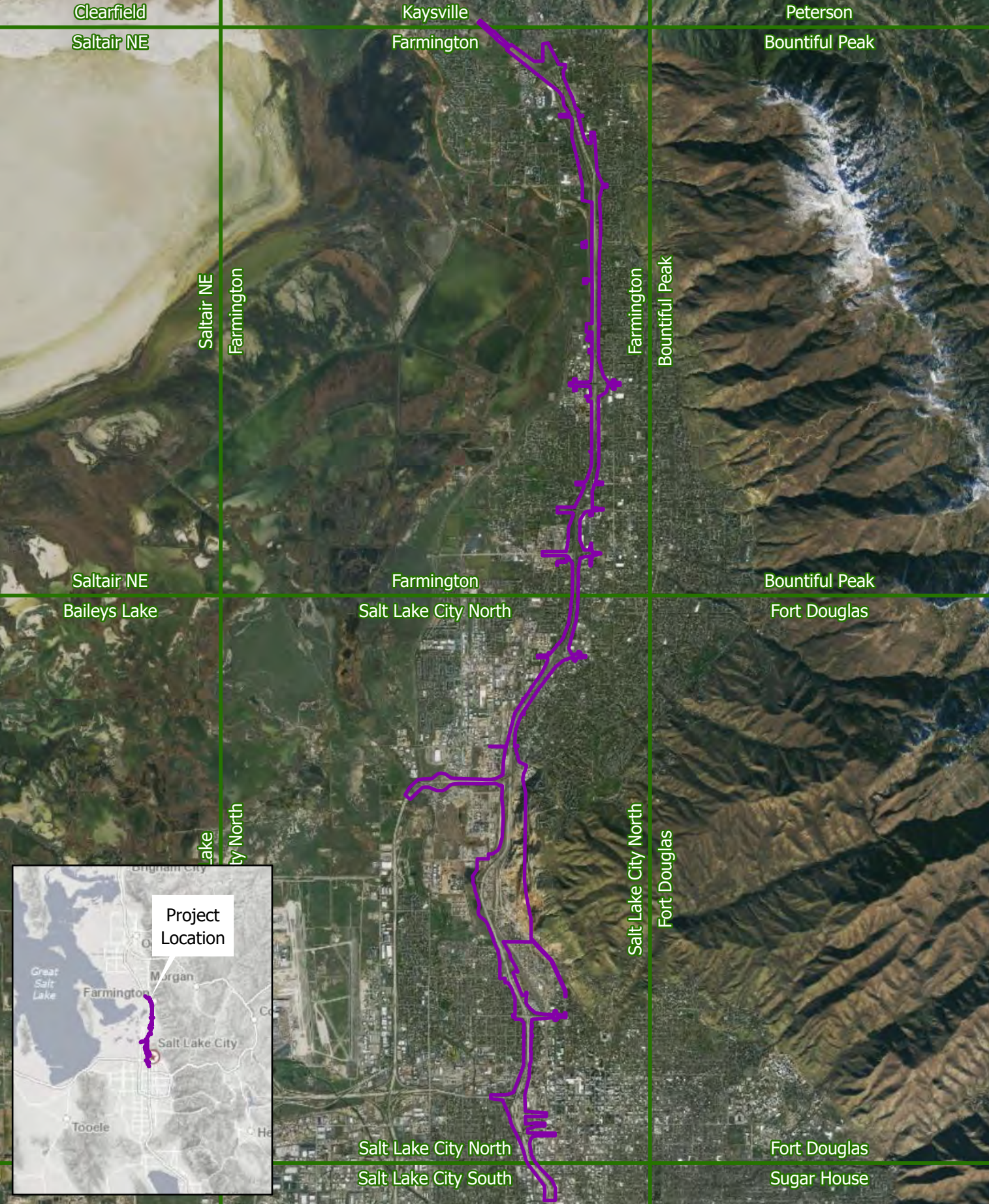
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ATTACHMENT A
Project Overview Maps

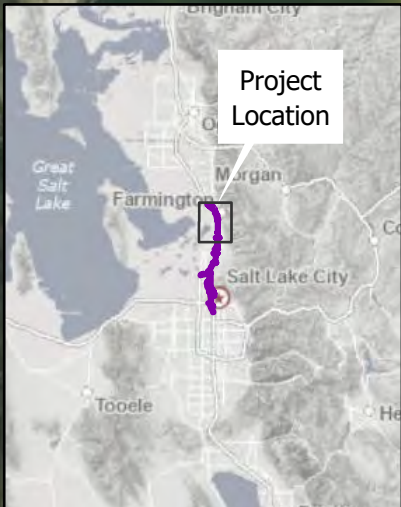
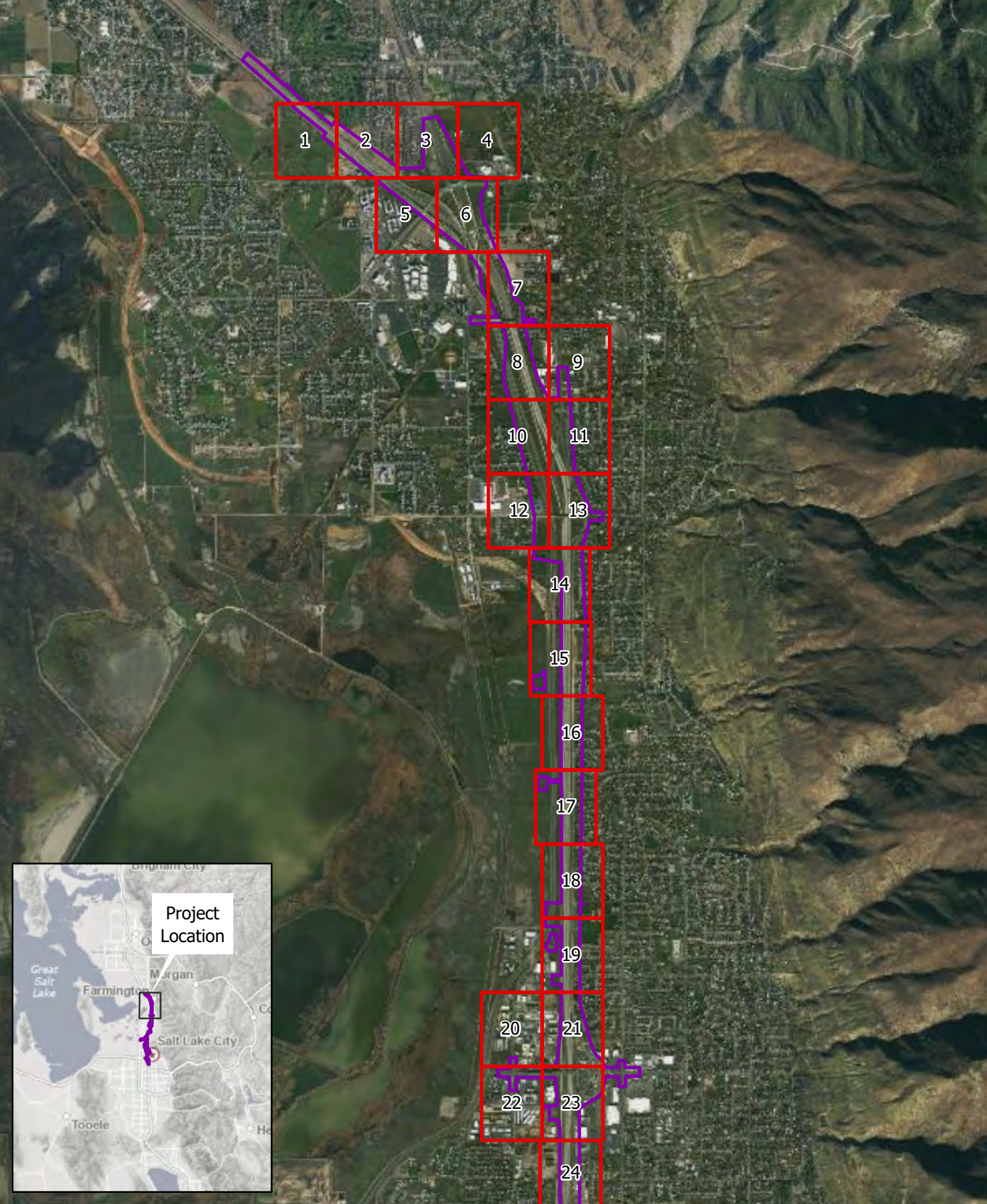
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DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 PROJECTION
 Utah Stateplane Central
 CARTOGRAPHER
 HDR

- Survey Area
- USGS 7.5 Minute Quadrangle Boundary

AQUATIC RESOURCES DELINEATION
PROJECT OVERVIEW MAPS
 I-15 EIS: FARMINGTON TO SALT LAKE CITY
 FIGURE 1 OF 4



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

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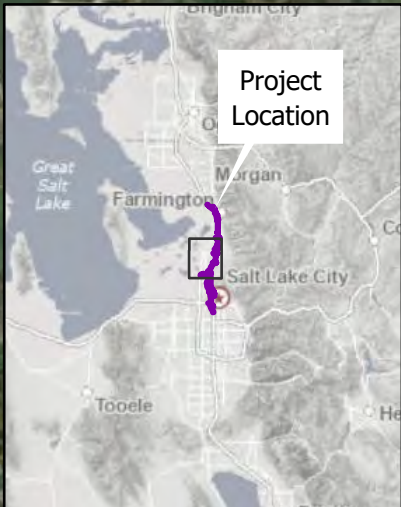
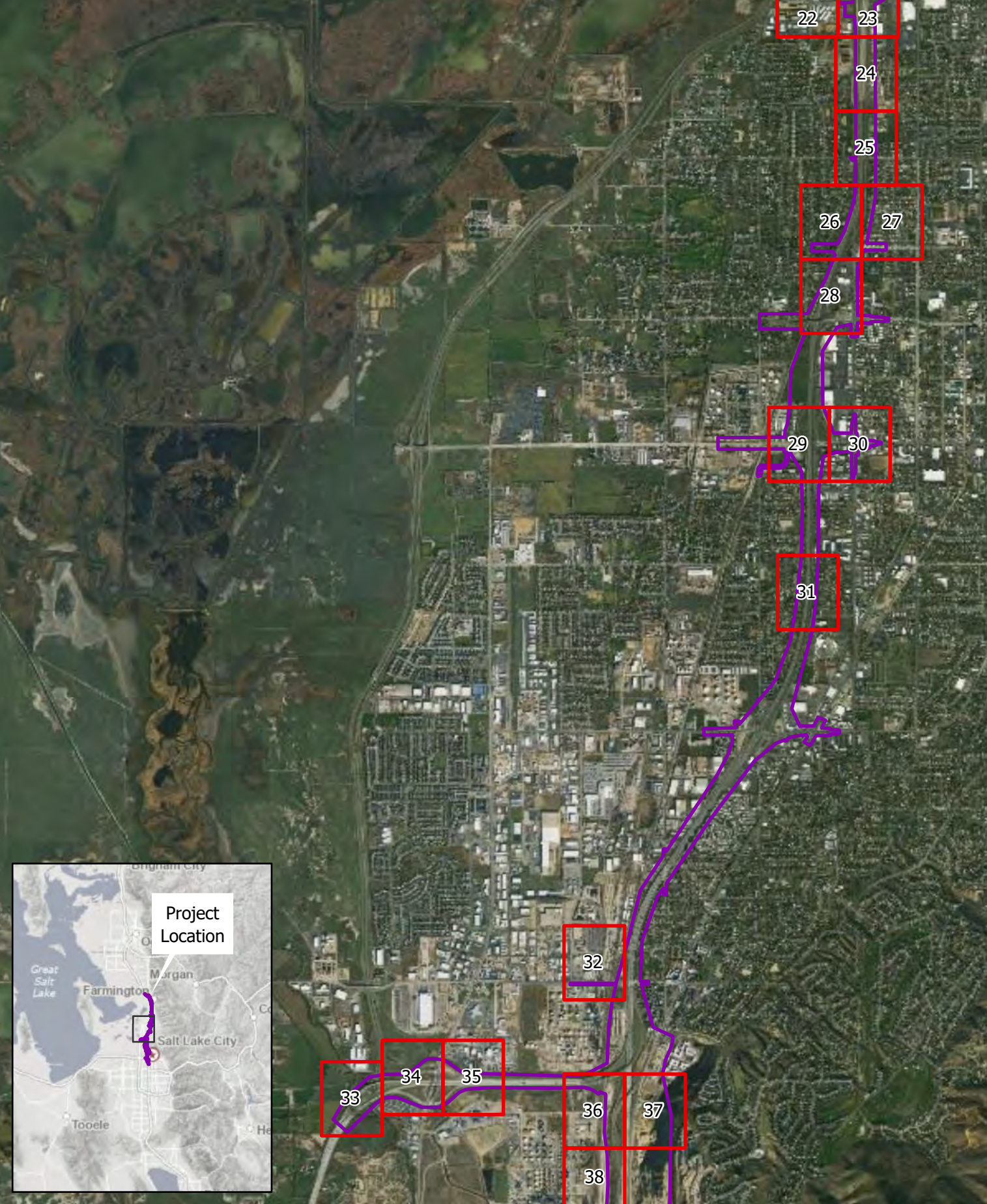
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DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

 Map Series Pages
 Survey Area

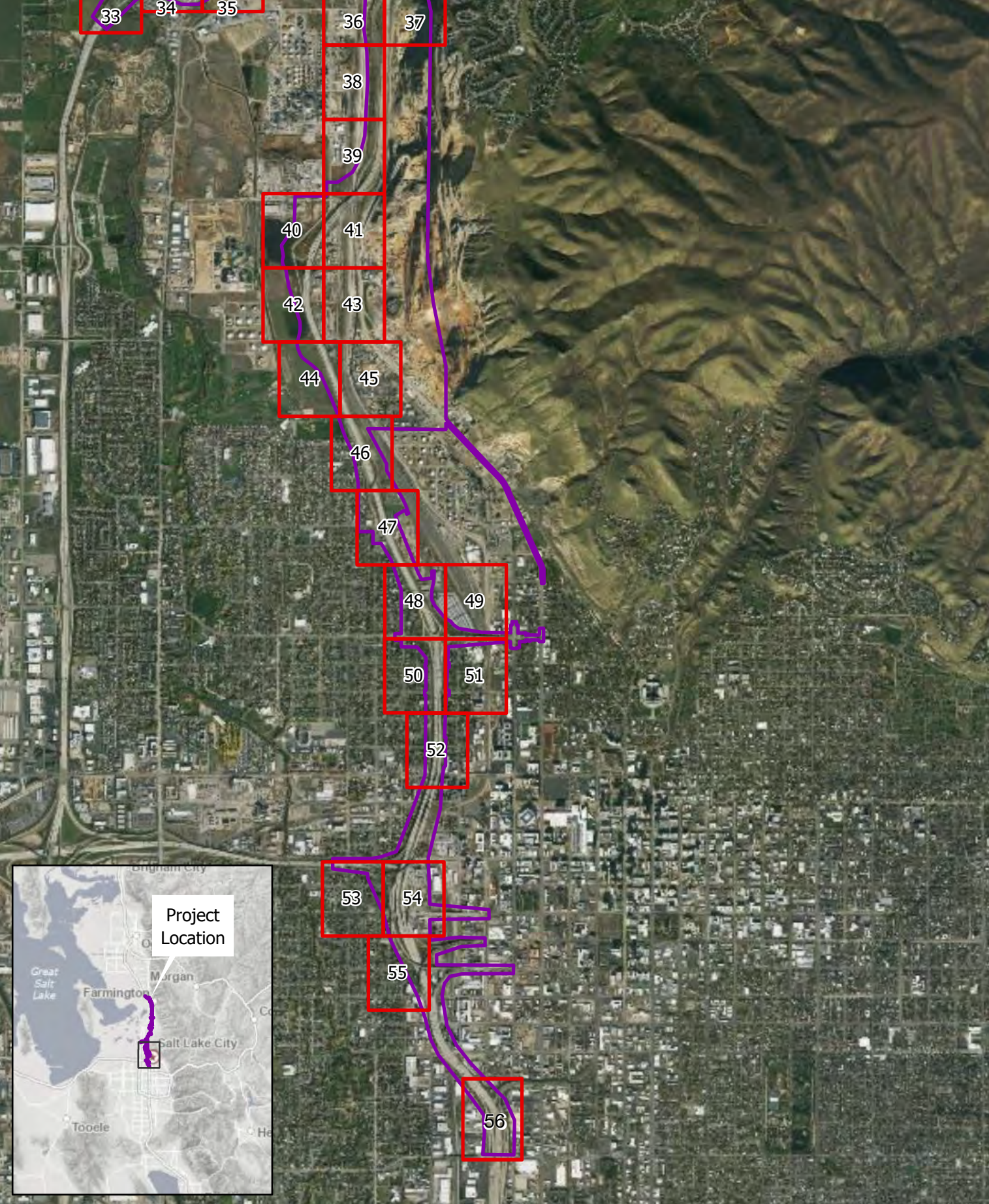
AQUATIC RESOURCES DELINEATION
PROJECT OVERVIEW MAPS
I-15 EIS: FARMINGTON TO SALT LAKE CITY
 FIGURE 2 OF 4



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

Map Series Pages
 Survey Area

AQUATIC RESOURCES DELINEATION
PROJECT OVERVIEW MAPS
I-15 EIS: FARMINGTON TO SALT LAKE CITY
 FIGURE 3 OF 4



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

- Map Series Pages
- Survey Area

ATTACHMENT B

Aquatic Resource Delineation Map Series

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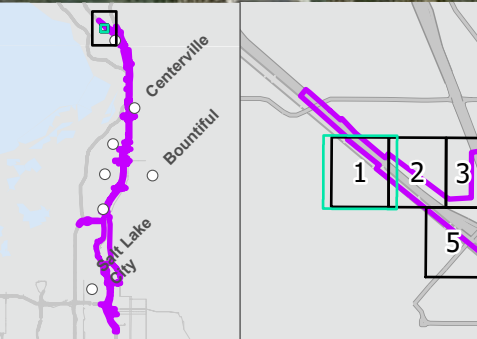


40.997567
-111.921515

40.997567
-111.915214

40.991756
-111.921515

40.991756
-111.915214



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Ditch
- Open Water Pond
- PEM Wetland

*Only areas with aquatic resources present are shown in this series

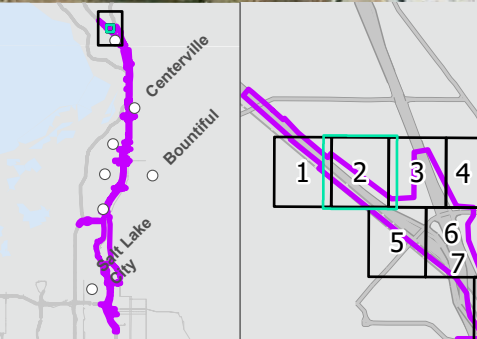


1 Inch equals 375 feet



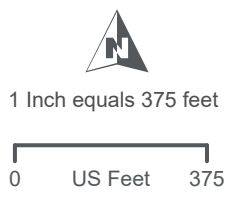
DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR

AQUATIC RESOURCES DELINEATION MAP SERIES
I-15 EIS: FARMINGTON TO SALT LAKE CITY



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Ditch
- Open Water Pond
- PEM Wetland
- Perennial Stream

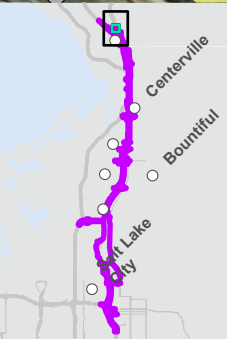
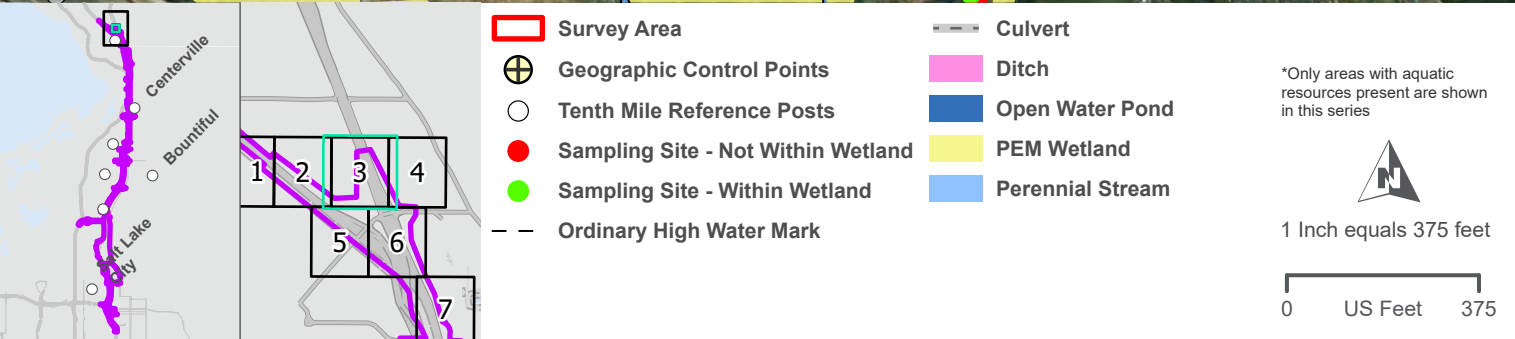
*Only areas with aquatic resources present are shown in this series



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

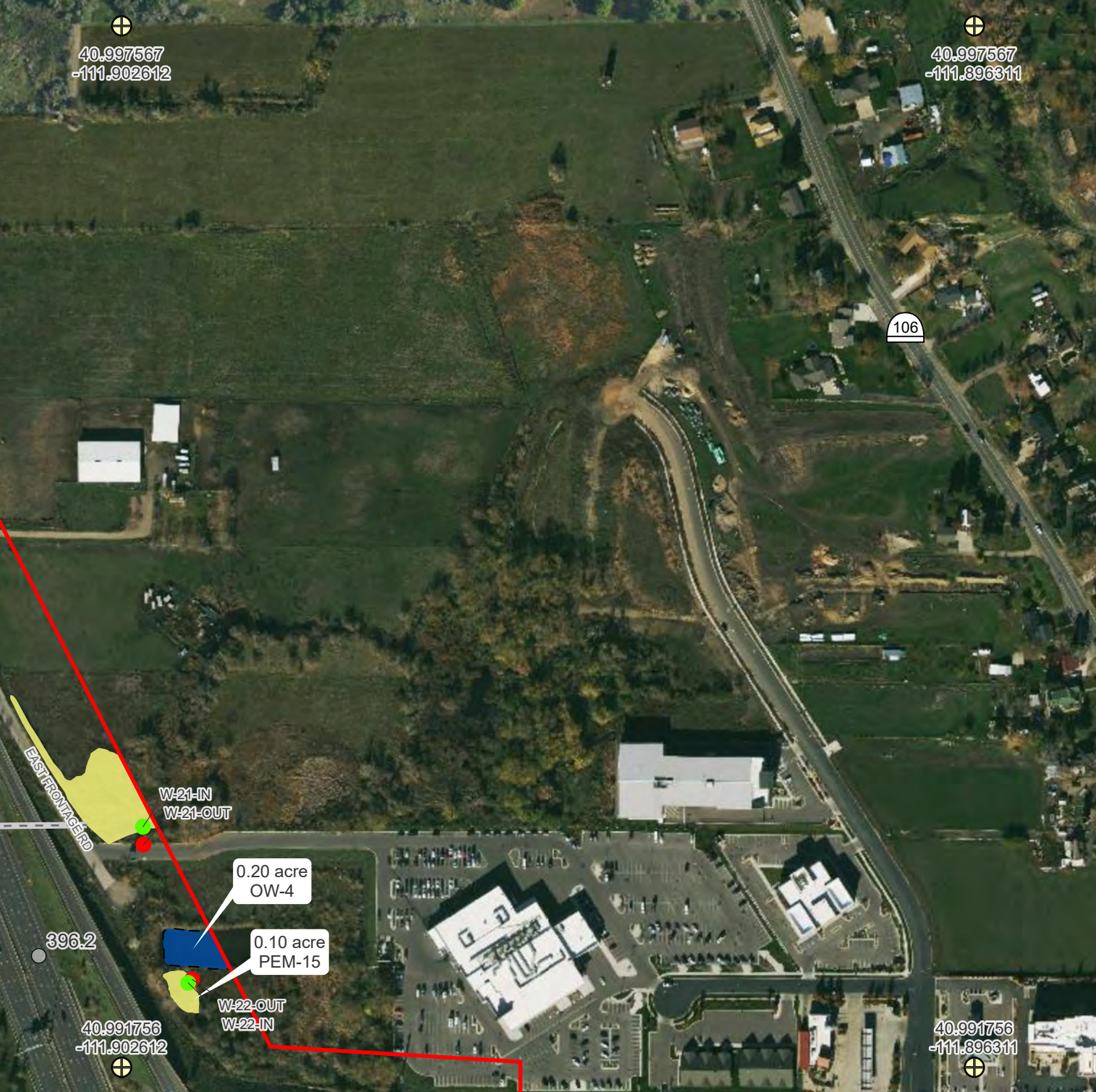
40.997567
-111.908913

40.997567
-111.902612



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR

PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR



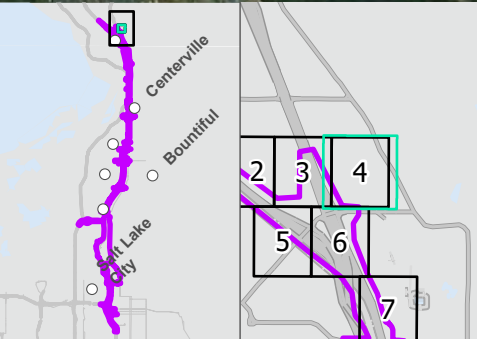
40.997567
-111.902612

40.997567
-111.896311

396.2

40.991756
-111.902612

40.991756
-111.896311



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Open Water Pond
- PEM Wetland

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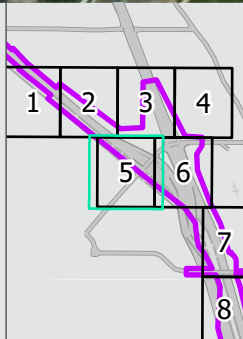
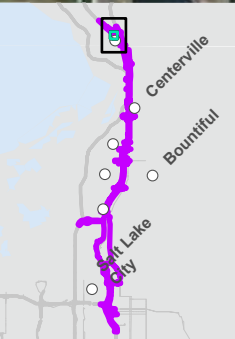
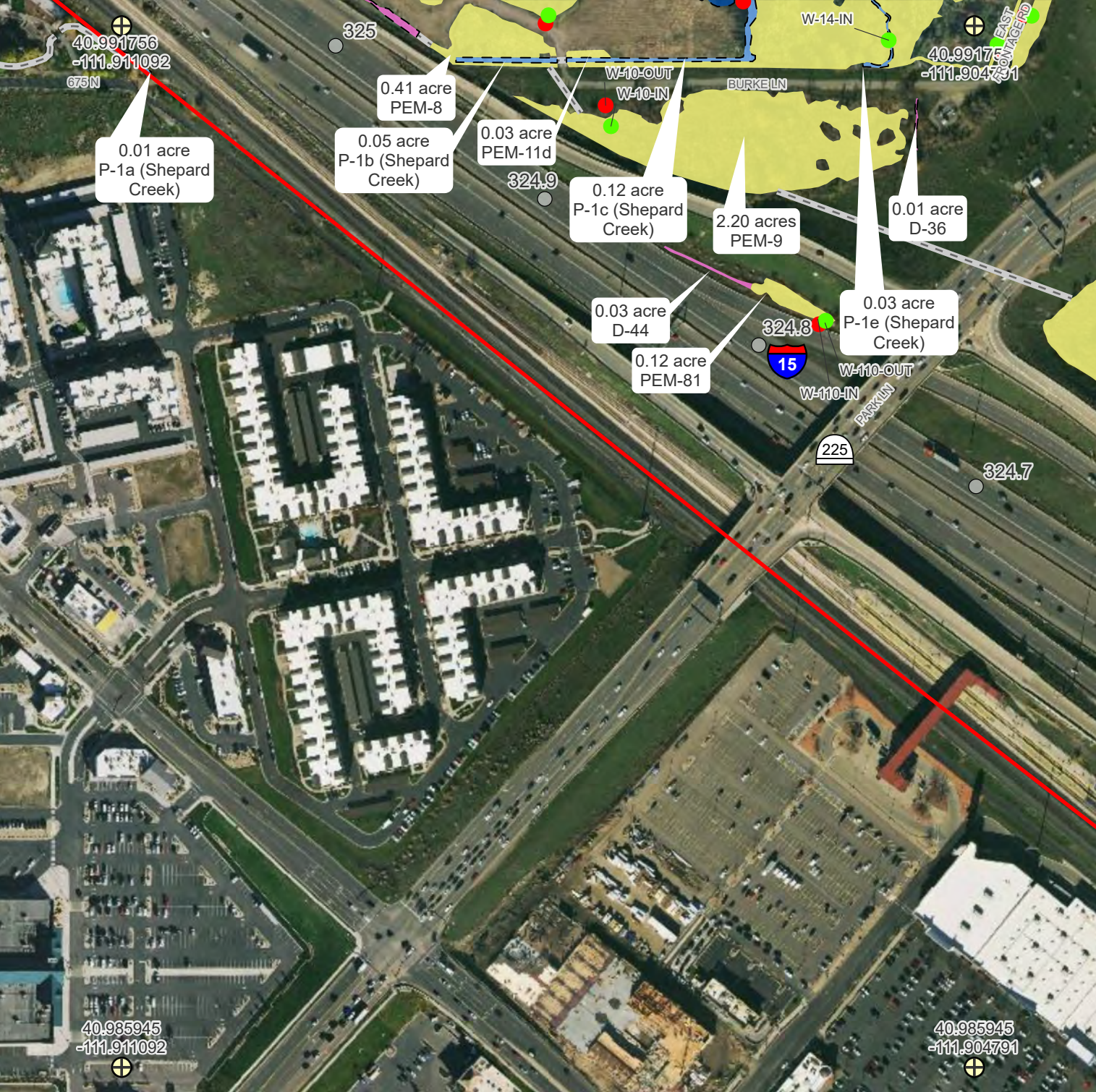


1 Inch equals 375 feet



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR

AQUATIC RESOURCES DELINEATION MAP SERIES
I-15 EIS: FARMINGTON TO SALT LAKE CITY



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Ditch
- Open Water Pond
- PEM Wetland
- Perennial Stream

*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet

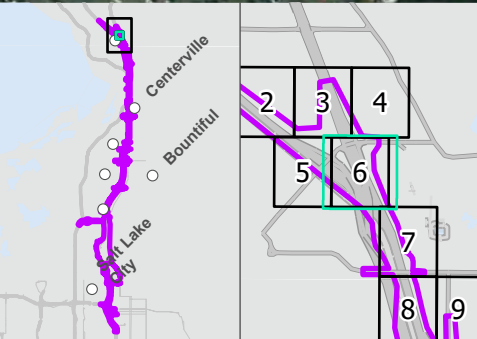
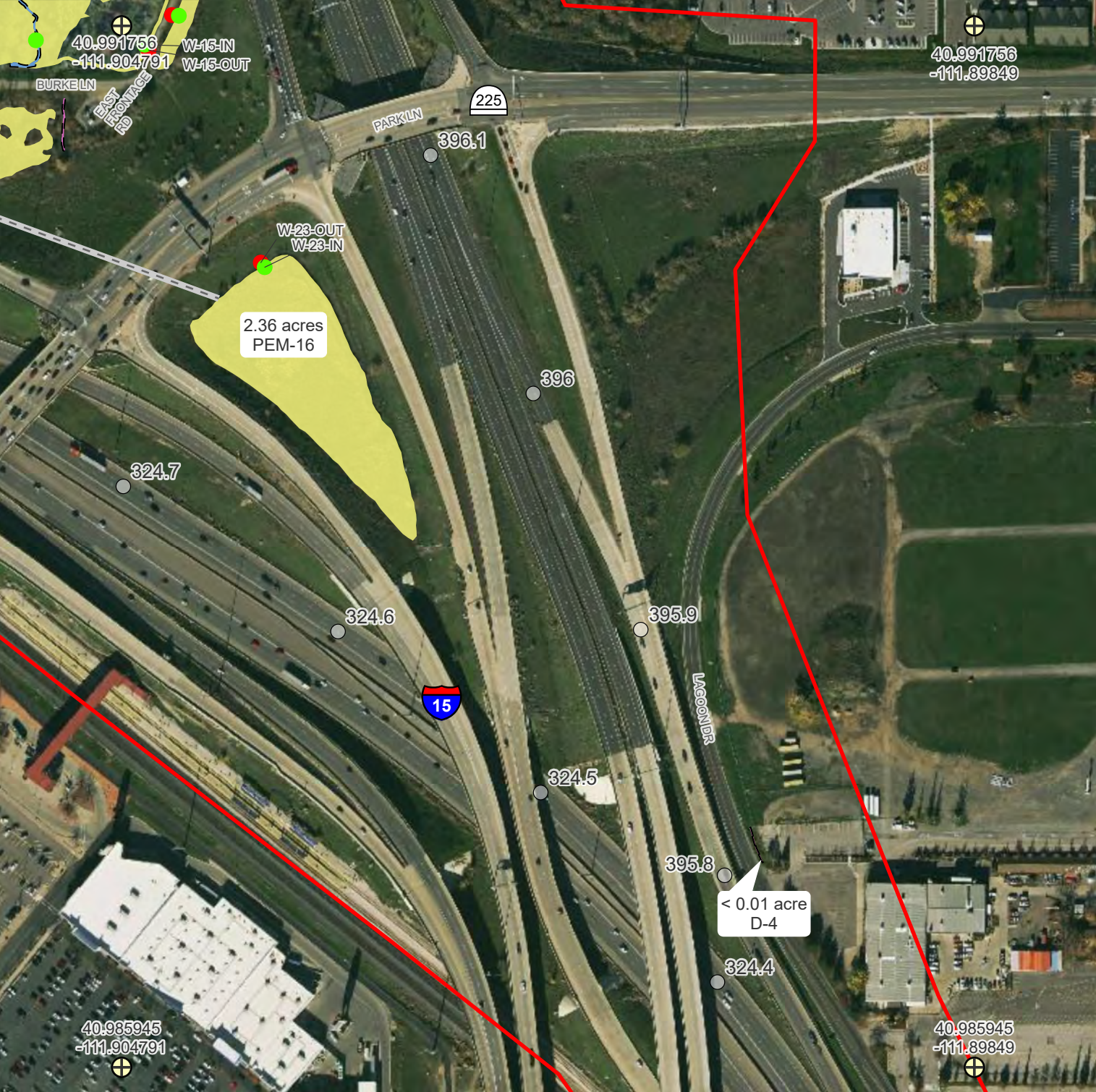


DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
 PROJECTION
 Utah Stateplane Central
 CARTOGRAPHER
 HDR

AQUATIC RESOURCES DELINEATION MAP SERIES I-15 EIS: FARMINGTON TO SALT LAKE CITY

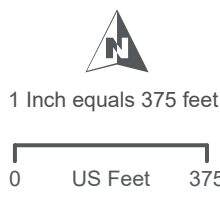
FIGURE 5 OF 56

AUGUST 21ST, 2024

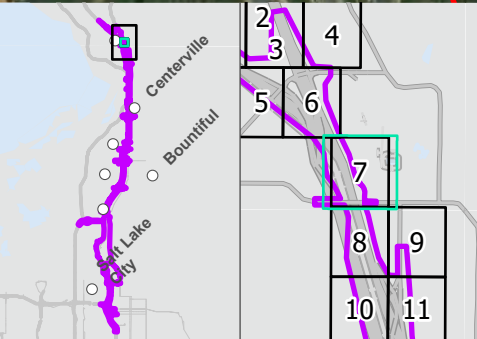
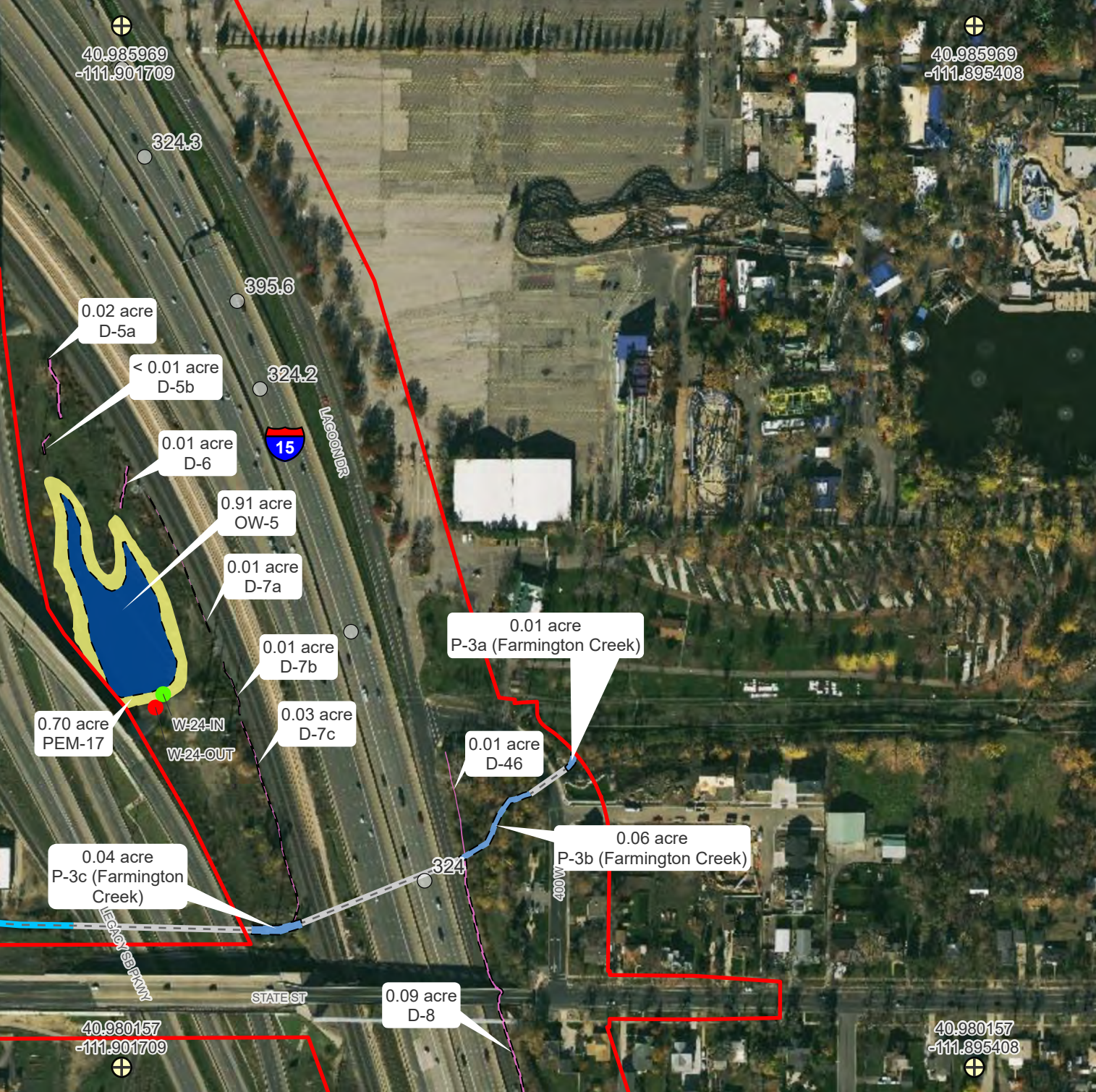


- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Ditch
- PEM Wetland
- Perennial Stream

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DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Surface Connection
- Ditch
- Open Water Pond
- PEM Wetland
- Perennial Stream

*Only areas with aquatic resources present are shown in this series

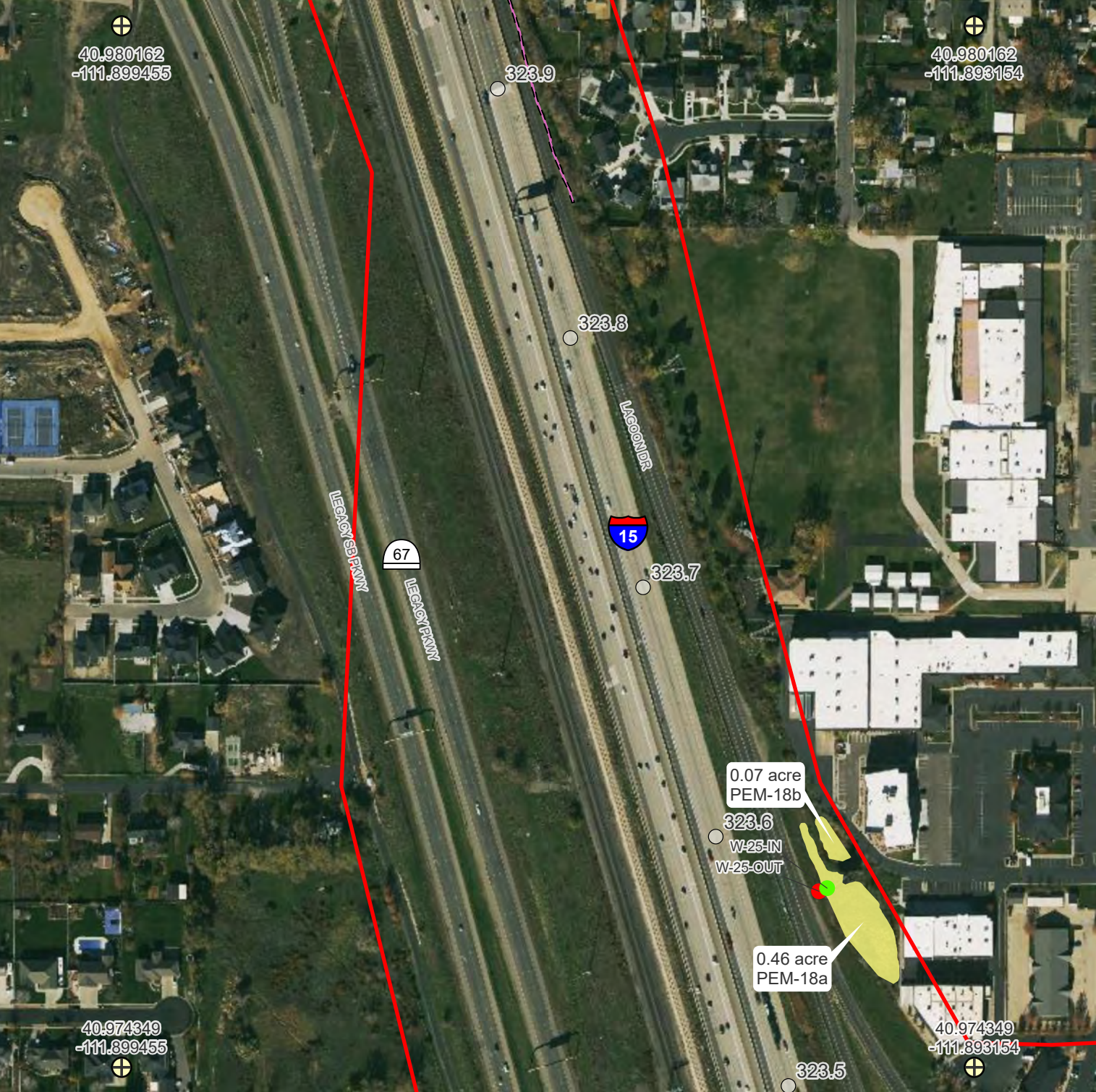


1 Inch equals 375 feet



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR

AQUATIC RESOURCES DELINEATION MAP SERIES
I-15 EIS: FARMINGTON TO SALT LAKE CITY

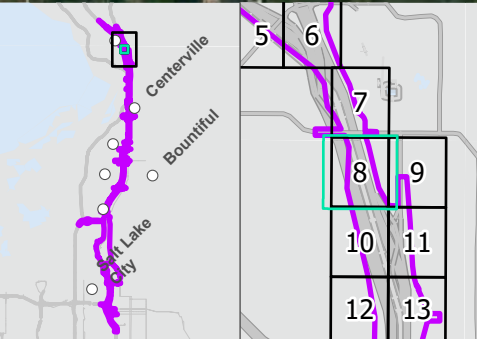


40.980162
-111.899455

40.980162
-111.893154

40.974349
-111.899455

40.974349
-111.893154



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Ditch
- PEM Wetland

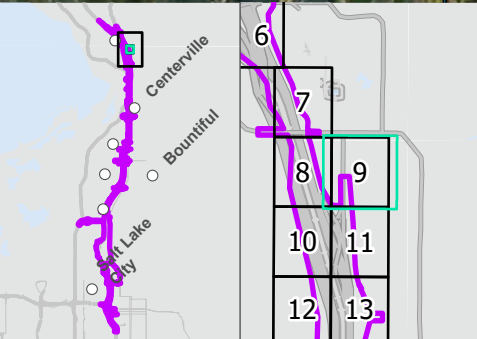
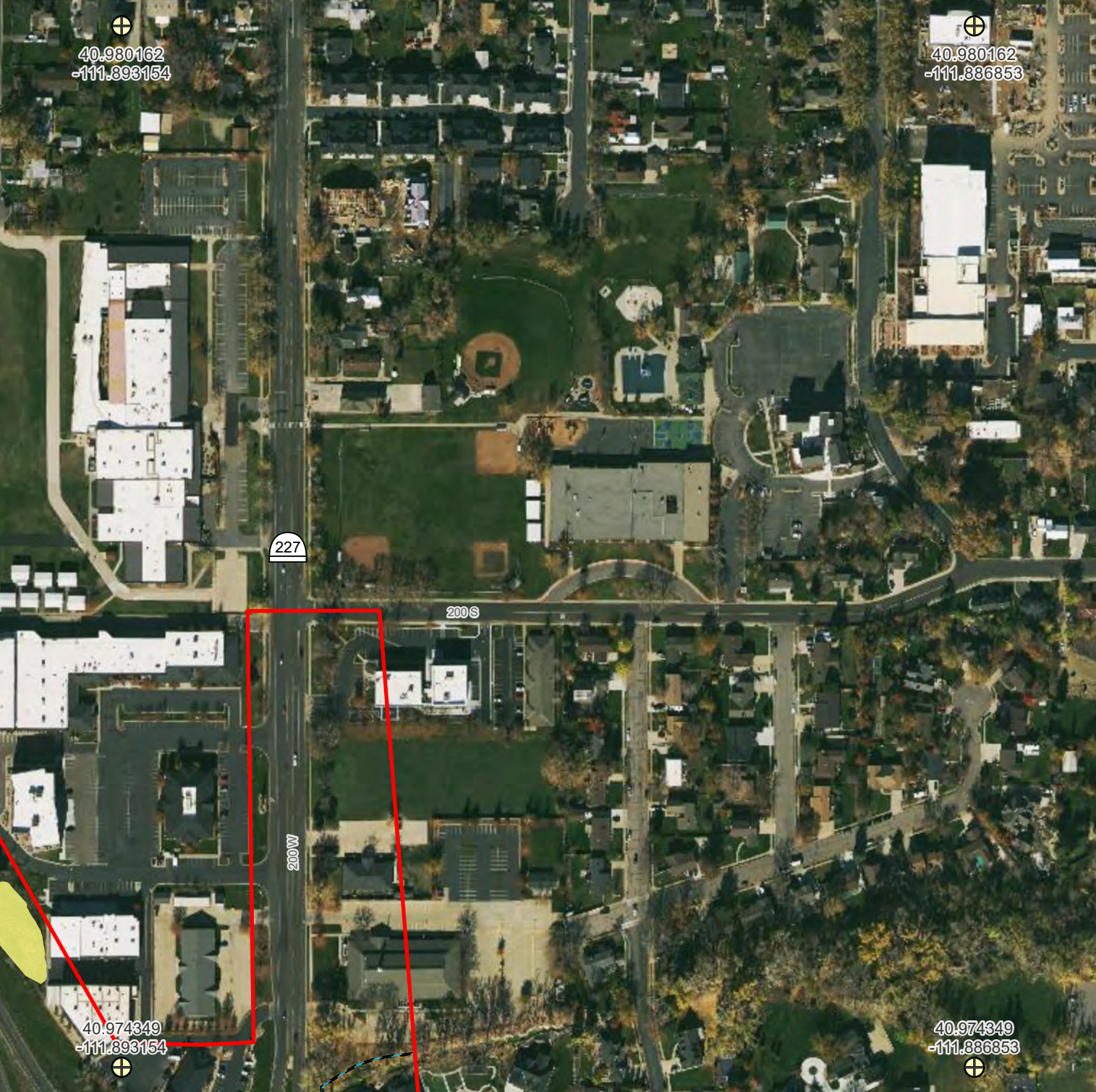
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR



- Survey Area
- + Geographic Control Points
- Ordinary High Water Mark
- Intermittent Stream
- PEM Wetland

*Only areas with aquatic resources present are shown in this series

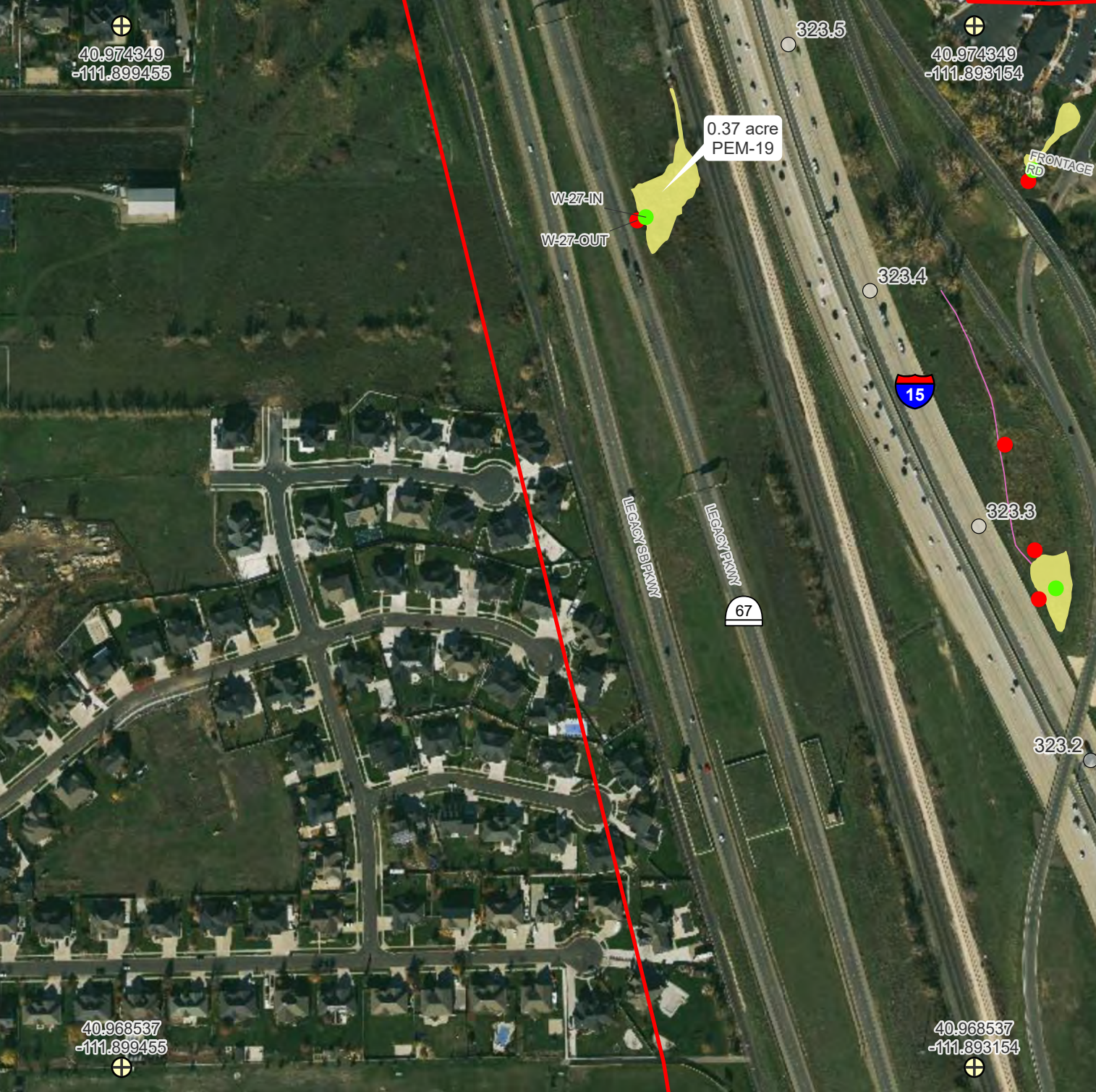


1 Inch equals 375 feet



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

AQUATIC RESOURCES DELINEATION MAP SERIES
I-15 EIS: FARMINGTON TO SALT LAKE CITY



40.974349
-111.899455

40.974349
-111.893154

0.37 acre
PEM-19

W-27-IN
W-27-OUT

FRONTAGE
RD

323.4

15

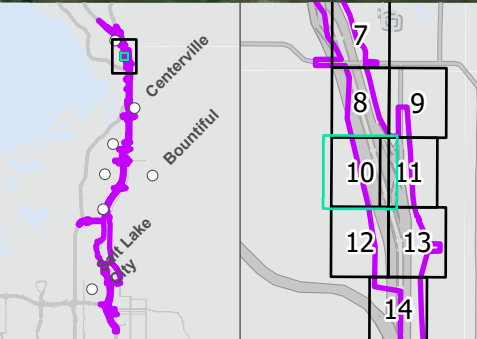
323.3

67

323.2

40.968537
-111.899455

40.968537
-111.893154



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ditch
- PEM Wetland

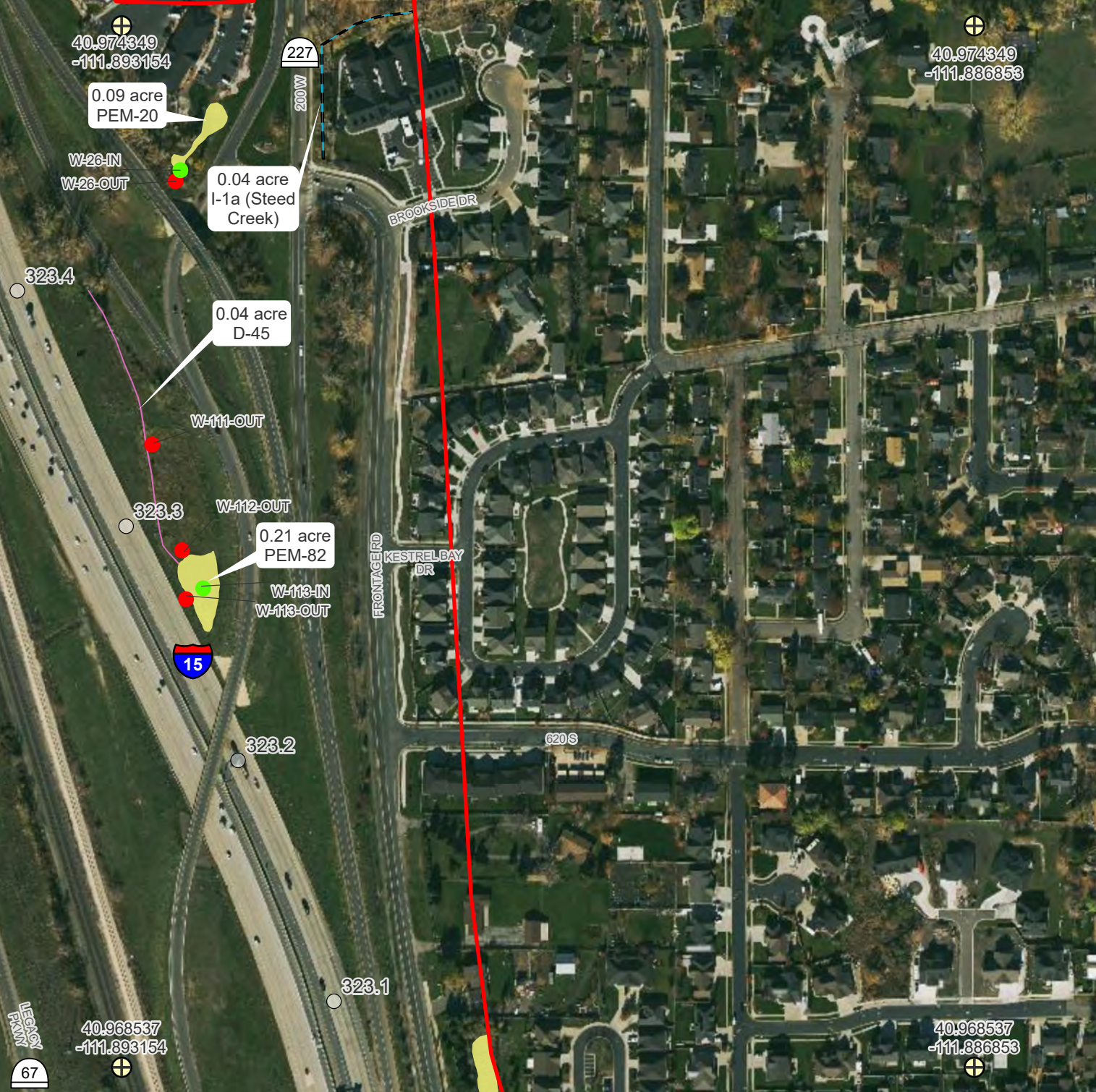
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR



40.974349
-111.893154

40.974349
-111.886853

0.09 acre
PEM-20

0.04 acre
I-1a (Steed
Creek)

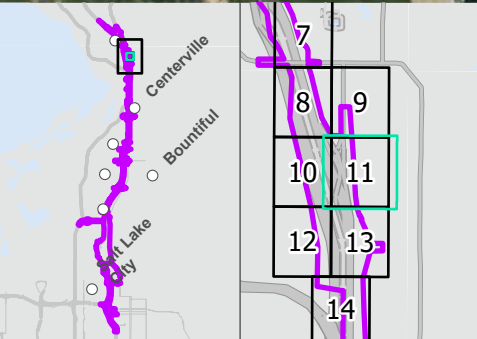
0.04 acre
D-45

0.21 acre
PEM-82

40.968537
-111.893154

40.968537
-111.886853

LEGION
PARK
67



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Ditch
- Intermittent Stream
- PEM Wetland

*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR

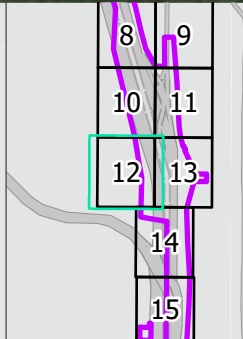
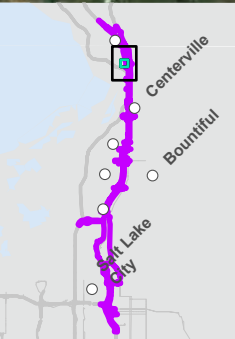


40.968537
-111.899455

40.968537
-111.893154

40.962724
-111.899455

40.962724
-111.893154



- Survey Area
- Geographic Control Points
- Ordinary High Water Mark
- Culvert
- Intermittent Stream
- PEM Wetland

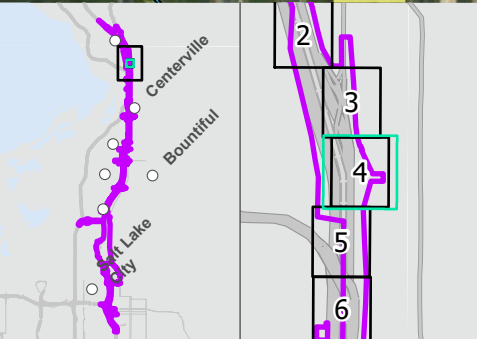
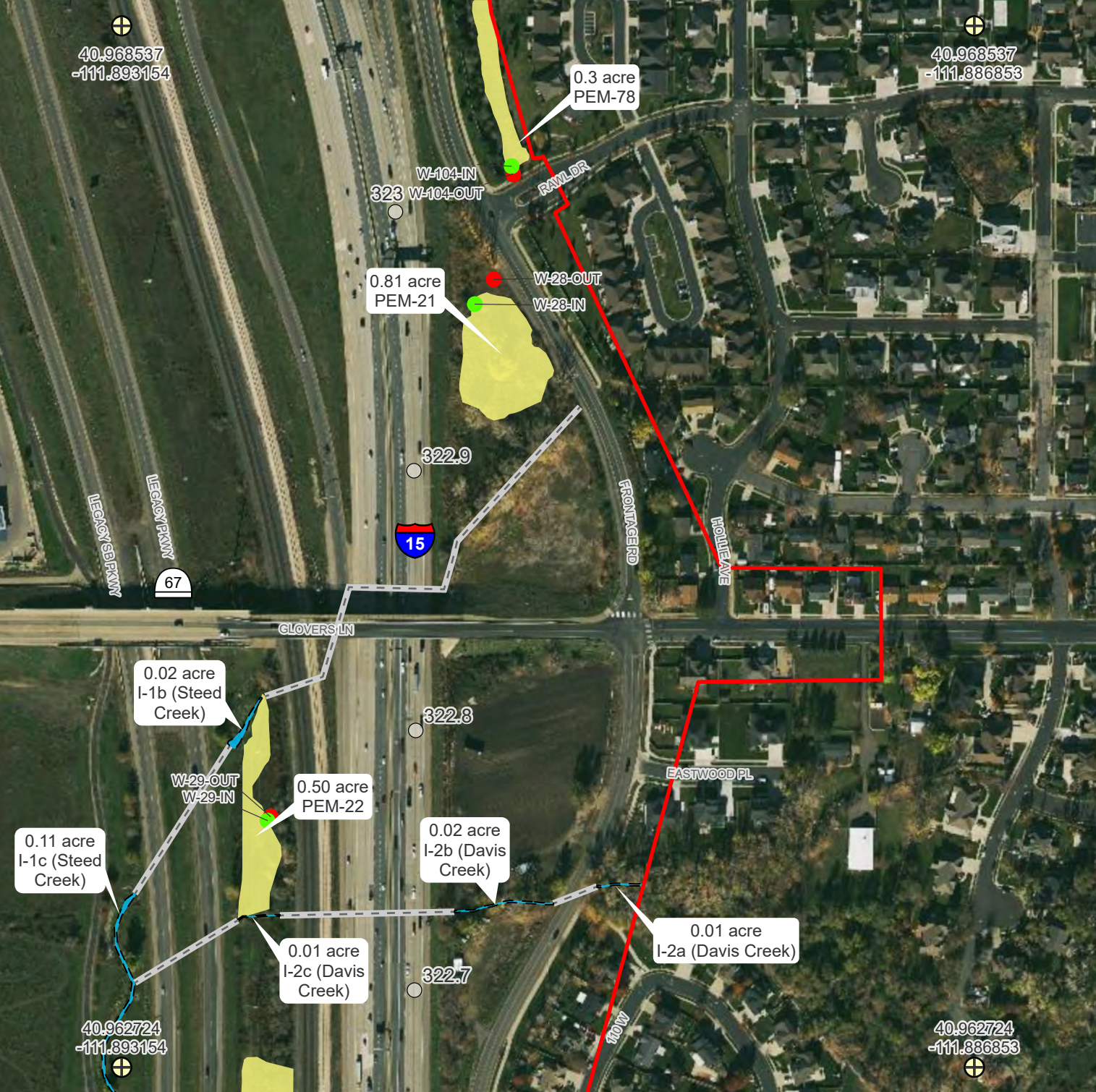
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet

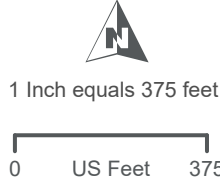


DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR

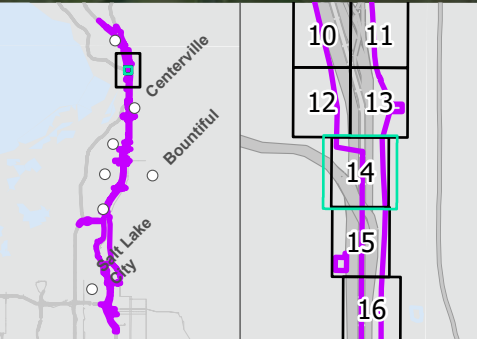
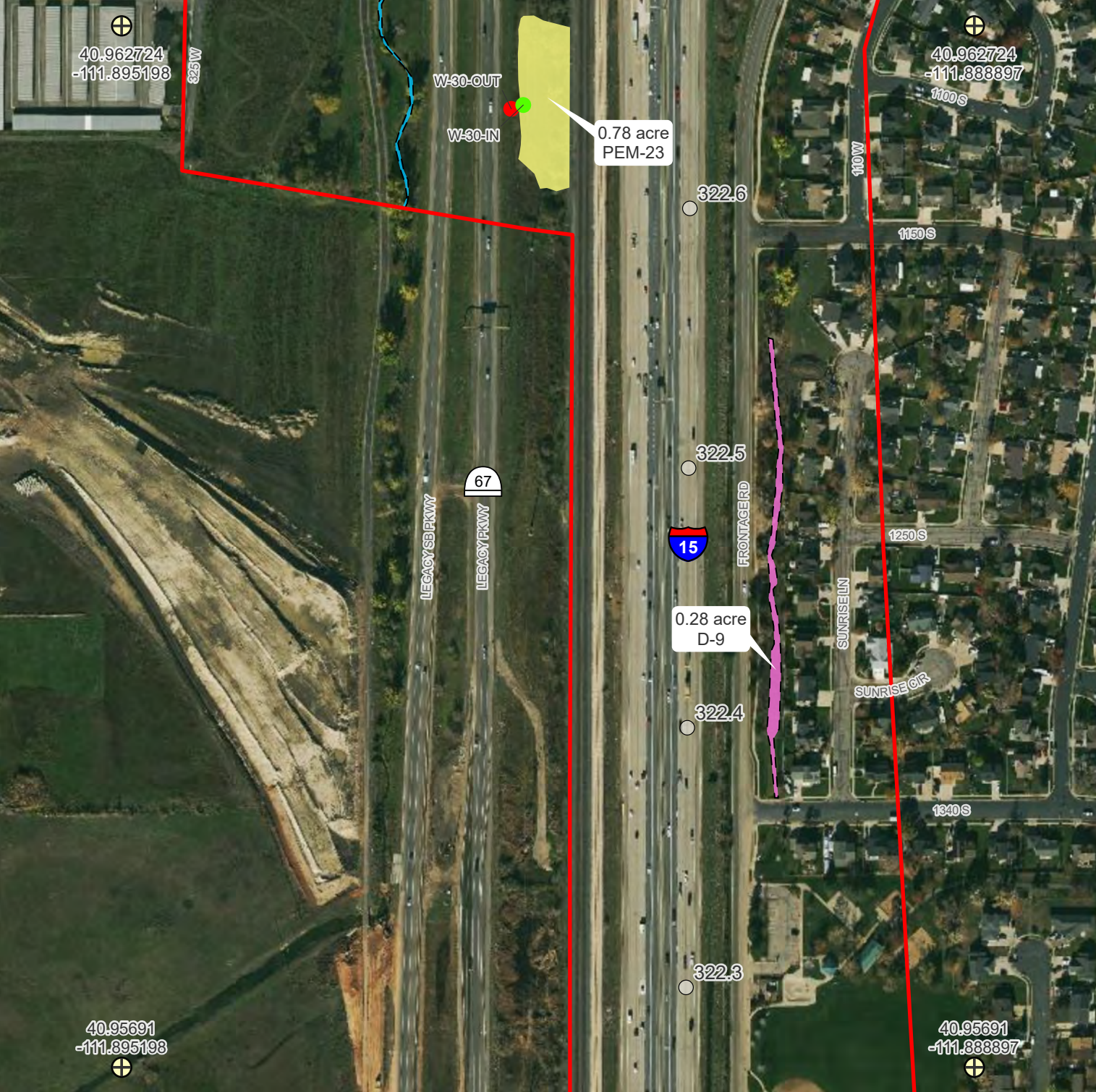


- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Intermittent Stream
- PEM Wetland

*Only areas with aquatic resources present are shown in this series

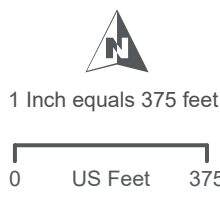


DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Ditch
- Intermittent Stream
- PEM Wetland

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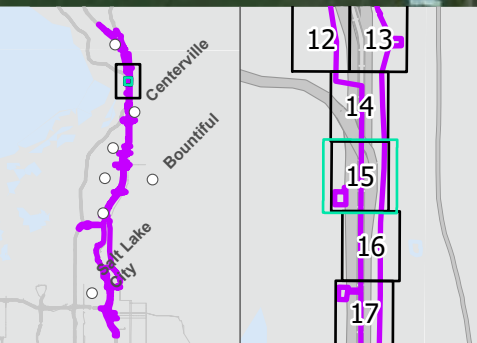


DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

40.95691
-111.893859

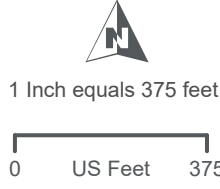
40.951096
-111.893859

40.951096
-111.887553

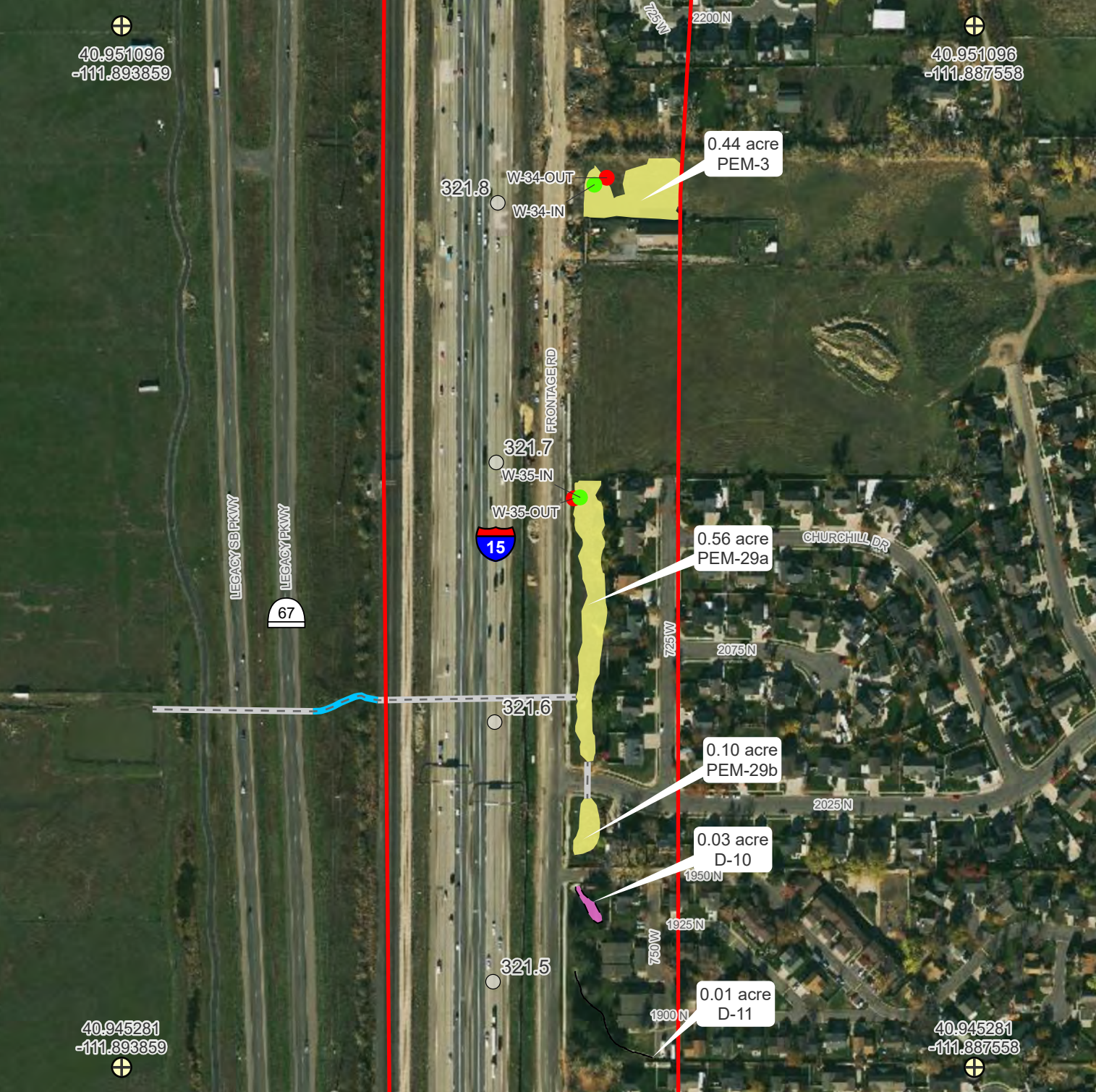


- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Surface Connection
- Ditch
- PEM Wetland

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DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

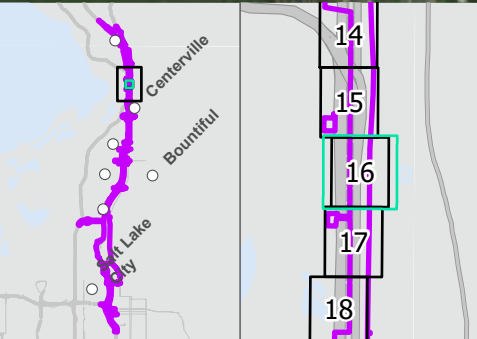


40.951096
-111.893859

40.951096
-111.887553

40.945281
-111.893859

40.945281
-111.887553



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Surface Connection
- Ditch
- PEM Wetland

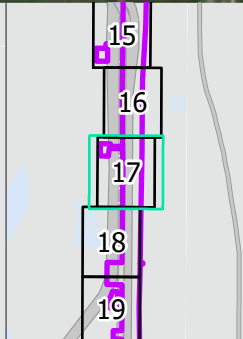
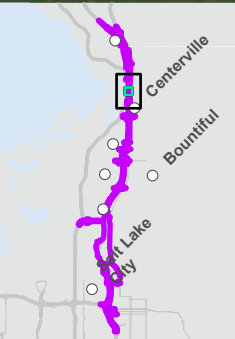
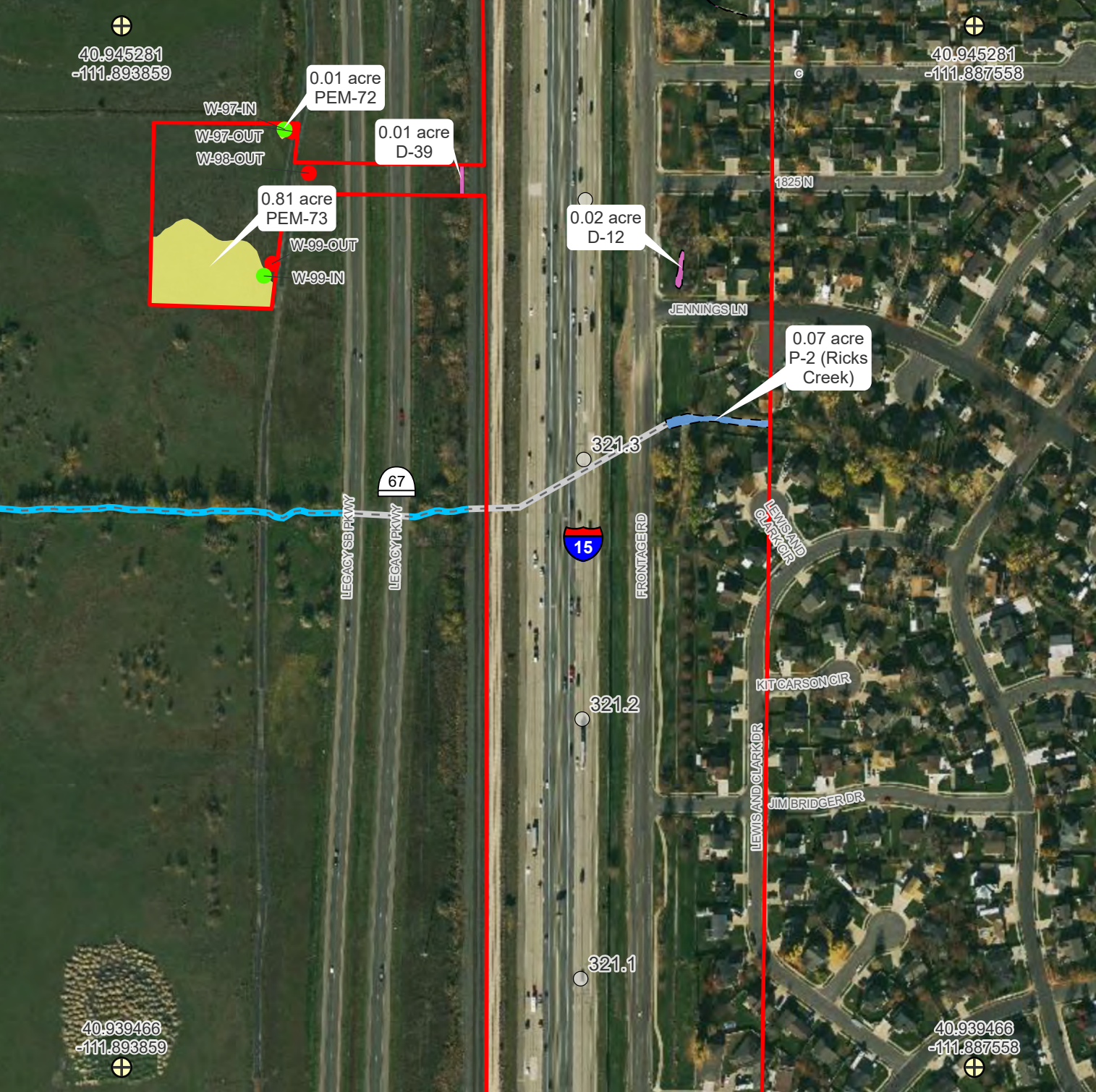
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Surface Connection
- Ditch
- PEM Wetland
- Perennial Stream

*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



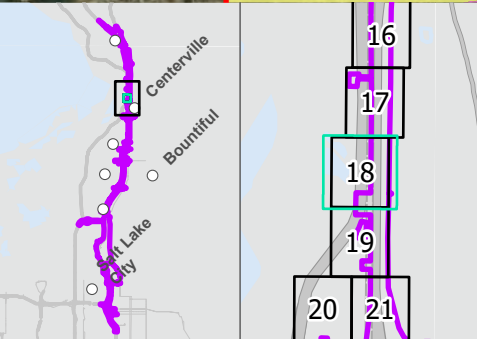


40.939463
-111.896134

WILLOWWOOD DR 40.939463
-111.889833

40.933648
-111.896134

40.933648
-111.889833



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Surface Connection
- Ditch
- PEM Wetland

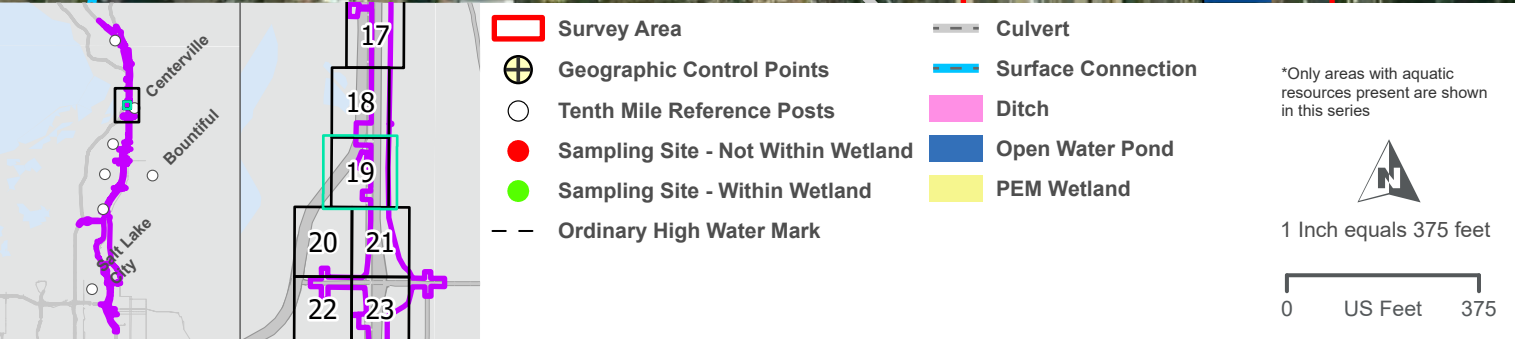
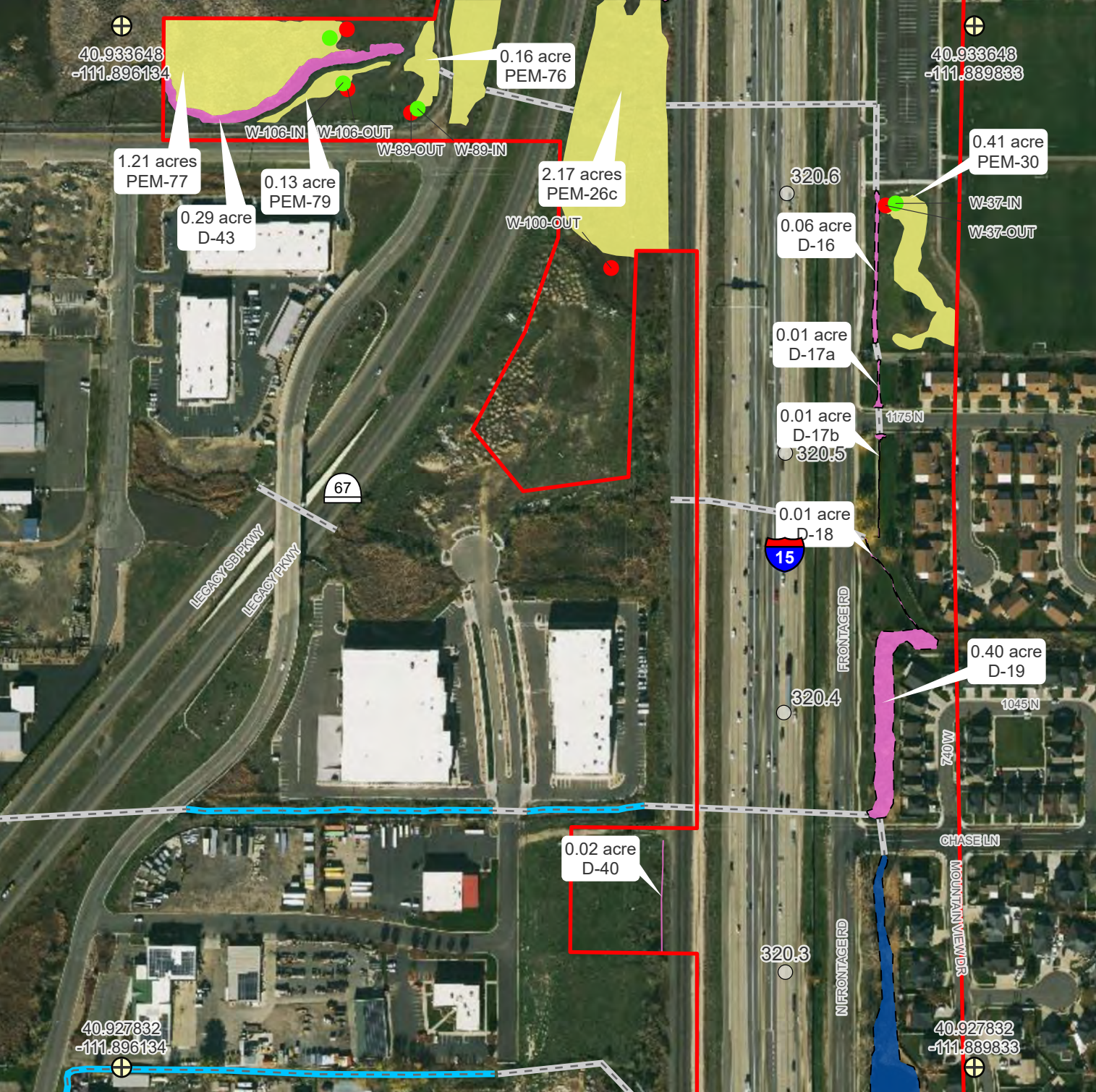
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



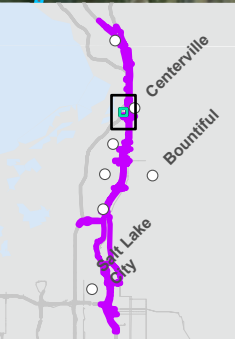
40.927834
-111.900159

40.927834
-111.893859

40.922017
-111.900159

40.922017
-111.893859

0.53 acre
PEM-32



- Survey Area
- Geographic Control Points
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Culvert
- Surface Connection
- PEM Wetland

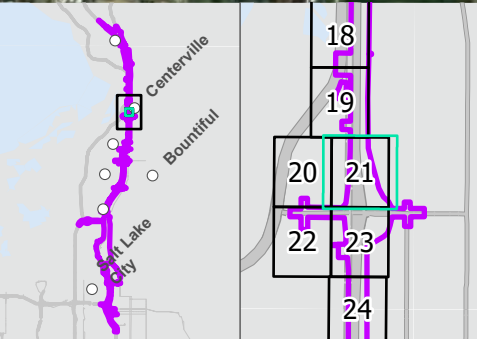
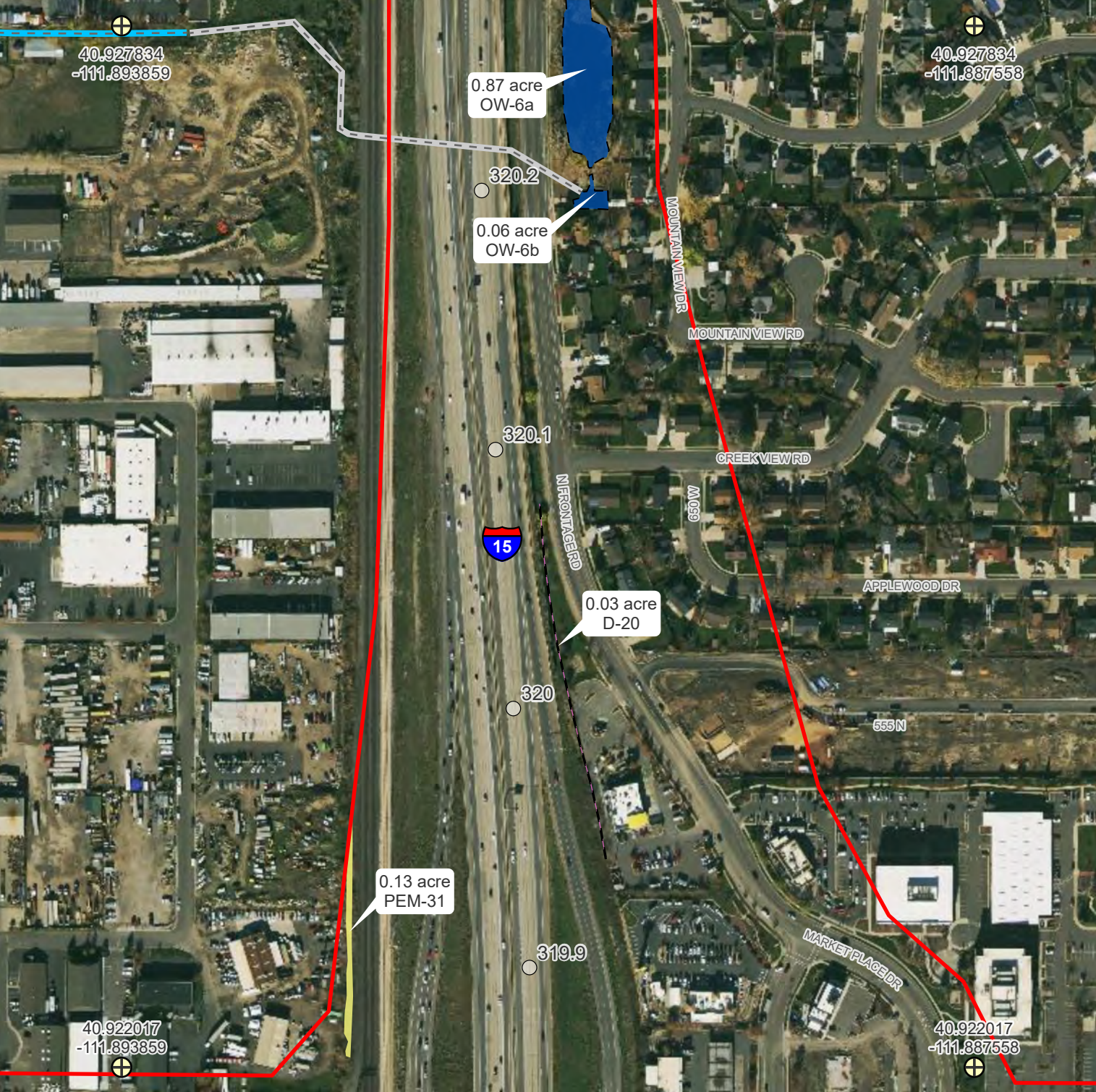
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet

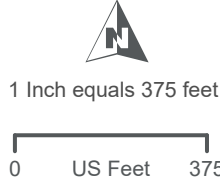


DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR

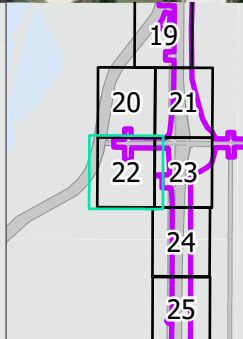
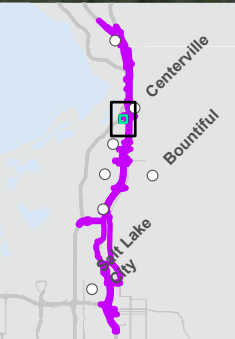
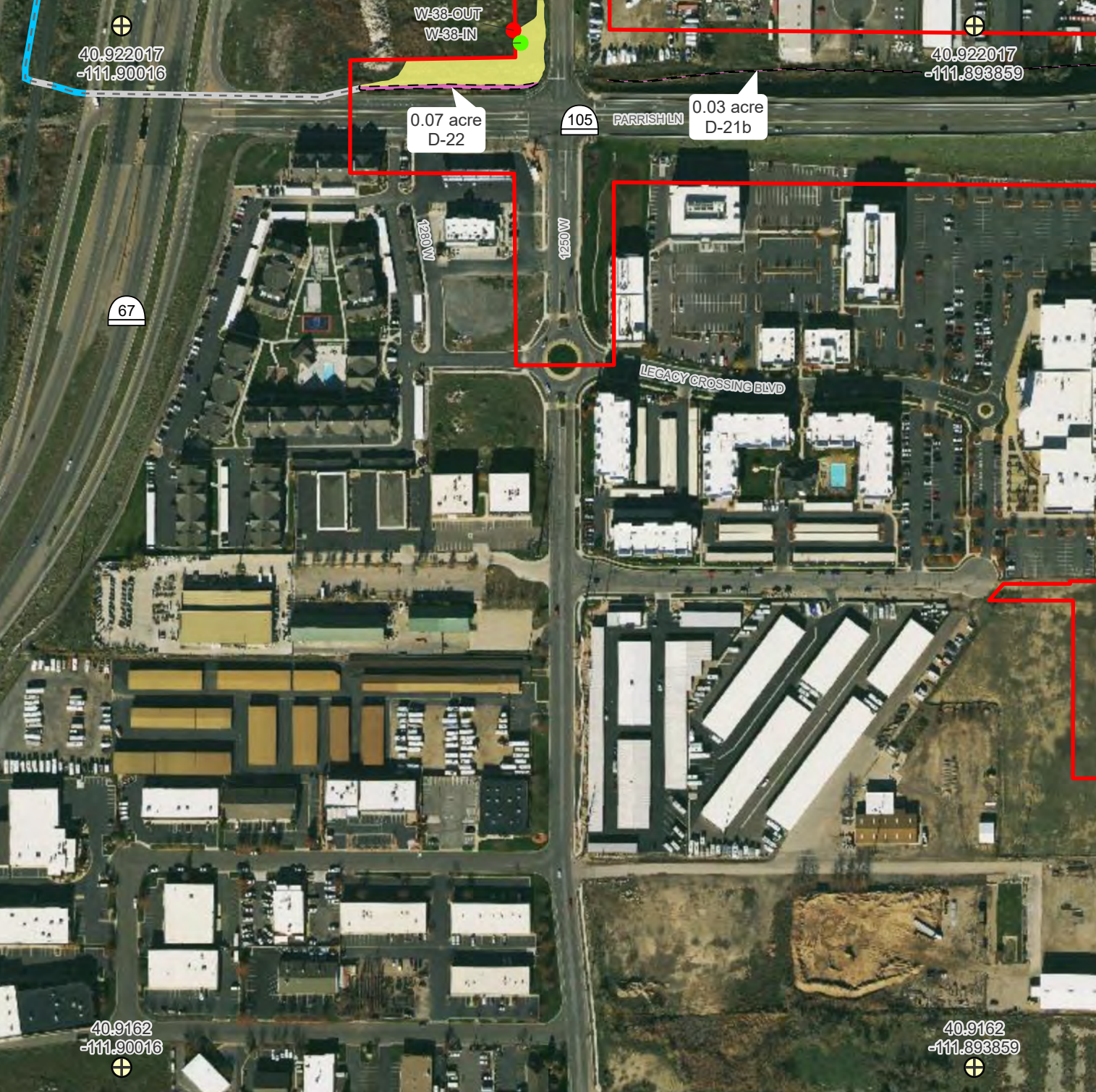


- Survey Area
- Surface Connection
- Geographic Control Points
- Ditch
- Tenth Mile Reference Posts
- Open Water Pond
- Ordinary High Water Mark
- PEM Wetland
- Culvert

*Only areas with aquatic resources present are shown in this series

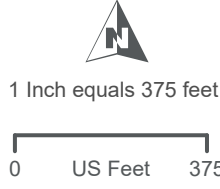


DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR

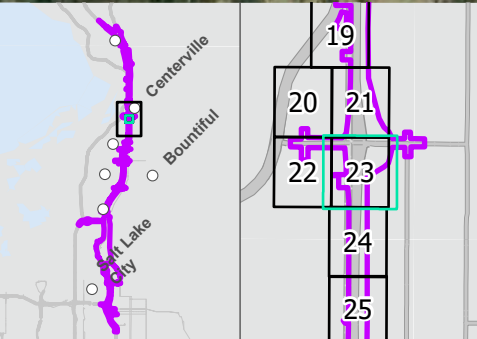


- Survey Area
- Geographic Control Points
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Surface Connection
- Ditch
- PEM Wetland

*Only areas with aquatic resources present are shown in this series



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



- Survey Area
- ⊕ Geographic Control Points
- Tenth Mile Reference Posts
- Ordinary High Water Mark
- Ditch
- Open Water Pond
- PEM Wetland

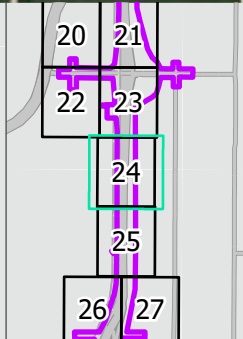
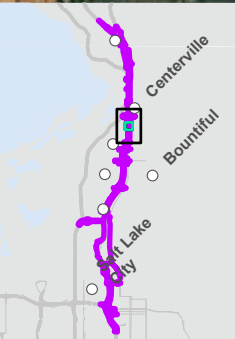
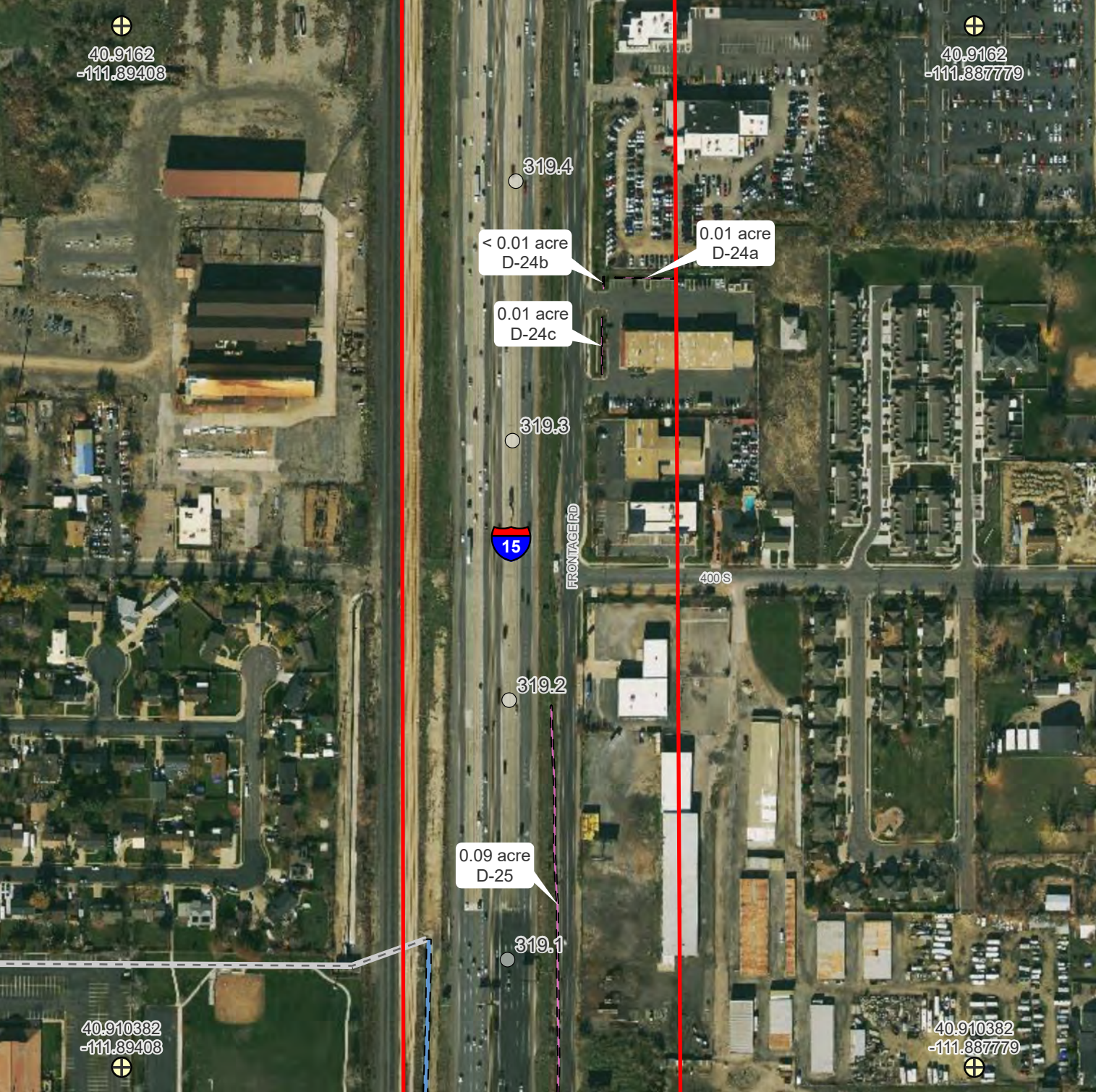
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Ordinary High Water Mark
- Culvert
- Ditch
- Perennial Stream

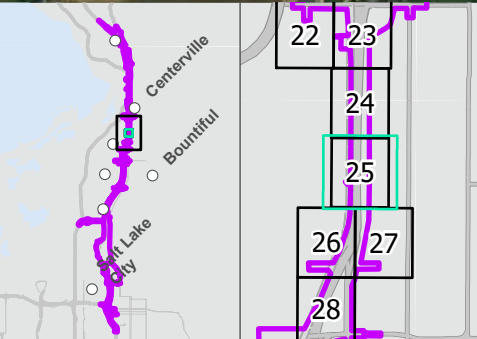
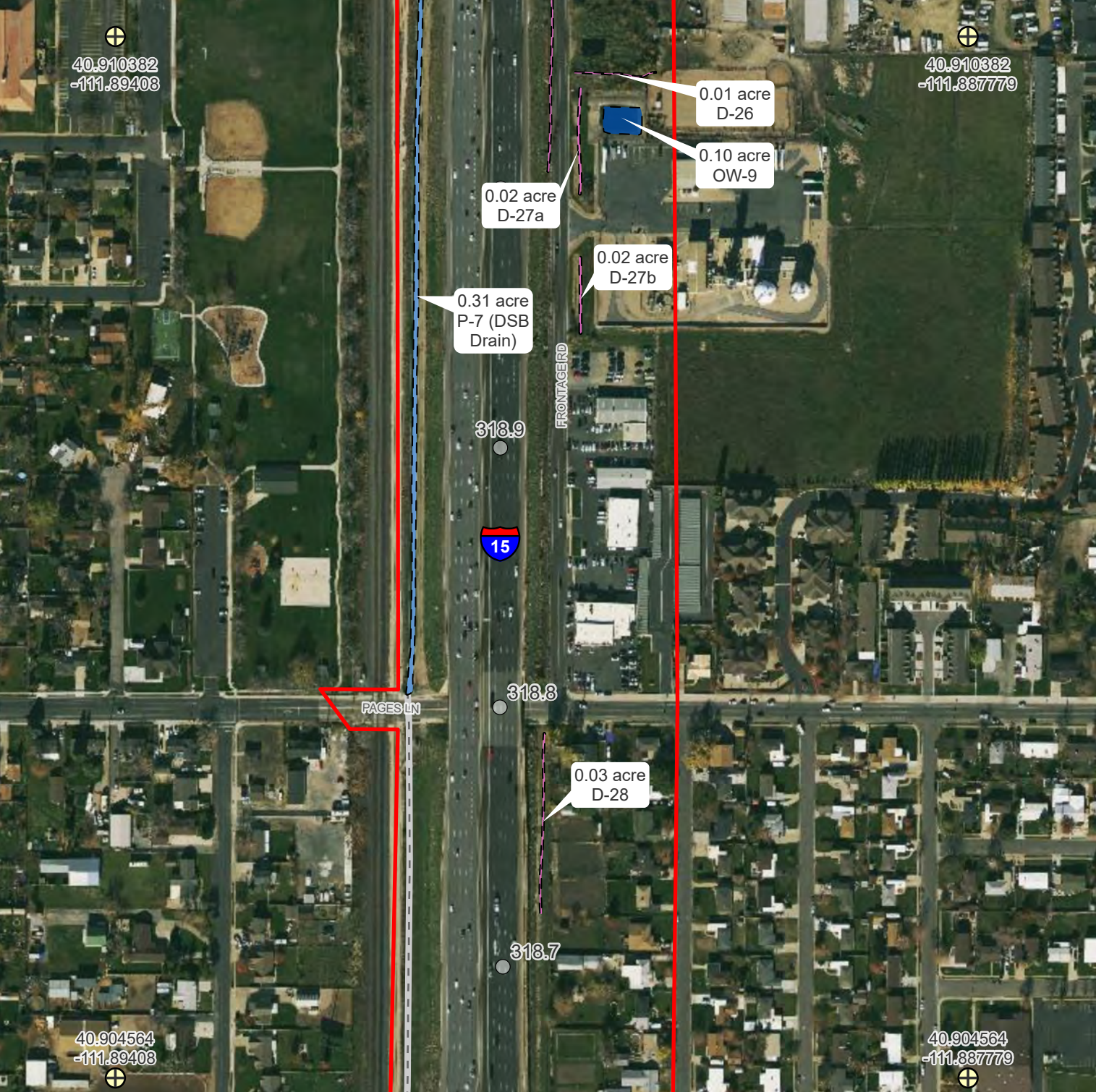
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet

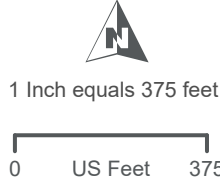


DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

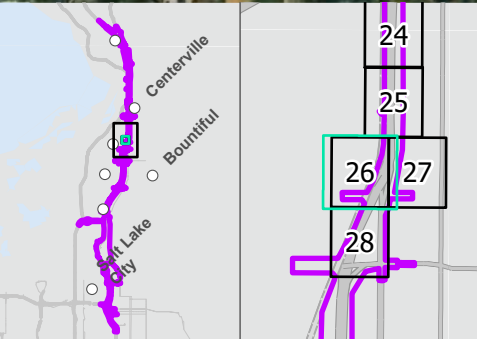
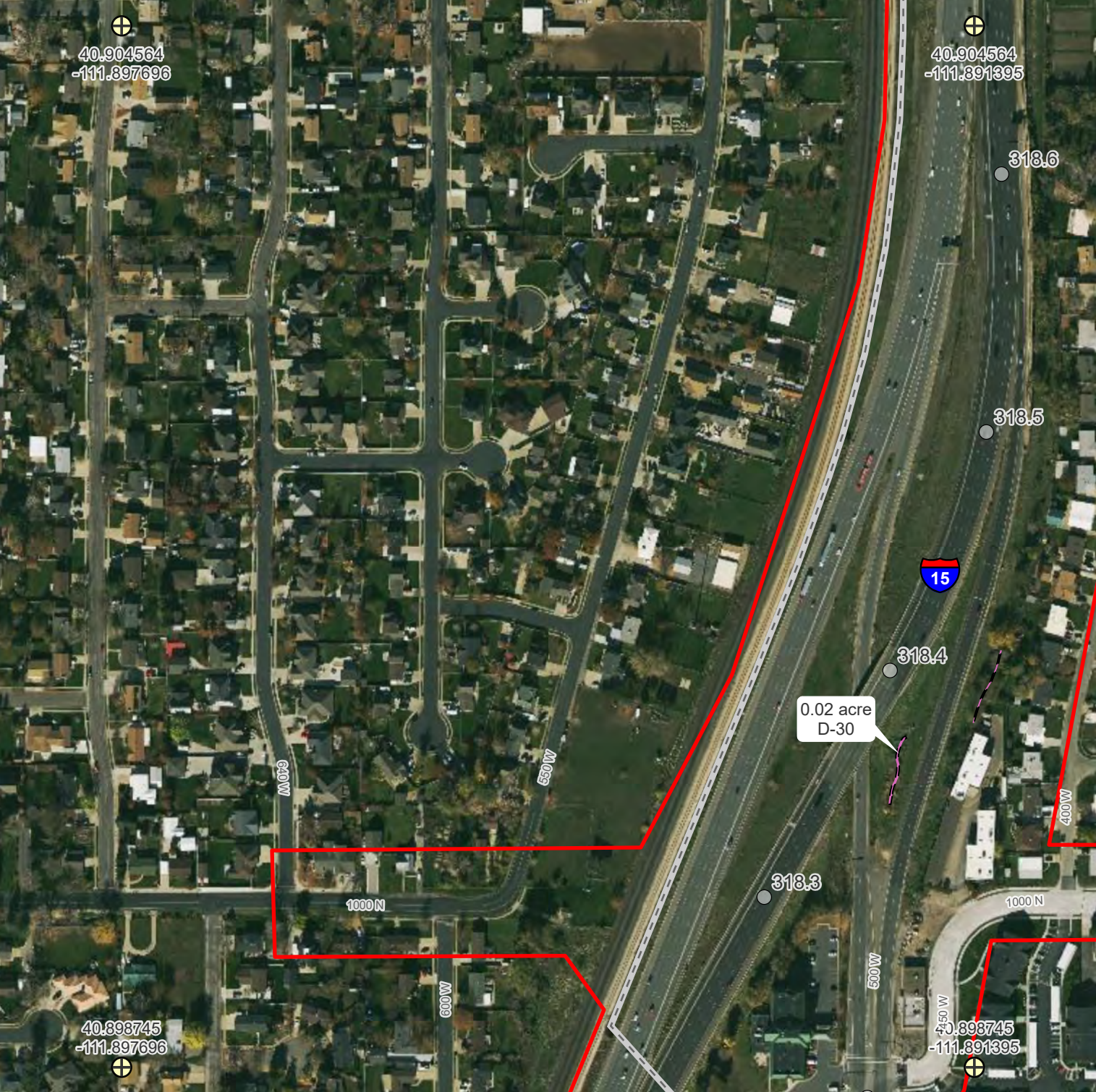


- Survey Area
- Culvert
- ⊕ Geographic Control Points
- Ditch
- Tenth Mile Reference Posts
- Open Water Pond
- Ordinary High Water Mark
- Perennial Stream

*Only areas with aquatic resources present are shown in this series



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



- Survey Area
- ⊕ Geographic Control Points
- Tenth Mile Reference Posts
- Ordinary High Water Mark
- Culvert
- Ditch

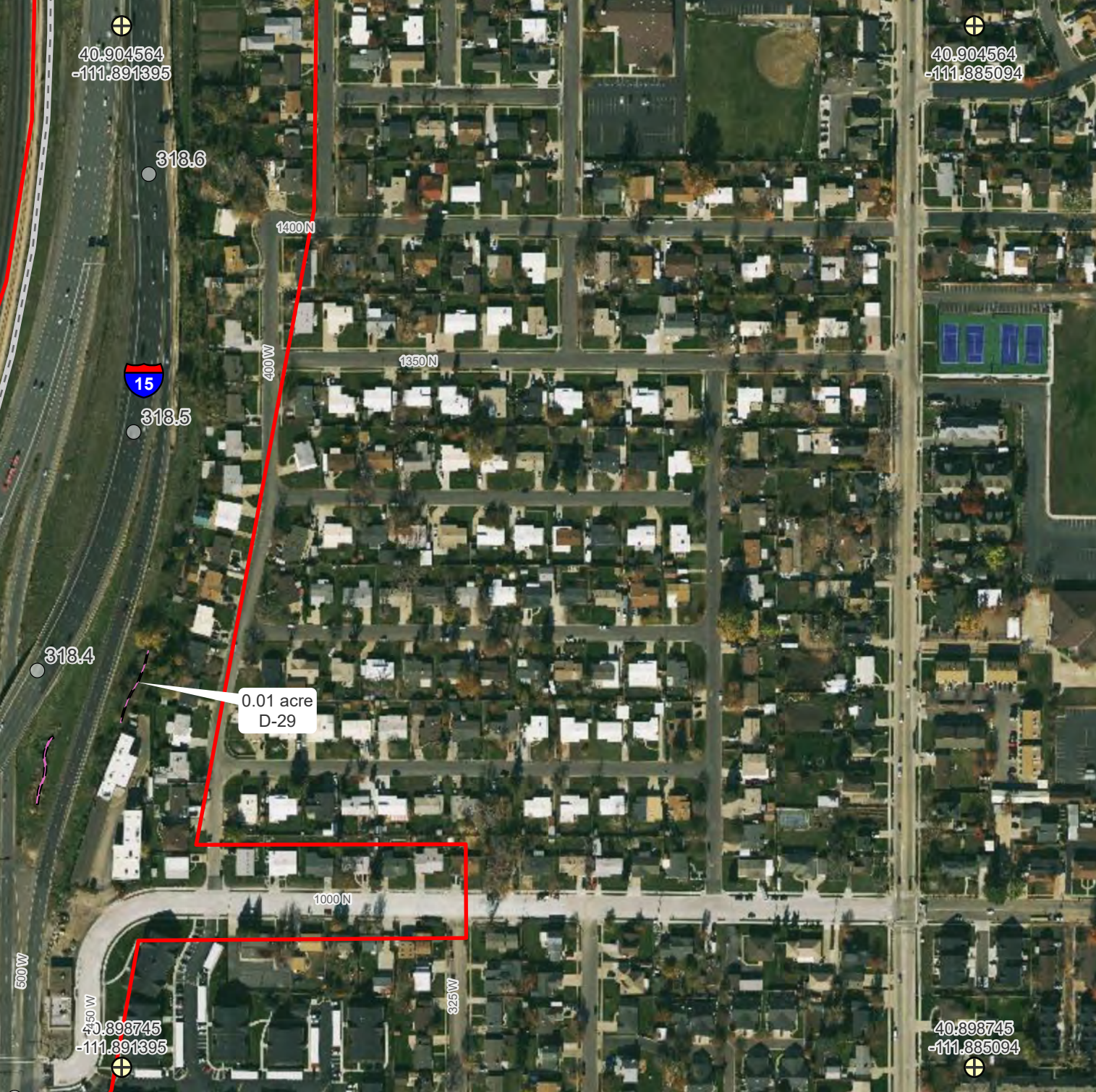
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



40.904564
-111.891395

40.904564
-111.885094

318.6

1400N



318.5

400W

1350N

318.4

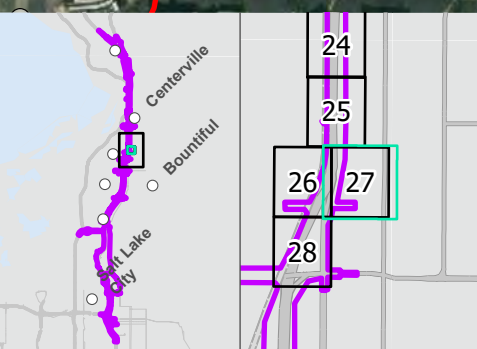
0.01 acre
D-29

1000N

500W

40.898745
-111.891395

40.898745
-111.885094



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Ordinary High Water Mark
- Culvert
- Ditch

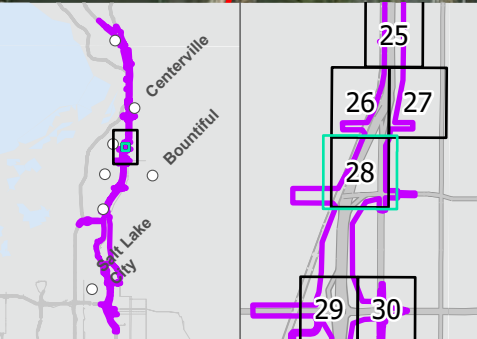
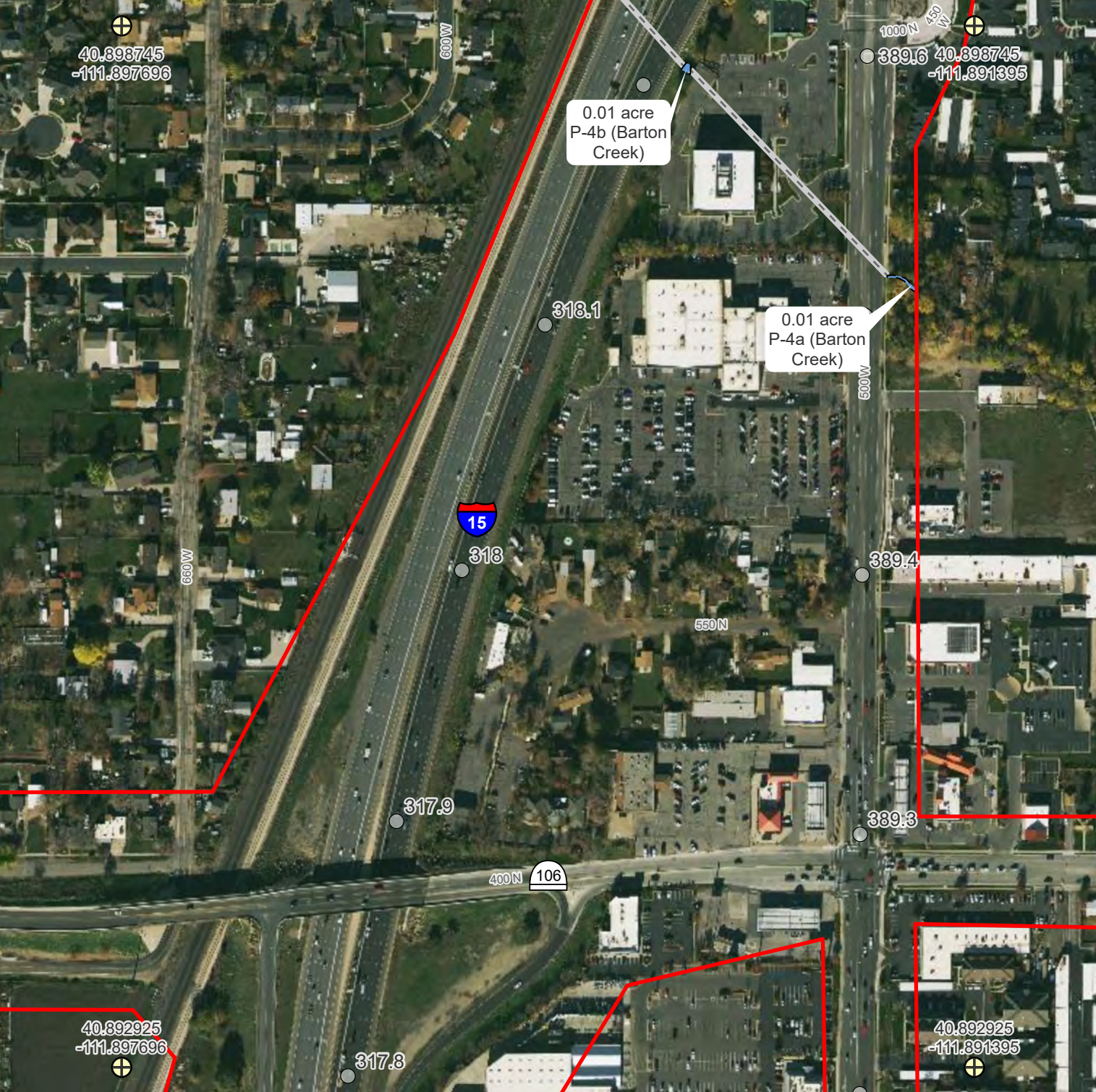
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR



- Survey Area
- + Geographic Control Points
- Tenth Mile Reference Posts
- Ordinary High Water Mark
- Culvert
- Perennial Stream

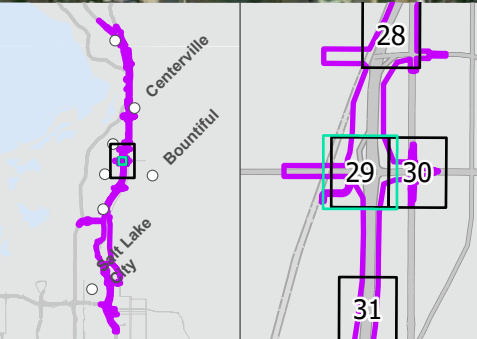
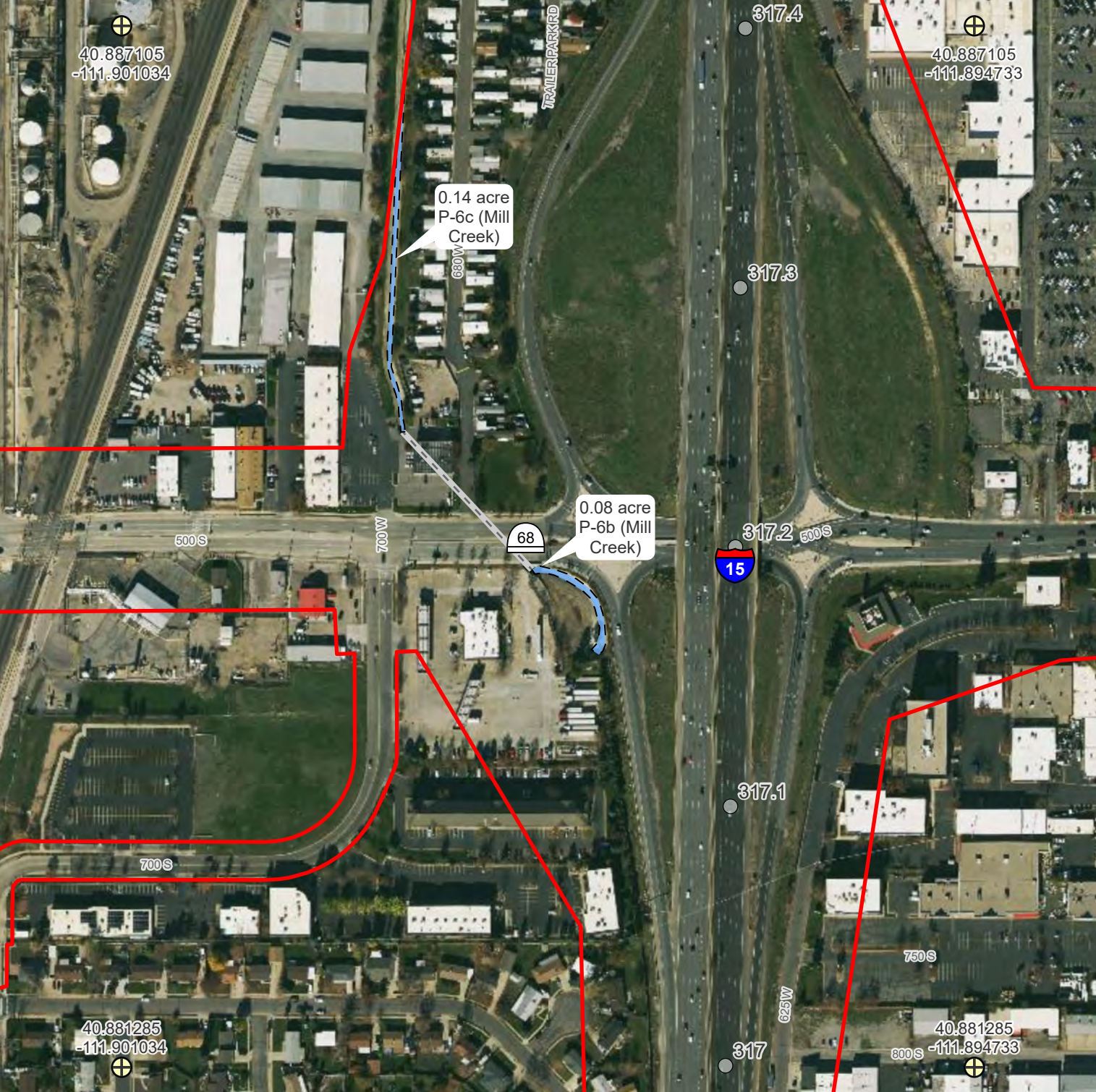
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Ordinary High Water Mark
- Culvert
- Perennial Stream

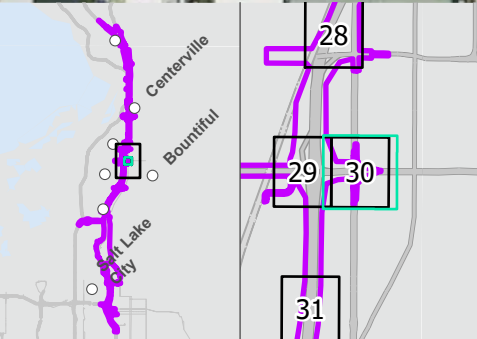
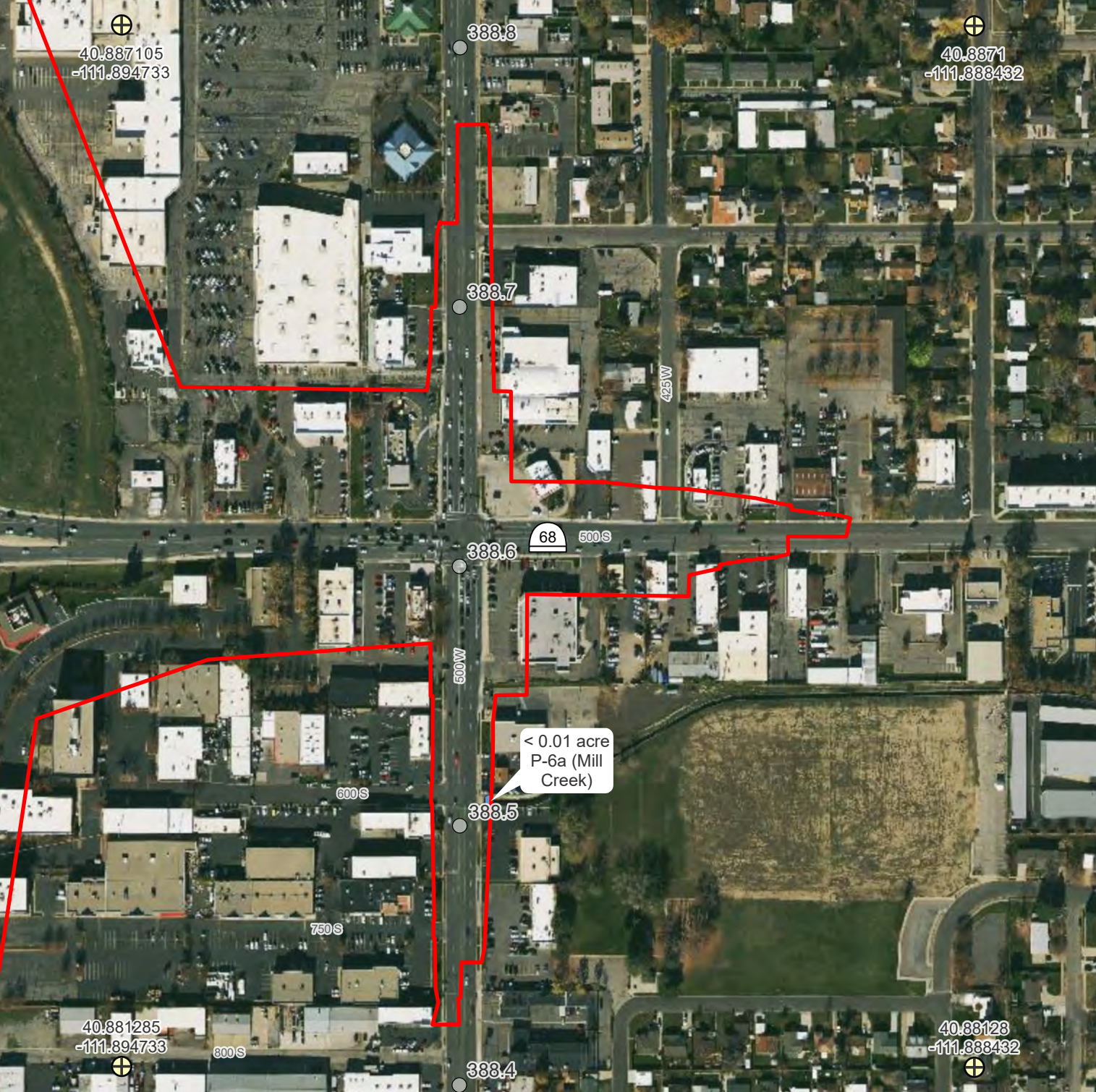
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet

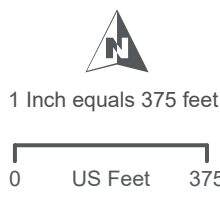


DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

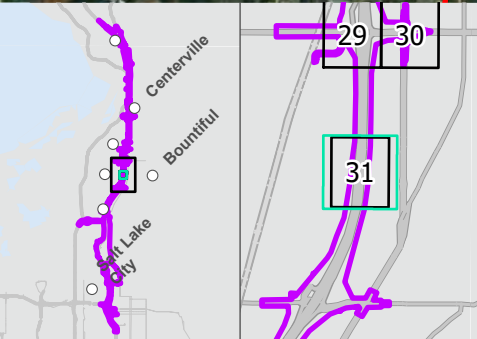
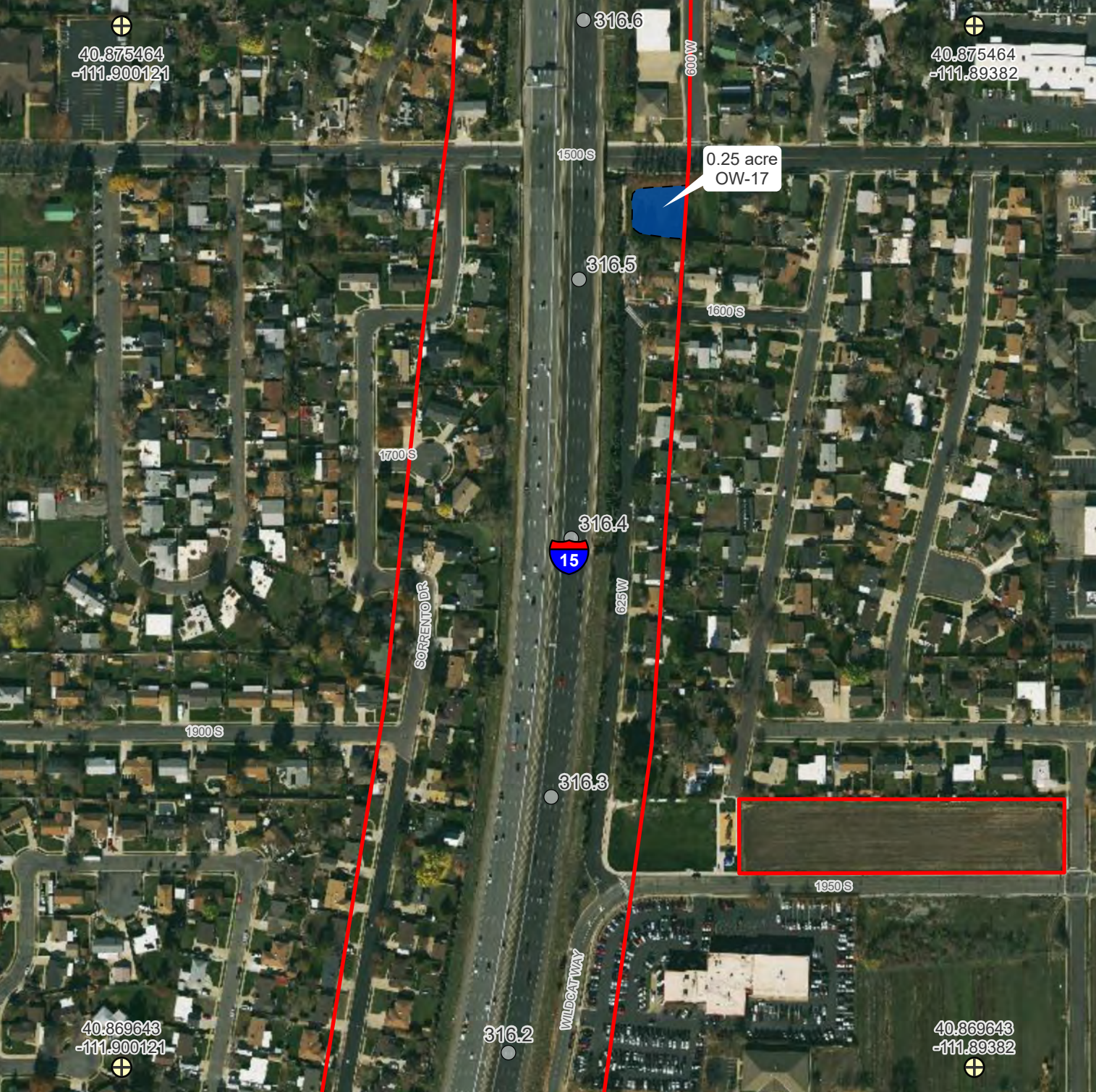


- Survey Area
- + Geographic Control Points
- Tenth Mile Reference Posts
- Perennial Stream

*Only areas with aquatic resources present are shown in this series



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Ordinary High Water Mark
- Open Water Pond

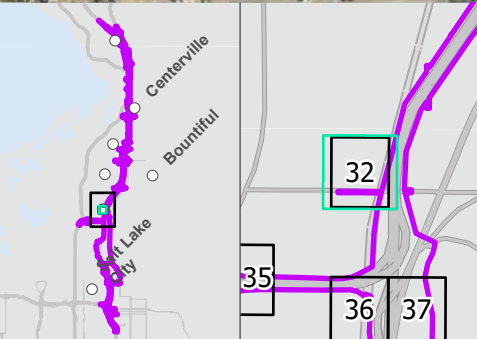
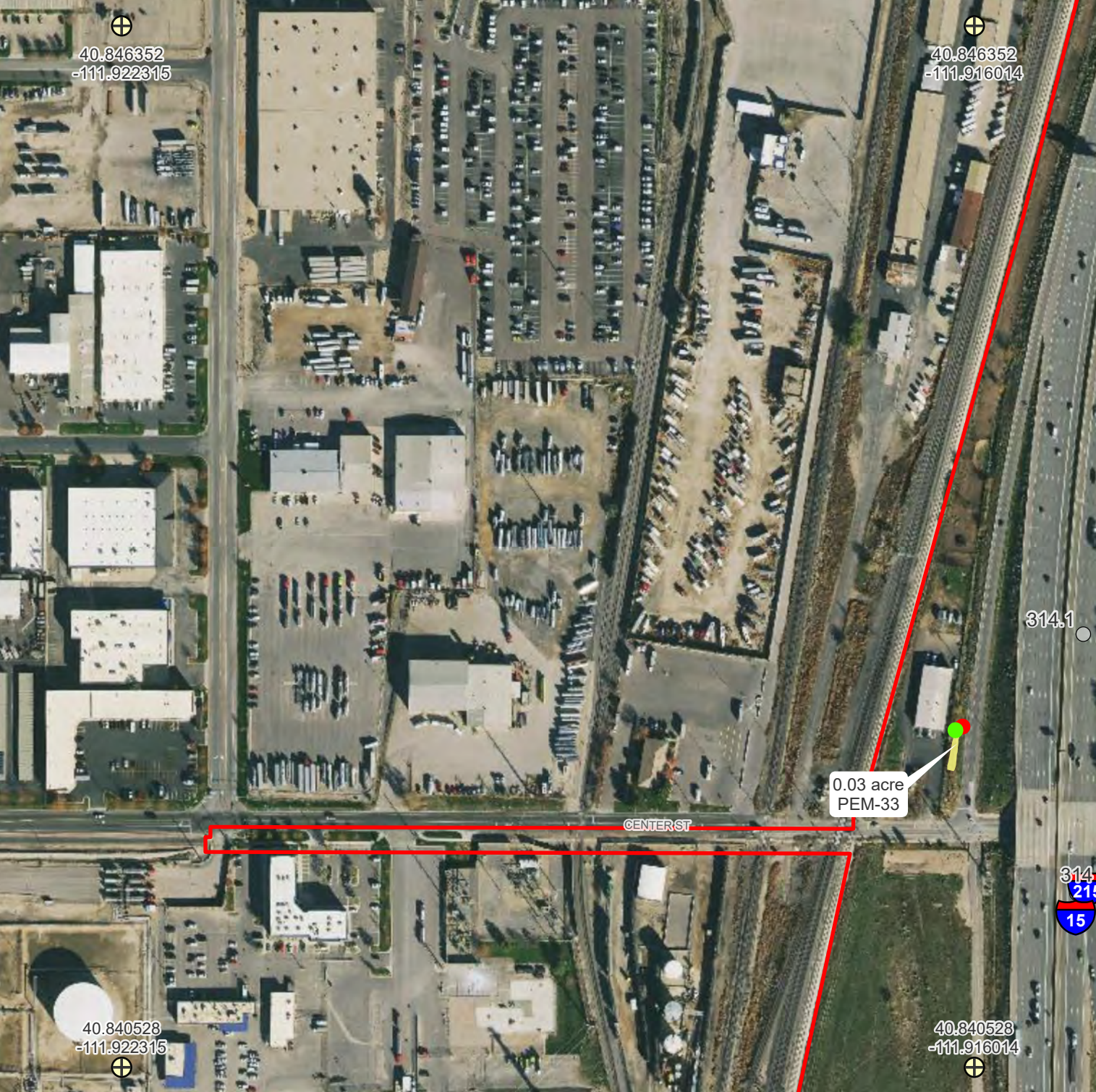
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- PEM Wetland

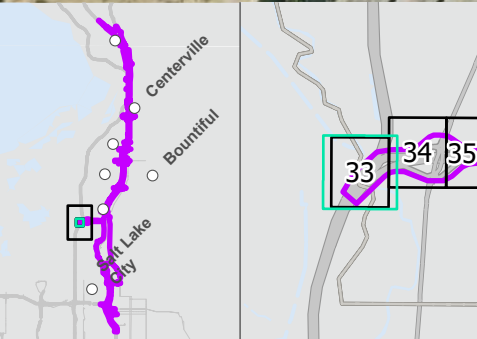
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet

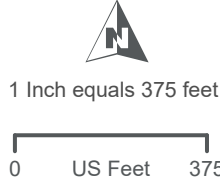


DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR

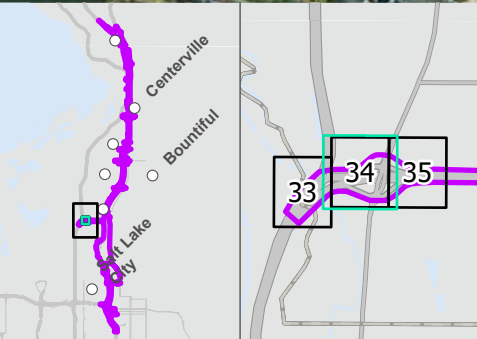


- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Ordinary High Water Mark
- Culvert
- Surface Connection
- Canal
- Ditch
- Perennial Stream

*Only areas with aquatic resources present are shown in this series

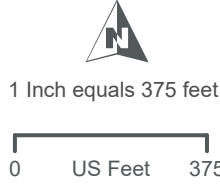


DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

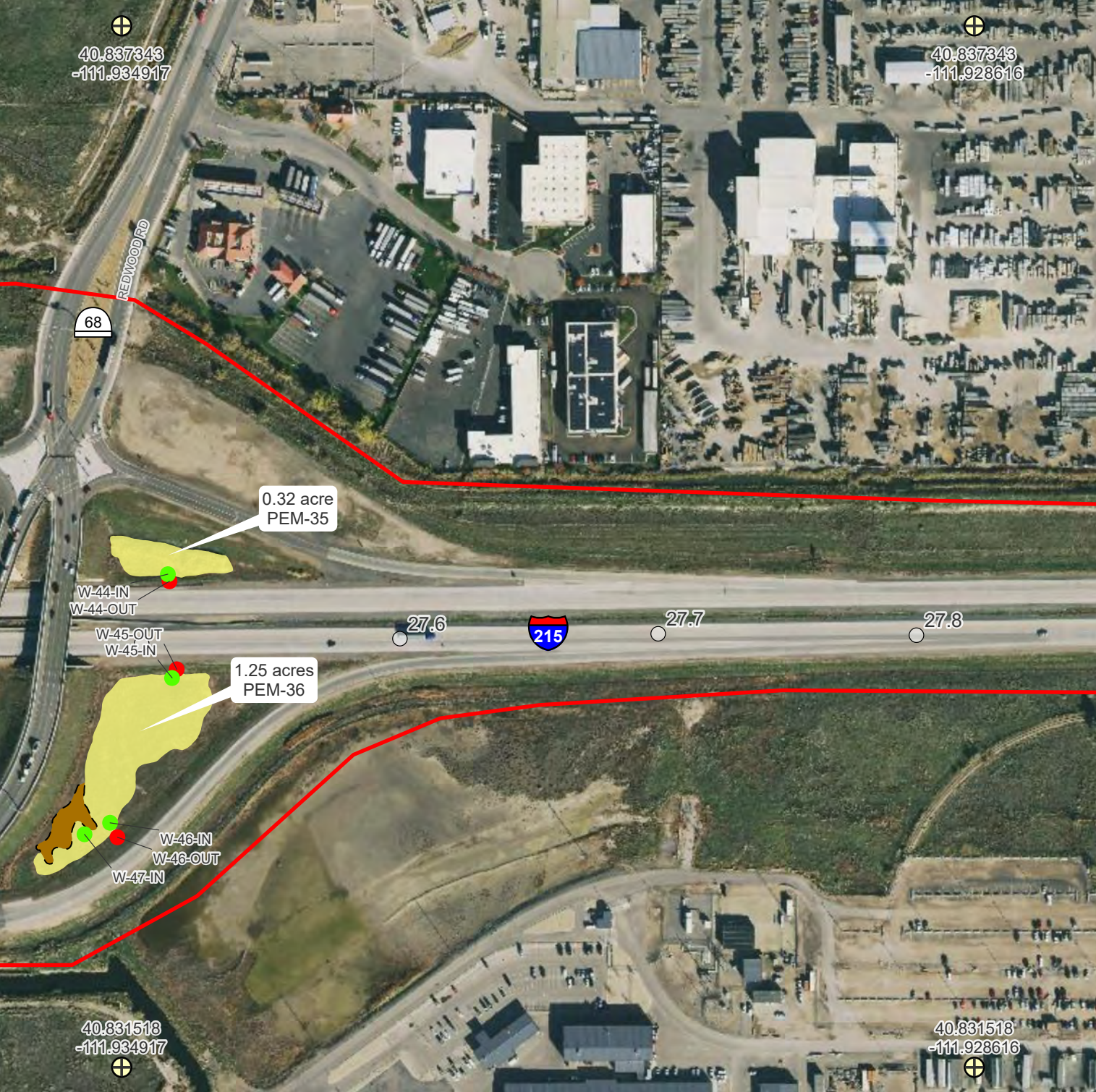


- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Canal
- Mudflat
- PEM Wetland

*Only areas with aquatic resources present are shown in this series



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

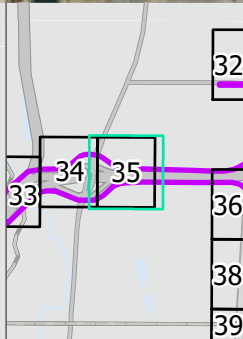
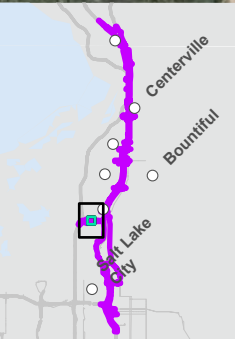


40.837343
-111.934917

40.837343
-111.928616

40.831518
-111.934917

40.831518
-111.928616



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Mudflat
- PEM Wetland

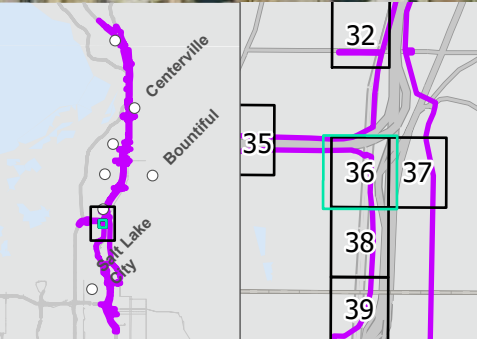
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- PEM Wetland

*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet

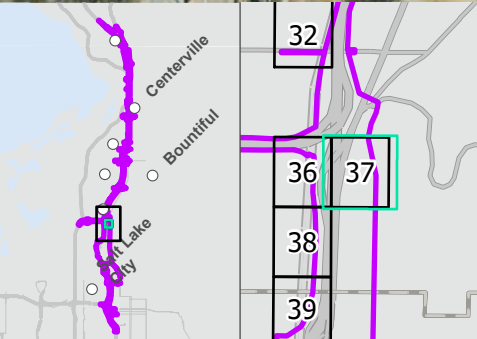
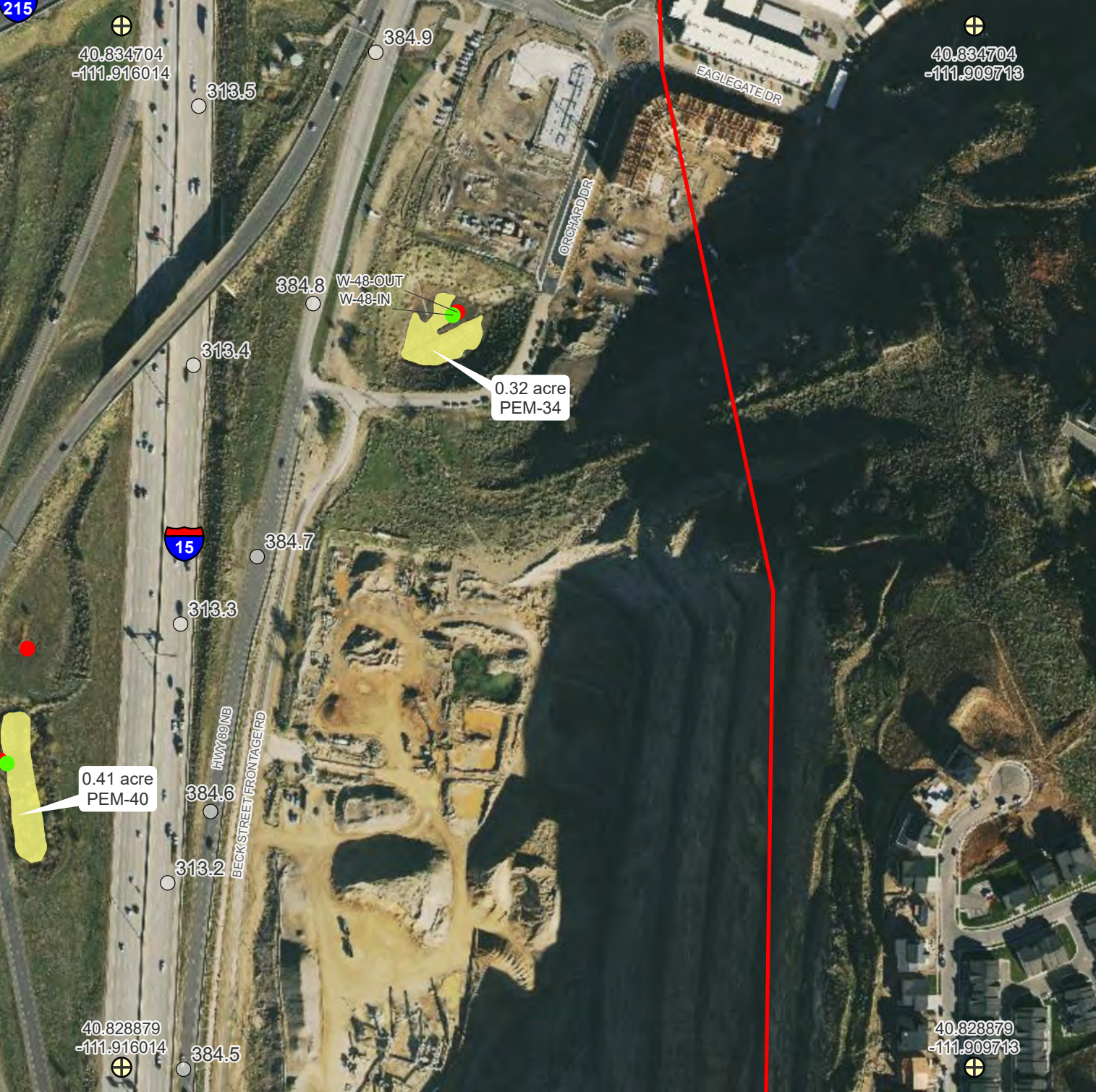


DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

AQUATIC RESOURCES DELINEATION MAP SERIES
I-15 EIS: FARMINGTON TO SALT LAKE CITY

FIGURE 36 OF 56

AUGUST 21ST, 2024



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- PEM Wetland

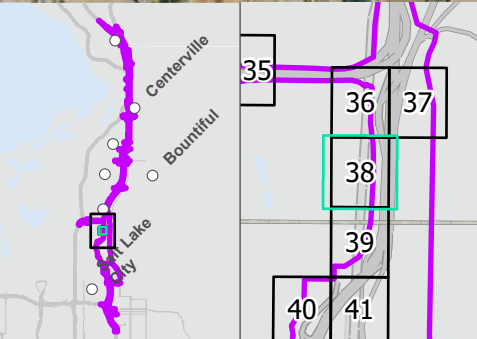
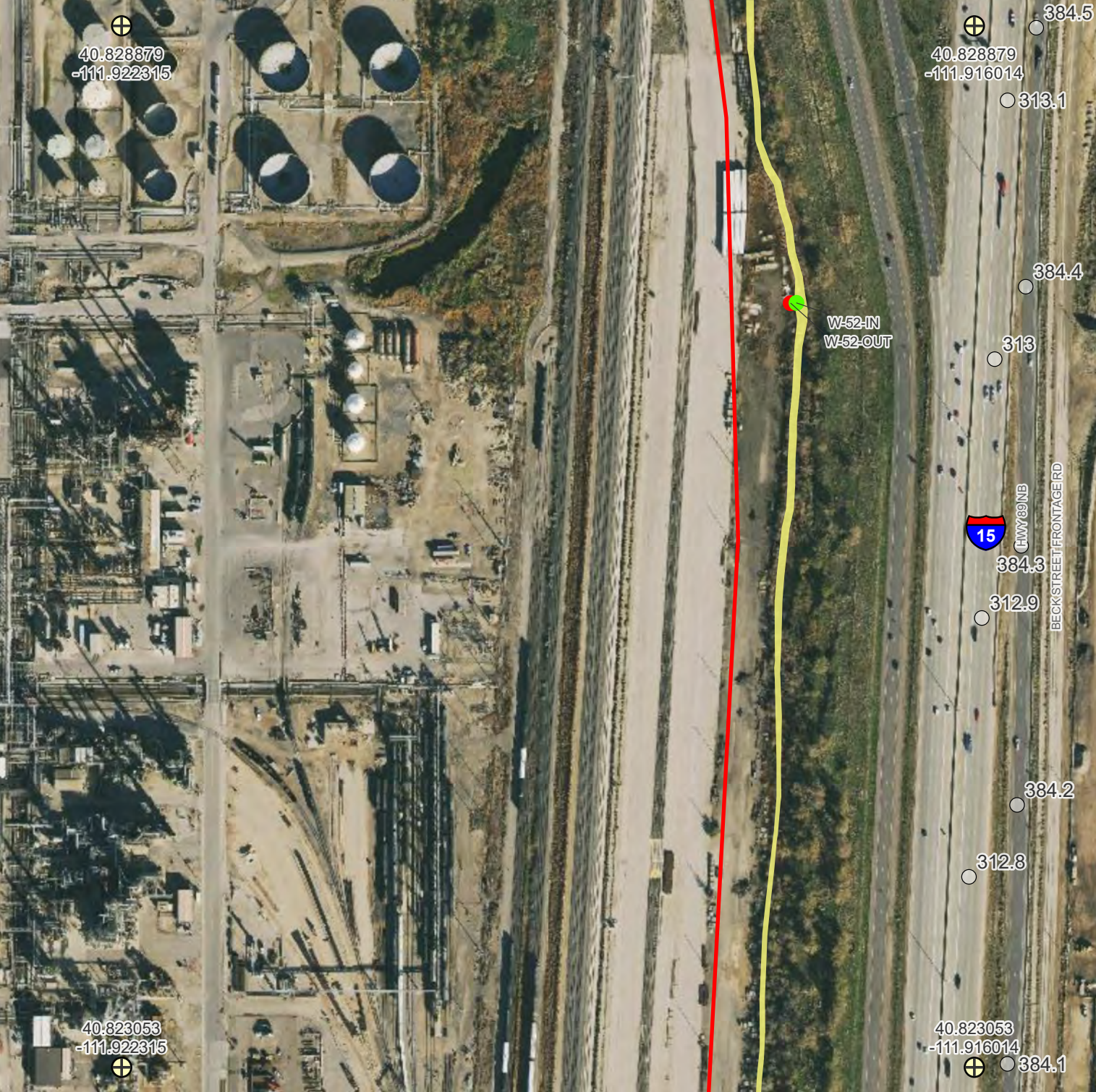
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR



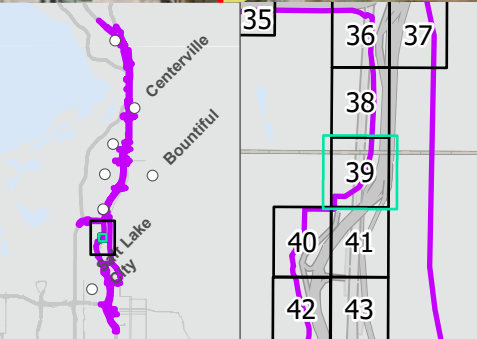
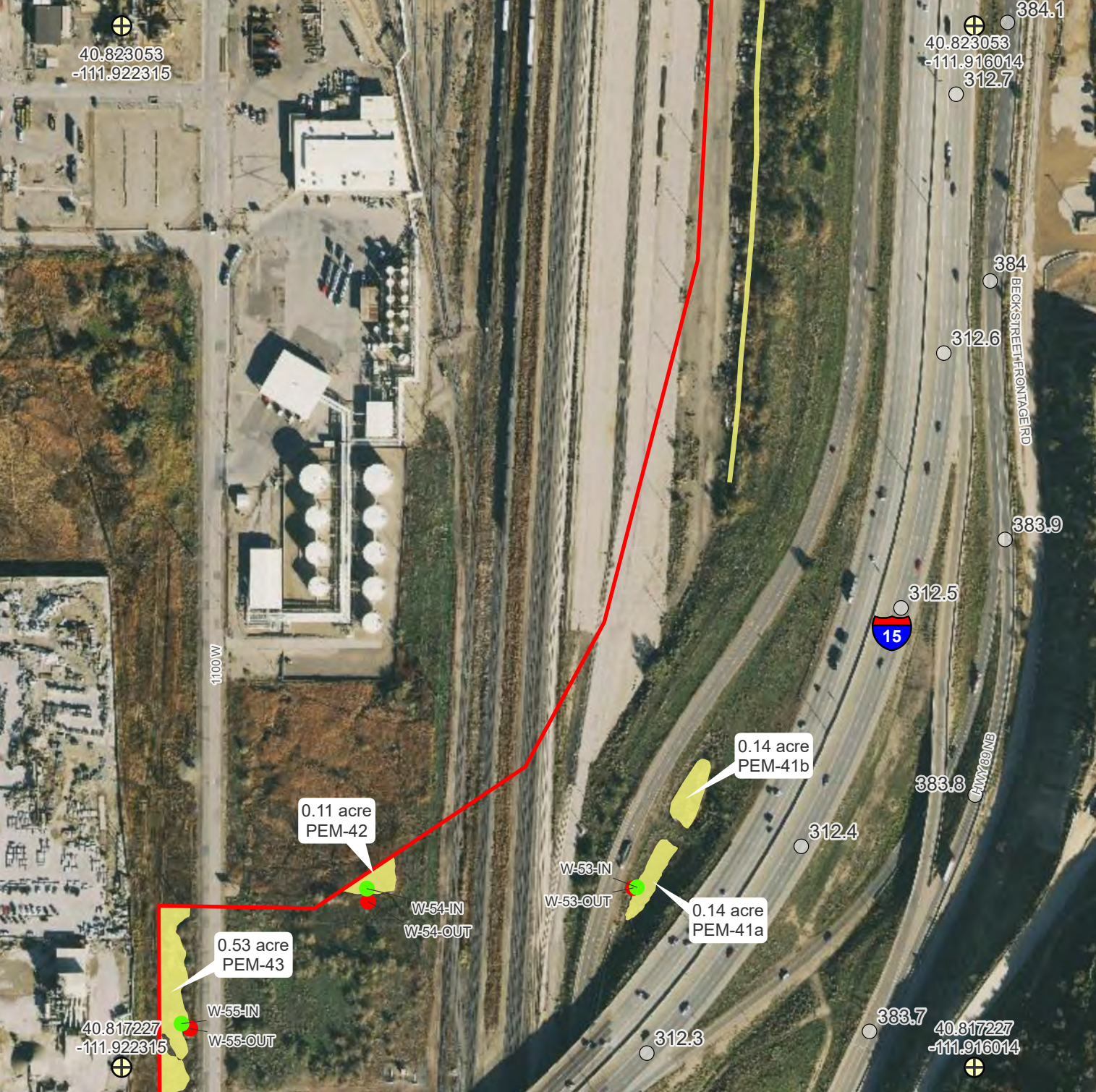
- Survey Area
- + Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- PEM Wetland

*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet





- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- PEM Wetland

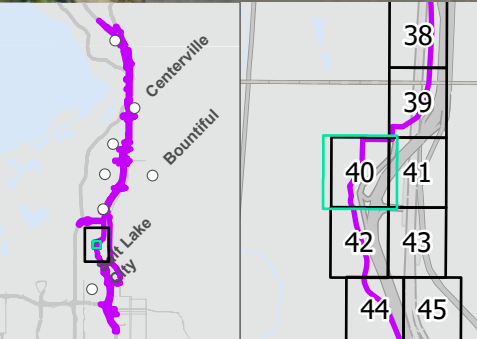
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet

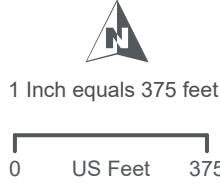


DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

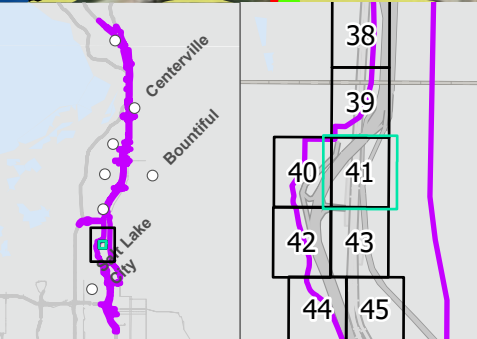
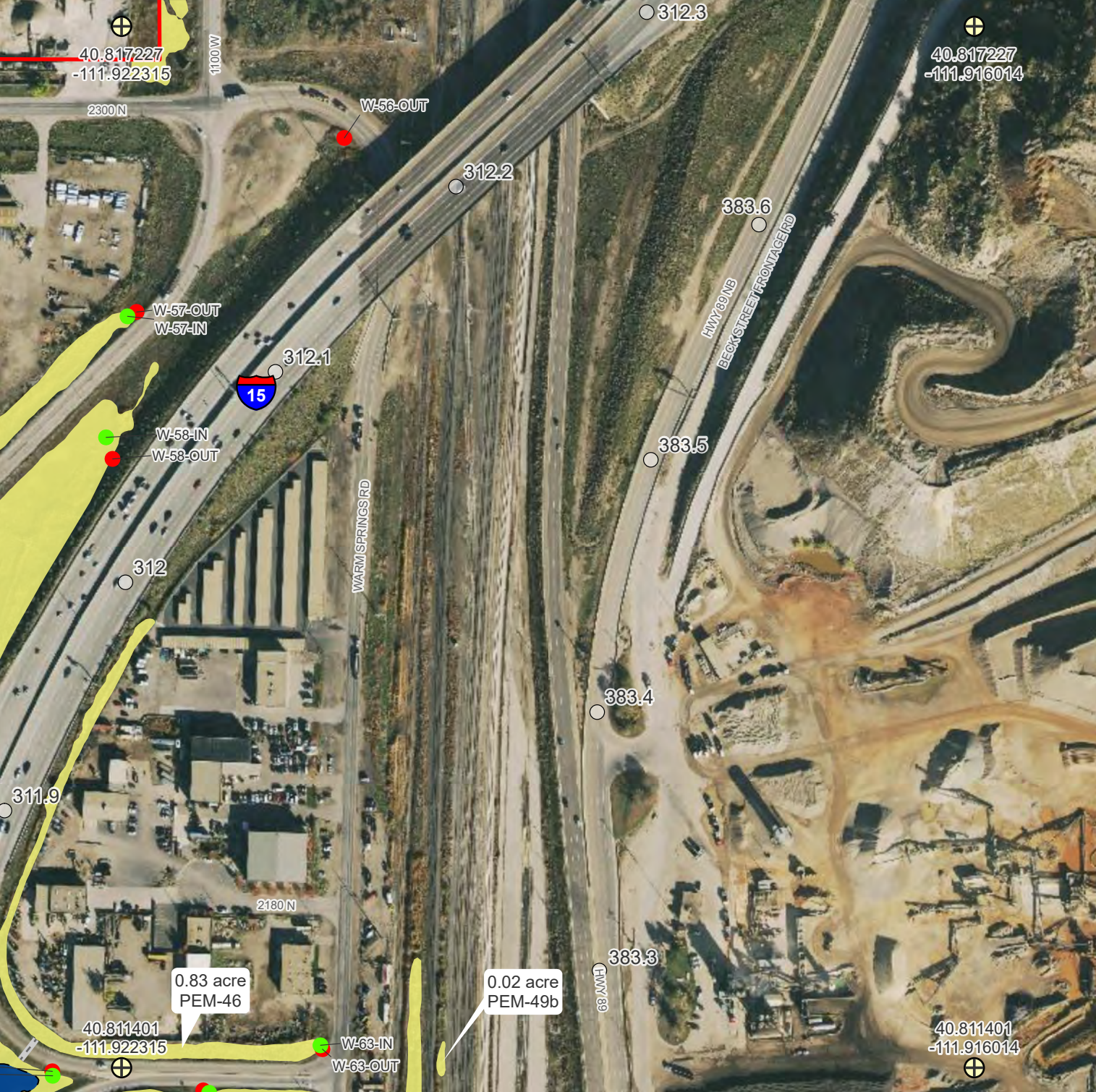


- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Open Water Pond
- PEM Wetland

*Only areas with aquatic resources present are shown in this series

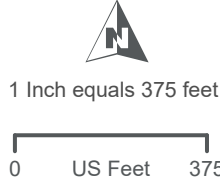


DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

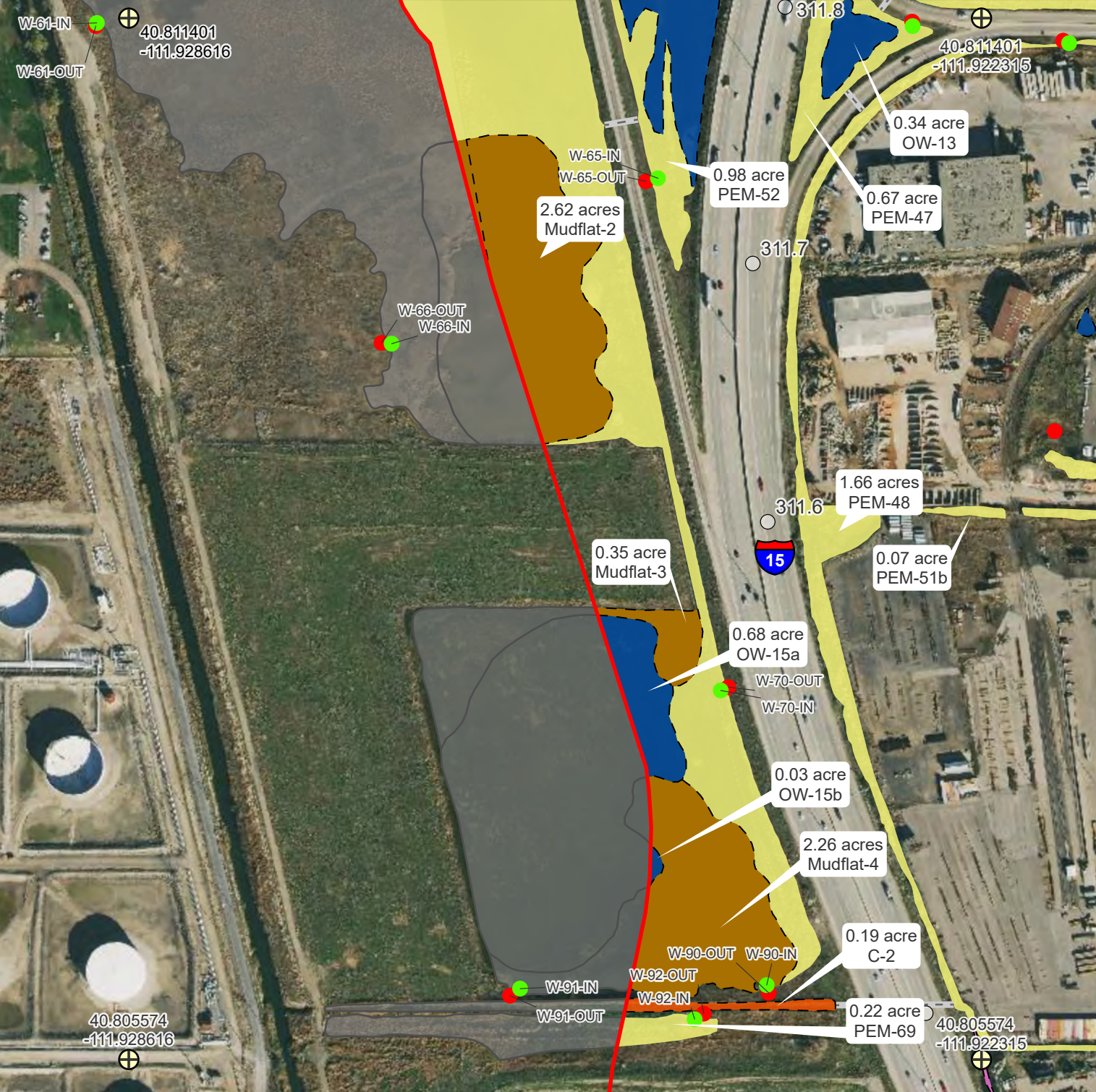


- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Open Water Pond
- PEM Wetland

*Only areas with aquatic resources present are shown in this series



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



W-61-IN
W-61-OUT
40:811401
-111.928616

40:811401
-111.922315

W-65-IN
W-65-OUT
2.62 acres
Mudflat-2

0.98 acre
PEM-52

0.34 acre
OW-13

0.67 acre
PEM-47

W-66-OUT
W-66-IN

1.66 acres
PEM-48

0.35 acre
Mudflat-3

0.07 acre
PEM-51b

0.68 acre
OW-15a

W-70-OUT
W-70-IN

0.03 acre
OW-15b

2.26 acres
Mudflat-4

0.19 acre
C-2

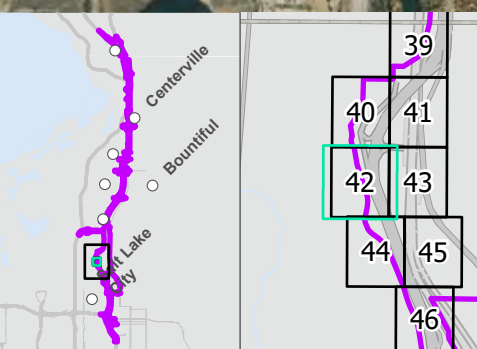
W-91-IN
W-91-OUT

W-92-OUT
W-92-IN

0.22 acre
PEM-69

40:805574
-111.928616

40:805574
-111.922315



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Canal
- Ditch
- Mudflat
- Open Water Pond
- PEM Wetland

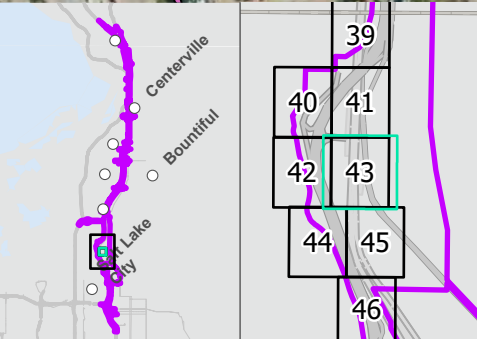
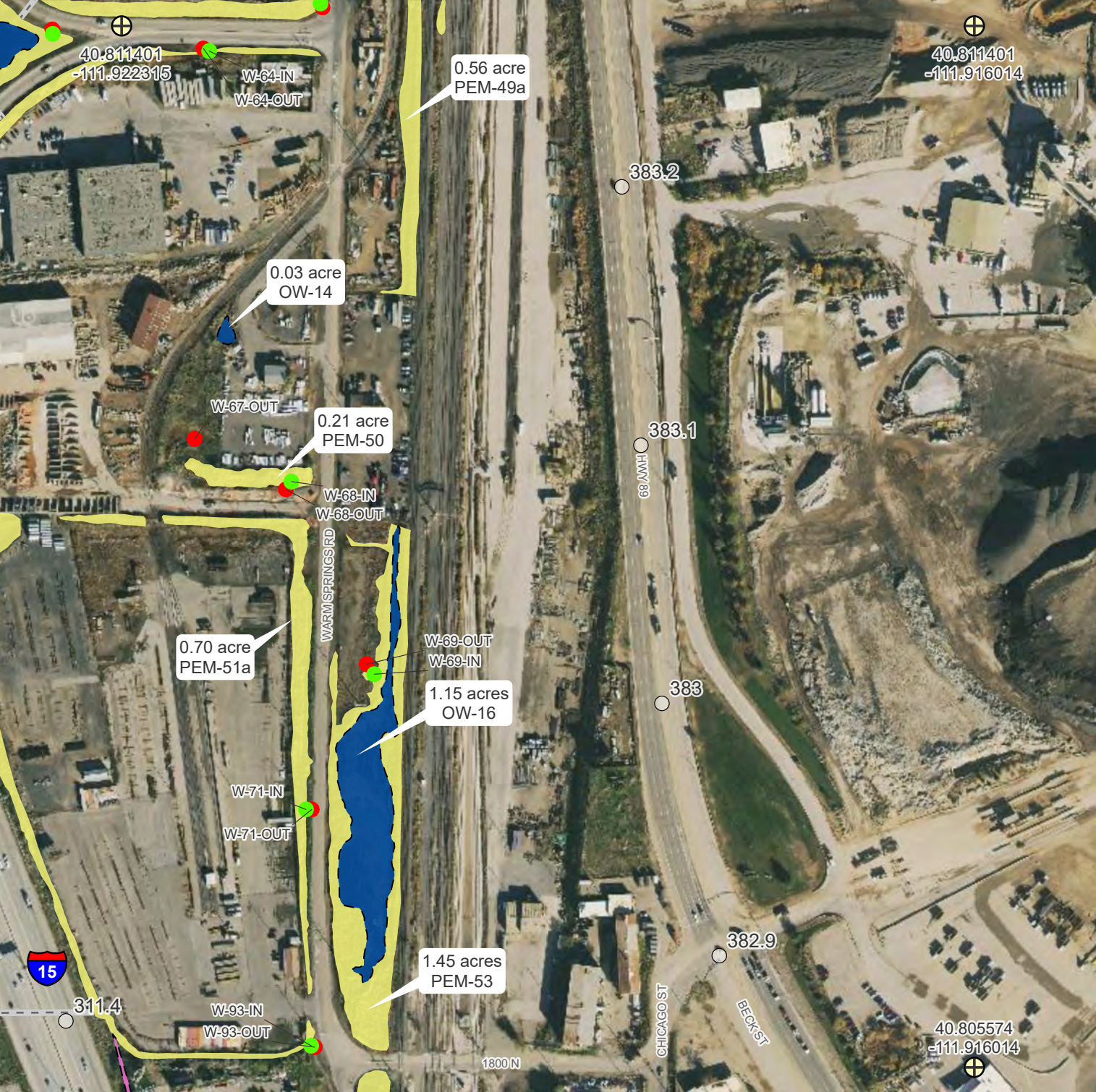
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Ditch
- Open Water Pond
- PEM Wetland

*Only areas with aquatic resources present are shown in this series

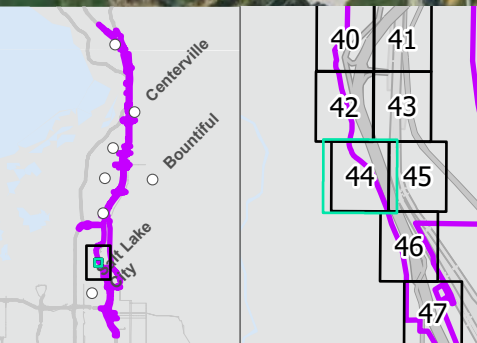
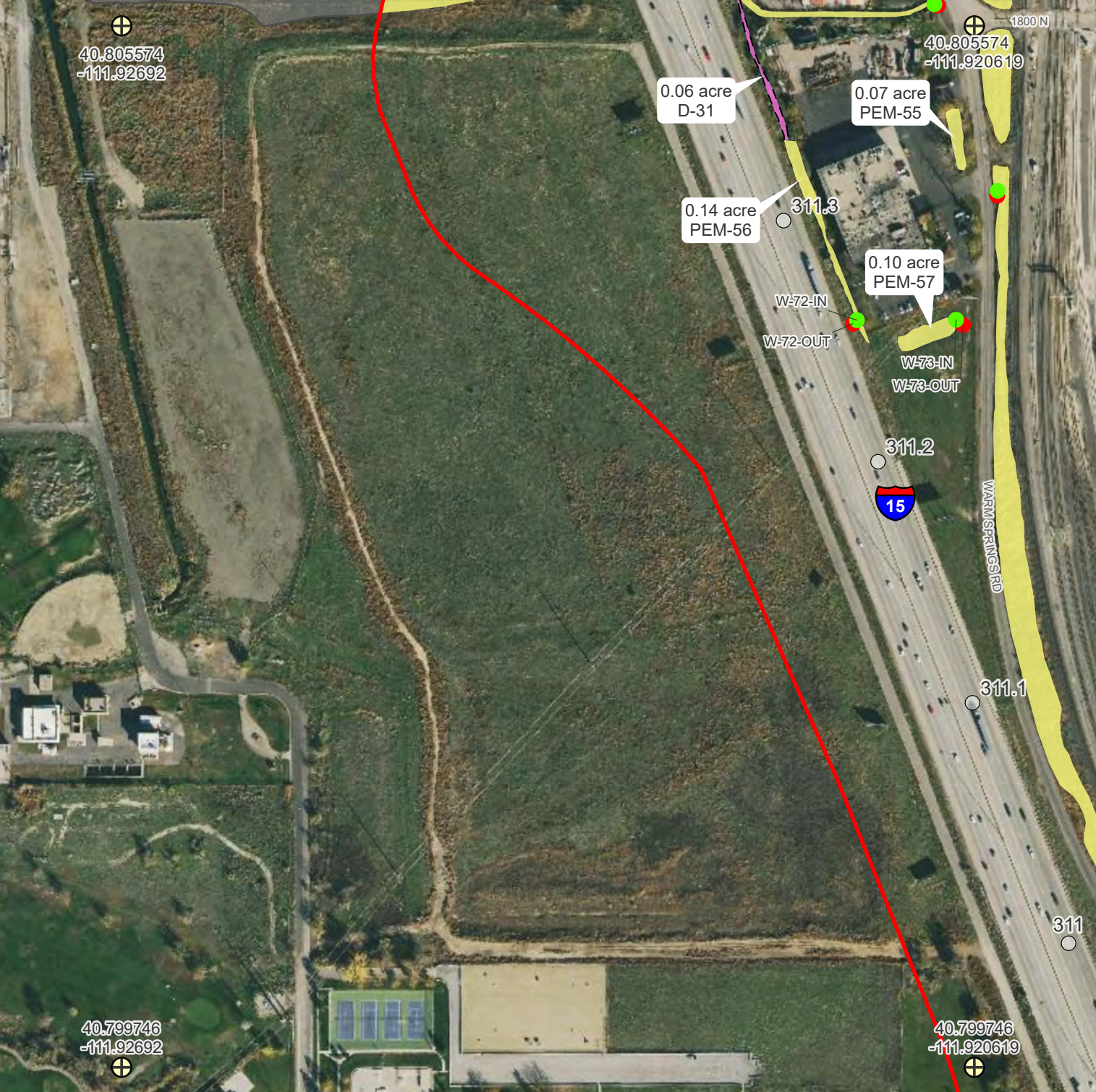


1 Inch equals 375 feet



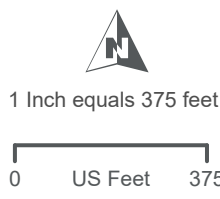
DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

AQUATIC RESOURCES DELINEATION MAP SERIES
I-15 EIS: FARMINGTON TO SALT LAKE CITY

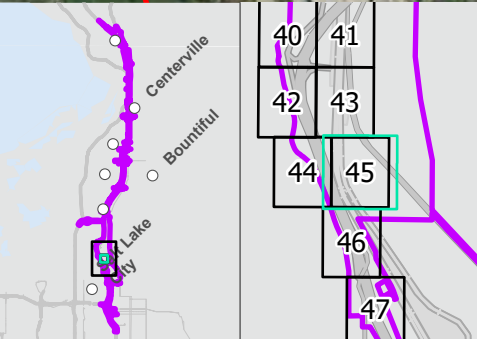
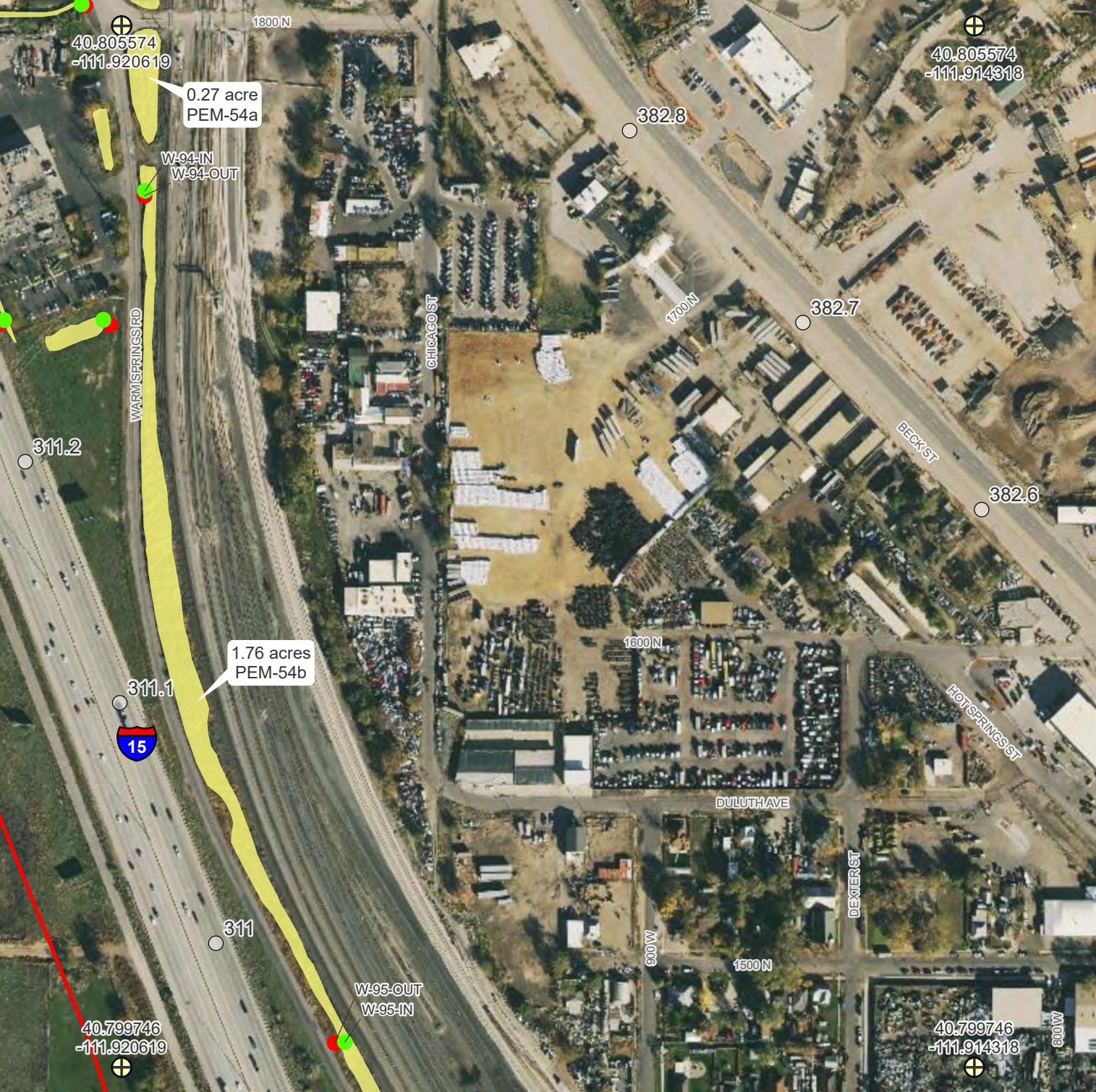


- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Ditch
- PEM Wetland

*Only areas with aquatic resources present are shown in this series



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- PEM Wetland

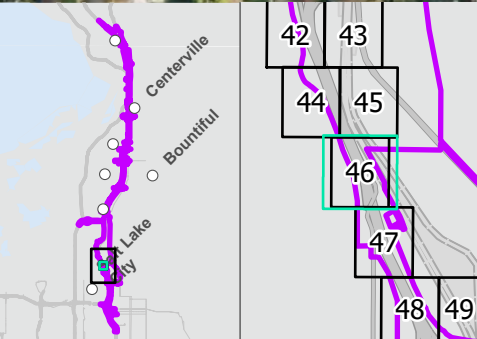
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Ditch
- PEM Wetland

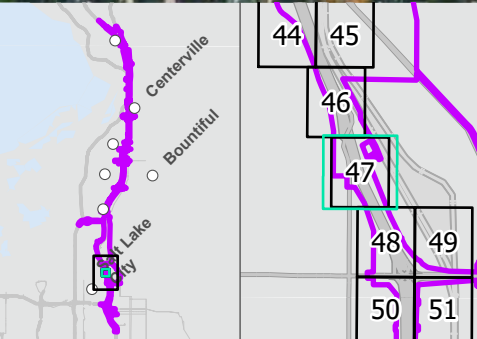
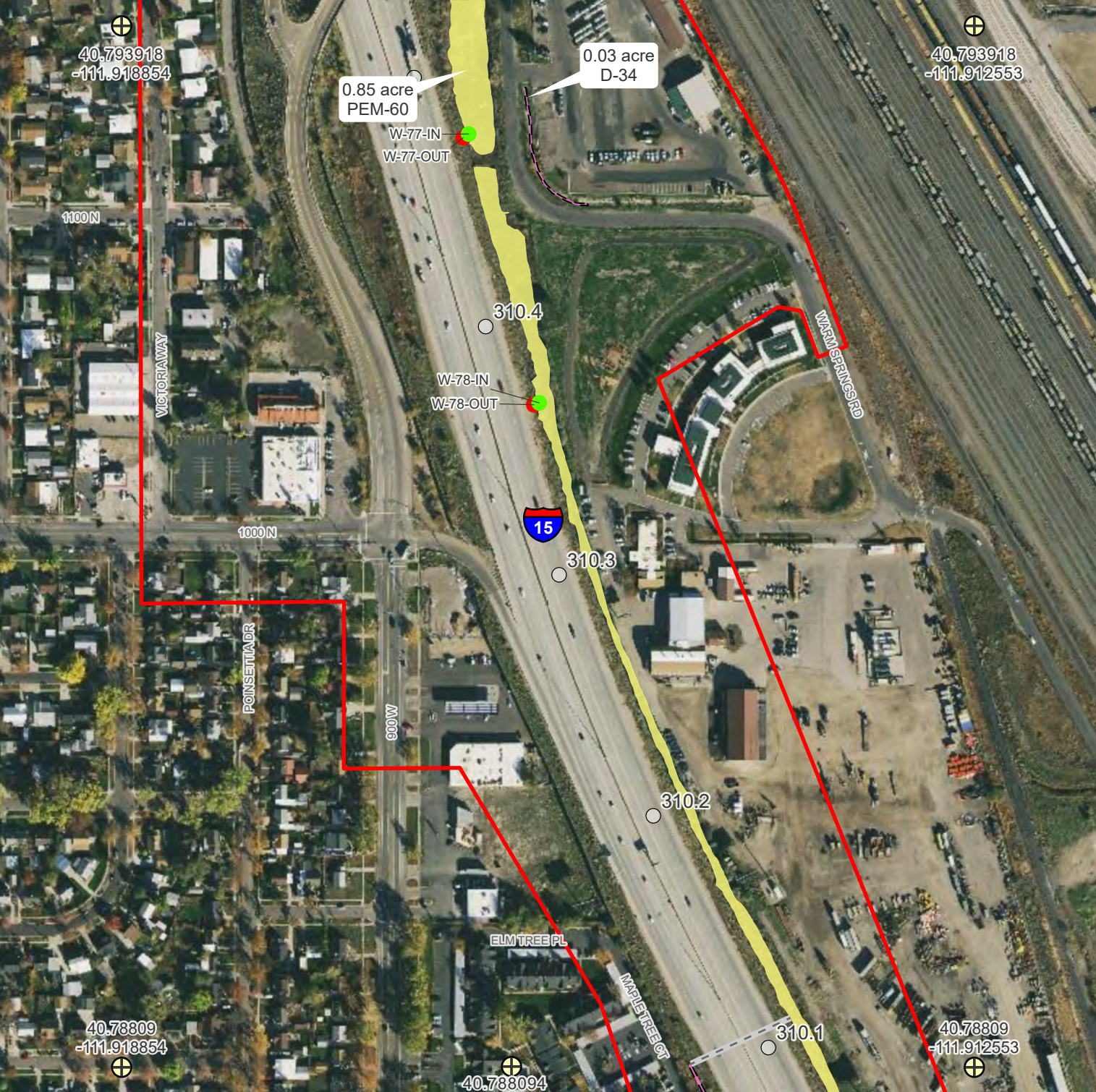
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet

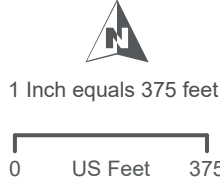


DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

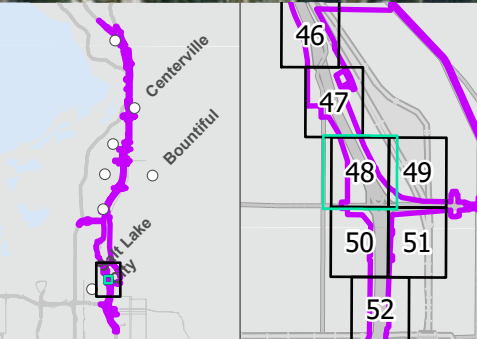


- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Ditch
- PEM Wetland

*Only areas with aquatic resources present are shown in this series

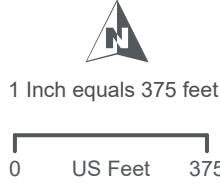


DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Culvert
- Ditch
- PEM Wetland

*Only areas with aquatic resources present are shown in this series



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

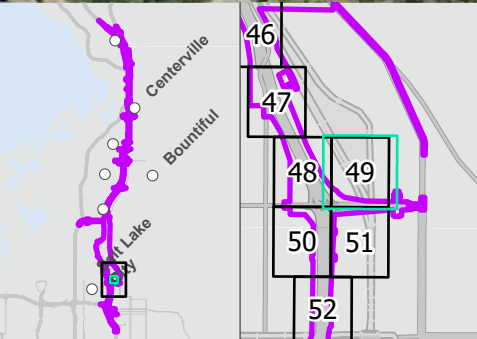


40.788094
-111.909672

40.788094
-111.903371

40.782265
-111.909672

40.782265
-111.903371



- Survey Area
- Geographic Control Points
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Ordinary High Water Mark
- Canal
- PEM Wetland

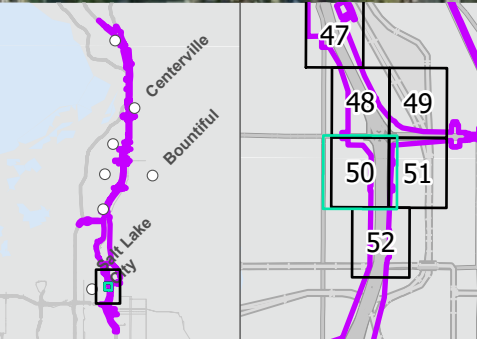
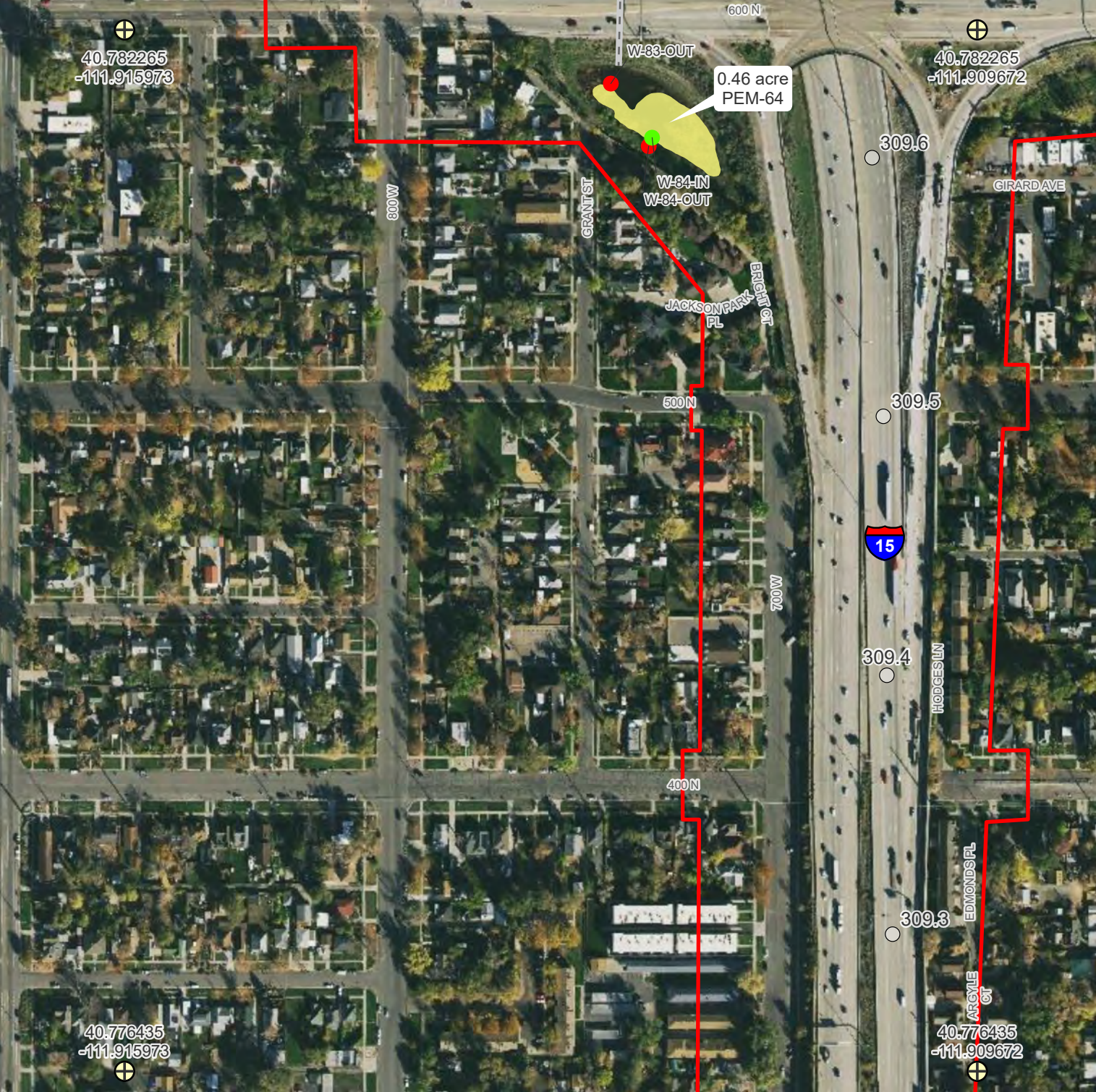
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- Culvert
- PEM Wetland

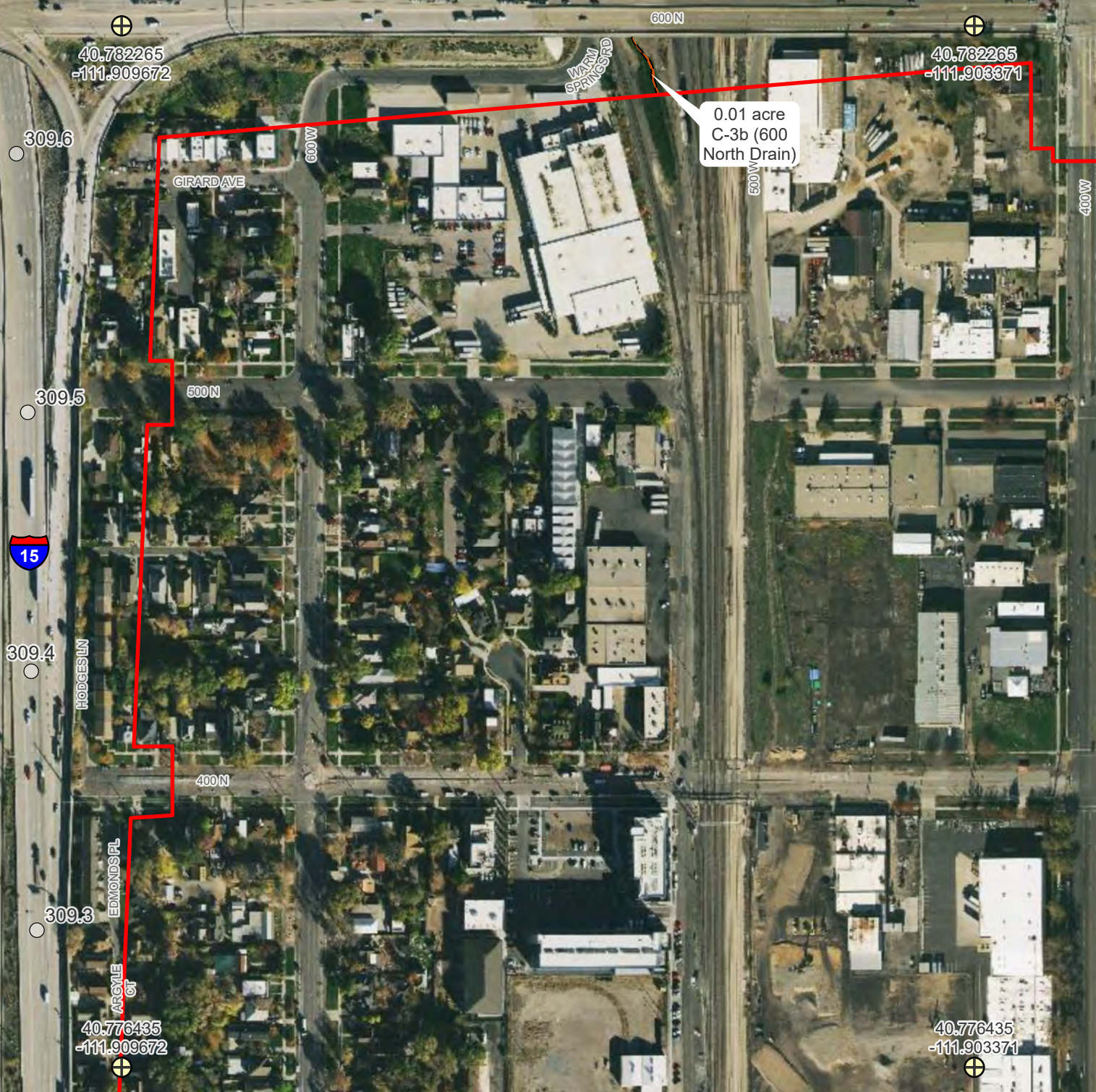
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



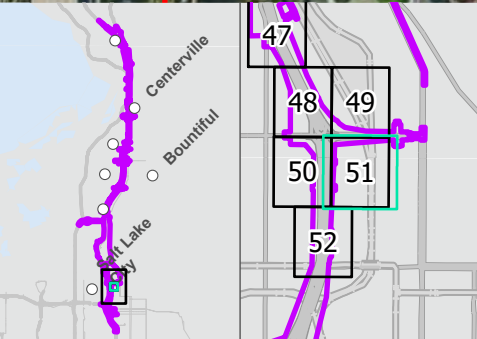
0.01 acre
C-3b (600
North Drain)

40.782265
-111.909672

40.782265
-111.903371

40.776435
-111.909672

40.776435
-111.903371



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Ordinary High Water Mark
- Canal

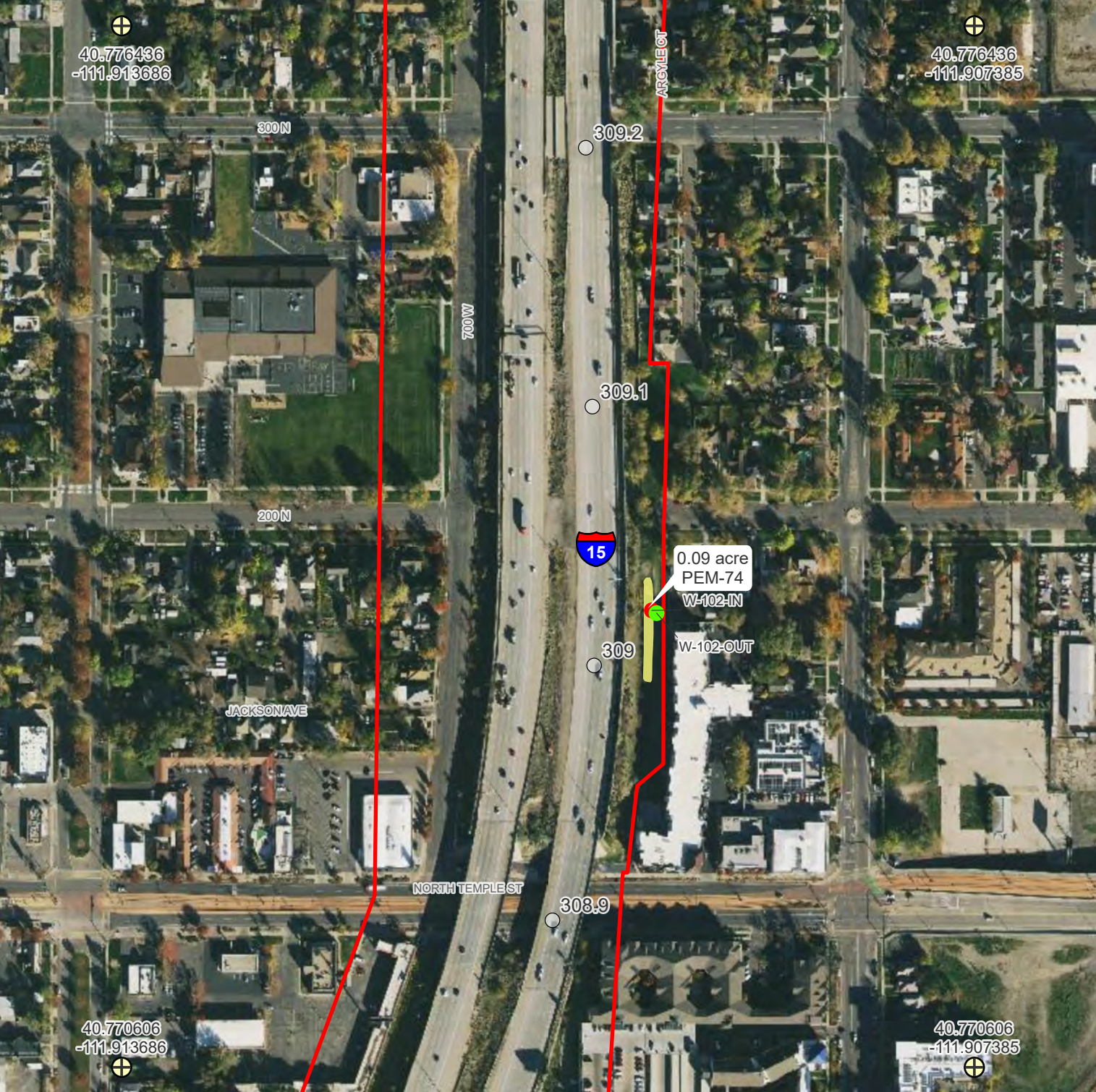
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR

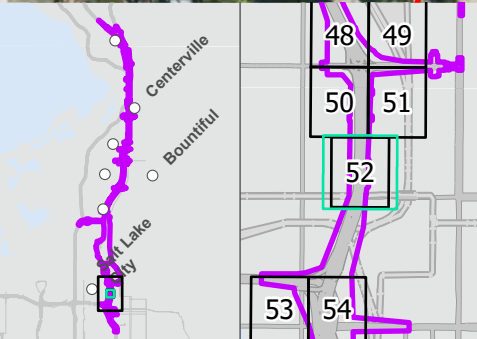


40.776436
-111.913686

40.776436
-111.907385

40.770606
-111.913686

40.770606
-111.907385



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- PEM Wetland

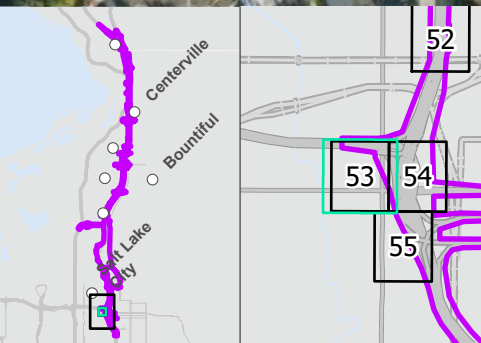
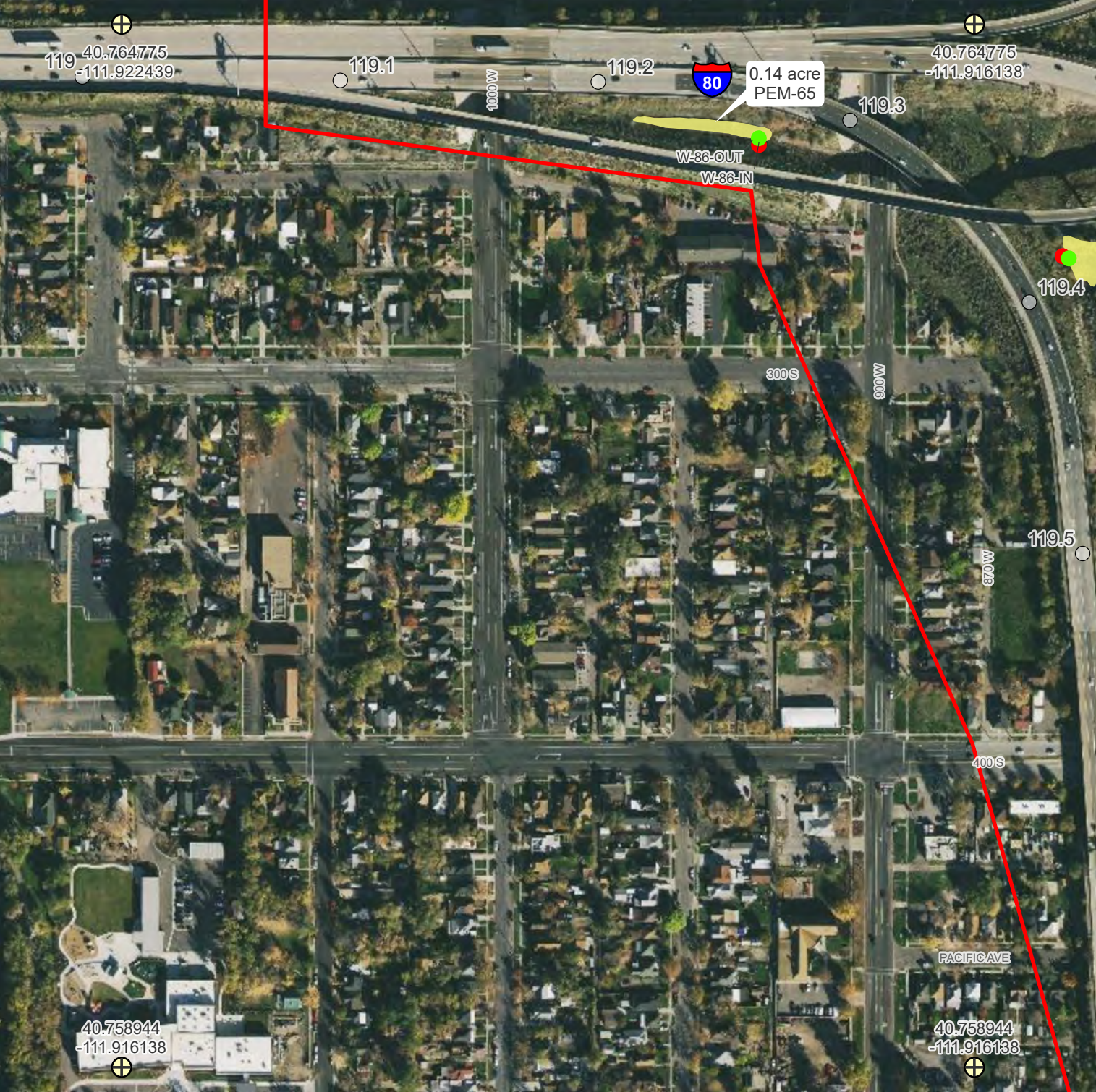
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
Aerial Imagery: State of Utah Google Imagery
Aquatic Resources: HDR
PROJECTION
Utah Stateplane Central
CARTOGRAPHER
HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- PEM Wetland

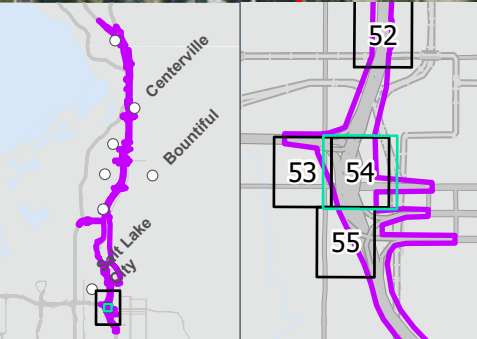
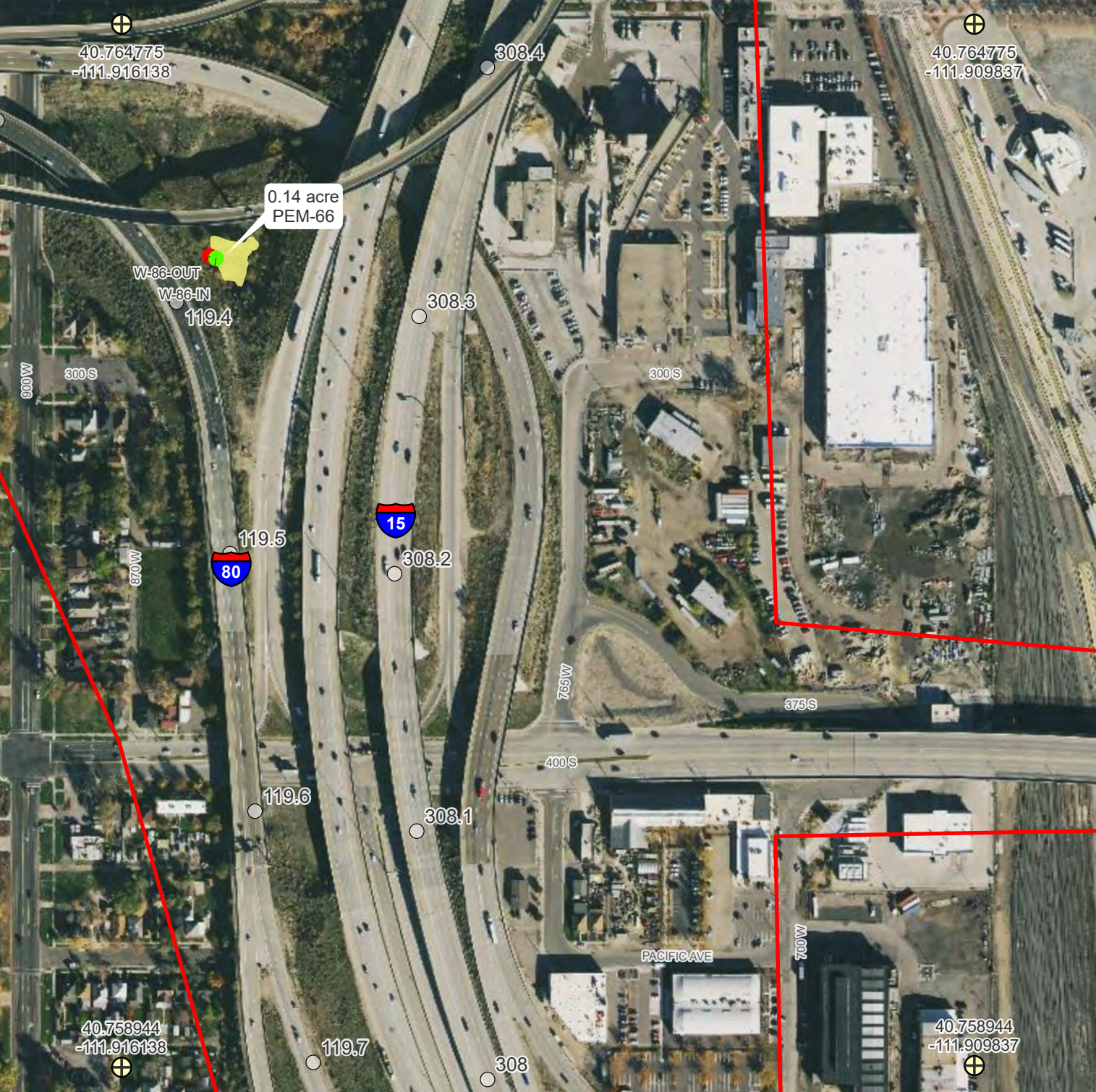
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



- Survey Area
- + Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- PEM Wetland

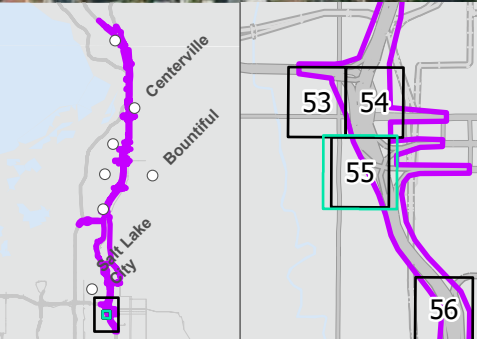
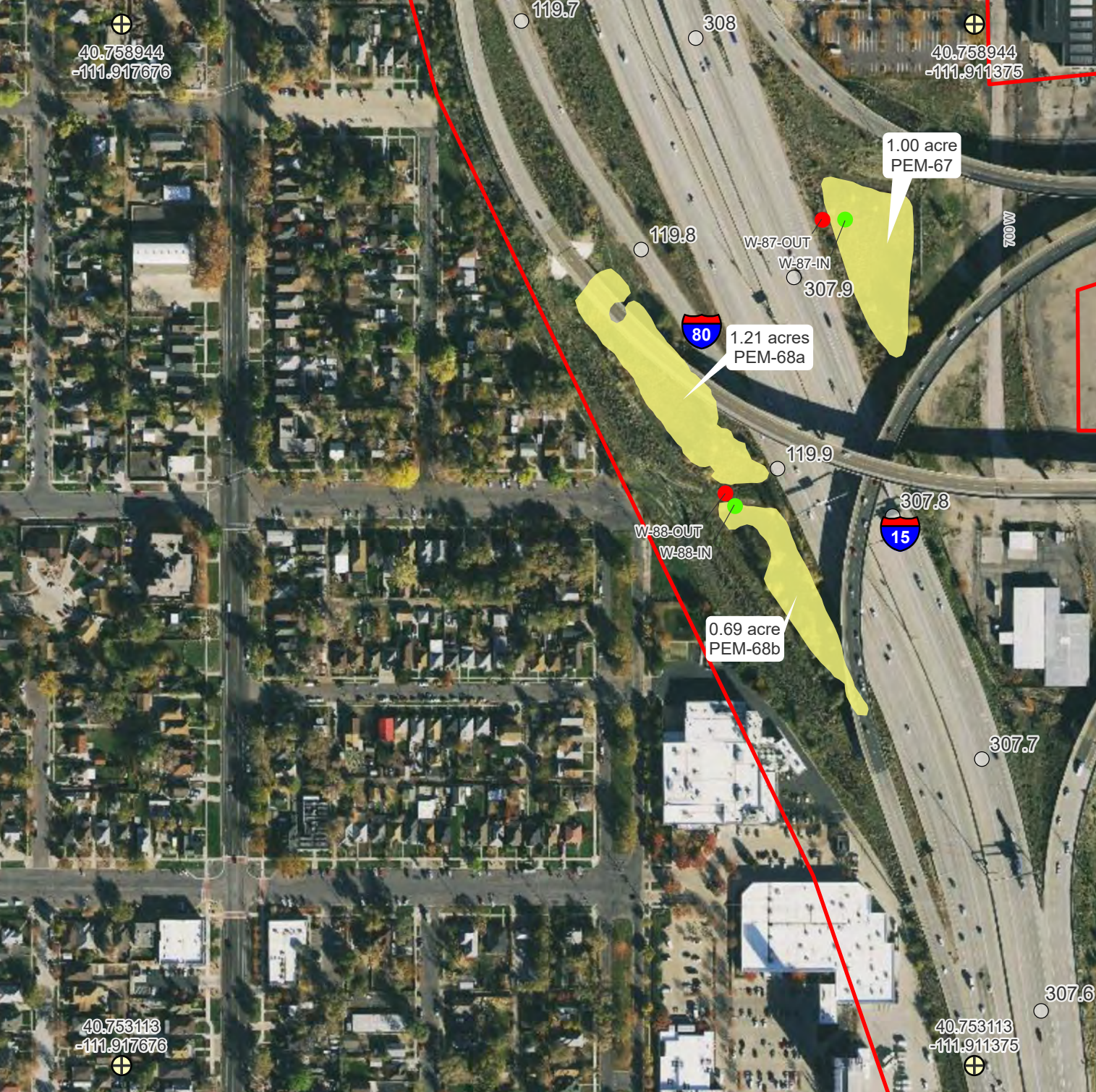
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- PEM Wetland

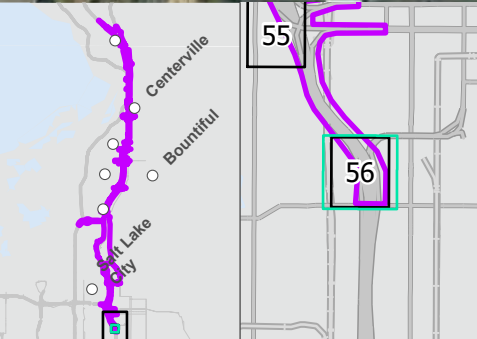
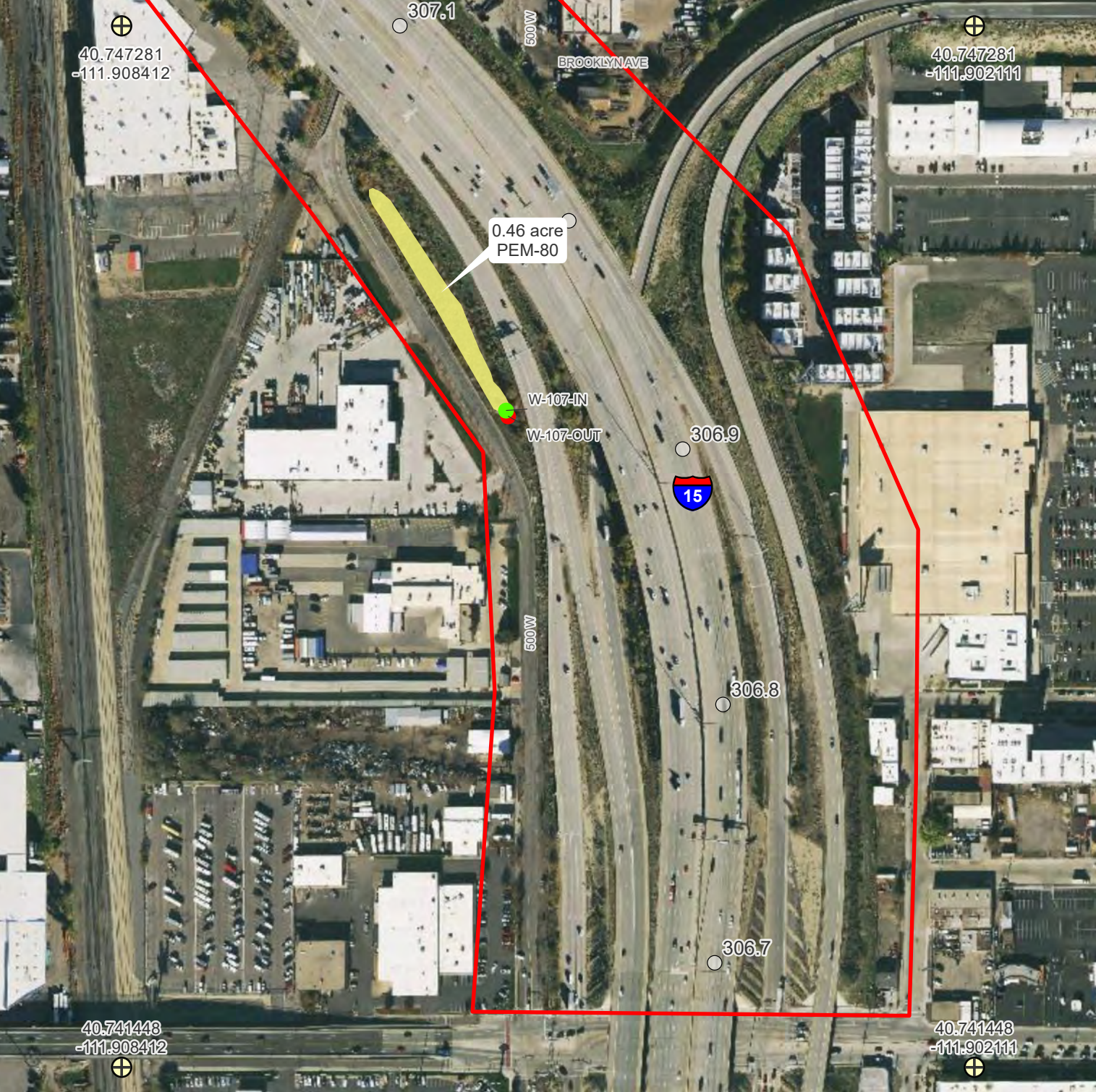
*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR



- Survey Area
- Geographic Control Points
- Tenth Mile Reference Posts
- Sampling Site - Not Within Wetland
- Sampling Site - Within Wetland
- PEM Wetland

*Only areas with aquatic resources present are shown in this series



1 Inch equals 375 feet



DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Aquatic Resources: HDR
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

ATTACHMENT C

Delineation Sampling Points and Photos

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ATTACHMENT C-1

Wetland Determination Data Forms and
Wetland Delineation Photographs

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WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-1-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.996482 Long: -111.916709 Datum: WGS84
 Soil Map Unit Name: Logan silty clay loam, shallow water table, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland. No soil pit due to standing water and obligate vegetation.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 4 (A) Total Number of Dominant Species Across All Strata: _____ 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. <u>Elaeagnus angustifolia</u>	10	Yes	FAC	
2. <u>Populus angustifolia</u>	5	Yes	FACW	
3. _____				
4. _____				
	15	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ 40 x1= _____ 40 FACW species _____ 45 x2= _____ 90 FAC species _____ 10 x3= _____ 30 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 95 (A) _____ 160 (B) <i>Prevalence Index = B/A=</i> _____ 1.68
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	40	Yes	FACW	
2. <u>Typha latifolia</u>	40	Yes	OBL	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	80	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____				
2. _____				
		= Total Cover		
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-1-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <u>X</u> No
--	---

Remarks:
No soil pit due to standing water and obligate vegetation.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <u>X</u> No _____ Depth (inches): _____ 0.0 Water Table Present? Yes <u>X</u> No _____ Depth (inches): _____ 0.0 Saturation Present? Yes <u>X</u> No _____ Depth (inches): _____ 0.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No
--	---

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

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-1-IN (JMLW112220221128-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-1-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Convex Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.996453 Long: -111.916662 Datum: WGS84
 Soil Map Unit Name: Logan silty clay loam, shallow water table, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on fill pile with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 90 x5= _____ 450 Column Totals: _____ 90 (A) _____ 450 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Cardaria draba</u>	<u>80</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Thinopyrum intermedium</u>	<u>10</u>	<u>No</u>	<u>UPL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>90</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>10</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-1-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on fill pile with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
---	---

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

Remarks:
No soil pit. No wetland hydrology indicators present.

Additional Reference Data: Photos

W-1-OUT (JMLW112220221128-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 6/11/2019
 Applicant/Owner: UDOT State: Utah Sampling Point: W-2-IN
 Investigators: Mike Perkins Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.995894 Long: -111.915474 Datum: WGS84
 Soil Map Unit Name: Timpanogos loam, 10 to 20 percent slopes, eroded NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Eleocharis palustris</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>60</u>	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum <u>40</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

SOIL

(MP061120191342-IN)

Sampling Point: W-2-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 4/3	100					Silt Loam	
4-14	10YR 4/2	95	7.5YR 5/8	5	C	M	Silty Clay	Redox is prominent.

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock
Depth (inches): 14

Hydric Soil Present? Yes No

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)	
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:

Surface Water Present? Yes No Depth (inches): 1.0
 Water Table Present? Yes No Depth (inches): 0.0
 Saturation Present? Yes No Depth (inches): 1.0
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:
Hydrology present with surface water, high water table, and saturation as a primary hydrology indicators.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 6/11/2019
 Applicant/Owner: UDOT State: Utah Sampling Point: W-2-OUT
 Investigators: Mike Perkins Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): Convex Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.995948 Long: -111.915449 Datum: WGS84
 Soil Map Unit Name: Timpanogos loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 33 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 20 x3= _____ 60 FACU species _____ 60 x4= _____ 240 UPL species _____ 20 x5= _____ 100 Column Totals: _____ 100 (A) _____ 400 (B) <i>Prevalence Index = B/A=</i> _____ 4.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Bromus arvensis</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Hordeum jubatum</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Thinopyrum intermedium</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>	
4. <u>Melilotus officinalis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/3	100					Silty Clay	

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock
Depth (inches): 16

Hydric Soil Present? Yes No X

Remarks:
No hydric soil indicator present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

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): _____ 14.0
(includes capillary fringe)

Wetland Hydrology Present? Yes No X

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

Remarks:
No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-3-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 4
 Subregion (LRR): D-Interior deserts Lat: 40.995387 Long: -111.914501 Datum: WGS84
 Soil Map Unit Name: Timpanogos loam, 10 to 20 percent slopes, eroded NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Distichlis spicata</u>	90	Yes	FAC	
2. <u>Hordeum murinum</u>	5	No	FACU	
3. <u>Thinopyrum intermedium</u>	5	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
100 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-3-IN

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks. Rows include 0-3 and 3-16 inch depths.

1Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

2Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils:

Checklist of hydric soil indicators including Histosol (A1), Sandy Redox (S5), 1 cm Muck (A9), etc. Includes a note about hydrophytic vegetation indicators.

Restrictive Layer (if present): Type: _____ Depth (inches): _____ Hydric Soil Present? Yes X No _____

Remarks: Hydric soil indicator F8 present.

HYDROLOGY

Wetland Hydrology Indicators table with columns: Primary Indicators (minimum of one required; check all that apply), Secondary Indicators (2 or more required). Includes indicators like Surface Water (A1), Saturation (A3), Water Marks (B1), etc.

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): _____ 2.0 Wetland Hydrology Present? Yes X No _____

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

Remarks: Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-4-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 4
 Subregion (LRR): D-Interior deserts Lat: 40.995229 Long: -111.914500 Datum: WGS84
 Soil Map Unit Name: Timpanogos loam, 10 to 20 percent slopes, eroded NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Distichlis spicata</u>	60	Yes	FAC	
2. <u>Suaeda spp.</u>	20	Yes	FACW	
3. <u>Thinopyrum intermedium</u>	15	No	UPL	
4. <u>Hordeum murinum</u>	5	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
100 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-4-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 2/2	100					Clay Loam	
5-14	10YR 2/2	94	10YR 3/6	6	C	M	Clay Loam	Redox is prominent.

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: <u>Compacted</u> Depth (inches): <u>14</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator F6 present.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 4.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

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

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-4-IN (JMLW112220221055-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-4-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Convex Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.995276 Long: -111.914511 Datum: WGS84
 Soil Map Unit Name: Timpanogos loam, 10 to 20 percent slopes, eroded NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken due to lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 60 x5= _____ 300 Column Totals: _____ 60 (A) _____ 300 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	60	Yes	UPL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	60	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	40	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation present.

SOIL

Sampling Point: W-4-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:

Sampling point does not meet characteristics of a wetland. No soil pit taken due to lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? Yes No Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No hydrology present.

Additional Reference Data: Photos

W-4-OUT (JMLW112220221055-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-5-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.994257 Long: -111.912588 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phalaris arundinacea</u>	30	Yes	FACW	
2. <u>Hordeum jubatum</u>	25	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
55 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	50	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-5-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/1	100					Organic	Rocky
6-17	10YR 2/1	90	10YR 4/6	10	C	M	Silty Clay	Redox is prominent.

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator F6 present.

HYDROLOGY

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 8.0 Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 6/12/2019
 Applicant/Owner: UDOT State: Utah Sampling Point: W-5-OUT
 Investigators: Mike Perkins Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): Convex Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.994145 Long: -111.912903 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 50 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phalaris arundinacea</u>	70	Yes	FACW	
2. <u>Cardaria draba</u>	20	Yes	UPL	
3. <u>Thinopyrum intermedium</u>	5	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
95 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/3	100					Silt Loam	
6-15	10YR 4/2	100					Silt Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: <u>Rock</u> Depth (inches): <u>15</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Remarks:
No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (minimum of one required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Dry soils. No hydrology indicators observed.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-6-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Convex Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.994023 Long: -111.912349 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	<u>95</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	<u>5</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-6-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/2	100					Organic	Roots present.
3-11	10YR 6/3	87	10YR 5/8	13	C	M	Clay	Redox is prominent.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input checked="" type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: <u>Compacted</u> Depth (inches): <u>11</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil indicator F8 present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Tables (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 3.0 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-7-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.992826 Long: -111.909943 Datum: WGS84
 Soil Map Unit Name: Logan silty clay loam, shallow water table, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 3 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. Eleocharis palustris	40	Yes	OBL	
2. Phalaris arundinacea	35	Yes	FACW	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
3. Juncus arcticus	30	Yes	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____	105	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-7-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Sand	Coarse sand with roots.
3-17	10YR 4/1	100					Sand	Coarse sand.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator A4 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 6.0 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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

Additional Reference Data: Photos

W-7-IN (MPJM111720221335-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-7-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.992757 Long: -111.910033 Datum: WGS84
 Soil Map Unit Name: Logan silty clay loam, shallow water table, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Thinopyrum intermedium</u>	95	Yes	UPL	
2. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover	95	_____	_____	
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
% Bare Ground in Herb Stratum <u>5</u>	_____	% Cover of Biotic Crust ⁰ _____	_____	

Remarks:
 Upland vegetation community, recently mowed.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 3/2	70					Clay Loam	
	10YR 5/4	30						

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock
Depth (inches): 16

Hydric Soil Present? Yes No **X**

Remarks:
No hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

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): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes No **X**

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

Remarks:
No wetland hydrology indicators.

Additional Reference Data: Photos

W-7-OUT (MPJM111720221315-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-8-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.992705 Long: -111.910115 Datum: WGS84
 Soil Map Unit Name: Logan silty clay loam, shallow water table, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 40 x2= _____ 80 FAC species _____ 35 x3= _____ 105 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 75 (A) _____ 185 (B) <i>Prevalence Index = B/A=</i> _____ 2.47
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phalaris arundinacea</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Distichlis spicata</u>	<u>35</u>	<u>Yes</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>75</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>25</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 5/2	92	10YR 5/8	8	C	M	Clay Loam	Redox is prominent.
7-17	10YR 6/3	80	10YR 5/8	20	C	M	Clay Loam	Redox is prominent.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: Rock	
Depth (inches): <u>17</u>	

Remarks:
Depressed closed basin qualifies for F8.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0.0</u>	
(includes capillary fringe)	

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

Remarks:
Saturation present. Wetland point is about 1.5 feet away from edge of icy standing water.

Additional Reference Data: Photos

W-8-IN (MPJM111720221315-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-9-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.991815 Long: -111.907938 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ 70 x1= _____ 70 FACW species _____ 10 x2= _____ 20 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 80 (A) _____ 90 (B) <i>Prevalence Index = B/A=</i> _____ 1.13
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Typha latifolia</u>	<u>70</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Phragmites australis</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>80</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>20</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-9-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <u>X</u> No
--	---

Remarks:
Hydric soils assumed given obligate vegetation with standing water.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <u>X</u> No _____ Depth (inches): _____ 0.0 Water Table Present? Yes <u>X</u> No _____ Depth (inches): _____ 0.0 Saturation Present? Yes <u>X</u> No _____ Depth (inches): _____ 0.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No
--	---

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

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-9-IN (MPJM111720221302-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-9-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Convex Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.991770 Long: -111.907960 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on fill should for trail with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 60 x5= _____ 300 Column Totals: _____ 60 (A) _____ 300 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	<u>60</u>	<u>Yes</u>	<u>UPL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>60</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>40</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No soil pit taken on fill should for trail with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
---	---

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

Remarks:
No soil pit dug and no hydrology indicators observed.

Additional Reference Data: Photos

W-9-OUT (MPJM111720221302-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-10-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.991197 Long: -111.907476 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species x1= _____ FACW species <u>80</u> x2= <u>160</u> FAC species x3= <u>0</u> FACU species x4= <u>0</u> UPL species x5= <u>0</u> Column Totals: <u>80</u> (A) <u>160</u> (B) <i>Prevalence Index = B/A= 2.00</i>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	<u>45</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Phalaris arundinacea</u>	<u>35</u>	<u>Yes</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>80</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>20</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-11	10YR 2/1	100					Clay Loam	
11-17	10YR 5/1	95	10YR 4/6	5	C	M	Clay	Redox is prominent.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: <u>Rock</u> Depth (inches): <u>17</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

Remarks:
Soil passes hydric soil indicator A11.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (minimum of one required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-10-IN (MPJM111720221249-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-10-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.991313 Long: -111.907516 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken due to lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 90 x5= _____ 450 Column Totals: _____ 90 (A) _____ 450 (B) Prevalence Index = B/A= _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Thinopyrum intermedium</u>	50	Yes	UPL	
2. <u>Bromus tectorum</u>	40	Yes	UPL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	90	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
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Remarks:
No soil pit taken due to lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No soil pit due to upland vegetation, no wetland hydrology indicators observed.

Additional Reference Data: Photos

W-10-OUT (MPJM111720221249-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-11-OUT
 Investigators: Amy Croft, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.991893 Long: -111.906499 Datum: WGS84
 Soil Map Unit Name: Chance loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ 2 x1= _____ 2 FACW species _____ 90 x2= _____ 180 FAC species _____ x3= _____ 0 FACU species _____ 5 x4= _____ 20 UPL species _____ x5= _____ 0 Column Totals: _____ 97 (A) _____ 202 (B) <i>Prevalence Index = B/A=</i> _____ 2.08
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phalaris arundinacea</u>	<u>85</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Cirsium arvense</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
3. <u>Juncus arcticus ssp. littoralis (J. balticus)</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
4. <u>Schoenoplectus acutus</u>	<u>2</u>	<u>No</u>	<u>OBL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>97</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>3</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 3/1	100					Silty Clay Loam	
8-10	10YR 2/1	100					Silty Clay Loam	
10-19	10YR 2/1	85	10YR 5/2	10	D	M	Silty Clay Loam	Redox is prominent.
	10YR 2/1	85	10YR 4/6	5	C	M		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____ X
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Remarks:
Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-11-OUT (ACLW112220211141-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-12-IN
 Investigators: Amy Croft, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.992027 Long: -111.906288 Datum: WGS84
 Soil Map Unit Name: Chance loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 5 (A) Total Number of Dominant Species Across All Strata: _____ 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. <u>Salix fragilis</u>	30	Yes	FAC	
2. <u>Elaeagnus angustifolia</u>	20	Yes	FAC	
3. _____				
4. _____				
	50	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 115 x2= _____ 230 FAC species _____ 50 x3= _____ 150 FACU species _____ 8 x4= _____ 32 UPL species _____ 1 x5= _____ 5 Column Totals: _____ 174 (A) _____ 417 (B) <i>Prevalence Index = B/A=</i> _____ 2.40
1. <u>Salix boothii</u>	10	Yes	FACW	
2. <u>Salix exigua</u>	10	Yes	FACW	
3. <u>Rosa canina</u>	1	No	UPL	
4. _____				
5. _____				
	21	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phalaris arundinacea</u>	95	Yes	FACW	
2. <u>Cirsium vulgare</u>	5	No	FACU	
3. <u>Cirsium arvense</u>	3	No	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	103	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/1	100					Clay Loam	
6-17	10YR 3/1	85	7.5YR 4/6	15	C		Clay Loam	Redox is prominent.
17-22	10YR 4/1	90	7.5YR 4/6	10	C	M	Clay Loam	Redox is prominent.

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Hydric soil indicator F6 present.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____ 20.0
Saturation Present? Yes No Depth (inches): _____ 20.0
(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

Hydrology present with oxidized rhizospheres along living roots as a primary hydrology indicator.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-12-OUT
 Investigators: Amy Croft, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.992099 Long: -111.906223 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phalaris arundinacea</u>	100	Yes	FACW	
2. <u>Dipsacus fullonum</u>	2	No	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
102 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/1	100					Silty Clay Loam	
4-7	10YR 3/1	85	7.5YR 4/6	5	C	M	Silty Clay Loam	Redox is prominent.
	10YR 4/2	10						
7-15	10YR 3/1	95					Silty Clay Loam	
	10YR 2/1	5						
15-18	10YR 5/1	40					Silty Clay Loam	
	10YR 3/1	60						
18-22	10YR 5/1	100					Clay Loam	

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No _____ X _____

Remarks:

Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

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): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No _____ X _____

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

Remarks:

No hydrology present.

Additional Reference Data: Photos

W-12-OUT (ACLW112220211244-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-13-OUT
 Investigators: Amy Croft, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.992142 Long: -111.906089 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 95 x2= _____ 190 FAC species _____ 5 x3= _____ 15 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 100 (A) _____ 205 (B) <i>Prevalence Index = B/A=</i> _____ 2.05
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phalaris arundinacea</u>	<u>90</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Dipsacus fullonum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
3. <u>Juncus arcticus ssp. littoralis (J. balticus)</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 3/1	100					Silty Clay Loam	
9-14	10YR 2/1	97					Silty Clay Loam	
	10YR 4/1	3						
14-16	10YR 5/1	10					Silty Clay Loam	
	10YR 2/1	80						
16-20	10YR 4/1	10						
	10YR 5/1	45					Silty Clay Loam	
	10YR 2/1	10						

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Indicators for Problematic Hydric Soils³:

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____ X
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Remarks:
Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

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): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-13-OUT (ACLW11222211211-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/23/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-14-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.991676 Long: -111.905424 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>Populus angustifolia</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>	
2. _____				
3. _____				
4. _____				
	<u>50</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x1= _____ FACW species <u>150</u> x2= <u>300</u> FAC species _____ x3= <u>0</u> FACU species <u>2</u> x4= <u>8</u> UPL species _____ x5= <u>0</u> Column Totals: <u>152</u> (A) <u>308</u> (B) <i>Prevalence Index = B/A=</i> <u>2.03</u>
1. <u>Rosa woodsii</u>	<u>2</u>	<u>No</u>	<u>FACU</u>	
2. _____				
3. _____				
4. _____				
5. _____				
	<u>2</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phalaris arundinacea</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	<u>100</u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
		<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 2/2	100					Clay Loam	
5-13	10YR 4/2	80	10YR 4/6	20	C	M	Clay Loam	Redox is prominent.
13-17	10YR 2/1	100					Clay Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		<i>Secondary Indicators (2 or more required)</i>
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 7.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-14-IN (JMLW112320211049-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-15-IN
 Investigators: Amy Croft, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.991651 Long: -111.904621 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	= Total Cover
<u>Sapling/Shrub Stratum</u> (Plot size:)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 120 x2= _____ 240 FAC species _____ x3= _____ 0 FACU species _____ 5 x4= _____ 20 UPL species _____ x5= _____ 0 Column Totals: _____ 125 (A) _____ 260 (B) <i>Prevalence Index = B/A=</i> _____ 2.08
1. <u>Salix exigua</u>	10	_____	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	10	_____	_____	= Total Cover
<u>Herb Stratum</u> (Plot size:)				Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phragmites australis</u>	100	Yes	FACW	
2. <u>Conium maculatum</u>	10	No	FACW	
3. <u>Cirsium arvense</u>	5	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	115	_____	_____	
<u>Woody Vine Stratum</u> (Plot size:)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	_____	_____	= Total Cover
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-15-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/1	100					Clay Loam	
1-4	10YR 4/1	97	7.5YR 4/6	3	C	M	Sandy Clay Loam	Redox is prominent.
4-13	10YR 3/1	20					Clay Loam	Redox is prominent.
	10YR 4/1	75	7.5YR 4/6	5	C			
13-20	10YR 3/1	95	7.5YR 4/6	5	C	M	Clay Loam	Redox is prominent.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

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

Remarks:
Hydrology present with oxidized rhizospheres along living roots as a primary hydrology indicator.

Additional Reference Data: Photos

W-15-IN (ACLW112220211508-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-15-OUT
 Investigators: Amy Croft, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Shoulder Local Relief (concave, convex, none): Convex Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.991621 Long: -111.904592 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 50 x5= _____ 250 Column Totals: _____ 50 (A) _____ 250 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Unknown grass</u>	<u>50</u>	<u>Yes</u>	_____	
2. <u>Thinopyrum intermedium</u>	<u>50</u>	<u>Yes</u>	<u>UPL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-15-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/23/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-16-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.991813 Long: -111.904368 Datum: WGS84
 Soil Map Unit Name: Chance loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 100 x2= _____ 200 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 100 (A) _____ 200 (B) <i>Prevalence Index = B/A=</i> _____ 2.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	70	Yes	FACW	
2. <u>Phalaris arundinacea</u>	30	Yes	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:

SOIL

Sampling Point: W-16-IN

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks. Rows include data for depths 0-4 and 4-13 inches.

1Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

2Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils:

Table listing various soil indicators such as Histosol (A1), Sandy Redox (S5), 1 cm Muck (A9), etc., with checkboxes for presence.

3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Cobble
Depth (inches): 13

Hydric Soil Present? Yes X No

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:

Table with columns: Primary Indicators (minimum of one required; check all that apply), Secondary Indicators (2 or more required). Lists indicators like Surface Water (A1), High Water Tables (A2), etc.

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 X No

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

Remarks:
Problematic hydrology, dry time of year.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/23/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-16-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Shoulder Local Relief (concave, convex, none): Convex Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.991817 Long: -111.904419 Datum: WGS84
 Soil Map Unit Name: Chance loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 50 x5= _____ 250 Column Totals: _____ 50 (A) _____ 250 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Unknown grass</u>	<u>50</u>	<u>Yes</u>	_____	
2. <u>Thinopyrum intermedium</u>	<u>50</u>	<u>Yes</u>	<u>UPL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-16-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-16-OUT (JMLW112320211023-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-17-IN
 Investigators: Amy Croft, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.992378 Long: -111.904547 Datum: WGS84
 Soil Map Unit Name: Chance loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland. Soil pit not taken with hydrophytic vegetation and surface water.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	70	Yes	FACW	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2. <u>Typha latifolia</u>	20	Yes	OBL	
3. <u>Cirsium arvense</u>	10	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-17-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
Type: _____	
Depth (inches): _____	

Remarks:
Soil pit not taken with hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 1.0	
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0 (includes capillary fringe)	

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

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-17-IN (ACW112220211442-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-17-OUT
 Investigators: Amy Croft, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): Convex Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.992229 Long: -111.904564 Datum: WGS84
 Soil Map Unit Name: Chance loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 33 (A/B)
1. <u>Elaeagnus angustifolia</u>	5	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	5	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 5 x3= _____ 15 FACU species _____ x4= _____ 0 UPL species _____ 110 x5= _____ 550 Column Totals: _____ 115 (A) _____ 565 (B) <i>Prevalence Index = B/A=</i> _____ 4.91
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Agropyron cristatum</u>	50	Yes	UPL	
2. <u>Thinopyrum intermedium</u>	50	Yes	UPL	
3. <u>Bromus tectorum</u>	10	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	110	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>	_____	% Cover of Biotic Crust <u>0</u>	_____	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/23/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-18-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.993396 Long: -111.905997 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. <u>Elaeagnus angustifolia</u>	40	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	40	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 90 x2= _____ 180 FAC species _____ 40 x3= _____ 120 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 130 (A) _____ 300 (B) <i>Prevalence Index = B/A=</i> _____ 2.31
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	90	_____	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	90	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover		
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust ⁰	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 4/2	100					Clay Loam	
7-19	10YR 4/2	85	10YR 4/6	5	C	M	Clay Loam	Redox is distinct.
	10YR 4/2	85	10YR 6/2	10	D	M		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? Yes No Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

Problematic hydrology, dry time of the year.

Additional Reference Data: Photos

W-18-IN (JMLW112320211121-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/23/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-18-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.993470 Long: -111.905926 Datum: WGS84
 Soil Map Unit Name: Roshe Springs silt loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Poa pratensis</u>	50	Yes	FAC	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Juncus arcticus ssp. littoralis (J. balticus)</u>	40	Yes	FACW	
3. <u>Thinopyrum intermedium</u>	10	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-18-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR 3/2	100					Clay Loam	
14-20	10YR 5/2	100					Sandy Clay Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
Type: _____	
Depth (inches): _____	

Remarks:
Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ (includes capillary fringe)	

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

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-18-OUT (JMLW112320211121-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/23/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-19-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.994135 Long: -111.904997 Datum: WGS84
 Soil Map Unit Name: Roshe Springs silt loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-19-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/2	100					Organic	Organic matter
2-6	10YR 6/1	95	10YR 5/8	5	C	M	Silty Clay Loam	Redox is prominent.
6-20	10YR 3/2	80	10YR 4/6	20	C	M	Silty Clay Loam	Redox is prominent.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil indicator F3 and F6 present.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 12.0 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 6.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-19-IN (JMLW112320211153-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/23/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-19-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Shoulder Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.994165 Long: -111.904921 Datum: WGS84
 Soil Map Unit Name: Roshe Springs silt loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 50 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 20 x3= _____ 60 FACU species _____ x4= _____ 0 UPL species _____ 80 x5= _____ 400 Column Totals: _____ 100 (A) _____ 460 (B) Prevalence Index = B/A= _____ 4.60
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	80	Yes	UPL	
2. <u>Poa pratensis</u>	20	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-19-OUT (JMLW112320211153-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/23/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-20-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.995706 Long: -111.905719 Datum: WGS84
 Soil Map Unit Name: Roshe Springs silt loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 4 (A) Total Number of Dominant Species Across All Strata: _____ 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 80 (A/B)
1. <u>Elaeagnus angustifolia</u>	20	Yes	FAC	
2. <u>Acer negundo</u>	5	Yes	FACW	
3. _____				
4. _____				
	25	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 105 x2= _____ 210 FAC species _____ 20 x3= _____ 60 FACU species _____ 5 x4= _____ 20 UPL species _____ x5= _____ 0 Column Totals: _____ 130 (A) _____ 290 (B) <i>Prevalence Index = B/A=</i> _____ 2.23
1. <u>Rosa woodsii</u>	5	Yes	FACU	
2. _____				
3. _____				
4. _____				
5. _____				
	5	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	80	Yes	FACW	
2. <u>Phalaris arundinacea</u>	20	Yes	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-20-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 4/2	85	10YR 4/6	15	C	M	Clay Loam	Redox is prominent.
9-20	10YR 4/2	75	10YR 4/6	25	C	M	Sandy Clay Loam	Redox is prominent.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
--	---

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 18.0 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 8.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-20-IN (JMLW112320211218-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/23/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-20-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Shoulder Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.995718 Long: -111.905651 Datum: WGS84
 Soil Map Unit Name: Roshe Springs silt loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 80 x5= _____ 400 Column Totals: _____ 80 (A) _____ 400 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	40	Yes	UPL	
2. <u>Agropyron cristatum</u>	30	Yes	UPL	
3. <u>Bromus tectorum</u>	10	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	80	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-20-OUT

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type¹, Loc²), Texture, Remarks.

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

- ___ Histosol (A1)
___ Sandy Redox (S5)
___ Histic Epipedon (A2)
___ Stripped Matrix (S6)
___ Black Histic (A3)
___ Loamy Mucky Mineral (F1)
___ Hydrogen Sulfide (A4)
___ Loamy Gleyed Matrix (F2)
___ Stratified Layers (A5) (LRR C)
___ Depleted Matrix (F3)
___ 1 cm Muck (A9) (LRR D)
___ Redox Dark Surface (F6)
___ Depleted Below Dark Surface (A11)
___ Depleted Dark Surface (F7)
___ Thick Dark Surface (A12)
___ Redox Depressions (F8)
___ Sandy Mucky Mineral (S1)
___ Vernal Pools (F9)
___ Sandy Gleyed Matrix (S4)

- ___ 1 cm Muck (A9) (LRR C)
___ 2 cm Muck (A10) (LRR B)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ___ No ___

Remarks:

No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

- ___ Surface Water (A1)
___ High Water Tables (A2)
___ Saturation (A3)
___ Water Marks (B1) (Nonriverine)
___ Sediment Deposits (B2) (Nonriverine)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

- ___ Water Marks (B1) (Riverine)
___ Sediment Deposits (B2) (Riverine)
___ Drift Deposits (B3) (Riverine)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

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): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No X

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

Remarks:

No hydrology present.

Additional Reference Data: Photos

W-20-OUT (JMLW112320211218-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-21-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.993099 Long: -111.902454 Datum: WGS84
 Soil Map Unit Name: Roshe Springs silt loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland. Soil pit not taken with hydrophytic vegetation and surface water.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 0 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Typha latifolia</u>	100		OBL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-21-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
Soil pit not taken with hydrophytic vegetation and surface water.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.0 Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with surface water as a primary hydrology indicator.

Additional Reference Data: Photos

W-21-IN (JMLW120220211215-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-21-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.992999 Long: -111.902450 Datum: WGS84
 Soil Map Unit Name: Roshe Springs silt loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40</u> (A/B)
1. <u>Ulmus pumila</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Elaeagnus angustifolia</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	
3. _____				
4. _____				
	<u>25</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= <u>0</u> FAC species <u>65</u> x3= <u>195</u> FACU species <u>50</u> x4= <u>200</u> UPL species <u>40</u> x5= <u>200</u> Column Totals: <u>155</u> (A) <u>595</u> (B) Prevalence Index = B/A= <u>3.84</u>
1. <u>Rosa canina</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>	
2. _____				
3. _____				
4. _____				
5. _____				
	<u>20</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Dipsacus fullonum</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Solidago canadensis</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Poa pratensis</u>	<u>20</u>	<u>No</u>	<u>FAC</u>	
4. <u>Cirsium arvense</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
5. _____				
6. _____				
7. _____				
8. _____				
	<u>110</u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
		<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No <u>X</u>

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-21-OUT (JMLW120220211215-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-22-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.992228 Long: -111.902120 Datum: WGS84
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 3 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. <u>Elaeagnus angustifolia</u>	10	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	10	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 80 x2= _____ 160 FAC species _____ 32 x3= _____ 96 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 112 (A) _____ 256 (B) <i>Prevalence Index = B/A=</i> _____ 2.29
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phalaris arundinacea</u>	30	Yes	FACW	
2. <u>Phragmites australis</u>	30	Yes	FACW	
3. <u>Poa pratensis</u>	20	No	FAC	
4. <u>Juncus arcticus ssp. littoralis (J. balticus)</u>	20	No	FACW	
5. <u>Dipsacus fullonum</u>	2	No	FAC	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	102	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>	_____	% Cover of Biotic Crust <u>0</u>	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-22-IN

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks. Rows include depths 0-6, 6-13, and 13-19 inches.

1Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

2Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils3:

- ___ Histosol (A1)
___ Sandy Redox (S5)
___ Histic Epipedon (A2)
___ Stripped Matrix (S6)
___ Black Histic (A3)
___ Loamy Mucky Mineral (F1)
___ Hydrogen Sulfide (A4)
___ Loamy Gleyed Matrix (F2)
___ Stratified Layers (A5) (LRR C)
___ Depleted Matrix (F3)
___ 1 cm Muck (A9) (LRR D)
___ X Redox Dark Surface (F6)
___ Depleted Below Dark Surface (A11)
___ Depleted Dark Surface (F7)
___ Thick Dark Surface (A12)
___ Redox Depressions (F8)
___ Sandy Mucky Mineral (S1)
___ Vernal Pools (F9)
___ Sandy Gleyed Matrix (S4)

- ___ 1 cm Muck (A9) (LRR C)
___ 2 cm Muck (A10) (LRR B)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ___ X ___ No ___

Remarks:
Hydric soil indicator F6 present.

HYDROLOGY

Wetland Hydrology Indicators:

Table with columns: Primary Indicators (minimum of one required; check all that apply), Secondary Indicators (2 or more required). Rows include Surface Water (A1), High Water Tables (A2), Saturation (A3), Water Marks (B1) (Nonriverine), Sediment Deposits (B2) (Nonriverine), Surface Soil Cracks (B6), Inundation Visible on Aerial Imagery (B7), Water-Stained Leaves (B9), Salt Crust (B11), Biotic Crust (B12), Aquatic Invertebrates (B13), Hydrogen Sulfide Odor (C1), Oxidized Rhizospheres along Living Roots (C3), Recent Iron Reduction in Tilled Soils (C6), Thin Muck Surface (C7), Other (Explain in Remarks), Water Marks (B1) (Riverine), Sediment Deposits (B2) (Riverine), Drift Deposits (B3) (Riverine), Drainage Patterns (B10), Dry-Season Water Table (C2), Saturation Visible on Aerial Imagery (C9), Shallow Aquitard (D3), FAC-Neutral Test (D5).

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): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ X ___ No ___

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

Remarks:
Problematic hydrology, dry time of the year.

Additional Reference Data: Photos

W-22-IN (JMLW120220211138-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-22-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.992247 Long: -111.902091 Datum: WGS84
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Cirsium arvense</u>	30	Yes	FACU	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Solidago canadensis</u>	30	Yes	FACU	
3. <u>Poa pratensis</u>	20	No	FAC	
4. <u>Juncus arcticus ssp. littoralis (J. balticus)</u>	20	No	FACW	
5. <u>Phragmites australis</u>	5	No	FACW	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
105 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰		
				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 2/1	100					Silty Clay Loam	
7-11	10YR 2/1	97	7.5YR 3/4	3	C	M	Silty Clay Loam	Prominent redox
11-15	10YR 3/1	90	10YR 3/6	10	C	M	Silty Clay Loam	Prominent redox

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil indicator F6 present.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-22-OUT (JMLW120220211138-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/4/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-23-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 13, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 10
 Subregion (LRR): D-Interior deserts Lat: 40.990410 Long: -111.903734 Datum: WGS84
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 4 (A) Total Number of Dominant Species Across All Strata: _____ 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. <u>Populus fremontii</u>	20	Yes	FAC	
2. <u>Elaeagnus angustifolia</u>	10	Yes	FAC	
3. <u>Populus angustifolia</u>	10	Yes	FACW	
4. _____				
	40	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 110 x2= _____ 220 FAC species _____ 30 x3= _____ 90 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 140 (A) _____ 310 (B) <i>Prevalence Index = B/A=</i> _____ 2.21
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	100	Yes	FACW	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 4/1	96	10YR 4/6	4	C	M	Clay Loam	Redox is prominent.
8-12	10YR 4/2	93	10YR 4/6	7	C	M	Sandy Loam	Redox is prominent.

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Cobble
Depth (inches): 12

Hydric Soil Present? Yes No

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? Yes No Depth (inches): 0.5
(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/04/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-23-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 13, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 10
 Subregion (LRR): D-Interior deserts Lat: 40.990435 Long: -111.903763 Datum: WGS84
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 80 x4= _____ 320 UPL species _____ 20 x5= _____ 100 Column Totals: _____ 100 (A) _____ 420 (B) <i>Prevalence Index = B/A=</i> _____ 4.20
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Ambrosia psilostachya</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Elymus trachycaulus</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Bromus tectorum</u>	<u>10</u>	<u>No</u>	<u>UPL</u>	
4. <u>Convolvulus arvensis</u>	<u>10</u>	<u>No</u>	<u>UPL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-23-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-23-OUT (JMLW110420211044-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-24-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 24, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.982243 Long: -111.899147 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland. Soil pit not taken with hydrophytic vegetation and surface water.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	<u>50</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <u>X</u> No
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Remarks:
Soil pit not taken with hydrophytic vegetation and surface water.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Tables (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)

Field Observations: Surface Water Present? Yes <u>X</u> No _____ Depth (inches): _____ 10.0 Water Table Present? Yes <u>X</u> No _____ Depth (inches): _____ 0.0 Saturation Present? Yes <u>X</u> No _____ Depth (inches): _____ 0.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-24-IN (MPJM112220211401-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-24-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 24, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.982168 Long: -111.899204 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 35 x5= _____ 175 Column Totals: _____ 35 (A) _____ 175 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Thinopyrum intermedium</u>	30	Yes	UPL	
2. <u>Bromus tectorum</u>	5	No	UPL	
3. <u>unknown forb</u>	1	No		
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
36				
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	60	% Cover of Biotic Crust ⁰		

Remarks:
 Upland vegetation community.

Hydrophytic Vegetation Indicators:
 _____ Dominance Test is >50%
 _____ Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present?
 Yes _____ No _____ X _____

SOIL

Sampling Point: W-24-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
---	---

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

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-24-OUT (MPJM112220211401-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-25-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 24, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.975349 Long: -111.894241 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phalaris arundinacea</u>	100	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/1	100					Silt Loam	
5-20	10YR 3/1	85	10YR 6/1	15	D	M	Silty Clay Loam	Redox is prominent.
	10YR 3/1	85	10YR 6/8	5	C	M		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

Remarks:
Hydric soil indicator F6 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 10.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-25-IN (MPJM112220211447-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-25-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 24, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.975332 Long: -111.894301 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Thinopyrum intermedium</u>	60	Yes	UPL	
2. <u>Agropyron cristatum</u>	50	Yes	UPL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	110	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Upland vegetation community.

Hydrophytic Vegetation Present? Yes _____ No _____ X _____
 *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

SOIL

Sampling Point: W-25-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (minimum of one required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-25-OUT (MPJM112220211447-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/4/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-26-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 24, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.973544 Long: -111.892719 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland. Soil pit not taken with hydrophytic vegetation and surface water.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. <u>Fraxinus pennsylvanica</u>	5	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	5	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ 100 x1= _____ 100 FACW species _____ 15 x2= _____ 30 FAC species _____ x3= _____ FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 115 (A) _____ 130 (B) <i>Prevalence Index = B/A=</i> _____ 1.13
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Carex nebrascensis</u>	90	Yes	OBL	
2. <u>Phragmites australis</u>	10	No	FACW	
3. <u>Schoenoplectus acutus</u>	10	No	OBL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	110	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>	_____	% Cover of Biotic Crust <u>0</u>	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-26-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
Hydric soils were assumed given the presence of obligate vegetation and surface water.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.0 Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/4/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-26-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 24, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Concave Slope(%): 7
 Subregion (LRR): D-Interior deserts Lat: 40.973483 Long: -111.892754 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 110 x5= _____ 550 Column Totals: _____ 110 (A) _____ 550 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Agropyron cristatum</u>	90	Yes	UPL	
2. <u>Bromus tectorum</u>	10	No	UPL	
3. <u>Cardaria draba</u>	10	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	110	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-27-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 24, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.973282 Long: -111.895581 Datum: WGS84
 Soil Map Unit Name: Ironton silt loam, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 95 x2= _____ 190 FAC species _____ 10 x3= _____ 30 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 105 (A) _____ 220 (B) <i>Prevalence Index = B/A=</i> _____ 2.10
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	<u>95</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Dipsacus fullonum</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>105</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-27-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 3/1	100					Silt Loam	
8-20	10YR 4/2	90	10YR 6/8	10	C	M	Silty Clay Loam	Redox is prominent.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ 15.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Problematic hydrology, dry time of the year.

Additional Reference Data: Photos

W-27-IN (MPJM112220211338-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-27-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 24, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.973263 Long: -111.895644 Datum: WGS84
 Soil Map Unit Name: Ironton silt loam, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Thinopyrum intermedium</u>	50	Yes	UPL	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
2. <u>Bromus inermis</u>	25	Yes	FACU	
3. <u>Bromus tectorum</u>	20	No	UPL	
4. <u>Hordeum pusillum</u>	10	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	105	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-27-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____ X
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Remarks:
No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-27-OUT (MPJM112220211338-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/4/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-28-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 30, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.966984 Long: -111.890544 Datum: WGS84
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
1. <u>Elaeagnus angustifolia</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Populus angustifolia</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>	
3. _____				
4. _____				
	<u>20</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>90</u> x1= <u>90</u> FACW species <u>20</u> x2= <u>40</u> FAC species <u>10</u> x3= <u>30</u> FACU species <u>5</u> x4= <u>20</u> UPL species _____ x5= <u>0</u> Column Totals: <u>125</u> (A) <u>180</u> (B) Prevalence Index = B/A= <u>1.44</u>
1. <u>Rosa woodsii</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	
2. _____				
3. _____				
4. _____				
5. _____				
	<u>5</u>	<u>= Total Cover</u>		
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Typha latifolia</u>	<u>90</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Phragmites australis</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	<u>100</u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____				
2. _____				
		<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-28-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 2/1	100					Clay loam	
7-16	10YR 2/1	93	7.5YR 4/6	7	C	M	Clay loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
Hydric soil indicator F6 present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input checked="" type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Biotic Crust (B12) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.0 Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-28-IN (JMLW110420210950-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/4/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-28-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 30, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.967121 Long: -111.890404 Datum: WGS84
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 67 (A/B)
1. <u>Populus fremontii</u>	10	Yes	FAC	
2. _____				
3. _____				
4. _____				
	10	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x1= _____ FACW species _____ 100 x2= _____ 200 FAC species _____ 20 x3= _____ 60 FACU species _____ 8 x4= _____ 32 UPL species _____ x5= _____ 0 Column Totals: _____ 128 (A) _____ 292 (B) <i>Prevalence Index = B/A=</i> _____ 2.28
1. <u>Rosa woodsii</u>	5	Yes	FACU	
2. _____				
3. _____				
4. _____				
5. _____				
	5	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	100	Yes	FACW	
2. <u>Dipsacus fullonum</u>	10	No	FAC	
3. <u>Cirsium arvense</u>	3	No	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	113	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-28-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 2/2	100					Silt Loam	
7-12	10YR 2/1	100					Silt Loam	
12-20	10YR 2/1	98	10YR 4/6	2	C	M	Silt Loam	Prominent redox

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____ X
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Remarks:
Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:		<i>Secondary Indicators (2 or more required)</i>
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

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): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-28-OUT (JMLW110420210950-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 5/23/2017
 Applicant/Owner: UDOT State: Utah Sampling Point: W-29-IN
 Investigators: Mike Perkins Section, Township, Range: S 25, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.964100 Long: -111.892075 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 20 x2= _____ 40 FAC species _____ 45 x3= _____ 135 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 65 (A) _____ 175 (B) <i>Prevalence Index = B/A=</i> _____ 2.69
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Dipsacus fullonum</u>	<u>45</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Phalaris arundinacea</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>65</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>40</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR 2/1	100					Silty Clay	
14-20	10YR 4/2	95	7.5YR 4/6	5	C	M	Clay Loam	Redox is prominent.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator A12 present.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 1.0	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.0	
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.0 (includes capillary fringe)	

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

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 5/23/2017
 Applicant/Owner: UDOT State: Utah Sampling Point: W-29-OUT
 Investigators: Mike Perkins Section, Township, Range: S 25, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Convex Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.964123 Long: -111.892053 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 No soil pit due to upland vegetation present.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 5 x3= _____ 15 FACU species _____ 20 x4= _____ 80 UPL species _____ 40 x5= _____ 200 Column Totals: _____ 65 (A) _____ 295 (B) <i>Prevalence Index = B/A=</i> _____ 4.54
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Cardaria draba</u>	<u>40</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Festuca pratensis</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Dipsacus fullonum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>65</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>30</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit due to upland vegetation.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
--	--

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

Remarks:
No soil pit. No wetland hydrology indicators present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-30-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 25, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.962282 Long: -111.892230 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 3 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 50 x2= _____ 100 FAC species _____ 30 x3= _____ 90 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 80 (A) _____ 190 (B) <i>Prevalence Index = B/A=</i> _____ 2.38
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Dipsacus fullonum</u>	30	Yes	FAC	
2. <u>Juncus arcticus</u>	30	Yes	FACW	
3. <u>Phalaris arundinacea</u>	20	Yes	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	80	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	20	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present. Vegetation has been mowed relatively recently and is beyond growing season. The vegetation was still readily identifiable.

SOIL

Sampling Point: W-30-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 2/1	100					Clay Loam	
9-16	10YR 4/2	60	10YR 4/6	10	C	M	Clay Loam	Redox is prominent.
	10YR 2/1	30						

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: <u>Rock</u> Depth (inches): <u>16</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator A11 present.

HYDROLOGY

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Soils are moist but not saturated. This is a dry time of year for a seasonal wetland.

Additional Reference Data: Photos

W-30-IN (MPJM111720221047-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-30-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 25, T 3N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Convex Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.962260 Long: -111.892320 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 5 x3= _____ 15 FACU species _____ x4= _____ 0 UPL species _____ 70 x5= _____ 350 Column Totals: _____ 75 (A) _____ 365 (B) <i>Prevalence Index = B/A=</i> _____ 4.87
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	<u>40</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Bromus tectorum</u>	<u>30</u>	<u>Yes</u>	<u>UPL</u>	
3. <u>Dipsacus fullonum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>75</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>25</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? Yes No Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:
No soil pit dug, no hydrology indicators observed.

Additional Reference Data: Photos

W-30-OUT (MPJM111720221047-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 5/22/2017
 Applicant/Owner: UDOT State: Utah Sampling Point: W-31-IN
 Investigators: Mike Perkins Section, Township, Range: S 31, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.955516 Long: -111.889972 Datum: WGS84
 Soil Map Unit Name: Cudahy silt loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 3 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 85 x2= _____ 170 FAC species _____ 40 x3= _____ 120 FACU species _____ 10 x4= _____ 40 UPL species _____ x5= _____ 0 Column Totals: _____ 135 (A) _____ 330 (B) <i>Prevalence Index = B/A=</i> _____ 2.44
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Juncus arcticus ssp. littoralis (J. balticus)</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Distichlis spicata</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Carex praegracilis</u>	<u>35</u>	<u>Yes</u>	<u>FACW</u>	
4. <u>Festuca pratensis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>135</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR 2/1	100					Silt Loam	
14-20	10YR 4/2	97	2.5Y 5/4	3	C	M	Silty Clay	Redox is distinct.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator A12 present.

HYDROLOGY

Wetland Hydrology Indicators:		<i>Secondary Indicators (2 or more required)</i>
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 8.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 5/22/2017
 Applicant/Owner: UDOT State: Utah Sampling Point: W-31-OUT
 Investigators: Mike Perkins Section, Township, Range: S 31, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.955484 Long: -111.889861 Datum: WGS84
 Soil Map Unit Name: Cudahy silt loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. This point is just above wetland where meadow fescue becomes dominant.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 50 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 25 x2= _____ 50 FAC species _____ x3= _____ 0 FACU species _____ 90 x4= _____ 360 UPL species _____ x5= _____ 0 Column Totals: _____ 115 (A) _____ 410 (B) <i>Prevalence Index = B/A=</i> _____ 3.57
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Festuca pratensis</u>	80	Yes	FACU	
2. <u>Juncus arcticus ssp. littoralis (J. balticus)</u>	25	Yes	FACW	
3. <u>Malva viscosa</u>	10	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	115	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Upland vegetation community. Mixed mesic pasture is not hydrophytic here as it becomes dominated by fescue above (east of) wetland.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 2/1	100					Silt Loam	
8-14	10YR 4/2	100					Clay Loam	Reduced Matrix
14-20	10YR 3/2	100					Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Remarks:
No hydric soil indicator present.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> X No <input type="checkbox"/> _____ Depth (inches): _____ 14.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 5/18/2017
 Applicant/Owner: UDOT State: Utah Sampling Point: W-32-IN
 Investigators: Mike Perkins Section, Township, Range: S 31, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.954366 Long: -111.890153 Datum: WGS84
 Soil Map Unit Name: Ironton silt loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland. This point extends wetland through most of this field (excluding upland fill) since the area between appears to be wetter.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover			_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover			_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	
1. <u>Distichlis spicata</u>	60	Yes	FAC	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2. <u>Festuca pratensis</u>	20	No	FACU	
3. <u>Juncus arcticus ssp. littoralis (J. balticus)</u>	20	No	FACW	
4. <u>Carex praegracilis</u>	15	No	FACW	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
115 = Total Cover			_____	
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover			_____	
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					Organic	
2-6	10YR 2/1	100					Silty Clay	
6-12	10YR 2/1	90	7.5YR 4/6	10	C	PL	Clay Loam	Redox is prominent.
12-20	10YR 4/1	90	10YR 6/1	10	D	M	Clay Loam	Redox is faint.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: _____	
Depth (inches): _____	

Remarks:
Hydric soil indicator F6 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ 16.0	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0	
(includes capillary fringe)	

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

Remarks:
Hydrology present with saturation and oxidized rhizospheres along living roots as primary hydrology indicators.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 5/18/2017
 Applicant/Owner: UDOT State: Utah Sampling Point: W-32-OUT
 Investigators: Mike Perkins Section, Township, Range: S 31, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.954250 Long: -111.889764 Datum: WGS84
 Soil Map Unit Name: Ironton silt loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 No soil pit due to lack of hydrophytic vegetation.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 25 x3= _____ 75 FACU species _____ 65 x4= _____ 260 UPL species _____ x5= _____ 0 Column Totals: _____ 90 (A) _____ 335 (B) <i>Prevalence Index = B/A=</i> _____ 3.72
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Festuca pratensis</u>	<u>65</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Lepidium latifolium</u>	<u>15</u>	<u>No</u>	<u>FAC</u>	
3. <u>Distichlis spicata</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>90</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>20</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit due to upland vegetation.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Currently raining, no hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-33-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 31, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.954080 Long: -111.889984 Datum: WGS84
 Soil Map Unit Name: Ironton silt loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 100 x2= _____ 200 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 100 (A) _____ 200 (B) <i>Prevalence Index = B/A=</i> _____ 2.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-33-IN

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks. Rows include 0-7 and 7-14 inch depths.

1Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

2Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils3:

Checklist of hydric soil indicators including Histosol (A1), Sandy Redox (S5), 1 cm Muck (A9) (LRR D), etc.

3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: Rock, Depth (inches): 14. Hydric Soil Present? Yes X No

Remarks: Hydric soil indicator F7 present.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (Surface Water, Saturation, etc.) and Secondary Indicators (Water Marks, Sediment Deposits, etc.).

Field Observations: Surface Water Present? Yes No X, Water Table Present? Yes No X, Saturation Present? Yes X No. Wetland Hydrology Present? Yes X No

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

Remarks: Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-33-IN (MPJM111720221151-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-33-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 31, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.954130 Long: -111.889987 Datum: WGS84
 Soil Map Unit Name: Ironton silt loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on fill pile with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____ 2. _____ 3. _____ 4. _____	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 20 x4= _____ 80 UPL species _____ 85 x5= _____ 425 Column Totals: _____ 105 (A) _____ 505 (B) <i>Prevalence Index = B/A= 4.81</i>
1. _____ 2. _____ 3. _____ 4. _____ 5. _____	_____ _____ _____ _____ _____	_____ _____ _____ _____ _____	_____ _____ _____ _____ _____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Bromus tectorum</u> _____ 85 Yes UPL 2. <u>Cichorium intybus</u> _____ 10 No FACU 3. <u>Cirsium arvense</u> _____ 10 No FACU 4. _____ 5. _____ 6. _____ 7. _____ 8. _____	_____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____	
= Total Cover	105			
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____ 2. _____	_____ _____	_____ _____	_____ _____	
= Total Cover				
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No _____ X _____

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:

No soil pit taken on fill pile with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
Water Table Present? Yes _____ No _____ Depth (inches): _____
Saturation Present? Yes _____ No _____ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No soil pit dug. No hydrology indicators observed.

Additional Reference Data: Photos

W-33-OUT (MPJM111720221151-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 6/26/2012
 Applicant/Owner: UDOT State: Utah Sampling Point: W-34-IN
 Investigators: Donovan Gross Section, Township, Range: S 31, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.950209 Long: -111.890365 Datum: WGS84
 Soil Map Unit Name: Ironton silt loam, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 3 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)	
1. _____	_____	_____	_____		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ 20 x1= _____ 20 FACW species _____ 40 x2= _____ 80 FAC species _____ 25 x3= _____ 75 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 85 (A) _____ 175 (B) <i>Prevalence Index = B/A=</i> _____ 2.06
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
	_____	= Total Cover	_____		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)					
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
	_____	= Total Cover	_____		
<u>Herb Stratum</u> (Plot size: 5 ft radius)					Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. <u>Juncus arcticus ssp. littoralis (J. balticus)</u>	20	Yes	FACW		
2. <u>Juncus torreyi</u>	20	Yes	FACW		
3. <u>Schoenoplectus pungens</u>	20	Yes	OBL		
4. <u>Trifolium fragiferum</u>	15	No	FAC		
5. <u>Xanthium strumarium</u>	10	No	FAC		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
	85	= Total Cover	_____		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
	_____	= Total Cover	_____		
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰	_____		

Remarks:
 Hydrophytic vegetation present.

SOILSampling Point: W-34-IN**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 4/2	100					Silty Clay Loam	
3-8	N 4/NONE	100					Clay	
8-18	N 7/NONE	100					Clay	

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)****Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**
 Type: _____
 Depth (inches): _____
Hydric Soil Present? Yes No

Remarks:

Hydric soil indicator F2 present.

HYDROLOGY**Wetland Hydrology Indicators:**

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

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:
 Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)
Wetland Hydrology Present? Yes No

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

Remarks:

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

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 7/16/2012
 Applicant/Owner: UDOT State: Utah Sampling Point: W-34-OUT
 Investigators: Trent Toler Section, Township, Range: S 31, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.950248 Long: -111.890274 Datum: WGS84
 Soil Map Unit Name: Ironton silt loam, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 12 x2= _____ 24 FAC species _____ 3 x3= _____ 9 FACU species _____ 50 x4= _____ 200 UPL species _____ x5= _____ 0 Column Totals: _____ 65 (A) _____ 233 (B) <i>Prevalence Index = B/A=</i> _____ 3.58
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Symphyotrichum spp.</u>	30	Yes	_____	
2. <u>Phleum pratense</u>	30	Yes	FACU	
3. <u>Festuca pratensis</u>	20	Yes	FACU	
4. <u>Carex praegracilis</u>	7	No	FACW	
5. <u>Juncus arcticus ssp. littoralis (J. balticus)</u>	5	No	FACW	
6. <u>Hordeum jubatum</u>	3	No	FAC	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	95	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-34-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/2	100					Clay Loam	
3-16	10YR 3/1	100					Silt Loam	
16-18	10YR 4/1	70	10YR 5/1	30	D	M	Silty Clay Loam	Redox is faint.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/> X <input type="checkbox"/>
Type: _____	
Depth (inches): _____	

Remarks:
No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input type="checkbox"/> X <input type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____	
(includes capillary fringe)	

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

Remarks:
No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-35-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 31, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.948463 Long: -111.890471 Datum: WGS84
 Soil Map Unit Name: Ironton silt loam, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland. Wetland swale that appears to convey stormwater drainage.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	100	Yes	FACW	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-35-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 2/2	100					Clay Loam	
4-20	10YR 5/1	100					Clay	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Soils were somewhat frozen, but saturation was present.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/17/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-35-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 31, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.948458 Long: -111.890518 Datum: WGS84
 Soil Map Unit Name: Ironton silt loam, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken in fill pile with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 5 x3= _____ 15 FACU species _____ 30 x4= _____ 120 UPL species _____ 40 x5= _____ 200 Column Totals: _____ 75 (A) _____ 335 (B) <i>Prevalence Index = B/A=</i> _____ 4.47
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum ponticum</u>	<u>40</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Schedonorus pratensis</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Poa pratensis</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>75</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>25</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Upland vegetation present.

SOIL

Sampling Point: W-35-OUT

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils:

- List of soil indicators including Histosol (A1), Sandy Redox (S5), 1 cm Muck (A9) (LRR D), etc.

Restrictive Layer (if present): Type: _____ Depth (inches): _____ Hydric Soil Present? Yes _____ No _____

Remarks: No soil pit taken on fill pile with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

- Primary Indicators (minimum of one required; check all that apply) and Secondary Indicators (2 or more required) list.

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Wetland Hydrology Present? Yes _____ No _____ X

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

Remarks: No soil pit, no indicators observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 6/4/2018
 Applicant/Owner: UDOT State: Utah Sampling Point: W-36-IN (SP 3)
 Investigators: Mike Perkins Section, Township, Range: S 1, T 2N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.933946 Long: -111.893388 Datum: WGS84
 Soil Map Unit Name: Roshe Springs silt loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Distichlis spicata</u>	70	Yes	FAC	
2. <u>Suaeda calceoliformis</u>	20	Yes	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
90 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-36-IN (SP 3)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/2	100					Silt Loam	
2-10	10YR 4/2	95	10YR 5/6	5	C	PL	Silty Clay Loam	Redox is prominent.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: <u>Rock</u> Depth (inches): <u>10</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

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

Remarks:
Hydrology present with oxidized rhizospheres along living roots as a primary hydrology indicator.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 6/4/2018
 Applicant/Owner: UDOT State: Utah Sampling Point: W-36-OUT (SP 4)
 Investigators: Mike Perkins Section, Township, Range: S 1, T 2N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): None Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.933934 Long: -111.893439 Datum: WGS84
 Soil Map Unit Name: Roshe Springs silt loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 10 x4= _____ 40 UPL species _____ 70 x5= _____ 350 Column Totals: _____ 80 (A) _____ 390 (B) <i>Prevalence Index = B/A=</i> _____ 4.88
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum ponticum</u>	<u>70</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Hordeum pusillum</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>80</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>25</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-36-OUT (SP 4)

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR 4/3	100					Silty Clay Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/> X <input type="checkbox"/>
Type: _____	
Depth (inches): _____	

Remarks:
No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input type="checkbox"/> X <input type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> X <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 16.0	
(includes capillary fringe)	

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

Remarks:
No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/18/2019
 Applicant/Owner: UDOT State: Utah Sampling Point: W-37-IN
 Investigators: Mike Perkins Section, Township, Range: S 6, T 3N, R 1E
 Landform (hillslope, terrace, etc.): _____ Local Relief (concave, convex, none): _____ Slope(%): _____
 Subregion (LRR): D-Interior deserts Lat: 40.932657 Long: -111.890414 Datum: WGS84
 Soil Map Unit Name: Chance loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 3 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 20 x2= _____ 40 FAC species _____ 10 x3= _____ 30 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 30 (A) _____ 70 (B) <i>Prevalence Index = B/A=</i> _____ 2.33
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Hordeum jubatum</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Echinochloa muricata</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Polypogon monspeliensis</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>30</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>70</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Organic	Peat
3-8	10YR 4/1	85	5YR 4/6	15	C	PL	Silt Loam	Redox is prominent.
8-20	10YR 2/1	100					Silt Loam	

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? Yes No Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:
Hydrology present with oxidized rhizospheres along living roots as a primary hydrology indicator.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/18/2019
 Applicant/Owner: UDOT State: Utah Sampling Point: W-37-OUT
 Investigators: Mike Perkins Section, Township, Range: S 6, T 3N, R 1E
 Landform (hillslope, terrace, etc.): _____ Local Relief (concave, convex, none): _____ Slope(%): _____
 Subregion (LRR): D-Interior deserts Lat: 40.932645 Long: -111.890488 Datum: WGS84
 Soil Map Unit Name: Chance loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 50 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 10 x2= _____ 20 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 30 x5= _____ 150 Column Totals: _____ 40 (A) _____ 170 (B) <i>Prevalence Index = B/A=</i> _____ 4.25
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Acroptilon repens</u>	<u>30</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Echinochloa muricata</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>40</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>60</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR 3/2	80					Loam	20% pebbly rock

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: <u>Rock</u> Depth (inches): <u>14</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Remarks:
No hydric soil indicator present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (minimum of one required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Dry soils. No hydrology present.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/1/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-38-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 12, T 2N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.921922 Long: -111.897211 Datum: WGS84
 Soil Map Unit Name: Chance loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 3 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. <u>Elaeagnus angustifolia</u>	5	Yes	FAC	
2. _____				
3. _____				
4. _____				
	5	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x1= _____ FACW species _____ 40 x2= _____ 80 FAC species _____ 85 x3= _____ 255 FACU species _____ 3 x4= _____ 12 UPL species _____ x5= _____ 0 Column Totals: _____ 128 (A) _____ 347 (B) Prevalence Index = B/A= _____ 2.71
1. <u>Rosa woodsii</u>	3	No	FACU	
2. _____				
3. _____				
4. _____				
5. _____				
	3	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Dipsacus fullonum</u>	80	Yes	FAC	
2. <u>Conium maculatum</u>	30	Yes	FACW	
3. <u>Juncus arcticus ssp. littoralis (J. balticus)</u>	10	No	FACW	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	120	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-38-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/1	100					Silt Loam	Root matter
6-15	10YR 2/1	100					Silt Loam	
15-21	10YR 5/1	98	10YR 4/6	2	C	PL	Clay Loam	Prominent redox
21-24	10YR 6/2	100					Clay Loam	

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
Hydric soil indicator A12 present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? Yes No Depth (inches): _____ 20.0
(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:
Problematic hydrology, dry time of the year.

Additional Reference Data: Photos

W-38-IN (JMMP110120211513-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/1/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-38-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 12, T 2N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.921993 Long: -111.897264 Datum: WGS84
 Soil Map Unit Name: Chance loam, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on fill piles with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 5 x2= _____ 10 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 50 x5= _____ 250 Column Totals: _____ 55 (A) _____ 260 (B) <i>Prevalence Index = B/A= 4.73</i>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Cardaria draba</u>	<u>50</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Conium maculatum</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>55</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>50</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-38-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR C)**
- 1 cm Muck (A9) **(LRR D)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) **(LRR C)**
- 2 cm Muck (A10) **(LRR B)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

No soil pit taken on fill piles with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Tables (A2)
- Saturation (A3)
- Water Marks (B1) **(Nonriverine)**
- Sediment Deposits (B2) **(Nonriverine)**
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) **(Riverine)**
- Sediment Deposits (B2) **(Riverine)**
- Drift Deposits (B3) **(Riverine)**
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? Yes No Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

No hydrology present.

Additional Reference Data: Photos

W-38-OUT (JMMP110120211513-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-39-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 2, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.842413 Long: -111.916153 Datum: WGS84
 Soil Map Unit Name: Timpanogos loam, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. <u>Gleditsia triacanthos</u>	20	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	20	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 100 x2= _____ 200 FAC species _____ 20 x3= _____ 60 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 120 (A) _____ 260 (B) <i>Prevalence Index = B/A= _____ 2.17</i>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	100	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>	_____	% Cover of Biotic Crust ⁰ _____		Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-39-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 5/1	100					Silt Loam	
2-9	10YR 4/2	100					Silt Loam	
9-18	10YR 5/2	95	10YR 4/6	5	C	M	Silt Loam	Prominent redox

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Biotic Crust (B12) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 8.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-39-IN (JMLW102820211307-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-39-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 12, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.842440 Long: -111.916123 Datum: WGS84
 Soil Map Unit Name: Timpanogos loam, 1 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 90 x5= _____ 450 Column Totals: _____ 90 (A) _____ 450 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Tribulus terrestris</u>	50	Yes	UPL	
2. <u>Thinopyrum intermedium</u>	30	Yes	UPL	
3. <u>Agropyron cristatum</u>	10	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	90	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-39-OUT

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks.

1Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

2Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils3:

- ___ Histosol (A1)
___ Sandy Redox (S5)
___ Histic Epipedon (A2)
___ Stripped Matrix (S6)
___ Black Histic (A3)
___ Loamy Mucky Mineral (F1)
___ Hydrogen Sulfide (A4)
___ Loamy Gleyed Matrix (F2)
___ Stratified Layers (A5) (LRR C)
___ Depleted Matrix (F3)
___ 1 cm Muck (A9) (LRR D)
___ Redox Dark Surface (F6)
___ Depleted Below Dark Surface (A11)
___ Depleted Dark Surface (F7)
___ Thick Dark Surface (A12)
___ Redox Depressions (F8)
___ Sandy Mucky Mineral (S1)
___ Vernal Pools (F9)
___ Sandy Gleyed Matrix (S4)

- ___ 1 cm Muck (A9) (LRR C)
___ 2 cm Muck (A10) (LRR B)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

Table with columns: Primary Indicators (minimum of one required; check all that apply), Secondary Indicators (2 or more required). Lists various indicators like Surface Water, High Water Tables, Saturation, etc.

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No X

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

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-39-OUT (JMLW102820211307-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-40-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 10, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.834329 Long: -111.937619 Datum: WGS84
 Soil Map Unit Name: Payson-Warm Springs complex, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <u>0</u>			

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-40-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 6/1	100					Silty Clay Loam	
3-16	10YR 7/2	100					Clay Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
--	---

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input checked="" type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Biotic Crust (B12) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 9.0 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 4.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-40-IN (JMLW102820211409-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-40-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 10, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.834391 Long: -111.937657 Datum: WGS84
 Soil Map Unit Name: Payson-Warm Springs complex, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 80 x5= _____ 400 Column Totals: _____ 80 (A) _____ 400 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Pseudoroegneria spicata</u>	40	Yes	UPL	
2. <u>Convolvulus arvensis</u>	20	Yes	UPL	
3. <u>Bromus tectorum</u>	10	No	UPL	
4. <u>Tribulus terrestris</u>	10	No	UPL	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	80	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	20	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-40-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-40-OUT (JMLW102820211409-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-41-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 10, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.833558 Long: -111.937540 Datum: WGS84
 Soil Map Unit Name: Payson-Warm Springs complex, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Distichlis spicata</u>	<u>99</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Sarcocornia utahensis</u>	<u>1</u>	<u>No</u>	<u>OBL</u>	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	_____
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	_____
_____ = Total Cover	<u>100</u>	_____	_____	
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	_____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	_____
_____ = Total Cover	_____	_____	_____	
% Bare Ground in Herb Stratum <u>0</u>	_____	% Cover of Biotic Crust ⁰ _____	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-41-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 4/1	100					Silt Loam	
5-18	10YR 6/2	99	10YR 5/8	1	C	M	Loamy Sand	Prominent redox

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input checked="" type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Biotic Crust (B12) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.0 Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.5 Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.5 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
--	---

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

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-41-IN (JMLW102820211444-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-41-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 10, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.833623 Long: -111.937571 Datum: WGS84
 Soil Map Unit Name: Payson-Warm Springs complex, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. <u>Pseudoroegneria spicata</u>	90	Yes	UPL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____	90	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-41-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/2	100					Silt Loam	
2-10	10YR 5/2	99	10YR 5/8	1	C	M	Silt Loam	Prominent redox
10-14	10YR 2/1	100					Silt Loam	
14-20	10YR 5/2	100					Silt Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/> X <input checked="" type="checkbox"/>
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Remarks:
Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input type="checkbox"/> X <input checked="" type="checkbox"/>
---	--

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

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-41-OUT (JMLW102820211444-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/08/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-42-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 10, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.831750 Long: -111.945437 Datum: WGS84
 Soil Map Unit Name: Chipman silty clay loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
8. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	
1. <u>Phalaris arundinacea</u>	90	Yes	FACW	
2. <u>Dipsacus fullonum</u>	5	No	FAC	
3. <u>Thinopyrum intermedium</u>	5	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover	100	_____	_____	
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
% Bare Ground in Herb Stratum <u>0</u>	_____	% Cover of Biotic Crust ⁰ _____	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-42-OUT

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks. Row 1: 0-24, 10YR 3/1, 100, Clay Loam.

1Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

2Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils3:

- ___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (LRR C)
___ 1 cm Muck (A9) (LRR D)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

- ___ 1 cm Muck (A9) (LRR C)
___ 2 cm Muck (A10) (LRR B)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes ___ No ___ X

Remarks:

Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Table with columns: Primary Indicators (minimum of one required; check all that apply), Secondary Indicators (2 or more required). Rows include Surface Water (A1), High Water Tables (A2), Saturation (A3), Water Marks (B1) (Nonriverine), Sediment Deposits (B2) (Nonriverine), Surface Soil Cracks (B6), Inundation Visible on Aerial Imagery (B7), Water-Stained Leaves (B9), Salt Crust (B11), Biotic Crust (B12), Aquatic Invertebrates (B13), Hydrogen Sulfide Odor (C1), Oxidized Rhizospheres along Living Roots (C3), Recent Iron Reduction in Tilled Soils (C6), Thin Muck Surface (C7), Other (Explain in Remarks), Water Marks (B1) (Riverine), Sediment Deposits (B2) (Riverine), Drift Deposits (B3) (Riverine), Drainage Patterns (B10), Dry-Season Water Table (C2), Saturation Visible on Aerial Imagery (C9), Shallow Aquitard (D3), FAC-Neutral Test (D5).

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):
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No ___ X

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

Remarks:

No hydrology present.

Additional Reference Data: Photos

W-42-OUT (JMLW110820211410-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/08/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-43-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 10, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.831227 Long: -111.945740 Datum: WGS84
 Soil Map Unit Name: Chipman silty clay loam, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x1= _____ FACW species _____ 100 x2= _____ 200 FAC species _____ 10 x3= _____ 30 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 110 (A) _____ 230 (B)
1. <u>Tamarix chinensis</u>	10	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	10	= Total Cover	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Prevalence Index = B/A= _____ 2.09
1. <u>Phragmites australis</u>	100	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size:)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum <u>0</u>	_____	% Cover of Biotic Crust <u>0</u>	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-43-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-19	10YR 3/1	100					Silty Clay Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____ X _____
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Remarks:
Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

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): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-43-OUT (JMLW110820211440-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-44-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 10, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.834258 Long: -111.934575 Datum: WGS84
 Soil Map Unit Name: Payson-Warm Springs complex, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Distichlis spicata</u>	100	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
100 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOILSampling Point: W-44-IN**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					Silt Loam	
2-9	10YR 4/2	100					Silt Loam	
9-15	10YR 7/2	97	10YR 4/6	3	C	M	Silt Loam	Prominent redox

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)****Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**
 Type: _____
 Depth (inches): _____
Hydric Soil Present? Yes No

Remarks:

Hydric soil indicator A4 present.

HYDROLOGY**Wetland Hydrology Indicators:**

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

Secondary Indicators (2 or more required)

<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:
 Surface Water Present? Yes No _____ Depth (inches): _____ 0.5
 Water Table Present? Yes No _____ Depth (inches): _____ 2.0
 Saturation Present? Yes No _____ Depth (inches): _____ 0.5
 (includes capillary fringe)
Wetland Hydrology Present? Yes No _____

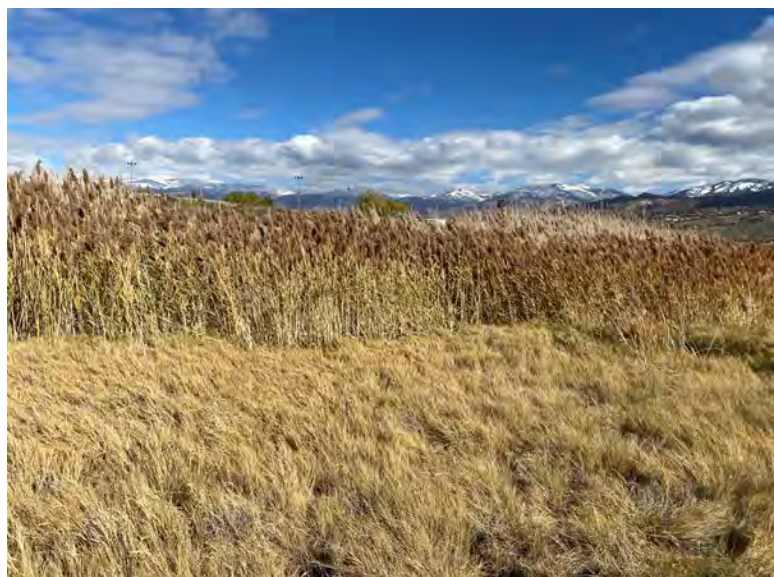
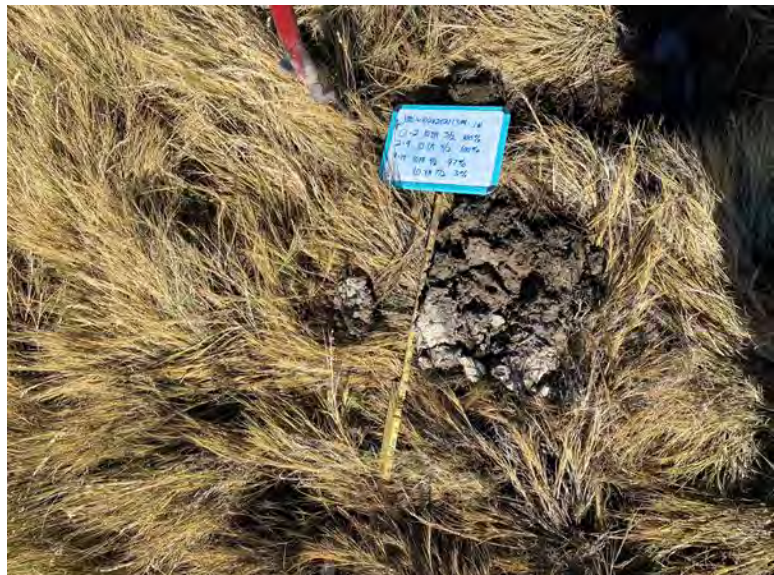
Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Additional Reference Data: Photos

W-44-IN (JMLW102820211349-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-44-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 10, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Shoulder Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.834237 Long: -111.934563 Datum: WGS84
 Soil Map Unit Name: Payson-Warm Springs complex, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 50 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 40 x3= _____ 120 FACU species _____ x4= _____ 0 UPL species _____ 35 x5= _____ 175 Column Totals: _____ 75 (A) _____ 295 (B) <i>Prevalence Index = B/A=</i> _____ 3.93
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Bassia scoparia</u>	40	Yes	FAC	
2. <u>Pseudoroegneria spicata</u>	30	Yes	UPL	
3. <u>Tribulus terrestris</u>	5	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	75	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	25	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-44-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
--	---	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary Indicators (2 or more required)</u> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
--	--	--

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-44-OUT (JMLW102820211349-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/08/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-45-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 10, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.833695 Long: -111.934544 Datum: WGS84
 Soil Map Unit Name: Payson-Warm Springs complex, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Hydrophytic vegetation present.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Distichlis spicata</u>	100	Yes	FAC	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

SOILSampling Point: W-45-IN**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/1	100					Silty Clay Loam	
2-7	10YR 5/2	75	10YR 5/8	25	C	M	Silty Clay Loam	Redox is prominent.
7-12	10YR 4/1	100					Silty Clay Loam	

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)****Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**

Type: Cobble

Depth (inches): 12**Hydric Soil Present?** Yes No

Remarks:

Hydric soil indicator F3 present.

HYDROLOGY**Wetland Hydrology Indicators:**

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

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:Surface Water Present? Yes No Depth (inches): _____Water Table Present? Yes No Depth (inches): 12.0Saturation Present? Yes No Depth (inches): 1.0

(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-45-IN (JMLW110820211216-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/08/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-45-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 10, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.833744 Long: -111.934510 Datum: WGS84
 Soil Map Unit Name: Payson-Warm Springs complex, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 50 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 40 x2= _____ 80 FAC species _____ x3= _____ 0 FACU species _____ 10 x4= _____ 40 UPL species _____ 40 x5= _____ 200 Column Totals: _____ 90 (A) _____ 320 (B) <i>Prevalence Index = B/A=</i> _____ 3.56
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Deschampsia caespitosa</u>	40	Yes	FACW	
2. <u>Thinopyrum intermedium</u>	40	Yes	UPL	
3. <u>Bassia hyssopifolia</u>	10	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	90	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-45-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-45-OUT (JMLW110820211216-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/08/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-46-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 10, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.832886 Long: -111.935002 Datum: WGS84
 Soil Map Unit Name: Payson-Warm Springs complex, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 98 x3= _____ 294 FACU species _____ x4= _____ 0 UPL species _____ 2 x5= _____ 10 Column Totals: _____ 100 (A) _____ 304 (B) <i>Prevalence Index = B/A=</i> _____ 3.04
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Distichlis spicata</u>	<u>98</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Krascheninnikovia Lanata</u>	<u>2</u>	<u>No</u>	<u>UPL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-46-IN

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks. Rows include depths 0-6, 6-13, and 13-17 inches.

1Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

2Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils3:

Table listing hydric soil indicators (A1-A11, S1-S6) and problematic hydric soil indicators (A9-A10, F1-F9, TF2). Includes checkboxes and a note about hydrophytic vegetation.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:

Table with columns: Primary Indicators (minimum of one required; check all that apply) and Secondary Indicators (2 or more required). Lists indicators A1-A9, B1-B13, C1-C9, D3, D5.

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): 12.0
(includes capillary fringe)

Wetland Hydrology Present? Yes X No

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

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-46-IN (JMLW110820211149-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/08/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-46-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 10, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.832805 Long: -111.934947 Datum: WGS84
 Soil Map Unit Name: Payson-Warm Springs complex, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 50 x4= _____ 200 UPL species _____ 20 x5= _____ 100 Column Totals: _____ 70 (A) _____ 300 (B) <i>Prevalence Index = B/A=</i> _____ 4.29
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Bassia hyssopifolia</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Bromus tectorum</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>70</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>30</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-46-OUT

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks.

1Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

2Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils3:

- ___ Histosol (A1)
___ Sandy Redox (S5)
___ Histic Epipedon (A2)
___ Stripped Matrix (S6)
___ Black Histic (A3)
___ Loamy Mucky Mineral (F1)
___ Hydrogen Sulfide (A4)
___ Loamy Gleyed Matrix (F2)
___ Stratified Layers (A5) (LRR C)
___ Depleted Matrix (F3)
___ 1 cm Muck (A9) (LRR D)
___ Redox Dark Surface (F6)
___ Depleted Below Dark Surface (A11)
___ Depleted Dark Surface (F7)
___ Thick Dark Surface (A12)
___ Redox Depressions (F8)
___ Sandy Mucky Mineral (S1)
___ Vernal Pools (F9)
___ Sandy Gleyed Matrix (S4)

- ___ 1 cm Muck (A9) (LRR C)
___ 2 cm Muck (A10) (LRR B)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ___ No ___

Remarks:

No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Table with columns: Primary Indicators (minimum of one required; check all that apply), Secondary Indicators (2 or more required). Lists various indicators like Surface Water, High Water Tables, Saturation, etc.

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): _____
Water Table Present? Yes ___ No ___ Depth (inches): _____
Saturation Present? Yes ___ No ___ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No ___ X

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

Remarks:

No hydrology present.

Additional Reference Data: Photos

W-46-OUT (JMLW110820211149-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/08/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-47-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 10, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.832822 Long: -111.935191 Datum: WGS84
 Soil Map Unit Name: Payson-Warm Springs complex, 0 to 3 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Distichlis spicata</u>	70	Yes	FAC	
2. <u>Bassia scoparia</u>	30	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
100 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-47-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 4/2	100					Silt Loam	
4-15	10YR 6/2	90	10YR 4/6	10	C	M	Silt Loam	Redox is prominent.
15-19	10YR 2/1	100					Silt Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
--	---

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 9.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-47-IN (JMLW110820211145-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-48-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 11, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 40
 Subregion (LRR): D-Interior deserts Lat: 40.833085 Long: -111.913567 Datum: WGS84
 Soil Map Unit Name: Gravel pits NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 3 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	40	Yes	FACW	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2. <u>Distichlis spicata</u>	20	Yes	FAC	
3. <u>Juncus arcticus ssp. littoralis (J. balticus)</u>	20	Yes	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	20	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-48-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/2	100					Silt Loam	
2-14	10YR 4/2	96	7.5YR 4/6	4	C	M	Sandy Loam	Redox is prominent.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: Cobble Depth (inches): <u>14</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)	
Primary Indicators (minimum of one required; check all that apply)			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)	
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0.0</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4.0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8.0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-48-IN (JMLW102820211350-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-48-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 11, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 40
 Subregion (LRR): D-Interior deserts Lat: 40.833102 Long: -111.913532 Datum: WGS84
 Soil Map Unit Name: Gravel pits NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 10 x2= _____ 20 FAC species _____ x3= _____ 0 FACU species _____ 30 x4= _____ 120 UPL species _____ 40 x5= _____ 200 Column Totals: _____ 80 (A) _____ 340 (B) <i>Prevalence Index = B/A=</i> _____ 4.25
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Tribulus terrestris</u>	40	Yes	UPL	
2. <u>Ambrosia artemisiifolia</u>	20	Yes	FACU	
3. <u>Grindelia squarrosa</u>	10	No	FACU	
4. <u>Phragmites australis</u>	10	No	FACW	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	80	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	20	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-48-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	7.5YR 4/6	100					Silt Loam	
6-14	10YR 4/3	100					Silty Clay Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: Cobble Depth (inches): 14	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Remarks:
Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-48-OUT (JMLW102820211348-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/01/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-49-OUT
 Investigators: Amy Croft, Lacey Wilder Section, Township, Range: S 11, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.831220 Long: -111.916710 Datum: WGS84
 Soil Map Unit Name: Kidman fine sandy loam, 6 to 10 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	100	Yes	FACW	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-49-OUT

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks. Rows include 0-6 inches (Sandy Loam) and 6-18 inches (Sand).

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

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

Indicators for Problematic Hydric Soils3:

Checklist of hydric soil indicators including Histosol (A1), Histic Epipedon (A2), Black Histic (A3), Hydrogen Sulfide (A4), Stratified Layers (A5), 1 cm Muck (A9), Depleted Below Dark Surface (A11), Thick Dark Surface (A12), Sandy Mucky Mineral (S1), Sandy Gleyed Matrix (S4), Sandy Redox (S5), Stripped Matrix (S6), Loamy Mucky Mineral (F1), Loamy Gleyed Matrix (F2), Depleted Matrix (F3), Redox Dark Surface (F6), Depleted Dark Surface (F7), Redox Depressions (F8), Vernal Pools (F9), 1 cm Muck (A9), 2 cm Muck (A10), Reduced Vertic (F18), Red Parent Material (TF2), Other (Explain in Remarks).

3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No _____ X _____

Remarks:
Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Table with columns: Primary Indicators (minimum of one required; check all that apply), Secondary Indicators (2 or more required). Rows include Surface Water (A1), High Water Tables (A2), Saturation (A3), Water Marks (B1), Sediment Deposits (B2), Surface Soil Cracks (B6), Inundation Visible on Aerial Imagery (B7), Water-Stained Leaves (B9), Salt Crust (B11), Biotic Crust (B12), Aquatic Invertebrates (B13), Hydrogen Sulfide Odor (C1), Oxidized Rhizospheres along Living Roots (C3), Recent Iron Reduction in Tilled Soils (C6), Thin Muck Surface (C7), Other (Explain in Remarks), Water Marks (B1), Sediment Deposits (B2), Drift Deposits (B3), Drainage Patterns (B10), Dry-Season Water Table (C2), Saturation Visible on Aerial Imagery (C9), Shallow Aquitard (D3), FAC-Neutral Test (D5).

Field Observations:

Surface Water Present? Yes _____ No X _____ Depth (inches): _____
Water Table Present? Yes _____ X No _____ Depth (inches): 12.0
Saturation Present? Yes _____ X No _____ Depth (inches): 0.0
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ X No _____

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

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-49-OUT (ACLW110120211512-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/01/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-50-IN
 Investigators: Amy Croft, Lacey Wilder Section, Township, Range: S 11, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.831071 Long: -111.917536 Datum: WGS84
 Soil Map Unit Name: Kidman fine sandy loam, 6 to 10 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	100	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
100 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-50-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 5/2	95	7.5YR 4/6	5	C	M	Silty Clay Loam	Redox is prominent.
7-16	2.5Y 5/1	80	7.5YR 4/6	20	C		Silty Clay Loam	Redox is prominent.

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
--	---

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with oxidized rhizospheres along living roots as a primary hydrology indicator.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/01/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-50-OUT
 Investigators: Amy Croft, Lacey Wilder Section, Township, Range: S 11, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): None Slope(%): 10
 Subregion (LRR): D-Interior deserts Lat: 40.831085 Long: -111.917503 Datum: WGS84
 Soil Map Unit Name: Kidman fine sandy loam, 6 to 10 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ 2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
4. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet:
1. <u>Ericameria nauseosa</u>	30	Yes	UPL	<u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____
2. _____	_____	_____	_____	OBL species _____ x1= _____
3. _____	_____	_____	_____	FACW species _____ x2= _____ 0
4. _____	_____	_____	_____	FAC species _____ x3= _____ 0
5. _____	_____	_____	_____	FACU species _____ x4= _____ 0
	30	= Total Cover	_____	UPL species _____ 95 x5= _____ 475
				Column Totals: _____ 95 (A) _____ 475 (B)
				<i>Prevalence Index = B/A=</i> _____ 5.00
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators:
1. <u>Thinopyrum intermedium</u>	60	Yes	UPL	_____ Dominance Test is >50%
2. <u>Unknown grass</u>	5	No	_____	_____ Prevalence Index is ≤3.0 ¹
3. <u>Convolvulus arvensis</u>	5	No	UPL	_____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	_____ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	70	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum	30	% Cover of Biotic Crust ⁰	_____	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-50-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X _____
---	--

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

Remarks:
No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/1/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-51-IN
 Investigators: Amy Croft, Lacey Wilder Section, Township, Range: S 11, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.830578 Long: -111.916861 Datum: WGS84
 Soil Map Unit Name: Kidman fine sandy loam, 6 to 10 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 4 (A) Total Number of Dominant Species Across All Strata: _____ 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. <u>Populus angustifolia</u>	30	Yes	FACW	
2. <u>Elaeagnus angustifolia</u>	20	Yes	FAC	
3. <u>Tamarix chinensis</u>	20	Yes	FAC	
4. <u>Ulmus pumila</u>	10	No	UPL	
	80	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Prevalence Index worksheet: <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species _____ 130 x2= _____ 260 FAC species _____ 40 x3= _____ 120 FACU species _____ x4= _____ 0 UPL species _____ 20 x5= _____ 100 Column Totals: _____ 190 (A) _____ 480 (B) <i>Prevalence Index = B/A=</i> _____ 2.53
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ ____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	100	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>	_____	% Cover of Biotic Crust ⁰ _____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-51-IN

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks. Multiple empty rows for data entry.

1Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

2Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils3:

- ___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
X Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (LRR C)
___ 1 cm Muck (A9) (LRR D)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

- ___ 1 cm Muck (A9) (LRR C)
___ 2 cm Muck (A10) (LRR B)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
Hydric soil indicator A4 present. No further digging after hydrogen sulfide odor was identified.

HYDROLOGY

Wetland Hydrology Indicators:

Table with columns: Primary Indicators (minimum of one required; check all that apply), Secondary Indicators (2 or more required). Rows include Surface Water, High Water Tables, Saturation, Water Marks, Sediment Deposits, Surface Soil Cracks, Inundation Visible on Aerial Imagery, Water-Stained Leaves, Salt Crust, Biotic Crust, Aquatic Invertebrates, Hydrogen Sulfide Odor, Oxidized Rhizospheres, Recent Iron Reduction, Thin Muck Surface, Other, Water Marks, Sediment Deposits, Drift Deposits, Drainage Patterns, Dry-Season Water Table, Saturation Visible on Aerial Imagery, Shallow Aquitard, FAC-Neutral Test.

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches):
Water Table Present? Yes X No Depth (inches): 0.5
Saturation Present? Yes X No Depth (inches): 0.0
(includes capillary fringe)

Wetland Hydrology Present? Yes X No

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

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

Additional Reference Data: Photos

W-51-IN (ACLW110120211532-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 11/1/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-51-OUT
 Investigators: Amy Croft, Lacey Wilder Section, Township, Range: S 11, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.830595 Long: -111.916912 Datum: WGS84
 Soil Map Unit Name: Kidman fine sandy loam, 6 to 10 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 25 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	= Total Cover
Sapling/Shrub Stratum (Plot size: 15 ft radius)				
1. <u>Artemisia tridentata</u>	5	Yes	UPL	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 30 x3= _____ 90 FACU species _____ 20 x4= _____ 80 UPL species _____ 10 x5= _____ 50 Column Totals: _____ 60 (A) _____ 220 (B) <i>Prevalence Index = B/A = _____ 3.67</i>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Herb Stratum (Plot size: 5 ft radius)				
1. <u>Unknown grass</u>	30	Yes	_____	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Bassia scoparia</u>	30	Yes	FAC	
3. <u>Grindelia squarrosa</u>	20	Yes	FACU	
4. <u>Helianthus petiolaris</u>	5	No	UPL	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Woody Vine Stratum (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	15	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOILSampling Point: W-51-OUT**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**
 Type: _____
 Depth (inches): _____
Hydric Soil Present? Yes _____ No _____

Remarks:

No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY**Wetland Hydrology Indicators:**

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

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:
 Surface Water Present? Yes _____ No _____ Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes _____ No _____ Depth (inches): _____
 (includes capillary fringe)
Wetland Hydrology Present? Yes _____ No _____ X _____

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

Remarks:

No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 3/27/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-52-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 11, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.827329 Long: -111.917328 Datum: WGS84
 Soil Map Unit Name: Ackmen loam, 6 to 10 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	100	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-52-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	7.5YR 2/2	100					Sand	Gravel
3-9	7.5YR 5/6	100					Sand	Gravel
9-15	10YR 4/1	95	7.5YR 5/8	5	C	M	Silt Loam	Redox is prominent.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 10.0 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 2.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 3/27/2022
 Applicant/Owner: UDOT State: Utah Sampling Point: W-52-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 11, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.827327 Long: -111.917371 Datum: WGS84
 Soil Map Unit Name: Ackmen loam, 6 to 10 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 5 x5= _____ 25 Column Totals: _____ 5 (A) _____ 25 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Cardaria draba</u>	<u>5</u>	<u>Yes</u>	<u>UPL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>95</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Upland vegetation community.

Hydrophytic Vegetation Present? Yes _____ No _____ X _____

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes _____ No _____ X
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> X Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> X Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> X Depth (inches): _____ (includes capillary fringe)	

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

Remarks:
No hydrology present.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/8/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-53-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 10
 Subregion (LRR): D-Interior deserts Lat: 40.818234 Long: -111.918507 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Distichlis spicata</u>	80	Yes	FAC	
2. <u>Phragmites australis</u>	20	Yes	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
100 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-53-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 4/1	98	10YR 4/6	2	C	M	Silty Clay Loam	Redox is prominent.
10-17	10YR 5/1	100					Silty Clay Loam	Gravelly

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: Cobble	
Depth (inches): 17	

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.5	
(includes capillary fringe)	

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

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-53-IN (JMLW110820211533a-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/8/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-53-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.818230 Long: -111.918534 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 40 x4= _____ 160 UPL species _____ 70 x5= _____ 350 Column Totals: _____ 110 (A) _____ 510 (B) Prevalence Index = B/A= _____ 4.64
1. <u>Ericameria nauseosa</u>	20	Yes	UPL	
2. <u>Gutierrezia sarothrae</u>	10	_____	UPL	
3. <u>Artemisia tridentata</u>	10	Yes	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	40	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Grindelia squarrosa</u>	40	Yes	FACU	
2. <u>Thinopyrum intermedium</u>	20	Yes	UPL	
3. <u>Pentagramma triangularis</u>	10	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	70	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover		
% Bare Ground in Herb Stratum	30	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:
 No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:
 Surface Water Present? Yes _____ No _____ Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes _____ No _____ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No _____ **X**

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

Remarks:
 No hydrology present.

Additional Reference Data: Photos

W-53-OUT (JMLW110820211533a-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/19/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-54-IN
 Investigators: Mike Perkins Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.818227 Long: -111.920502 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland. Soil pit not taken with hydrophytic vegetation and surface water.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 105 x2= _____ 210 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 105 (A) _____ 210 (B) <i>Prevalence Index = B/A=</i> _____ 2.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Juncus arcticus ssp. littoralis (J. balticus)</u>	<u>90</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Phragmites australis</u>	<u>15</u>	<u>No</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>105</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Hydrophytic vegetation present.

Additional Reference Data: Photos

W-54-IN (MP111920211552-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/19/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-54-OUT
 Investigators: Mike Perkins Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.818154 Long: -111.920493 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 50 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 45 x3= _____ 135 FACU species _____ x4= _____ 0 UPL species _____ 60 x5= _____ 300 Column Totals: _____ 105 (A) _____ 435 (B) <i>Prevalence Index = B/A=</i> _____ 4.14
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	60	Yes	UPL	
2. <u>Distichlis spicata</u>	40	Yes	FAC	
3. <u>Dipsacus fullonum</u>	5	No	FAC	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	105	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/2	100					Silt Loam	
6-16	10YR 5/3	100					Silty Clay	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: <u>Rock</u> Depth (inches): <u>16</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Remarks:
Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (minimum of one required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-54-OUT (MP111920211552-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/19/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-55-IN
 Investigators: Mike Perkins Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.817471 Long: -111.921872 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Distichlis spicata</u>	50	Yes	FAC	
2. <u>Dipsacus fullonum</u>	15	No	FAC	
3. <u>Phragmites australis</u>	5	No	FACW	
4. <u>Sporobolus airoides</u>	40	Yes	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
110 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-55-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/1	100					Silt Loam	
4-8	10YR 5/2	80	10YR 6/8	5	C	M	Silty Clay Loam	Redox is prominent.
	10YR 3/2	15						
8-13	10YR 2/2	85	10YR 6/8	5	C	M	Silty Clay	Redox is prominent.
	10YR 3/1	10						

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: <u>Rock</u> Depth (inches): <u>13</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator A11 and F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10.0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-55-IN (MP111920211529-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/19/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-55-OUT
 Investigators: Mike Perkins Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.817444 Long: -111.921807 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 50 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 35 x3= _____ 105 FACU species _____ 55 x4= _____ 220 UPL species _____ 10 x5= _____ 50 Column Totals: _____ 100 (A) _____ 375 (B) <i>Prevalence Index = B/A=</i> _____ 3.75
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Cardaria draba</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Distichlis spicata</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Helianthus annuus</u>	<u>15</u>	<u>No</u>	<u>FACU</u>	
4. <u>Dipsacus fullonum</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
5. <u>Onopordum Acanthium</u>	<u>10</u>	<u>No</u>	<u>UPL</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/1	100					Silt Loam	
5-11	10YR 5/2	70	10YR 6/8	5	C	M	Silty Clay Loam	Redox is prominent.
	10YR 3/2	25						
11-17	10YR 7/2	85					Silty Clay	
	10YR 3/1	15						

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-55-OUT (MP111920211529-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/19/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-56-OUT
 Investigators: Mike Perkins Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.816602 Long: -111.920669 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 100 x2= _____ 200 FAC species _____ x3= _____ 0 FACU species _____ 5 x4= _____ 20 UPL species _____ x5= _____ 0 Column Totals: _____ 105 (A) _____ 220 (B) <i>Prevalence Index = B/A=</i> _____ 2.10
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	100	Yes	FACW	
2. <u>Erigeron canadensis</u>	5	No	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	105	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	35	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-56-OUT

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks. Rows include 0-2 and 2-14 inch depths.

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

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

Indicators for Problematic Hydric Soils3:

Checklist of hydric soil indicators including Histosol (A1), Histic Epipedon (A2), Black Histic (A3), Hydrogen Sulfide (A4), etc. Includes a note about hydrophytic vegetation indicators.

Restrictive Layer (if present): Type: Rock, Depth (inches): 14. Hydric Soil Present? Yes No X

Remarks: Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators table with columns: Primary Indicators (minimum of one required; check all that apply), Secondary Indicators (2 or more required). Includes items like Surface Water (A1), High Water Tables (A2), etc.

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

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

Remarks: No hydrology present.

Additional Reference Data: Photos

W-56-OUT (MP111920211618-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/3/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-57-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.815605 Long: -111.922271 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Distichlis spicata</u>	90	Yes	FAC	
2. <u>Bassia hyssopifolia</u>	10	No	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
100 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-57-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-11	10YR 4/2	80	10YR 5/8	5	C	M	Silty Clay Loam	Redox is prominent.
	10YR 7/2	15						
11-20	10YR 5/2	85	10YR 5/8	5	C	M	Silty Clay Loam	Redox is prominent.
	10YR 7/1	10						

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Problematic hydrology, dry time of year.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/3/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-57-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.815629 Long: -111.922203 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 10 x3= _____ 30 FACU species _____ 15 x4= _____ 60 UPL species _____ 75 x5= _____ 375 Column Totals: _____ 100 (A) _____ 465 (B) <i>Prevalence Index = B/A=</i> _____ 4.65
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	75	Yes	UPL	
2. <u>Distichlis spicata</u>	10	No	FAC	
3. <u>Bassia hyssopifolia</u>	10	No	FACU	
4. <u>Lepidium perfoliatum</u>	5	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					Silt Loam	
2-7	10YR 4/2	95	10YR 4/6	5	C	M	Silt Loam	Prominent redox
7-12	10YR 5/2	90	10YR 4/6	10	C	M	Silt Loam	Prominent redox

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? Yes No Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:
No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/3/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-58-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.814928 Long: -111.922429 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 10 x2= _____ 20 FAC species _____ 95 x3= _____ 285 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 105 (A) _____ 305 (B) <i>Prevalence Index = B/A=</i> _____ 2.90
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Distichlis spicata</u>	<u>95</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Suaeda occidentalis</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>105</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-58-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 5/2	90	7.5YR 4/4	10	C	M	Silty Clay Loam	Redox is distinct.
4-10	2.5Y 6/2	95	10YR 4/4	5	C	M	Silty Clay Loam	Redox is prominent.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: <u>Rock</u>	
Depth (inches): <u>10</u>	

Remarks:
Hydric soil indicators F3 and F8 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>10.0</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0.0</u>	
(includes capillary fringe)	

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

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-58-IN (MPLW110320211335-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/3/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-58-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.814807 Long: -111.922381 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Thinopyrum intermedium</u>	40	Yes	UPL	
2. <u>Bromus tectorum</u>	35	Yes	UPL	
3. <u>Onopordum Acanthium</u>	5	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
80 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	25	% Cover of Biotic Crust ⁰		

Remarks:
 Upland vegetation community.

Hydrophytic Vegetation Indicators:
 _____ Dominance Test is >50%
 _____ Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Hydrophytic Vegetation Present? Yes _____ No _____ X _____

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-58-OUT (MPLW110320211335-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/3/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-59-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.813526 Long: -111.924351 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Sarcocornia utahensis</u>	60	Yes	OBL	
2. <u>Distichlis spicata</u>	25	Yes	FAC	
3. <u>Lepidium lasiocarpum</u>	10	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
95 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	5	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	2.5YR 4/2	98	10YR 4/6	2	C	M	Silty Clay Loam	Prominent Redox
8-9	10YR 2/1	100					Silt Loam	
9-20	2.5Y 4/2	85	10YR 4/6	15	C	M	Silty Clay Loam	Prominent Redox

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 1.0 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-59-IN (MPLW110320211304-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/3/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-59-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.813653 Long: -111.924509 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 90 x5= _____ 450 Column Totals: _____ 90 (A) _____ 450 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	50	Yes	UPL	
2. <u>Lepidium lasiocarpum</u>	40	Yes	UPL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	90	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust	0	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-59-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-59-OUT (MPLW110320211304-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/3/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-60-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.813262 Long: -111.925486 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland. Soil pit not taken with hydrophytic vegetation and surface water.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Sarcocornia utahensis</u>	90	Yes	OBL	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2. <u>Bassia scoparia</u>	10	No	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-60-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
Type: _____	
Depth (inches): _____	

Remarks:
Soil pit not taken with hydrophytic vegetation and surface water.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.0	
Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.0	
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.0	
(includes capillary fringe)	

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

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-60-IN (MPLW110320211243-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/3/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-60-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 14, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.813239 Long: -111.925449 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 4 x4= _____ 16 UPL species _____ 96 x5= _____ 480 Column Totals: _____ 100 (A) _____ 496 (B) <i>Prevalence Index = B/A=</i> _____ 4.96
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Bromus tectorum</u>	48	Yes	UPL	
2. <u>Thinopyrum intermedium</u>	48	Yes	UPL	
3. <u>Bassia hyssopifolia</u>	4	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-60-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____ X
--	---

Remarks:
No pit due to lack of hydrophytic vegetation and lack of hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No X Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-60-OUT (MPLW110320211243-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-61-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.811374 Long: -111.928851 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 80 x3= _____ 240 FACU species _____ 10 x4= _____ 40 UPL species _____ x5= _____ 0 Column Totals: _____ 90 (A) _____ 280 (B) <i>Prevalence Index = B/A=</i> _____ 3.11
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Distichlis spicata</u>	80	Yes	FAC	
2. <u>Bassia hyssopifolia</u>	10	No	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	90	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	20	% Cover of Biotic Crust ⁰	0	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-61-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/1	100					Silty Clay	
1-16	10YR 6/2	100					Silty Clay	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present?
Type: Rock	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Depth (inches): 16	

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present?
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): 0.0	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 0.0	
(includes capillary fringe)	

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

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-61-IN (MPJM112220211159-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-61-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.811356 Long: -111.928859 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on fill pile with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 10 x3= _____ 30 FACU species _____ 10 x4= _____ 40 UPL species _____ 70 x5= _____ 350 Column Totals: _____ 90 (A) _____ 420 (B) <i>Prevalence Index = B/A=</i> _____ 4.67
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Bromus tectorum</u>	<u>70</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Distichlis spicata</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
3. <u>Bassia hyssopifolia</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>90</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>15</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No soil pit taken on fill pile with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-61-OUT (MPJM112220211159-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-62-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.811356 Long: -111.922823 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Distichlis spicata</u>	80	Yes	FAC	
2. <u>Phragmites australis</u>	20	Yes	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
100 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-62-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					Silt Loam	
2-18	10YR 5/2	80	7.5YR 4/6	20	C	M	Silt Loam	Prominent redox

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input checked="" type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Biotic Crust (B12) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.0 Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.5 Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 0.5 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
--	---

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

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-62-IN (JMLW102820211148-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-62-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.811381 Long: -111.922826 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Bassia hyssopifolia</u>	40	Yes	FACU	
2. <u>Thinopyrum intermedium</u>	40	Yes	UPL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
80 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	20	% Cover of Biotic Crust ⁰		

Remarks:
 Upland vegetation community.

Hydrophytic Vegetation Present? Yes _____ No _____ X _____
 *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

SOIL

Sampling Point: W-62-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
Water Table Present? Yes _____ No _____ Depth (inches): _____
Saturation Present? Yes _____ No _____ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No _____ X

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

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-62-OUT (JMLW102820211148-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-63-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.811526 Long: -111.920845 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phragmites australis</u>	95	Yes	FACW	
2. <u>Amaranthus palmeri</u>	5	No	FACU	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	_____
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	_____
_____	_____	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	_____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	_____
_____	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	_____

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 4/1	75	2.5YR 4/6	25	C	M	Clay Loam	Prominent redox
9-20	10YR 5/1	80	2.5YR 4/6	20	C	M	Sandy Loam	Prominent redox

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 14.0 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 3.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-63-IN (MPLW101120211300-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-63-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Shoulder Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.811504 Long: -111.920830 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road due to concrete.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	1. _____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)	1. <u>Phragmites australis</u>	<u>30</u>	<u>Yes</u>	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)	1. _____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	<u>70</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-63-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on road due to concrete.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-63-OUT (MPLW101120211300-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-64-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.811260 Long: -111.921667 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland. Soil pit not taken with hydrophytic vegetation and surface water.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Typha latifolia</u>	60	Yes	OBL	
2. <u>Distichlis spicata</u>	5	No	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
65 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	35	% Cover of Biotic Crust ⁰		

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Hydrophytic Vegetation Present? Yes X No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-64-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <u>X</u> No
Type: _____ Depth (inches): _____	

Remarks:
Soil pit not taken with hydrophytic vegetation and surface water.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Tables (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <u>X</u> No
Surface Water Present? Yes <u>X</u> No Depth (inches): _____ 6.0	
Water Table Present? Yes <u>X</u> No Depth (inches): _____ 0.0	
Saturation Present? Yes <u>X</u> No Depth (inches): _____ 0.0 (includes capillary fringe)	

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

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-64-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Shoulder Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.811274 Long: -111.921711 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 80 x5= _____ 400 Column Totals: _____ 80 (A) _____ 400 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	<u>80</u>	<u>Yes</u>	<u>UPL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>80</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>20</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
Water Table Present? Yes _____ No _____ Depth (inches): _____
Saturation Present? Yes _____ No _____ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No _____ **X**

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

Remarks:
No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/3/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-65-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.810505 Long: -111.924705 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Distichlis spicata</u>	35	Yes	FAC	
2. <u>Spergularia maritima</u>	35	Yes	FACW	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
3. <u>Sarcocornia utahensis</u>	10	No	OBL	
4. <u>Bassia scoparia</u>	5	No	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	85	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum	15	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-65-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 5/1	40	7.5YR 4/6	5	C	M	Silty Clay Loam	Prominent Redox
	5YR 6/8	15						
	7.5YR 7/2	40						
9-12	10YR 4/1	85	7.5YR 4/6	5	C	M	Silty Clay Loam	Prominent Redox
	5YR 6/8	10						

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Problematic hydrology, dry time of the year.

Additional Reference Data: Photos

W-65-IN (MPLW110320211426-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/3/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-65-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Shoulder Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D- Interior deserts Lat: 40.810487 Long: -111.924795 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 5 x4= _____ 20 UPL species _____ 90 x5= _____ 450 Column Totals: _____ 95 (A) _____ 470 (B) <i>Prevalence Index = B/A=</i> _____ 4.95
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Thinopyrum intermedium</u>	80	Yes	UPL	
2. <u>Erodium cicutarium</u>	10	No	UPL	
3. <u>Lepidium perfoliatum</u>	5	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
95 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	5	% Cover of Biotic Crust	0	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-65-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (2 or more required) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-65-OUT (MPLW110320211426-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-66-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.809579 Long: -111.926673 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 20 x3= _____ 60 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 20 (A) _____ 60 (B) <i>Prevalence Index = B/A=</i> _____ 3.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Bassia scoparia</u>	15	Yes	FAC	
2. <u>Distichlis spicata</u>	5	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	20	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	80	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-66-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 2/2	100					Silt Loam	
4-16	10YR 5/2	85	7.5YR 4/6	15	C	M	Silty Clay Loam	Redox is prominent.
16-20	10YR 6/2	65	7.5YR 4/6	35	C	M	Sand	Redox is prominent.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-66-IN (MPJM112220211151-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-66-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.809583 Long: -111.926747 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 10 x4= _____ 40 UPL species _____ 70 x5= _____ 350 Column Totals: _____ 80 (A) _____ 390 (B) <i>Prevalence Index = B/A=</i> _____ 4.88
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Bromus tectorum</u>	<u>70</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Bassia hyssopifolia</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>80</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>25</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-66-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/3	100					Silt Loam	
3-8	10YR 4/2	85					Silty Clay	
	10YR 2/1	15						
8-20	10YR 6/1	100					Silty Clay	

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? Yes No Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-66-OUT (MPJM112220211151-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-67-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.809090 Long: -111.921774 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. <u>Elaeagnus angustifolia</u>	10	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	10	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 110 x3= _____ 330 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 110 (A) _____ 330 (B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	Prevalence Index = B/A= _____ 3.00
1. <u>Distichlis spicata</u>	100	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>	_____	% Cover of Biotic Crust <u>0</u>	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-67-OUT

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

Table with columns: Depth (inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture, Remarks. Rows include 0-2 inches (10YR 4/3, 100%, Silty Clay Loam) and 2-14 inches (10YR 3/2, 100%, Silt Loam).

1Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

2Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils3:

- ___ Histosol (A1)
___ Sandy Redox (S5)
___ Histic Epipedon (A2)
___ Stripped Matrix (S6)
___ Black Histic (A3)
___ Loamy Mucky Mineral (F1)
___ Hydrogen Sulfide (A4)
___ Loamy Gleyed Matrix (F2)
___ Stratified Layers (A5) (LRR C)
___ Depleted Matrix (F3)
___ 1 cm Muck (A9) (LRR D)
___ Redox Dark Surface (F6)
___ Depleted Below Dark Surface (A11)
___ Depleted Dark Surface (F7)
___ Thick Dark Surface (A12)
___ Redox Depressions (F8)
___ Sandy Mucky Mineral (S1)
___ Vernal Pools (F9)
___ Sandy Gleyed Matrix (S4)

- ___ 1 cm Muck (A9) (LRR C)
___ 2 cm Muck (A10) (LRR B)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Cobble
Depth (inches): 14

Hydric Soil Present? Yes ___ No ___ X

Remarks:

Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Table with columns: Primary Indicators (minimum of one required; check all that apply), Secondary Indicators (2 or more required). Rows include Surface Water (A1), High Water Tables (A2), Saturation (A3), Water Marks (B1), Sediment Deposits (B2), Surface Soil Cracks (B6), Inundation Visible on Aerial Imagery (B7), Water-Stained Leaves (B9), Salt Crust (B11), Biotic Crust (B12), Aquatic Invertebrates (B13), Hydrogen Sulfide Odor (C1), Oxidized Rhizospheres along Living Roots (C3), Recent Iron Reduction in Tilled Soils (C6), Thin Muck Surface (C7), Other (Explain in Remarks), Water Marks (B1) (Riverine), Sediment Deposits (B2) (Riverine), Drift Deposits (B3) (Riverine), Drainage Patterns (B10), Dry-Season Water Table (C2), Saturation Visible on Aerial Imagery (C9), Shallow Aquitard (D3), FAC-Neutral Test (D5).

Field Observations:

Surface Water Present? Yes ___ No ___ X Depth (inches):
Water Table Present? Yes ___ X ___ No ___ Depth (inches): 0.5
Saturation Present? Yes ___ X ___ No ___ Depth (inches): 0.5
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ X ___ No ___

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

Remarks:

Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-67-OUT (JMLW102820211119-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-68-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.808851 Long: -111.921060 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. <u>Elaeagnus angustifolia</u>	20	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	20	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15ft)	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 90 x2= _____ 180 FAC species _____ 20 x3= _____ 60 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 110 (A) _____ 240 (B) <i>Prevalence Index = B/A=</i> _____ 2.18
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5ft)	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	_____	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phragmites australis</u>	90	Yes	FACW	
2. _____	_____	_____	_____	
	90	= Total Cover		
% Bare Ground in Herb Stratum <u>10</u>	_____	% Cover of Biotic Crust ⁰ _____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR 4/2	90	10YR 4/6	10	C	M	Silt Loam	Prominent redox

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Erosion fill
Depth (inches): 14

Hydric Soil Present? Yes No

Remarks:

Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): 0.5
Saturation Present? Yes No Depth (inches): 0.5
(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-68-IN (JMLW102820211049-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-68-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.808808 Long: -111.921101 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 60 x4= _____ 240 UPL species _____ 10 x5= _____ 50 Column Totals: _____ 70 (A) _____ 290 (B) <i>Prevalence Index = B/A=</i> _____ 4.14
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Bassia hyssopifolia</u>	30	Yes	FACU	
2. <u>Lepidium perfoliatum</u>	20	Yes	FACU	
3. <u>Erigeron canadensis</u>	10	No	FACU	
4. <u>Thinopyrum intermedium</u>	10	No	UPL	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	70	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	30	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-68-OUT (JMLW102820211049-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-69-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.807773 Long: -111.920448 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Distichlis spicata</u>	90	Yes	FAC	
2. <u>Suaeda occidentalis</u>	10	No	FACW	
3. <u>Thinopyrum intermedium</u>	10	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
110 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-69-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	7.5YR 6/2	70	5YR 6/8	5	C	M	Silt Loam	Prominent redox
	10YR 4/1	15						
9-16	5YR 6/2	85	5YR 6/8	5	C	M	Clay Loam	Prominent redox
	10YR 5/1	10						
16-21	10YR 5/1	90	5YR 6/8	10	C	M	Clay	Prominent redox

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: _____	
Depth (inches): _____	

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ 10.0	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ 0.0	
(includes capillary fringe)	

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

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-69-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.807829 Long: -111.920504 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on fill pile with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	= Total Cover
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 5 x3= _____ 15 FACU species _____ 10 x4= _____ 40 UPL species _____ 70 x5= _____ 350 Column Totals: _____ 85 (A) _____ 405 (B) <i>Prevalence Index = B/A=</i> _____ 4.76
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____	_____	_____	_____	= Total Cover
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. <u>Thinopyrum intermedium</u>	70	Yes	UPL	
2. <u>Bassia hyssopifolia</u>	10	No	FACU	
3. <u>Distichlis spicata</u>	5	No	FAC	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____	85	_____	_____	
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	_____ % Bare Ground in Herb Stratum <u>20</u> _____ % Cover of Biotic Crust ⁰ _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	= Total Cover

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-69-OUT

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on fill pile with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-69-OUT (MPLW101120211350-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-70-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.807639 Long: -111.924241 Datum: WGS84
 Soil Map Unit Name: Loamy borrow pits NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 60 x3= _____ 180 FACU species _____ 10 x4= _____ 40 UPL species _____ x5= _____ 0 Column Totals: _____ 70 (A) _____ 220 (B) <i>Prevalence Index = B/A=</i> _____ 3.14
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Distichlis spicata</u>	60	Yes	FAC	
2. <u>Bassia hyssopifolia</u>	10	No	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	70	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	35	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOILSampling Point: W-70-IN**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 6/1	95	10YR 6/8	5	C	M	Silty Clay	Redox is prominent.

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)****Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**

Type: Cobble

Depth (inches): 16**Hydric Soil Present?** Yes No

Remarks:

Hydric soil indicator F3 present.

HYDROLOGY**Wetland Hydrology Indicators:**

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

Secondary Indicators (2 or more required)

<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:Surface Water Present? Yes No Depth (inches): 1.0Water Table Present? Yes No Depth (inches): 0.0Saturation Present? Yes No Depth (inches): 0.0

(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

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

Additional Reference Data: Photos

W-70-IN (MPJM112220211218-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/22/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-70-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.807657 Long: -111.924185 Datum: WGS84
 Soil Map Unit Name: Loamy borrow pits NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 80 x5= _____ 400 Column Totals: _____ 80 (A) _____ 400 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	<u>75</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Thlaspi arvense</u>	<u>5</u>	<u>No</u>	<u>UPL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>80</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>25</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:

No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? Yes No Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

No hydrology present.

Additional Reference Data: Photos

W-70-OUT (MPJM112220211218-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-71-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.807017 Long: -111.920952 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	100	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
100 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-71-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Silt Loam	
3-9	5G 5/1	100					Sandy Loam	
9-19	10YR 3/2	100					Silt Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator A4 and F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 0.0 Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 13.0 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 0.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-71-IN (JMLW102820211018-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/28/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-71-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.807017 Long: -111.920910 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	
1. <u>Phragmites australis</u>	50	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover	50	_____	_____	
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
% Bare Ground in Herb Stratum	50	% Cover of Biotic Crust ⁰	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on road shoulder.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-71-OUT (JMLW102820211018-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-72-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.803927 Long: -111.921486 Datum: WGS84
 Soil Map Unit Name: Loamy borrow pits NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 100 x2= _____ 200 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 100 (A) _____ 200 (B) <i>Prevalence Index = B/A=</i> _____ 2.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	100	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		100 = Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-72-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/2	100					Silt Loam	
2-9	10YR 5/2	95	10YR 5/6	5	C	M	Clay Loam	Prominent redox
9-16	10YR 6/2	85	10YR 6/8	15	C	M	Clay Loam	Prominent redox

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: Cobble	
Depth (inches): <u>16</u>	

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>5.0</u>	
(includes capillary fringe)	

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

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-72-IN (MPLW101120211146-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-72-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Shoulder Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.803906 Long: -111.921515 Datum: WGS84
 Soil Map Unit Name: Loamy borrow pits NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 70 x5= _____ 350 Column Totals: _____ 70 (A) _____ 350 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	<u>70</u>	<u>Yes</u>	<u>UPL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>70</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>30</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-72-OUT (MPLW101120211148-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/3/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-73-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.803929 Long: -111.920754 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 85 x3= _____ 255 FACU species _____ 5 x4= _____ 20 UPL species _____ x5= _____ 0 Column Totals: _____ 90 (A) _____ 275 (B) <i>Prevalence Index = B/A=</i> _____ 3.06
1. <u>Tamarix chinensis</u>	5	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	5	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Distichlis spicata</u>	80	Yes	FAC	
2. <u>Hordeum murinum</u>	5	No	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	85	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	15	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 4/2	100					Silt Loam	
3-16	10YR 4/2	90	2.5Y 5/6	10	C	M	Silt Loam	Prominent redox

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: Concrete Depth (inches): <u>16</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

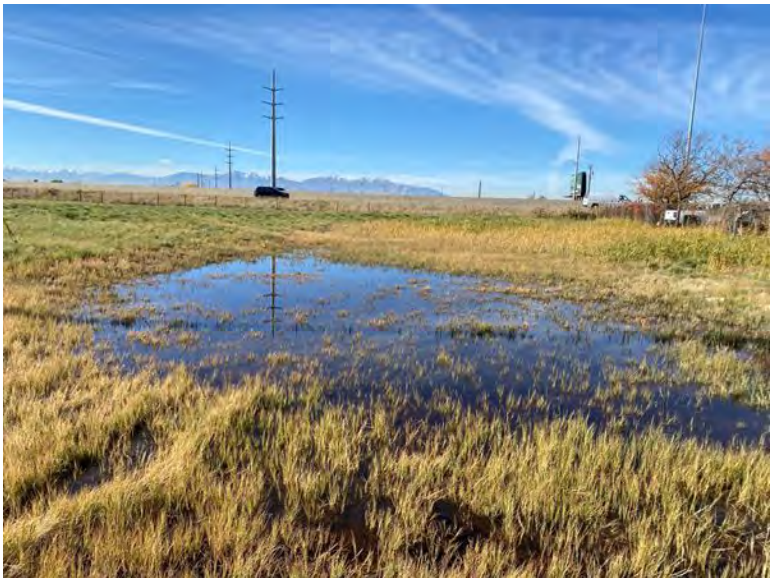
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0.0</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0.5</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0.5</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

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

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-73-IN (MPLW110320211121-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 11/3/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-73-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.803899 Long: -111.920701 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 33 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 25 x3= _____ 75 FACU species _____ 20 x4= _____ 80 UPL species _____ 55 x5= _____ 275 Column Totals: _____ 100 (A) _____ 430 (B) <i>Prevalence Index = B/A=</i> _____ 4.30
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	55	Yes	UPL	
2. <u>Distichlis spicata</u>	20	Yes	FAC	
3. <u>Hordeum murinum</u>	20	Yes	FACU	
4. <u>Rumex crispus</u>	5	No	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-11	10YR 4/2	70					Silt Loam	
	10YR 6/2	30						

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock
Depth (inches): 11

Hydric Soil Present? Yes No

Remarks:

Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? Yes No Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

No hydrology present.

Additional Reference Data: Photos

W-73-OUT (MPLW110320211121-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-74-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.796241 Long: -111.917355 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

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

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

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

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 3 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. <u>Elaeagnus angustifolia</u>	20	Yes	FAC	
2. _____				
3. _____				
4. _____				
	20	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 90 x2= _____ 180 FAC species _____ 40 x3= _____ 120 FACU species _____ 4 x4= _____ 16 UPL species _____ 2 x5= _____ 10 Column Totals: _____ 136 (A) _____ 326 (B) <i>Prevalence Index = B/A=</i> _____ 2.40
1. <u>Tamarix chinensis</u>	10	Yes	FAC	
2. _____				
3. _____				
4. _____				
5. _____				
	10	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	90	Yes	FACW	
2. <u>Distichlis spicata</u>	10	No	FAC	
3. <u>Grindelia squarrosa</u>	2	No	FACU	
4. <u>Melilotus officinalis</u>	2	No	FACU	
5. <u>Thinopyrum intermedium</u>	2	No	UPL	
6. _____				
7. _____				
8. _____				
	106	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-74-IN

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 7/2	100					Silty Clay Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 16.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Problematic hydrology, dry time of year.

Additional Reference Data: Photos

W-74-IN (JMLW120220211026-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-74-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): Concave Slope(%): 4
 Subregion (LRR): D-Interior deserts Lat: 40.796220 Long: -111.917441 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

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

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

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

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 40 (A/B)
1. <u>Elaeagnus angustifolia</u>	10	Yes	FAC	
2. <u>Ulmus pumila</u>	5	Yes	UPL	
3. _____				
4. _____				
	15	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 20 x3= _____ 60 FACU species _____ x4= _____ 0 UPL species _____ 100 x5= _____ 500 Column Totals: _____ 120 (A) _____ 560 (B)
1. <u>Tamarix chinensis</u>	10	Yes	FAC	
2. <u>Ericameria nauseosa</u>	5	Yes	UPL	
3. _____				
4. _____				
5. _____				
	15	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Prevalence Index = B/A= _____ 4.67
1. <u>Thinopyrum intermedium</u>	90	Yes	UPL	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	90	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____				
2. _____				
		= Total Cover		
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust ⁰ _____		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Hydrophytic Vegetation Present? Yes _____ No _____ X _____				

Remarks:
 Upland vegetation community.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____ X _____
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Remarks:
No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/8/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-75-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.796072 Long: -111.916318 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

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

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Distichlis spicata</u>	85	Yes	FAC	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Phragmites australis</u>	10	No	FACW	
3. <u>Cardaria draba</u>	5	No	UPL	
4. <u>Atriplex prostrata</u>	2	No	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	102	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum	1	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-75-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/1	100					Silt Loam	
3-8	10YR 4/1	80	10YR 6/2	15	D	M	Silt Loam	Prominent redox
	10YR 4/1	80	10YR 5/6	5	C	M		
8-14	10YR 4/1	60	10YR 6/2	35	D	M	Clay Loam	Prominent redox
	10YR 4/1	60	10YR 5/6	5	C	M		
14-20	10YR 7/1	80	10YR 2/2	20	C	M	Clay Loam	Manganese concentrations.

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
--	---

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Problematic hydrology, dry time of the year.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/8/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-75-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.796053 Long: -111.916428 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 10 x3= _____ 30 FACU species _____ 5 x4= _____ 20 UPL species _____ 85 x5= _____ 425 Column Totals: _____ 100 (A) _____ 475 (B) <i>Prevalence Index = B/A=</i> _____ 4.75
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Cardaria draba</u>	85	Yes	UPL	
2. <u>Distichlis spicata</u>	5	No	FAC	
3. <u>Leymus cinereus</u>	5	No	FAC	
4. <u>Lactuca serriola</u>	5	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	_____	

Remarks:
 Upland vegetation community.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 3/1	100					Silty Clay Loam	
18-20	10YR 4/1	90	10YR 6/2	10	D	M	Clay Loam	Cobbles

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____ X _____
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Remarks:
Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

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): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-75-OUT (MPLW100820211040-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-76-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.795537 Long: -111.917107 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology X naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>Elaeagnus angustifolia</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	<u>5</u>	<u>= Total Cover</u>	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x1= _____ FACW species <u>20</u> x2= <u>40</u> FAC species <u>82</u> x3= <u>246</u> FACU species _____ x4= <u>0</u> UPL species <u>10</u> x5= <u>50</u> Column Totals: <u>112</u> (A) <u>336</u> (B) <i>Prevalence Index = B/A=</i> <u>3.00</u>
1. <u>Tamarix chinensis</u>	<u>2</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	<u>2</u>	<u>= Total Cover</u>	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Distichlis spicata</u>	<u>70</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Phragmites australis</u>	<u>20</u>	<u>No</u>	<u>FACW</u>	
3. <u>Thinopyrum intermedium</u>	<u>10</u>	<u>No</u>	<u>UPL</u>	
4. <u>Sporobolus airoides</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	<u>105</u>	<u>= Total Cover</u>	_____	
<u>Woody Vine Stratum</u> (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
% Bare Ground in Herb Stratum <u>10</u>	_____	% Cover of Biotic Crust ⁰ _____	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 5/2	100					Silty Clay Loam	
1-13	10YR 7/2	100					Silty Clay Loam	

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: Cobble Depth (inches): <u>13</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Problematic hydrology, dry time of year.

Additional Reference Data: Photos

W-76-IN (JMLW120220211054-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-76-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.795521 Long: -111.917156 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 50 (A/B)
1. <u>Elaeagnus angustifolia</u>	20	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	20	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 5 x2= _____ 10 FAC species _____ 30 x3= _____ 90 FACU species _____ 2 x4= _____ 8 UPL species _____ 75 x5= _____ 375 Column Totals: _____ 112 (A) _____ 483 (B) <i>Prevalence Index = B/A=</i> _____ 4.31
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	75	Yes	UPL	
2. <u>Distichlis spicata</u>	10	No	FAC	
3. <u>Phragmites australis</u>	5	No	FACW	
4. <u>Grindelia squarrosa</u>	2	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	92	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>8</u>	_____	% Cover of Biotic Crust _____		

Remarks:
 Upland vegetation community.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-77-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.793313 Long: -111.916290 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species <u>40</u> x2= <u>80</u> FAC species <u>30</u> x3= <u>90</u> FACU species _____ x4= <u>0</u> UPL species <u>20</u> x5= <u>100</u> Column Totals: <u>90</u> (A) <u>270</u> (B) <i>Prevalence Index = B/A=</i> <u>3.00</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Distichlis spicata</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Thinopyrum intermedium</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>90</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Hydrophytic vegetation present.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/2	100					Silty Clay Loam	
2-19	10YR 6/2	95	10YR 5/6	5	C	M	Silty Clay Loam	Salt flakes. Prominent redox

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (minimum of one required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 11.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-77-IN (MPLW101120211118-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-77-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Shoulder Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.793293 Long: -111.916330 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No _____			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 100 x5= _____ 500 Column Totals: _____ 100 (A) _____ 500 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	<u>100</u>	<u>Yes</u>	<u>UPL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Upland vegetation community.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
--	--

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-77-OUT (MPLW101120211118-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-78-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.791809 Long: -111.915768 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species <u>50</u> x2= <u>100</u> FAC species <u>40</u> x3= <u>120</u> FACU species _____ x4= <u>0</u> UPL species <u>40</u> x5= <u>200</u> Column Totals: <u>130</u> (A) <u>420</u> (B) Prevalence Index = B/A= <u>3.23</u>
1. <u>Tamarix chinensis</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	<u>20</u>	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Thinopyrum intermedium</u>	<u>40</u>	<u>Yes</u>	<u>UPL</u>	
3. <u>Distichlis spicata</u>	<u>20</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>110</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Hydrophytic vegetation present.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/6	100					Silty Clay Loam	
2-11	10YR 5/2	85	10YR 7/8	15	C	M	Sandy Loam	50% Cobble. Prominent redox
11-20	10YR 8/2	90	10YR 7/8	10	C	M	Clay	Prominent redox

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 9.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-78-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Shoulder Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.791798 Long: -111.915808 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on fill pile with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 5 x3= _____ 15 FACU species _____ x4= _____ 0 UPL species _____ 80 x5= _____ 400 Column Totals: _____ 85 (A) _____ 415 (B) <i>Prevalence Index = B/A=</i> _____ 4.88
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	<u>80</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Distichlis spicata</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>85</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>15</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Upland vegetation community.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No soil pit taken on fill pile with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-78-OUT (MPLW101120211050-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-79-IN
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.785411 Long: -111.911929 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 90 x2= _____ 180 FAC species _____ 1 x3= _____ 3 FACU species _____ 6 x4= _____ 24 UPL species _____ x5= _____ 0 Column Totals: _____ 97 (A) _____ 207 (B) <i>Prevalence Index = B/A=</i> _____ 2.13
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	90	Yes	FACW	
2. <u>Erigeron canadensis</u>	5	No	FACU	
3. <u>Rumex crispus</u>	1	No	FAC	
4. <u>Lactuca serriola</u>	1	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	97	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	5	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 4/1	100					Clay Loam	
3-20	10YR 6/2	65	10YR 5/8	15	C	M	Clay Loam	Prominent redox. Organic layer.
	10YR 6/2	65	10YR 2/1	20	C	M		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 7.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-79-IN (MPLW101120210950-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/11/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-79-OUT
 Investigators: Mike Perkins, Lacey Wilder Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Shoulder Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.785380 Long: -111.911969 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 50 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 20 x3= _____ 60 FACU species _____ x4= _____ 0 UPL species _____ 80 x5= _____ 400 Column Totals: _____ 100 (A) _____ 460 (B) <i>Prevalence Index = B/A=</i> _____ 4.60
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	80	Yes	UPL	
2. <u>Bassia scoparia</u>	20	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Upland vegetation community.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-79-OUT (MPLW101120210950-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-80-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 35, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 4
 Subregion (LRR): D-Interior deserts Lat: 40.783644 Long: -111.912289 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____		
Wetland Hydrology Present?	Yes <u>X</u>	No _____		

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	= Total Cover
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species <u>100</u> x2= <u>200</u> FAC species <u>10</u> x3= <u>30</u> FACU species _____ x4= <u>0</u> UPL species _____ x5= <u>0</u> Column Totals: <u>110</u> (A) <u>230</u> (B) <i>Prevalence Index = B/A=</i> <u>2.09</u>
1. <u>Tamarix chinensis</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	<u>10</u>	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phragmites australis</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust ⁰ _____			

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 3/1	97	7.5YR 5/8	3	C	M	Silty Clay Loam	Prominent redox

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Gravel
Depth (inches): 9

Hydric Soil Present? Yes No

Remarks:
Hydric soil indicator F6 present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? Yes No Depth (inches): 6.0
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-80-IN (JMLW120220211002-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-80-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 35, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): Concave Slope(%): 4
 Subregion (LRR): D-Interior deserts Lat: 40.783647 Long: -111.912237 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 22 x4= _____ 88 UPL species _____ 75 x5= _____ 375 Column Totals: _____ 97 (A) _____ 463 (B) <i>Prevalence Index = B/A=</i> _____ 4.77
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Tribulus terrestris</u>	40	Yes	UPL	
2. <u>Hordeum murinum</u>	20	Yes	FACU	
3. <u>Agropyron cristatum</u>	20	Yes	UPL	
4. <u>Thinopyrum intermedium</u>	10	No	UPL	
5. <u>Bromus tectorum</u>	5	No	UPL	
6. <u>Salsola tragus</u>	2	No	FACU	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	97	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	3	% Cover of Biotic Crust	0	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-80-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/7/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-81-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 35, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.783405 Long: -111.909101 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 120 x2= _____ 240 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 120 (A) _____ 240 (B) <i>Prevalence Index = B/A=</i> _____ 2.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	<u>120</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>120</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Hydrophytic vegetation present.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 3/2	100					Silt Loam	
8-17	10YR 5/2	95	10YR 5/8	5	C	M	Silty Clay Loam	Prominent redox

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
--	---

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Problematic hydrology, dry time of the year.

Additional Reference Data: Photos

W-81-IN (JMLW100720211507-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/7/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-81-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 36, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Shoulder Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.783522 Long: -111.909065 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____ 2. _____ 3. _____ 4. _____	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 0 (A) _____ 0 (B) <i>Prevalence Index = B/A=</i> _____ <i>NaN</i>
1. _____ 2. _____ 3. _____ 4. _____ 5. _____	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____	
<u>Woody Vine Stratum</u> (Plot size:)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____ 2. _____	_____ _____	_____ _____	_____ _____	
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			

Remarks:
 No vegetation present.

SOIL

Sampling Point: W-81-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/7/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-82-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 35, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Convex Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.782809 Long: -111.912906 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
 Sampling point does not meet characteristics of a wetland. Culvert to the southwest.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 4 (A) Total Number of Dominant Species Across All Strata: _____ 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. <u>Populus angustifolia</u>	20	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	20	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 80 x2= _____ 160 FAC species _____ 21 x3= _____ 63 FACU species _____ 6 x4= _____ 24 UPL species _____ x5= _____ 0 Column Totals: _____ 107 (A) _____ 247 (B) <i>Prevalence Index = B/A=</i> _____ 2.31
1. <u>Tamarix chinensis</u>	20	Yes	FAC	
2. <u>Salix exigua</u>	20	Yes	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	40	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phragmites australis</u>	40	Yes	FACW	
2. <u>Hordeum murinum</u>	5	No	FACU	
3. <u>Polygonum aviculare</u>	1	No	FAC	
4. <u>Lactuca serriola</u>	1	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	47	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover		
% Bare Ground in Herb Stratum	53	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/2	100					Silt Loam	Root layer
3-9	10YR 4/3	100					Sandy Loam	
9-17	10YR 5/3	100					Sandy Loam	

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR C)**
- 1 cm Muck (A9) **(LRR D)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) **(LRR C)**
- 2 cm Muck (A10) **(LRR B)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No _____ **X**

Remarks:

Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Tables (A2)
- Saturation (A3)
- Water Marks (B1) **(Nonriverine)**
- Sediment Deposits (B2) **(Nonriverine)**
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) **(Riverine)**
- Sediment Deposits (B2) **(Riverine)**
- Drift Deposits (B3) **(Riverine)**
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No _____ **X**

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology present.

Additional Reference Data: Photos

W-82-OUT (JMLW100720211431-OUT)



JMLW100720211431-08
0-3 10YR 8/2 100%
3-4 10YR 8/3 100%
4-17 10YR 8/4 100%

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/7/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-83-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 35, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.781964 Long: -111.912380 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 90 x2= _____ 180 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 90 (A) _____ 180 (B) <i>Prevalence Index = B/A=</i> _____ 2.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Panicum dichotomiflorum</u>	<u>90</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>90</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>10</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					Silt Loam	
2-10	10YR 4/3	100					Silt Loam	

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: <u>cobble</u> Depth (inches): <u>10</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Remarks:
Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-83-OUT (JMLW100720211302-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/7/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-84-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 35, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.781661 Long: -111.912075 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____		
Wetland Hydrology Present?	Yes <u>X</u>	No _____		

Remarks:
 Sampling point meets the criteria for a wetland. Culvert at the south end of the wetland

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Schoenoplectus tabernaemontani</u>	45	Yes	OBL	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Typha latifolia</u>	45	Yes	OBL	
3. <u>Unknown grass</u>	5	No		
4. <u>Distichlis spicata</u>	5	No	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
100 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	5	% Cover of Biotic Crust ⁰ _____		
Hydrophytic Vegetation Present? Yes <u>X</u> No _____				

Remarks:
 Hydrophytic vegetation present.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Organic	root matter
3-11	10YR 5/2	93	10YR 4/6	7	C	M	Silt Loam	Prominent redox

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: Cobble	
Depth (inches): <u>11</u>	

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2.0</u>	
(includes capillary fringe)	

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-84-IN (JMLW100720211317-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/7/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-84-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 35, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.781614 Long: -111.912100 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 20 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 10 x3= _____ 30 FACU species _____ 6 x4= _____ 24 UPL species _____ 35 x5= _____ 175 Column Totals: _____ 51 (A) _____ 229 (B) <i>Prevalence Index = B/A=</i> _____ 4.49
1. <u>Ulmus pumila</u>	10	Yes	UPL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	10	= Total Cover	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Symphyotrichum spp.</u>	20	Yes	_____	
2. <u>Symphyotrichum ericoides</u>	10	Yes	FAC	
3. <u>Agropyron cristatum</u>	10	Yes	UPL	
4. <u>Bromus tectorum</u>	10	Yes	UPL	
5. <u>Erigeron species</u>	5	No	_____	
6. <u>Lactuca serriola</u>	5	No	FACU	
7. <u>Medicago sativa</u>	5	No	UPL	
8. <u>Erodium cicutarium</u>	1	No	FACU	
	66	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum	34	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-84-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/2	100					Silt Loam	Roots present
2-6	10YR 3/2	100					Silt Loam	

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: Cobble Depth (inches): <u>6</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Remarks:
Soil pit does not meet any hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-84-OUT (JMLW100720211317-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-85-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 2, T 1S, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 4
 Subregion (LRR): D - Interior Deserts Lat: 40.764137 Long: -111.917730 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	100	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
100 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 2/2	100					Organic	
1-5	10YR 5/2	100					Silty Clay Loam	
5-13	10YR 6/2	95	10YR 5/8	5	C	M	Silty Clay Loam	Prominent redox

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		<i>Secondary Indicators (2 or more required)</i>
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.5 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.5 (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos

W-85-IN (JMLW120220210931-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-85-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 2, T 1S, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 4
 Subregion (LRR): D-Interior deserts Lat: 40.764099 Long: -111.917729 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks:
 No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 25 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 40 x2= _____ 80 FAC species _____ x3= _____ 0 FACU species _____ 17 x4= _____ 68 UPL species _____ 42 x5= _____ 210 Column Totals: _____ 99 (A) _____ 358 (B) <i>Prevalence Index = B/A=</i> _____ 3.62
1. <u>Artemisia nova</u>	10	Yes	UPL	
2. <u>Rhus aromatica</u>	5	Yes	FACU	
3. <u>Ephedra viridis</u>	2	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	17	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Deschampsia caespitosa</u>	40	Yes	FACW	
2. <u>Agropyron cristatum</u>	20	Yes	UPL	
3. <u>Cichorium intybus</u>	10	No	FACU	
4. <u>Thinopyrum intermedium</u>	10	No	UPL	
5. <u>Alliaria petiolata</u>	2	No	FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	82	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-86-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 2, T 1S, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.763464 Long: -111.915440 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology X naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size:)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/2	100					Silty Clay Loam	
6-14	10YR 4/2	93	10YR 6/2	5	D	M	Silty Clay Loam	Prominent redox
	10YR 4/2	93	10YR 5/8	3	C	M		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: Cobble Depth (inches): <u>14</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		<i>Secondary Indicators (2 or more required)</i>
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Problematic hydrology, dry time of the year.

Additional Reference Data: Photos

W-86-IN (JMLW120220210913-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 12/2/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-86-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 2, T 1S, R 1W
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Concave Slope(%): 3
 Subregion (LRR): D-Interior deserts Lat: 40.763476 Long: -111.915485 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks:
 No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. <u>Ailanthus altissima</u>	5	_____	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	5	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 15 x4= _____ 60 UPL species _____ 100 x5= _____ 500 Column Totals: _____ 115 (A) _____ 560 (B) <i>Prevalence Index = B/A=</i> _____ 4.87
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	80	Yes	UPL	
2. <u>Agropyron cristatum</u>	20	No	UPL	
3. <u>Cichorium intybus</u>	10	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	110	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>	_____	% Cover of Biotic Crust <u>0</u>	_____	Hydrophytic Vegetation Present? Yes _____ No _____ X _____

Remarks:
 Upland vegetation community.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-86-OUT (JMLW120220210913-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/7/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-87-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 2, T 1S, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 5
 Subregion (LRR): D-Interior deserts Lat: 40.757850 Long: -111.912330 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15ft)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 25 x2= _____ 50 FAC species _____ 73 x3= _____ 219 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 98 (A) _____ 269 (B) <i>Prevalence Index = B/A=</i> _____ 2.74
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5ft)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Distichlis spicata</u>	<u>70</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Phragmites australis</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Euthamia occidentalis</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
4. <u>Rumex crispus</u>	<u>2</u>	<u>No</u>	<u>FAC</u>	
5. <u>Hordeum jubatum</u>	<u>1</u>	<u>No</u>	<u>FAC</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>98</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <u>X</u> No _____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>2</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-87-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 2/1	100					Silt Loam	roots
1-7	10YR 4/2	95	10YR 4/6	5	C	M	Loamy Sand	Prominent redox
7-17	10YR 5/2	85	10YR 4/6	15	C	M	Loamy Sand	Prominent redox

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos

W-87-IN (JMLW100720211124-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/7/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-87-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 2, T 1S, R 1W
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.757849 Long: -111.912497 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit due to lack of hydrophytic vegetation and hydrology indicators.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 33 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 30 x4= _____ 120 UPL species _____ 60 x5= _____ 300 Column Totals: _____ 90 (A) _____ 420 (B) <i>Prevalence Index = B/A=</i> _____ 4.67
1. <u>Ericameria nauseosa</u>	30	Yes	UPL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	30	= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Bassia hyssopifolia</u>	30	_____	FACU	
2. <u>Agropyron cristatum</u>	30	Yes	UPL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	60	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	40	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-87-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No pit due to lack of hydrophytic vegetation and lack of hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos

W-87-OUT (JMLW100720211124-OUT)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/7/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-88-IN
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 2, T 1S, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.756246 Long: -111.913143 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 80 x2= _____ 160 FAC species _____ 5 x3= _____ 15 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 85 (A) _____ 175 (B) <i>Prevalence Index = B/A=</i> _____ 2.06
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Rumex crispus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>85</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>15</u>		% Cover of Biotic Crust ⁰ _____		

Remarks:
 Hydrophytic vegetation present.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Silt Loam	root matter
3-10	10YR 4/2	90	10YR 5/8	10	C	M	Silt Loam	Large cobbles. Prominent redox
10-16	10YR 5/2	80	10YR 5/8	20	C	M	Silt Loam	Prominent redox

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Problematic hydrology, dry time of the year.

Additional Reference Data: Photos

W-88-IN (JMLW100720211006-IN)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 10/7/2021
 Applicant/Owner: UDOT State: Utah Sampling Point: W-88-OUT
 Investigators: Joshua McMillin, Lacey Wilder Section, Township, Range: S 2, T 1S, R 1W
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): Convex Slope(%): 10
 Subregion (LRR): D-Interior deserts Lat: 40.756317 Long: -111.913214 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 2 x4= _____ 8 UPL species _____ 90 x5= _____ 450 Column Totals: _____ 92 (A) _____ 458 (B) <i>Prevalence Index = B/A=</i> _____ 4.98
1. <u>Ericameria nauseosa</u>	5	Yes	UPL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	5	= Total Cover	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Medicago sativa</u>	50	Yes	UPL	
2. <u>Agropyron cristatum</u>	20	Yes	UPL	
3. <u>Bromus tectorum</u>	5	No	UPL	
4. <u>Thinopyrum intermedium</u>	5	No	UPL	
5. <u>Tribulus terrestris</u>	5	No	UPL	
6. <u>Cirsium undulatum</u>	2	No	FACU	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	87	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum <u>8</u>	_____	% Cover of Biotic Crust ⁰ _____	_____	

Remarks:
 Upland vegetation community.

Hydrophytic Vegetation Present? Yes _____ No X

SOIL

Sampling Point: W-88-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/2	100					Silt Loam	Roots
2-7	10YR 3/2	100					Silt Loam	

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
Type: <u>Compacted</u>	
Depth (inches): <u>7</u>	

Remarks:
Soil pit does not meet any hydric soil indicators. Unable to dig pit past 7 inches.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 6/4/2018
 Applicant/Owner: UDOT State: UT Sampling Point: W-89-IN (SP-1)
 Investigators: Mike Perkins Section, Township, Range: S 1, T 2N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.933185 Long: -111.893946 Datum: WGS84
 Soil Map Unit Name: Ironton silt loam, saline, sodic, 0 to 1 percent slopes NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____		
Wetland Hydrology Present?	Yes <u>X</u>	No _____		

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	<u>75</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	<u>25</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-89-IN (SP-1)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Organic	Peat
3-20	10YR 4/2	90	7.5YR 5/6	10	C	M	Silty Clay Loam	Redox is prominent.

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
--	---

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 10.0 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 6/4/2018
 Applicant/Owner: UDOT State: Utah Sampling Point: W-89-OUT (SP-2)
 Investigators: Mike Perkins Section, Township, Range: S 1, T 2N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): None Slope(%): 4
 Subregion (LRR): D-Interior deserts Lat: 40.933163 Long: -111.893995 Datum: WGS84
 Soil Map Unit Name: Ironton silt loam, saline, sodic, 0 to 1 percent slopes NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Thinopyrum ponticum</u>	70	Yes	UPL	
2. <u>Hordeum pusillum</u>	10	No	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
80 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	25	% Cover of Biotic Crust		

Remarks:
 Upland vegetation community.

Hydrophytic Vegetation Present? Yes _____ No _____ X _____
 *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

SOIL

Sampling Point: W-89-OUT (SP-2)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR 4/3	100					Silty Clay Loam	

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/> X <input type="checkbox"/>
Type: _____	
Depth (inches): _____	

Remarks:
No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input type="checkbox"/> X <input type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> X <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 16.0	
(includes capillary fringe)	

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 4/24/2019
 Applicant/Owner: UDOT State: Utah Sampling Point: W-90-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): Concave Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.805990 Long: -111.923902 Datum: WGS84
 Soil Map Unit Name: Loamy borrow pits NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 0 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ 80 x1= _____ 80 FACW species _____ x2= _____ 0 FAC species _____ 10 x3= _____ 30 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 90 (A) _____ 110 (B) <i>Prevalence Index = B/A=</i> _____ 1.22
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Salicornia rubra</u>	80	_____	OBL	
2. <u>Distichlis spicata</u>	10	_____	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	90	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-90-IN (WET-6A)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	7.5YR 5/4	100					Silt Loam	
7-15	10YR 7/2	45	7.5YR 6/4	10	D	M	Clay Loam	Redox is distinct.
	10YR 7/3	45						

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: _____	
Depth (inches): _____	

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____ 6.0	

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 4/24/2019
 Applicant/Owner: UDOT State: Utah Sampling Point: W-90-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.805947 Long: -111.923887 Datum: WGS84
 Soil Map Unit Name: Loamy borrow pits NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Thinopyrum intermedium</u>	70	Yes	UPL	
2. <u>Distichlis spicata</u>	15	No	FAC	
3. <u>Cardaria draba</u>	5	No	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
90 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust ⁰		

Remarks:
 Upland vegetation community.

Hydrophytic Vegetation Indicators:
 _____ Dominance Test is >50%
 _____ Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?
 Yes _____ No _____ X _____

SOIL

Sampling Point: W-90-OUT (OUT-6A)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	7.5YR 5/4	100					Sandy Loam	
8-18	7.5YR 6/4	95	10YR 8/2	5	D	M	Clay	Redox is prominent.

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____ X
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Remarks:
No hydric soil indicator present.

HYDROLOGY

Wetland Hydrology Indicators:		<i>Secondary Indicators (2 or more required)</i>
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

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): _____ 15.0 (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____ X
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 04/24/2019
 Applicant/Owner: UDOT State: Utah Sampling Point: W-91-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.805971 Long: -111.925724 Datum: WGS84
 Soil Map Unit Name: Loamy borrow pits NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)	
1. _____	_____	_____	_____		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ 10 x1= _____ 10 FACW species _____ x2= _____ 0 FAC species _____ 20 x3= _____ 60 FACU species _____ x4= _____ 0 UPL species _____ 5 x5= _____ 25 Column Totals: _____ 35 (A) _____ 95 (B) <i>Prevalence Index = B/A= _____ 2.71</i>
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
= Total Cover					
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)					
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
= Total Cover					
<u>Herb Stratum</u> (Plot size: 5 ft radius)					
1. <u>Distichlis spicata</u>	15	Yes	FAC	Hydrophytic Vegetation Present? Yes <u>X</u> No _____	
2. <u>Salicornia rubra</u>	10	Yes	OBL		
3. <u>Hordeum marinum</u>	5	No	FAC		
4. <u>Thinopyrum intermedium</u>	5	No	UPL		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
= Total Cover					
35 = Total Cover					
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
= Total Cover					
% Bare Ground in Herb Stratum	65	% Cover of Biotic Crust _____			

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-91-IN (WET-6B)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 5/4	100					Silt Loam	
5-9	7.5YR 5/4	50					Clay Loam	
	7.5YR 7/4	50						
9-14	10YR 7/2	65					Clay Loam	
	7.5YR 5/4	35						
14-18	10YR 6/1	80					Clay	
	10YR 4/1	20						

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Tables (A2) <input type="checkbox"/> Biotic Crust (B12) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 11.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



Saltgrass 15%
Pickleweed 10%
Seaside barley 5%
Sint. wheatgrass 5%
bare ground 65%

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 4/24/2019
 Applicant/Owner: UDOT State: Utah Sampling Point: W-91-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.805931 Long: -111.925798 Datum: WGS84
 Soil Map Unit Name: Loamy borrow pits NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 90 x5= _____ 450 Column Totals: _____ 90 (A) _____ 450 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Thinopyrum intermedium</u>	<u>90</u>	<u>Yes</u>	<u>UPL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>90</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>10</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-91-OUT (OUT-6B)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	7.5YR 4/4	100					Silt Loam	
6-8	10YR 7/1	90					Clay	
	10YR 4/1	10						
8-17	7.5YR 5/4	100					Sandy Loam	

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____ X _____
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Remarks:
No hydric soil indicator present.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
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<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

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): _____ 10.0 (includes capillary fringe)	Wetland Hydrology Present? Yes _____ X _____ No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



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 Soil Map Unit Name: Loamy borrow pits NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
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 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 95 x3= _____ 285 FACU species _____ x4= _____ 0 UPL species _____ 5 x5= _____ 25 Column Totals: _____ 100 (A) _____ 310 (B) <i>Prevalence Index = B/A=</i> _____ 3.10
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Distichlis spicata</u>	95	Yes	FAC	
2. <u>Cardaria draba</u>	5	No	UPL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:

SOIL

Sampling Point: W-92-IN (WET-7A)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 4/1	100					Silty Clay	
3-10	10YR 4/1	90	10YR 4/6	10	C	M	Silty Clay	Redox is prominent.
10-20	10YR 7/2	90					Clay	Redox is prominent.

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 6.0 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 11.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with high water table and saturation as a primary hydrology indicators.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 4/24/2019
 Applicant/Owner: UDOT State: Utah Sampling Point: W-92-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.805831 Long: -111.924367 Datum: WGS84
 Soil Map Unit Name: Loamy borrow pits NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 10 x3= _____ 30 FACU species _____ x4= _____ 0 UPL species _____ 90 x5= _____ 450 Column Totals: _____ 100 (A) _____ 480 (B) <i>Prevalence Index = B/A=</i> _____ 4.80
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Cardaria draba</u>	<u>90</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Distichlis spicata</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-92-OUT (OUT-7A)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/1	80					Silt Loam	
	10YR 7/1	20						
2-15	10YR 4/1	95	10YR 7/1	5	D	M	Silt Loam	Redox is distinct
15-19	10YR 4/1	75					Clay	
	10YR 7/1	25						

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____ X _____
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Remarks:
No hydric soil indicator present.

HYDROLOGY

Wetland Hydrology Indicators:		<i>Secondary Indicators (2 or more required)</i>
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

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): _____ 1.0 (includes capillary fringe)	Wetland Hydrology Present? Yes _____ X _____ No _____
--	---

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 4/17/2020
 Applicant/Owner: UDOT State: Utah Sampling Point: W-93-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 2
 Subregion (LRR): D-Interior deserts Lat: 40.805695 Long: -111.920914 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Phragmites filled wetland in roadside depression area. Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	95	Yes	FACW	
2. <u>Distichlis spicata</u>	5	No	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
100 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-93-IN (WET-4)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 4/1	60	10YR 7/2	25	C	M	Sandy Loam	Redox is prominent.
	10YR 4/1	60	10YR 5/8	15	C	M		
9-20	10YR 7/2	70	10YR 5/8	15	C	M	Sandy Loam	Redox is prominent.
	10YR 3/1	15						

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
--	---

Remarks:
Hydric soil indicator F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 2.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
---	---

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



D-9 10YR 4/1 60% Sa Low
10YR 7/2 25% D, M
10YR 5/3 15% C, M
A-20 10YR 7/2 70% Sa Low
10YR 3/1 15% 15%
matrix 10YR 5/8 C, M

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 4/17/2020
 Applicant/Owner: UDOT State: Utah Sampling Point: W-93-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.805687 Long: -111.920888 Datum: WGS84
 Soil Map Unit Name: Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks:
 Sampling point does not meet characteristics of a wetland. No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 10 x5= _____ 50 Column Totals: _____ 10 (A) _____ 50 (B) <i>Prevalence Index = B/A=</i> _____ 5.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Bromus tectorum</u>	<u>5</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Cardaria draba</u>	<u>5</u>	<u>Yes</u>	<u>UPL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>10</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>90</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community on road base.

SOIL

Sampling Point: W-93-OUT (OUT-4)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
--	--

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
--	--

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No soil pit taken on road shoulder with lack of hydrophytic vegetation and hydrology. No hydrology observed.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 4/17/2020
 Applicant/Owner: UDOT State: Utah Sampling Point: W-94-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.804651 Long: -111.920446 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 85 x2= _____ 170 FAC species _____ 7 x3= _____ 21 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 92 (A) _____ 191 (B) <i>Prevalence Index = B/A=</i> _____ 2.08
1. <u>Elaeagnus angustifolia</u>	2	No	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	2	= Total Cover	_____	
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phragmites australis</u>	85	Yes	FACW	
2. <u>Distichlis spicata</u>	5	No	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	90	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust ⁰	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-94-IN (WET-5a)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 5/1	90					Silty Clay	Muck mixed in.
	10YR 2/1	10						
4-6	10YR 5/1	90	10YR 4/6	10	C	M	Silty Clay	Hydrophytic vegetation present.
6-8	10YR 2/1	100					Organic	Muck.
8-17	10YR 5/1	85	10YR 4/6	5	C	M	Silty Clay	Muck mixed in.
	10YR 2/1	10						

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input checked="" type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: _____	
Depth (inches): _____	

Remarks:
Hydric soil indicators A9 and F3 present

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ 5.0	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0	
(includes capillary fringe)	

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with high water table, saturation, and hydrogen sulfide odor as primary hydrology indicators.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 4/17/2020
 Applicant/Owner: UDOT State: Utah Sampling Point: W-94-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.804623 Long: -111.920449 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 50 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 10 x3= _____ 30 FACU species _____ x4= _____ 0 UPL species _____ 10 x5= _____ 50 Column Totals: _____ 20 (A) _____ 80 (B) <i>Prevalence Index = B/A=</i> _____ 4.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Distichlis spicata</u>	10	Yes	FAC	
2. <u>Bromus tectorum</u>	10	Yes	UPL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	20	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	80	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Upland vegetation community. Vegetation disturbed by road activity.

SOIL

Sampling Point: W-94-OUT (OUT-5a)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/3	100					Silt Loam	

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/> X <input type="checkbox"/>
Type: _____	
Depth (inches): _____	

Remarks:
No hydric soil indicator present.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input type="checkbox"/> X <input type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____	
(includes capillary fringe)	

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 4/17/2020
 Applicant/Owner: UDOT State: Utah Sampling Point: W-95-IN
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.799887 Long: -111.918968 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ 60 x1= _____ 60 FACW species _____ 20 x2= _____ 40 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 80 (A) _____ 100 (B) <i>Prevalence Index = B/A=</i> _____ 1.25
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Schoenoplectus acutus</u>	60	Yes	OBL	
2. <u>Phragmites australis</u>	20	Yes	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	80	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	20	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-95-IN (WET-5b)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/2	100					Silty Clay	
3-4	10YR 2/1	100					Organic	Muck
4-8	10YR 5/2	80	10YR 7/2	20	D	M	Silty Clay	Redox is faint.
8-15	10YR 7/3	80	10YR 8/1	20	D	M	Silty Clay	Redox is distinct.

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input checked="" type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
--	---

Remarks:
Hydric soil indicator A9 present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ 1.0 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Salt Lake Sampling Date: 4/17/2020
 Applicant/Owner: UDOT State: Utah Sampling Point: W-95-OUT
 Investigators: Joshua McMillin, Mike Perkins Section, Township, Range: S 23, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.799881 Long: -111.919043 Datum: WGS84
 Soil Map Unit Name: Made Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
 Sampling point does not meet characteristics of a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ 20 x4= _____ 80 UPL species _____ x5= _____ 0 Column Totals: _____ 20 (A) _____ 80 (B) <i>Prevalence Index = B/A=</i> _____ 4.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Poa bulbosa</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>20</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No _____ X _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>80</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Vegetation appears to be recently cleared for pipeline installation. Upland vegetation community.

SOIL

Sampling Point: W-95-OUT (OUT-5b)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/2	100					Silt Loam	
6-16	10YR 4/3	95	10YR 7/2	5	D	M	Silt Loam	Redox is distinct.

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/> X <input type="checkbox"/>
Type: _____	
Depth (inches): _____	

Remarks:
No hydric soil indicator present.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input type="checkbox"/> X <input type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 05/23/2023
 Applicant/Owner: UDOT State: UT Sampling Point: W-96-IN
 Investigator(s): Joshua McMillin, Lacey Wilder Section, Township, Range: S 36, T 3N, R 1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR): LRR D Lat: 40.952335 Long: -111.893545 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Sampling point meets the criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				
1.	_____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>20</u> x 1 = <u>20</u> FACW species <u>40</u> x 2 = <u>80</u> FAC species <u>10</u> x 3 = <u>30</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>100</u> (A) <u>250</u> (B) Prevalence Index = B/A = <u>2.50</u>
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				
1.	<u>Juncus arcticus spp. littoralis</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	<u>Lactuca serriola</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
3.	<u>Hordeum pusillum</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
4.	<u>Carex nebrascensis</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>	
5.	<u>Poa pratensis</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
_____ =Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____			

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-96-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/1	100					Loamy/Clayey	
4-17	10YR 3/1	75	10YR 5/8	25	C	M		Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil indicator F6 present.

HYDROLOGY

Wetland Hydrology Indicators:		Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Thin Muck Surface (C7)		<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): 13 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 4 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 05/23/2023
 Applicant/Owner: UDOT State: UT Sampling Point: W-96-OUT
 Investigator(s): Joshua McMillin, Lacey Wilder Section, Township, Range: S 36, T 3N, R 1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Convex Slope (%): 2
 Subregion (LRR): LRR D Lat: 40.952327 Long: -111.893593 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
=Total Cover				
Sapling/Shrub Stratum (Plot size: <u>5 ft radius</u>)				
1. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>5</u> x 1 = <u>5</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>45</u> x 4 = <u>180</u> UPL species <u>40</u> x 5 = <u>200</u> Column Totals: <u>120</u> (A) <u>465</u> (B) Prevalence Index = B/A = <u>3.88</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
=Total Cover				
Herb Stratum (Plot size: <u>5 ft radius</u>)				
1. <u>Lactuca serriola</u>	40	Yes	FACU	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Bromus tectorum</u>	30	Yes	UPL	
3. <u>Juncus arcticus spp. littoralis</u>	10	No	FACW	
4. <u>Erodium cicutarium</u>	5	No	UPL	
5. <u>Veronica persica</u>	5	No	UPL	
6. <u>Lepidium perfoliatum</u>	5	No	FACU	
7. <u>Carex nebrascensis</u>	5	No	OBL	
8. <u>Poa pratensis</u>	20	No	FAC	
120 =Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
2. _____	_____	_____	_____	
=Total Cover				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____				

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-96-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-19	10YR 2/1	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
---	---

Remarks:
No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:		Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Thin Muck Surface (C7)		<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 05/23/2023
 Applicant/Owner: UDOT State: UT Sampling Point: W-97-IN
 Investigator(s): Joshua McMillin, Lacey Wilder Section, Township, Range: _____
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): concave Slope (%): 3
 Subregion (LRR): LRR D Lat: 40.9446988 Long: 111.8933377 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>x</u> No _____ Hydric Soil Present? Yes <u>x</u> No _____ Wetland Hydrology Present? Yes <u>x</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: No soil pit due to dominate obligate vegetation and standing water.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	<u>Phragmites australis</u>	10	No	FACW	
2.	<u>Typha latifolia</u>	70	Yes	OBL	
3.	<u>Carex nebrascensis</u>	20	Yes	OBL	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
100 =Total Cover					
Woody Vine Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: Multiply by:
 OBL species 90 x 1 = 90
 FACW species 10 x 2 = 20
 FAC species 0 x 3 = 0
 FACU species 0 x 4 = 0
 UPL species 0 x 5 = 0
 Column Totals: 100 (A) 110 (B)
 Prevalence Index = B/A = 1.10

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
 Wetland vegetation present.

SOIL

Sampling Point: W-97-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
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Remarks:
No soil pit due to dominate obligate vegetation and standing water.

HYDROLOGY

Wetland Hydrology Indicators:	Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 05/23/2023
 Applicant/Owner: UDOT State: UT Sampling Point: W-97-OUT
 Investigator(s): Joshua McMillin, Lacey Wilder Section, Township, Range: S 36, T 3N, R 1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Convex Slope (%): 3
 Subregion (LRR): LRR D Lat: 40.9446837 Long: -111.8932808 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: No soil pit due to weedy upland vegetation and paved path.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		_____	=Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>40</u> x 5 = <u>200</u> Column Totals: <u>40</u> (A) <u>200</u> (B) Prevalence Index = B/A = <u>5.00</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
Herb Stratum	(Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>Bromus tectorum</u>	<u>40</u>	<u>Yes</u>	<u>UPL</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
		<u>40</u>	=Total Cover		
Woody Vine Stratum	(Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		_____	=Total Cover		
% Bare Ground in Herb Stratum <u>60</u> % Cover of Biotic Crust _____					

Remarks:
 Upland vegetaion present.

SOIL

Sampling Point: W-97-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No soil pit due to weedy upland vegetation and paved path.

HYDROLOGY

Wetland Hydrology Indicators:	Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 05/23/2023
 Applicant/Owner: UDOT State: UT Sampling Point: W-98-OUT
 Investigator(s): Joshua McMillin, Lacey Wilder Section, Township, Range: S 36, T 3N, R 1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR): LRR D Lat: 40.9444492 Long: -111.8931569 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				
1.	<u>Distichlis spicata</u>	<u>75</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Ranunculus acris</u>	<u>8</u>	<u>No</u>	<u>FACW</u>	
3.	<u>Polygonum aviculare</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4.	<u>Phragmites australis</u>	<u>2</u>	<u>No</u>	<u>FACW</u>	
5.	<u>Alopecurus arundinaceus</u>	<u>2</u>	<u>No</u>	<u>FAC</u>	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
<u>92</u> =Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>8</u>		% Cover of Biotic Crust _____			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species 0 x 1 = 0
 FACW species 10 x 2 = 20
 FAC species 82 x 3 = 246
 FACU species 0 x 4 = 0
 UPL species 0 x 5 = 0
 Column Totals: 92 (A) 266 (B)
 Prevalence Index = B/A = 2.89

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-98-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 3/2	100					Loamy/Clayey	
10-18	10YR 5/2	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
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Remarks:
No hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators present.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 05/23/2023
 Applicant/Owner: UDOT State: UT Sampling Point: W-99-IN
 Investigator(s): Joshua McMillin, Lacey Wilder Section, Township, Range: S 36, T 3N, R 1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR): LRR D Lat: 40.944703 Long: -111.893349 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Sampling point meets criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				
1.	<u><i>Alopecurus arundinaceus</i></u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
2.	<u><i>Juncus arcticus spp. littoralis</i></u>	<u>90</u>	<u>Yes</u>	<u>FACW</u>	
3.	<u><i>Cardaria draba</i></u>	<u>5</u>	<u>No</u>	<u>UPL</u>	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
_____ =Total Cover					
<u>105</u> =Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species 0 x 1 = 0
 FACW species 90 x 2 = 180
 FAC species 10 x 3 = 30
 FACU species 0 x 4 = 0
 UPL species 5 x 5 = 25
 Column Totals: 105 (A) 235 (B)
 Prevalence Index = B/A = 2.24

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-99-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Loamy/Clayey	
3-15	10YR 2/1	95	10YR 4/6	5	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil indicator F6 present.

HYDROLOGY

Wetland Hydrology Indicators:		Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Thin Muck Surface (C7)		<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 05/23/2023
 Applicant/Owner: UDOT State: UT Sampling Point: W-99-OUT
 Investigator(s): Joshua McMillin, Lacey Wilder Section, Township, Range: S 36, T 3N, R 1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): LRR D Lat: 40.943955 Long: -111.893440 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Sampling point does not meet criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				
1.	_____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>90</u> x 5 = <u>450</u> Column Totals: <u>100</u> (A) <u>470</u> (B) Prevalence Index = B/A = <u>4.70</u>
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				
1.	<u>Thinopyrum intermedium</u>	<u>30</u>	<u>Yes</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	<u>Unknown grass</u>	<u>40</u>	<u>Yes</u>	<u>UPL</u>	
3.	<u>Cardaria draba</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>	
4.	<u>Atriplex prostrata</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
_____ =Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____			

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-99-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 2/1	100					Loamy/Clayey	
9-18	10YR 6/2	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)			
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil indicators A11 and F3 present.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 05/23/2023
 Applicant/Owner: UDOT State: UT Sampling Point: W-100-OUT
 Investigator(s): Joshua McMillin, Lacey Wilder Section, Township, Range: S 1, T 2N, R 1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): LRR D Lat: 40.932294 Long: -111.892516 Datum: WGS84
 Soil Map Unit Name: Ironton silt loam, saline, sodic, 0 to 1 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Sampling point does not have any hydrology indicators present and appears to be drying out. Sampling point does not meet criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>80</u> x 2 = <u>160</u> FAC species <u>30</u> x 3 = <u>90</u> FACU species <u>10</u> x 4 = <u>40</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>120</u> (A) <u>290</u> (B) Prevalence Index = B/A = <u>2.42</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>Dipsacus fullonum</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Juncus arcticus spp. littoralis</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>	
3.	<u>Cirsium arvense</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
<u>120</u> =Total Cover					
Woody Vine Stratum	(Plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____					

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-100-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 2/1	100					Loamy/Clayey	
7-12	10YR 2/1	97	10YR 4/6	3	C	M	Loamy/Clayey	Prominent redox concentrations
12-18	10YR 2/1	85	10YR 4/6	15	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks:
Hydric soil indicator F6 present.

HYDROLOGY

Wetland Hydrology Indicators:		Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Thin Muck Surface (C7)		<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators present.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 05/23/2023
 Applicant/Owner: UDOT State: UT Sampling Point: W-101-OUT
 Investigator(s): Joshua McMillin, Lacey Wilder Section, Township, Range: S 36, T 1N, R 1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR): LRR D Lat: 40.7852554 Long: -111.9111080 Datum: WGS84
 Soil Map Unit Name: Urban land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Sampling point does not meet criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				
1.	<u>Phragmites australis</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
_____ =Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>100</u>	x 2 = <u>200</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>200</u> (B)
Prevalence Index = B/A = <u>2.00</u>	

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

_____ Prevalence Index is ≤3.0¹

_____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

_____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-101-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 2/2	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
---	---

Remarks:
No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:	Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
--	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators present.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 05/23/2023
 Applicant/Owner: UDOT State: UT Sampling Point: W-102-IN
 Investigator(s): Joshua McMillin, Lacey Wilder Section, Township, Range: S 36, T 1N, R 1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR): LRR D Lat: 40.7731573 Long: -111.9097562 Datum: WGS84
 Soil Map Unit Name: Urban land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>x</u> No _____ Hydric Soil Present? Yes <u>x</u> No _____ Wetland Hydrology Present? Yes <u>x</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Sampling point meets criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
					=Total Cover
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
					=Total Cover
Herb Stratum	(Plot size: <u>5 ft radius</u>)				
1.	<u>Phragmites australis</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>	
2.	<u>Bromus tectorum</u>	<u>5</u>	<u>No</u>	<u>UPL</u>	
3.	<u>Rumex crispus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
					<u>110</u> =Total Cover
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
					=Total Cover
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species 0 x 1 = 0
 FACW species 100 x 2 = 200
 FAC species 5 x 3 = 15
 FACU species 0 x 4 = 0
 UPL species 5 x 5 = 25
 Column Totals: 110 (A) 240 (B)
 Prevalence Index = B/A = 2.18

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-102-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13	10YR 2/1	85	10YR 4/6	15	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	
Type: <u>Restrictive Layer</u>	
Depth (inches): <u>13</u>	
	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Remarks:
Hydric soil indicator F6 present.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>7</u>	
(includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 05/23/2023
 Applicant/Owner: UDOT State: UT Sampling Point: W-102-OUT
 Investigator(s): Joshua McMillin, Lacey Wilder Section, Township, Range: S 36, T 1N, R 1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR): LRR D Lat: 40.7731419 Long: -111.9097213 Datum: WGS84
 Soil Map Unit Name: Urban land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
--	---

Remarks:
 No soil pit due to upland weeds, human disturbance, and compaction. Sampling point does not meet criteria for a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>25</u> x 5 = <u>125</u> Column Totals: <u>25</u> (A) <u>125</u> (B) Prevalence Index = B/A = <u>5.00</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
Herb Stratum	(Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>Bromus tectorum</u>	<u>25</u>	<u>Yes</u>	<u>UPL</u>	
2.	<u>Unknown grass</u>	<u>5</u>	<u>No</u>	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
<u>30</u> =Total Cover					
Woody Vine Stratum	(Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>75</u>		% Cover of Biotic Crust _____			

Remarks:
 Upland vegetation present.

SOIL

Sampling Point: W-102-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No soil pit due to upland weeds, human disturbance, and compaction.

HYDROLOGY

Wetland Hydrology Indicators:	Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 07/24/2023
 Applicant/Owner: UDOT State: Utah Sampling Point: W-103-IN
 Investigators: Mike Perkins Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.786845 Long: -111.911491 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 75 x2= _____ 150 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 75 (A) _____ 150 (B) <i>Prevalence Index = B/A=</i> _____ 2.00
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Juncus arcticus</u>	<u>75</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>75</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum	<u>40</u>	% Cover of Biotic Crust ⁰	_____	

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-103-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR 6/2	95	10YR 5/8	5	C	M	Clay Loam	Redox is prominent.

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Soil passes hydric soil indicator F3.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Seasonal hydrology indicated by prominent soil cracks.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 07/24/2023
 Applicant/Owner: UDOT State: Utah Sampling Point: W-103-OUT
 Investigators: Mike Perkins Section, Township, Range: S 26, T 1N, R 1W
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.786826 Long: -111.911504 Datum: WGS84
 Soil Map Unit Name: Urban Land NWI Classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?		
Hydric Soil Present?	Yes _____	No <u>X</u>		<u>X</u>	No <u>X</u>
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
 Sampling point in slope just up from wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1.	_____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A)
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ 2 (B)
3.	_____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
4.	_____	_____	_____	_____	
				= Total Cover	
Sapling/Shrub Stratum	(Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1.	_____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2.	_____	_____	_____	_____	OBL species _____ x1= _____
3.	_____	_____	_____	_____	FACW species _____ x2= _____
4.	_____	_____	_____	_____	FAC species _____ x3= _____ 0
5.	_____	_____	_____	_____	FACU species _____ x4= _____ 0
				= Total Cover	UPL species _____ 80 x5= _____ 140
				= Total Cover	Column Totals: _____ 80 (A) _____ 140 (B)
					<i>Prevalence Index = B/A =</i> _____ 1.75
Herb Stratum	(Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1.	<u>Thinopyrum intermedium</u>	<u>50</u>	<u>Yes</u>	<u>UPL</u>	_____ Dominance Test is >50%
2.	<u>Bromus tectorum</u>	<u>30</u>	<u>Yes</u>	<u>UPL</u>	_____ Prevalence Index is ≤3.0 ¹
3.	_____	_____	_____	_____	_____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4.	_____	_____	_____	_____	_____ Problematic Hydrophytic Vegetation ¹ (Explain)
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	<u>80</u>	<u>= Total Cover</u>	_____	
				= Total Cover	
Woody Vine Stratum	(Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Footnote:
1.	_____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	_____	_____	_____	_____	
				= Total Cover	
% Bare Ground in Herb Stratum <u>20</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	

Remarks:
 Upland vegetation.

SOIL

Sampling Point: W-103-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR 5/3	100					Silt Loam	
14+								Rock

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: <u>Rock</u>	
Depth (inches): <u>14</u>	

Remarks:
No indicators observed in soil profile.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Dry soils.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 05/10/2024
 Applicant/Owner: UDOT State: Utah Sampling Point: W-104-IN
 Investigators: Joshua McMillin & Evan Blanford Section, Township, Range: S 30, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.967753 Long: -111.890270 Datum: WGS84
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____		
Wetland Hydrology Present?	Yes <u>X</u>	No _____		

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<u>Herb Stratum</u> (Plot size: 5 ft radius)				
1. <u>Phragmites australis</u>	120	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
120 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum	40	% Cover of Biotic Crust ⁰		

Remarks:
 Hydrophytic vegetation present.

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: W-104-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 2/2	100					Clay Loam	Roots

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
--	---

Remarks:
Soil passes hydric soil indicator A4.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with surface water, high water table, and saturation as primary hydrology indicators.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 05/10/2024
 Applicant/Owner: UDOT State: Utah Sampling Point: W-104-OUT
 Investigators: Joshua McMillin & Evan Blanford Section, Township, Range: S 30, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): 0
 Subregion (LRR): D-Interior deserts Lat: 40.967707 Long: -111.890259 Datum: WGS84
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	_____ No <u>X</u>
Hydric Soil Present?	Yes _____ No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks:
 Sampling point located in landscaped area above adjacent detention basin. Sampling point does not meet the criteria for a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A/B)
1. <u>Unknown landscaping trees</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>	
2. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ x2= _____ FAC species _____ x3= _____ FACU species <u>100</u> x4= <u>400</u> UPL species <u>20</u> x5= <u>100</u> Column Totals: <u>120</u> (A) <u>540</u> (B) <i>Prevalence Index = B/A= 4.5</i>
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
Sapling/Shrub Stratum (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
Herb Stratum (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. <u>Cynodon dactylon</u>	<u>100</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	<u>100</u>	<u>= Total Cover</u>	_____	
= Total Cover				
Woody Vine Stratum (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-104-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
Type: _____	
Depth (inches): _____	

Remarks:
No soil pit was taken in landscaped area.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators present.

Additional Reference Data: Photos



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: I15 Davis County EIS City/County: Davis Sampling Date: 05/10/2024
 Applicant/Owner: UDOT State: Utah Sampling Point: W-105-IN
 Investigators: Joshua McMillin & Evan Blanford Section, Township, Range: S 30, T 3N, R 1E
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): Concave Slope(%): 1
 Subregion (LRR): D-Interior deserts Lat: 40.933580 Long: -111.894595 Datum: WGS84
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If No, explain in Remarks)
 Are Vegetation: _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation: _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?		
Hydric Soil Present?	Yes <u>X</u>	No _____		Yes <u>X</u>	No _____
Wetland Hydrology Present?	Yes <u>X</u>	No _____		Yes <u>X</u>	No _____

Remarks:
 Sampling point meets the criteria for a wetland.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant
3. _____	_____	_____	_____	Species Across All Strata: <u>3</u> (B)
4. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66</u> (A/B)
= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: 15 ft radius)				Prevalence Index worksheet:
1. _____	_____	_____	_____	<u>Total % Cover of:</u> <u>Multiply by:</u>
2. _____	_____	_____	_____	OBL species _____ x1= _____
3. _____	_____	_____	_____	FACW species _____ x2= _____
4. _____	_____	_____	_____	FAC species _____ x3= _____
5. _____	_____	_____	_____	FACU species _____ x4= _____
= Total Cover				UPL species _____ x5= _____
				Column Totals: _____ (A) _____ (B)
				<i>Prevalence Index = B/A=</i> <u>2.00</u>
<u>Herb Stratum</u> (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators:
1. <u>Phleum pratense</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>	<u>X</u> Dominance Test is >50%
2. <u>Trifolium fragiferum</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	Prevalence Index is ≤3.0 ¹
3. <u>Ranunculus cymbalaria</u>	<u>3</u>	<u>No</u>	<u>OBL</u>	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Taraxacum officinale</u>	<u>2</u>	<u>No</u>	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Poa pratensis</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
<u>Woody Vine Stratum</u> (Plot size: 15 ft radius)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-105-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 2/1	100					Clay Loam	
9-18	10YR 2/1	96	7.5YR 4/6	4	C	M	Clay Loam	
18-24	10YR 5/1	95	7.5YR 4/6	5	C	M	Clay Loam	

¹Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Soil passes hydric soil indicator A12.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>0"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>12"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>6"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with high water table and saturation as primary hydrology indicators.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 5/9/2024
 Applicant/Owner: UDOT State: UT Sampling Point: W-105-OUT
 Investigator(s): Joshua McMillin, Michael Perkins Section, Township, Range: S01, T2N, R1W
 Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR): LRR D Lat: 40.93362295 Long: -111.89445702 Datum: WGS84
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Sampling point does not meet the criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
=Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>2</u> x 2 = <u>4</u> FAC species <u>50</u> x 3 = <u>150</u> FACU species <u>48</u> x 4 = <u>192</u> UPL species <u>5</u> x 5 = <u>25</u> Column Totals: <u>105</u> (A) <u>371</u> (B) Prevalence Index = B/A = <u>3.53</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
=Total Cover				
Herb Stratum (Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Trifolium repens</u>	<u>30</u>	Yes	FACU	
2. <u>Cardaria draba</u>	<u>5</u>	No	UPL	
3. <u>Phleum pratense</u>	<u>10</u>	No	FACU	
4. <u>Poa pratensis</u>	<u>20</u>	No	FAC	
5. <u>Trifolium fragiferum</u>	<u>30</u>	Yes	FAC	
6. <u>Taraxacum officinale</u>	<u>3</u>	No	FACU	
7. <u>Ranunculus spp.</u>	<u>2</u>	No	FACW	
8. <u>Cichorium intybus</u>	<u>5</u>	No	FACU	
<u>105</u> =Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
=Total Cover				
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____		

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-105-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-15	10YR 2/2	100					Loamy/Clayey	
15-20	2.5Y 4/2	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
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Remarks:
No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>16</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>11</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 5/9/2024
 Applicant/Owner: UDOT State: UT Sampling Point: W-106-IN
 Investigator(s): Joshua McMillin, Michael Perkins Section, Township, Range: S01, T2N, R1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR): LRR D Lat: 40.93332078 Long: -111.89448526 Datum: WGS84
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Sampling point meets the criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				
1.	<u>Distichlis spicata</u>	<u>80</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Lepidium perfoliatum</u>	<u>3</u>	<u>No</u>	<u>FACU</u>	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
<u>83</u> =Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>17</u>		% Cover of Biotic Crust _____			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by:
 OBL species 0 x 1 = 0
 FACW species 0 x 2 = 0
 FAC species 80 x 3 = 240
 FACU species 3 x 4 = 12
 UPL species 0 x 5 = 0
 Column Totals: 83 (A) 252 (B)
 Prevalence Index = B/A = 3.04

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-106-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 3/1	100					Loamy/Clayey	
7-18	10YR 6/1	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)			
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil indicators A11 (Depleted Below Dark Surface) and F3 (Depleted Matrix).

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 15 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 9 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with saturation as a primary hydrology indicator.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 5/9/2024
 Applicant/Owner: UDOT State: UT Sampling Point: W-106-OUT
 Investigator(s): Joshua McMillin, Michael Perkins Section, Township, Range: S01, T2N, R1W
 Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 5
 Subregion (LRR): LRR D Lat: 40.933288 Long: -111.89445281 Datum: WGS84
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Sampling point does not meet the criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				
1.	<u>Cardaria draba</u>	<u>10</u>	<u>No</u>	<u>UPL</u>	
2.	<u>Poa bulbosa</u>	<u>20</u>	<u>No</u>	<u>FACU</u>	
3.	<u>Lepidium perfoliatum</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
4.	<u>Hordeum jubatum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
5.	<u>Bromus inermis</u>	<u>70</u>	<u>Yes</u>	<u>FACU</u>	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
_____ =Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>95</u>	x 4 = <u>380</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>110</u> (A)	<u>445</u> (B)
Prevalence Index = B/A = <u>4.05</u>	

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0¹

___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-106-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 3/1	100					Loamy/Clayey	
7-15	10YR 5/2	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: _____ Rock _____		
Depth (inches): _____ 15 _____		

Remarks:
No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 5/9/2024
 Applicant/Owner: UDOT State: UT Sampling Point: W-107-IN
 Investigator(s): Joshua McMillin, Michael Perkins Section, Township, Range: S12, T1S, R1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR): LRR D Lat: 40.74512004 Long: -111.90555966 Datum: WGS84
 Soil Map Unit Name: Urban land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Sampling point meets the criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		_____	=Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>115</u> x 2 = <u>230</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>115</u> (A) <u>230</u> (B) Prevalence Index = B/A = <u>2.00</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
Herb Stratum	(Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>Phragmites australis</u>	<u>115</u>	<u>Yes</u>	<u>FACW</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
		<u>115</u>	=Total Cover		
Woody Vine Stratum	(Plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		_____	=Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____			

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-107-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/2	100					Loamy/Clayey	Roots

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	
Type: <u>Water</u>	
Depth (inches): <u>6</u>	
	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Remarks:
Hydric soil indicator A4 (Hydrogen Sulfide) present.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6</u>	
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	
	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology present with surface water, high water table, saturation, and hydrogen sulfide odor as primary hydrology indicators.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 5/9/2024
 Applicant/Owner: UDOT State: UT Sampling Point: W-107-OUT
 Investigator(s): Joshua McMillin, Michael Perkins Section, Township, Range: S12, T1S, R1W
 Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR): LRR D Lat: 40.74508773 Long: -111.90554417 Datum: WGS84
 Soil Map Unit Name: Urban land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Sampling point does meet the criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				
1.	<u>Cardaria draba</u>	<u>15</u>	<u>Yes</u>	<u>UPL</u>	
2.	<u>Poa bulbosa</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
3.	<u>Thinopyrum intermedium</u>	<u>30</u>	<u>Yes</u>	<u>UPL</u>	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
_____ =Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>35</u>		% Cover of Biotic Crust _____			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>45</u>	x 5 = <u>225</u>
Column Totals: <u>65</u> (A)	<u>305</u> (B)
Prevalence Index = B/A = <u>4.69</u>	

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0¹

___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-107-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 4/3	100					Loamy/Clayey	Roots

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: _____ Rock _____ Depth (inches): _____ 7 _____	

Remarks:
No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Additional Reference Data: Photos



Project/Site: I15 EIS City/County: Davis Sampling Date: 07/25/2024
 Applicant/Owner: UDOT State: UT Sampling Point: W-108-OUT
 Investigator(s): Joshua McMillin, Michael Perkins Section, Township, Range: S13, T3N, R1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR): LRR D Lat: 40.992927 Long: -111.90598471 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Sampling point does not meet criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				
1.	<u>Thinopyrum intermedium</u>	<u>70</u>	<u>Yes</u>	<u>UPL</u>	
2.	<u>Poa palustris</u>	<u>15</u>	<u>No</u>	<u>FAC</u>	
3.	<u>Carex praegracilis</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
4.	<u>Juncus arcticus spp. littoralis</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
_____ =Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>70</u>	x 5 = <u>350</u>
Column Totals: <u>105</u> (A)	<u>435</u> (B)
Prevalence Index = B/A = <u>4.14</u>	

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0¹

___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-108-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/2	100					Loamy/Clayey	
6-9	10YR 2/1	100					Loamy/Clayey	
9-15	10YR 3/2	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	
Type: _____ Compaction _____	
Depth (inches): _____ 15 _____	
	Hydric Soil Present? Yes _____ No <u>X</u>

Remarks:
No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	
Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____	
Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____	
(includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Project/Site: I15 EIS City/County: Davis Sampling Date: 7/25/2024
 Applicant/Owner: UDOT State: UT Sampling Point: W-109-OUT
 Investigator(s): Joshua McMillin, Michael Perkins Section, Township, Range: S13, T3N, R1W
 Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR): LRR D Lat: 40.991994 Long: -111.90889553 Datum: WGS84
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Ground disturbance in the area. Sampling point does not meet criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				
1.	<u>Distichlis spicata</u>	<u>95</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Hordeum murinum</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
3.	<u>Puccinellia nuttalliana</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
_____ =Total Cover					
<u>110</u> =Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species 0 x 1 = 0
 FACW species 10 x 2 = 20
 FAC species 95 x 3 = 285
 FACU species 5 x 4 = 20
 UPL species 0 x 5 = 0
 Column Totals: 110 (A) 325 (B)
 Prevalence Index = B/A = 2.95

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-109-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 5/3	100					Loamy/Clayey	
3-14	10YR 4/2	60					Loamy/Clayey	
	10YR 3/2	40					Loamy/Clayey	
14-20	10YR 5/2	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
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Remarks:
No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Project/Site: I15 EIS City/County: Davis Sampling Date: 7/25/2024
 Applicant/Owner: UDOT State: UT Sampling Point: W-110-IN
 Investigator(s): Joshua McMillin, Michael Perkins Section, Township, Range: S13, T3N, R1W
 Landform (hillside, terrace, etc.): Toe Slope Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): LRR D Lat: 40.990105 Long: -111.90587871 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Sampling point meets the criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
=Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>95</u> x 2 = <u>190</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>95</u> (A) <u>190</u> (B) Prevalence Index = B/A = <u>2.00</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
=Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>Phragmites australis</u>	<u>95</u>	<u>Yes</u>	<u>FACW</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
=Total Cover					
Woody Vine Stratum	(Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
=Total Cover					
% Bare Ground in Herb Stratum <u>5</u>		% Cover of Biotic Crust _____			

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-110-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					Loamy/Clayey	
2-8	10YR 4/2	90	10YR 5/8	10	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	Hydric Soil Present?
Type: _____ Rock _____	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Depth (inches): _____ 8 _____	

Remarks:
Hydric soil indicator A11 (Depleted Below Dark Surface) and F3 (Depleted Matrix) observed.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present?
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
(includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Problematic hydrology, dry time of the year.

Project/Site: I15 EIS City/County: Davis Sampling Date: 7/25/2024
 Applicant/Owner: UDOT State: UT Sampling Point: W-110-OUT
 Investigator(s): Joshua McMillin, Michael Perkins Section, Township, Range: S13, T3N, R1W
 Landform (hillside, terrace, etc.): Toe Slope Local relief (concave, convex, none): None Slope (%): 2
 Subregion (LRR): LRR D Lat: 40.99008516 Long: -111.90592773 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
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Remarks:
 Sampling point located on road shoulder. No soil pit dug with lack of hydrophytic vegetation and surface hydrology indicators. Sampling point does not meet the criteria for a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				
1.	<u>Thinopyrum intermedium</u>	<u>10</u>	<u>Yes</u>	<u>UPL</u>	
2.	<u>Poa bulbosa</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	
3.	<u>Symphotrichum ascendens</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
_____ =Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>80</u>		% Cover of Biotic Crust _____			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 3 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species 0 x 1 = 0
 FACW species 0 x 2 = 0
 FAC species 5 x 3 = 15
 FACU species 5 x 4 = 20
 UPL species 10 x 5 = 50
 Column Totals: 20 (A) 85 (B)
 Prevalence Index = B/A = 4.25

Hydrophytic Vegetation Indicators:
 ___ Dominance Test is >50%
 ___ Prevalence Index is ≤3.0¹
 ___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-110-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:
No soil pit dug with lack of hydrophytic vegetation and surface hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:	Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Project/Site: I15 EIS City/County: Davis Sampling Date: 7/25/2024
 Applicant/Owner: UDOT State: UT Sampling Point: W-111-OUT
 Investigator(s): Joshua McMillin, Michael Perkins Section, Township, Range: S25, T3N, R1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR): LRR D Lat: 40.97200588 Long: -111.89291581 Datum: WGS84
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Sampling point does not meet the criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
=Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>110</u> x 2 = <u>220</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>110</u> (A) <u>220</u> (B) Prevalence Index = B/A = <u>2.00</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
Herb Stratum	(Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>Phalaris arundinacea</u>	<u>110</u>	<u>Yes</u>	<u>FACW</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
=Total Cover					
Woody Vine Stratum	(Plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
=Total Cover					
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____			

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-111-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR 3/2	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Rock _____ Depth (inches): _____ 14 _____	Hydric Soil Present? Yes _____ No <u>X</u>
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Remarks:
No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:	Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Project/Site: I15 EIS City/County: Davis Sampling Date: 7/25/2024
 Applicant/Owner: UDOT State: UT Sampling Point: W-112-OUT
 Investigator(s): Joshua McMillin, Michael Perkins Section, Township, Range: S25, T3N, R1W
 Landform (hillside, terrace, etc.): Toe Slope Local relief (concave, convex, none): None Slope (%): 2
 Subregion (LRR): LRR D Lat: 40.971417 Long: -111.89269542 Datum: WGS84
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Sampling point does not meet the criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>100</u> x 2 = <u>200</u> FAC species <u>25</u> x 3 = <u>75</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>125</u> (A) <u>275</u> (B) Prevalence Index = B/A = <u>2.20</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>Phalaris arundinacea</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>	
2.	<u>Dipsacus fullonum</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
<u>125</u> =Total Cover					
Woody Vine Stratum	(Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____			

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-112-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 3/1	100					Loamy/Clayey	
10-12	10YR 4/1	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	
Type: _____ Compaction _____	
Depth (inches): _____ 12 _____	
	Hydric Soil Present? Yes _____ No <u>X</u>

Remarks:
No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	
Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____	
Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	
	Wetland Hydrology Present? Yes _____ No <u>X</u>

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

Project/Site: I15 EIS City/County: Davis Sampling Date: 7/25/2024
 Applicant/Owner: UDOT State: UT Sampling Point: W-113-IN
 Investigator(s): Joshua McMillin, Michael Perkins Section, Township, Range: S25, T3N, R1W
 Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR): LRR D Lat: 40.97120416 Long: -111.89253915 Datum: WGS84
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Sampling point meets the criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		_____	=Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>95</u> x 3 = <u>285</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>105</u> (A) <u>305</u> (B) Prevalence Index = B/A = <u>2.90</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
Herb Stratum	(Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>Phalaris arundinacea</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
2.	<u>Apocynum cannabinum</u>	<u>95</u>	<u>Yes</u>	<u>FAC</u>	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
		<u>105</u>	=Total Cover		
Woody Vine Stratum	(Plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		_____	=Total Cover		
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____					

Remarks:
 Hydrophytic vegetation present.

SOIL

Sampling Point: W-113-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/1	100					Loamy/Clayey	
2-10	10YR 2/1	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
10-17	10YR 4/2	80	10YR 4/6	20	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil indicators A11 (Depleted Below Dark Surface), F3 (Depleted Matrix), and F6 (Redox Dark Surface).

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Problematic hydrology, dry time of the year.

Project/Site: I15 EIS City/County: Davis Sampling Date: 7/25/2024
 Applicant/Owner: UDOT State: UT Sampling Point: W-113-OUT
 Investigator(s): Joshua McMillin, Michael Perkins Section, Township, Range: S25, T3N, R1W
 Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): LRR D Lat: 40.97114351 Long: -111.89266539 Datum: WGS84
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
---	--

Remarks:
 Sampling point does not meet the criteria for a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
_____ =Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u>)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ =Total Cover					
Herb Stratum	(Plot size: <u>5 ft radius</u>)				
1.	<u>Thinopyrum intermedium</u>	<u>60</u>	<u>Yes</u>	<u>UPL</u>	
2.	<u>Phalaris arundinacea</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
<u>90</u> =Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
_____ =Total Cover					
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust _____			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>60</u>	x 5 = <u>300</u>
Column Totals: <u>90</u> (A)	<u>360</u> (B)
Prevalence Index = B/A = <u>4.00</u>	

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0¹

___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:
 Upland vegetation community.

SOIL

Sampling Point: W-113-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 2/2	100					Loamy/Clayey	
5-8	10YR 3/3	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: _____ Rock _____ Depth (inches): _____ 8 _____	

Remarks:
No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:		Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Thin Muck Surface (C7)		<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology present.

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ATTACHMENT C-2

Wetland Determination Sampling Points Summary

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Appendix C-2. Wetland Determination Data Points Summary

Map_ID	Hydrophytic Vegetation Present?	Hydric Soils Present?	Wetland Hydrology Present?	Sampled Area within Wetland?	Map Sheet Number(s) ^a
W-1-IN	Yes	Yes	Yes	Yes	1
W-1-OUT	No	—	No	No	1
W-2-IN	Yes	Yes	Yes	Yes	1,2
W-2-OUT	No	No	No	No	1,2
W-3-IN	Yes	Yes	Yes	Yes	2
W-4-IN	Yes	Yes	Yes	Yes	2
W-4-OUT	No	—	No	No	2
W-5-IN	Yes	Yes	Yes	Yes	2
W-5-OUT	Yes	No	No	No	2
W-6-IN	Yes	Yes	Yes	Yes	2
W-7-IN	Yes	Yes	Yes	Yes	2
W-7-OUT	No	No	No	No	2
W-8-IN	Yes	Yes	Yes	Yes	2
W-9-IN	Yes	Yes	Yes	Yes	3,5
W-9-OUT	No	—	No	No	3,5
W-10-IN	Yes	Yes	Yes	Yes	5
W-10-OUT	No	—	No	No	5
W-11-OUT	Yes	No	No	No	3,5
W-12-IN	Yes	Yes	Yes	Yes	3
W-12-OUT	Yes	No	No	No	3
W-13-OUT	Yes	No	No	No	3
W-14-IN	Yes	Yes	Yes	Yes	3,5
W-15-IN	Yes	Yes	Yes	Yes	3,5,6
W-15-OUT	No	—	No	No	3,5,6
W-16-IN	Yes	Yes	Yes	Yes	3,6
W-16-OUT	No	—	No	No	3,6
W-17-IN	Yes	—	Yes	Yes	3
W-17-OUT	No	—	No	No	3
W-18-IN	Yes	Yes	Yes	Yes	3
W-18-OUT	Yes	No	No	No	3
W-19-IN	Yes	Yes	Yes	Yes	3
W-19-OUT	No	—	No	No	3
W-20-IN	Yes	Yes	Yes	Yes	3
W-20-OUT	No	—	No	No	3
W-21-IN	Yes	—	Yes	Yes	3,4

(continued on next page)

Appendix C-2. Wetland Determination Data Points Summary

Map_ID	Hydrophytic Vegetation Present?	Hydric Soils Present?	Wetland Hydrology Present?	Sampled Area within Wetland?	Map Sheet Number(s) ^a
W-21-OUT	No	—	No	No	3,4
W-22-IN	Yes	Yes	No	Yes	4
W-22-OUT	No	Yes	No	No	4
W-23-IN	Yes	Yes	Yes	Yes	6
W-23-OUT	No	—	No	No	6
W-24-IN	Yes	Yes	Yes	Yes	7
W-24-OUT	No	—	No	No	7
W-25-IN	Yes	Yes	Yes	Yes	8
W-25-OUT	No	—	No	No	8
W-26-IN	Yes	—	Yes	Yes	11
W-26-OUT	No	—	No	No	11
W-27-IN	Yes	Yes	No	Yes	10
W-27-OUT	No	No	No	No	10
W-28-IN	Yes	—	Yes	Yes	13
W-28-OUT	Yes	No	No	No	13
W-29-IN	Yes	Yes	Yes	Yes	13
W-29-OUT	No	—	No	No	13
W-30-IN	Yes	Yes	Yes	Yes	14
W-30-OUT	No	—	No	No	14
W-31-IN	Yes	Yes	Yes	Yes	15
W-31-OUT	No	No	No	No	15
W-32-IN	Yes	Yes	Yes	Yes	15
W-32-OUT	No	—	No	No	15
W-33-IN	Yes	Yes	Yes	Yes	15
W-33-OUT	No	—	No	No	15
W-34-IN	Yes	Yes	Yes	Yes	16
W-34-OUT	No	No	No	No	16
W-35-IN	Yes	Yes	Yes	Yes	16
W-35-OUT	No	—	No	No	16
W-36-IN	Yes	Yes	Yes	Yes	18
W-36-OUT	No	No	No	No	18
W-37-IN	Yes	Yes	Yes	Yes	19
W-37-OUT	No	No	No	No	19
W-38-IN	Yes	Yes	Yes	Yes	20,22
W-38-OUT	No	—	No	No	20,22

(continued on next page)

Appendix C-2. Wetland Determination Data Points Summary

Map_ID	Hydrophytic Vegetation Present?	Hydric Soils Present?	Wetland Hydrology Present?	Sampled Area within Wetland?	Map Sheet Number(s) ^a
W-39-IN	Yes	Yes	Yes	Yes	32
W-39-OUT	No	—	No	No	32
W-40-IN	Yes	Yes	Yes	Yes	34
W-40-OUT	No	—	No	No	34
W-41-IN	Yes	Yes	Yes	Yes	34
W-41-OUT	No	No	No	No	34
W-42-OUT	Yes	No	No	No	33
W-43-OUT	Yes	No	No	No	33
W-44-IN	Yes	Yes	Yes	Yes	35
W-44-OUT	No	—	No	No	35
W-45-IN	Yes	Yes	Yes	Yes	35
W-45-OUT	No	—	No	No	35
W-46-IN	Yes	Yes	Yes	Yes	34,35
W-46-OUT	No	—	No	No	34,35
W-47-IN	Yes	Yes	Yes	Yes	34
W-48-IN	Yes	Yes	Yes	Yes	37
W-48-OUT	No	No	No	No	37
W-49-OUT	Yes	No	Yes	No	36
W-50-IN	Yes	Yes	Yes	Yes	36
W-50-OUT	No	—	No	No	36
W-51-IN	Yes	Yes	Yes	Yes	36
W-51-OUT	No	—	No	No	36
W-52-IN	Yes	Yes	Yes	Yes	38
W-52-OUT	No	—	No	No	38
W-53-IN	Yes	Yes	Yes	Yes	39
W-53-OUT	No	—	—	No	39
W-54-IN	Yes	—	Yes	Yes	39
W-54-OUT	No	No	No	No	39
W-55-IN	Yes	Yes	Yes	Yes	39
W-55-OUT	No	Yes	No	No	39
W-56-OUT	Yes	No	No	No	41
W-57-IN	Yes	Yes	No	Yes	40,41
W-57-OUT	No	Yes	No	No	40,41
W-58-IN	Yes	Yes	Yes	Yes	40,41
W-58-OUT	No	No	No	No	40,41

(continued on next page)

Appendix C-2. Wetland Determination Data Points Summary

Map_ID	Hydrophytic Vegetation Present?	Hydric Soils Present?	Wetland Hydrology Present?	Sampled Area within Wetland?	Map Sheet Number(s) ^a
W-59-IN	Yes	Yes	Yes	Yes	40
W-59-OUT	No	—	No	No	40
W-60-IN	Yes	—	Yes	Yes	40
W-60-OUT	No	No	No	No	40
W-61-IN	Yes	Yes	Yes	Yes	40,42
W-61-OUT	No	—	No	No	40,42
W-62-IN	Yes	Yes	Yes	Yes	40,42
W-62-OUT	No	—	No	No	40,42
W-63-IN	Yes	Yes	Yes	Yes	41,43
W-63-OUT	No	—	No	No	41,43
W-64-IN	Yes	Yes	Yes	Yes	41,43
W-64-OUT	No	—	No	No	41,43
W-65-IN	Yes	Yes	No	Yes	42
W-65-OUT	No	—	No	No	42
W-66-IN	Yes	Yes	Yes	Yes	42
W-66-OUT	No	Yes	No	No	42
W-67-OUT	Yes	No	Yes	No	43
W-68-IN	Yes	Yes	Yes	Yes	43
W-68-OUT	No	—	No	No	43
W-69-IN	Yes	Yes	Yes	Yes	43
W-69-OUT	No	—	No	No	43
W-70-IN	Yes	Yes	Yes	Yes	42
W-70-OUT	No	—	No	No	42
W-71-IN	Yes	Yes	Yes	Yes	43
W-71-OUT	Yes	—	No	No	43
W-72-IN	Yes	Yes	Yes	Yes	44
W-72-OUT	No	—	No	No	44
W-73-IN	Yes	Yes	Yes	Yes	44,45
W-73-OUT	No	No	No	No	44,45
W-74-IN	Yes	Yes	No	Yes	46
W-74-OUT	No	No	No	No	46
W-75-IN	Yes	Yes	No	Yes	46
W-75-OUT	No	No	No	No	46
W-76-IN	Yes	Yes	No	Yes	46
W-76-OUT	No	—	No	No	46

(continued on next page)

Appendix C-2. Wetland Determination Data Points Summary

Map_ID	Hydrophytic Vegetation Present?	Hydric Soils Present?	Wetland Hydrology Present?	Sampled Area within Wetland?	Map Sheet Number(s) ^a
W-77-IN	Yes	Yes	Yes	Yes	47
W-77-OUT	No	—	No	No	47
W-78-IN	Yes	Yes	Yes	Yes	47
W-78-OUT	No	—	No	No	47
W-79-IN	Yes	Yes	Yes	Yes	48
W-79-OUT	No	—	No	No	48
W-80-IN	Yes	Yes	Yes	Yes	48
W-80-OUT	No	—	No	No	48
W-81-IN	Yes	Yes	Yes	Yes	49
W-81-OUT	No	—	No	No	49
W-82-OUT	Yes	No	No	No	48
W-83-OUT	Yes	No	No	No	50
W-84-IN	Yes	Yes	Yes	Yes	50
W-84-OUT	No	No	No	No	50
W-85-IN	Yes	Yes	Yes	Yes	53
W-85-OUT	No	—	No	No	53
W-86-IN	Yes	Yes	Yes	Yes	54
W-86-OUT	No	—	No	No	54
W-87-IN	Yes	Yes	Yes	Yes	55
W-87-OUT	No	—	No	No	55
W-88-IN	Yes	Yes	Yes	Yes	55
W-88-OUT	No	No	No	No	55
W-89-IN	Yes	Yes	Yes	Yes	19
W-89-OUT	No	No	No	No	19
W-90-IN	Yes	Yes	Yes	Yes	42
W-90-OUT	No	No	No	No	42
W-91-IN	Yes	Yes	Yes	Yes	42
W-91-OUT	No	No	Yes	No	42
W-92-IN	Yes	Yes	Yes	Yes	42
W-92-OUT	No	No	Yes	No	42
W-93-IN	Yes	Yes	Yes	Yes	43,44
W-93-OUT	No	—	No	No	43,44
W-94-IN	Yes	Yes	Yes	Yes	44,45
W-94-OUT	No	No	No	No	44,45
W-95-IN	Yes	Yes	Yes	Yes	45,46

(continued on next page)

Appendix C-2. Wetland Determination Data Points Summary

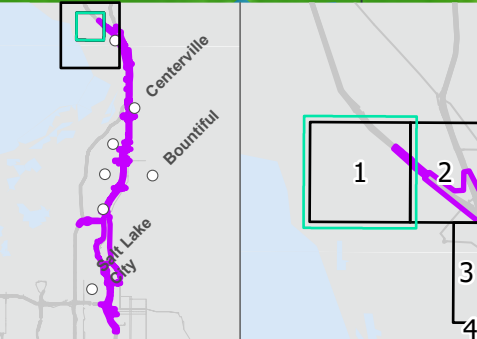
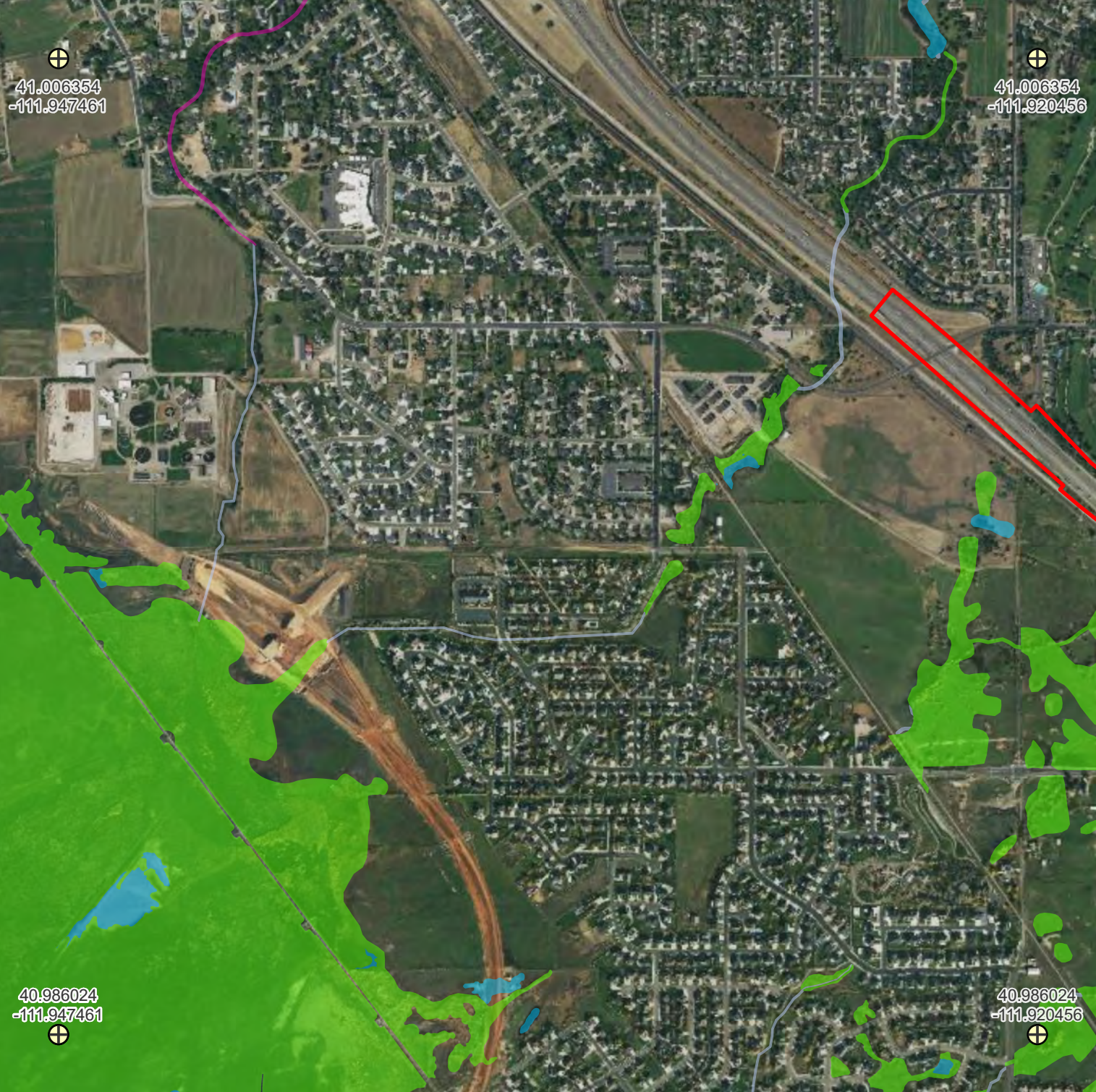
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W-95-OUT	No	No	No	No	45,46
W-96-IN	Yes	Yes	Yes	Yes	15
W-96-OUT	No	No	No	No	15
W-97-IN	Yes	Yes	Yes	Yes	17
W-97-OUT	No	—	No	No	17
W-98-OUT	Yes	No	No	No	17
W-99-IN	Yes	Yes	Yes	Yes	17
W-99-OUT	No	Yes	No	No	17
W-100-OUT	Yes	Yes	No	No	19
W-101-OUT	Yes	No	No	No	48
W-102-IN	Yes	Yes	Yes	Yes	52
W-102-OUT	No	—	No	No	52
W-103-IN	Yes	Yes	Yes	Yes	48
W-103-OUT	No	No	No	No	48
W-104-IN	Yes	Yes	Yes	Yes	13
W-104-OUT	No	—	No	No	13
W-105-IN	Yes	Yes	Yes	Yes	18
W-105-OUT	No	No	Yes	No	18
W-106-IN	Yes	Yes	Yes	Yes	19
W-106-OUT	No	No	No	No	19
W-107-IN	Yes	Yes	Yes	Yes	56
W-107-OUT	No	No	No	No	56
W-108-OUT	No	No	No	No	3
W-109-OUT	Yes	No	No	No	3
W-110-IN	Yes	Yes	Yes	Yes	5
W-110-OUT	No	—	No	No	5
W-111-OUT	Yes	No	No	No	10, 11
W-112-OUT	Yes	No	No	No	10, 11
W-113-IN	Yes	Yes	Yes	Yes	10, 11
W-113-OUT	No	No	No	No	10, 11

^a Map sheet numbers refer to pages in in Appendix D, *Aquatic Resource Delineation Map Series*

ATTACHMENT D

National Wetlands Inventory Map Series

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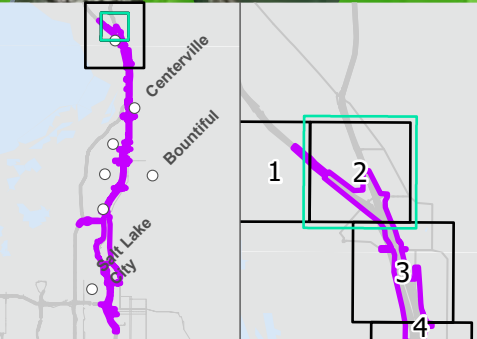
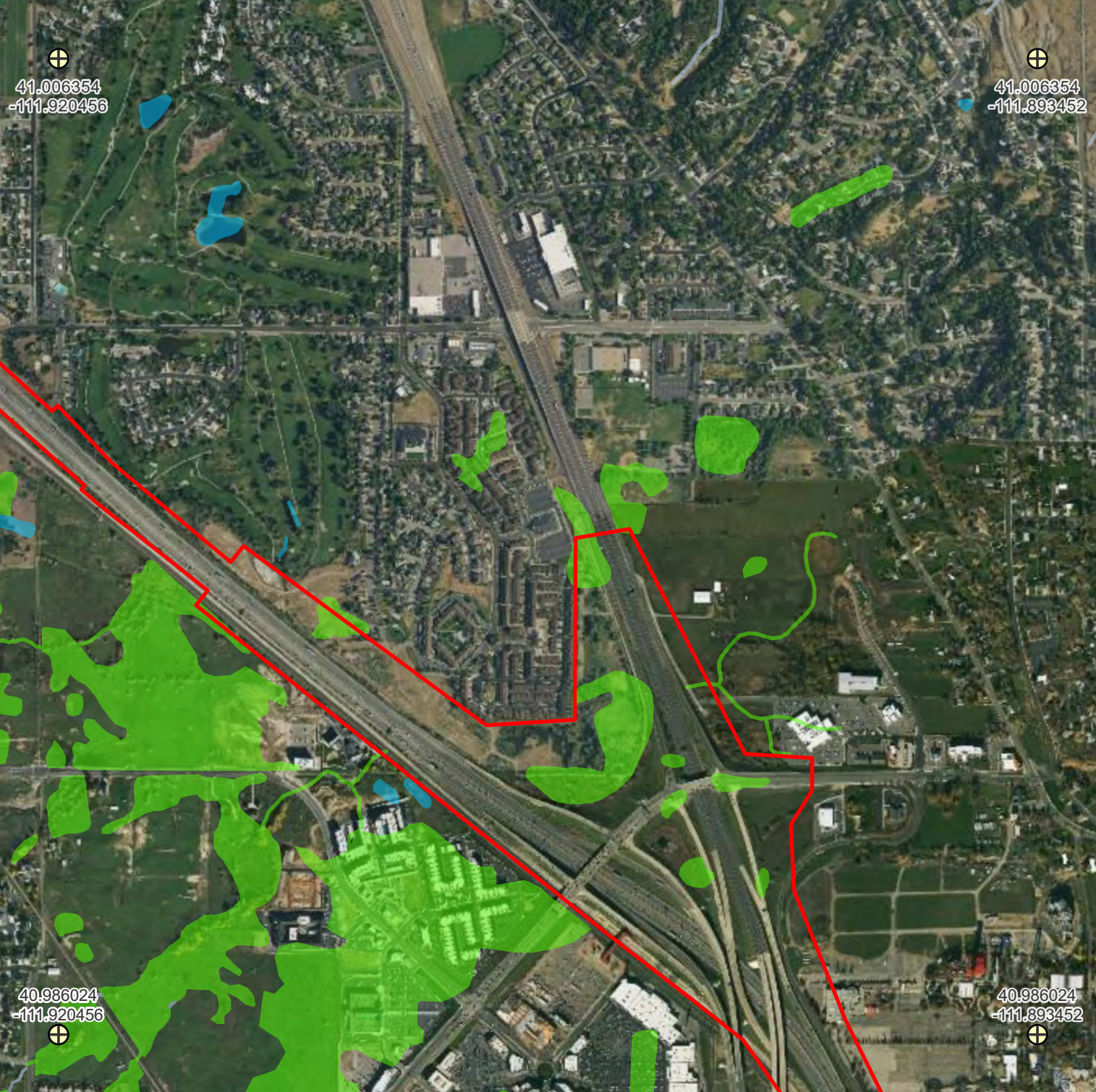
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- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine
- + Geographic Control Points



1 Inch equals 1,400 feet
 0 US Feet 1,400

DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Wetlands: NWI
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

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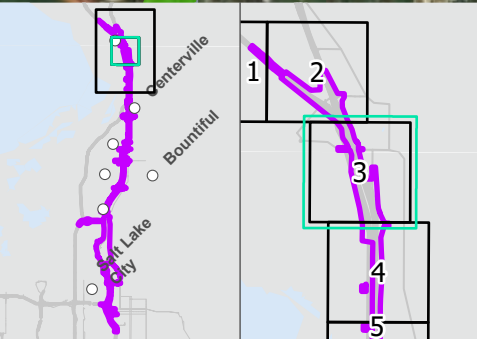
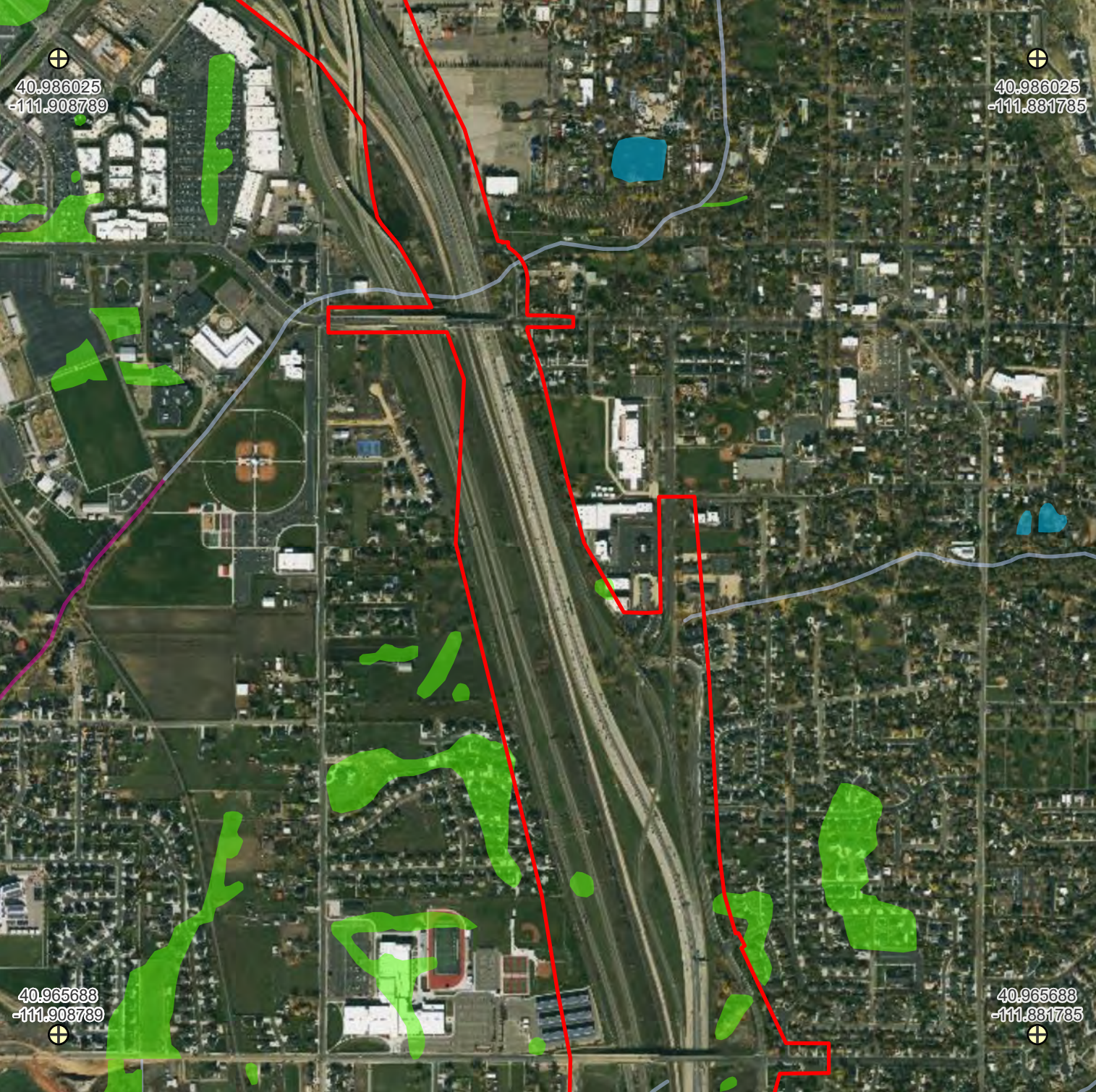
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- Freshwater Pond
- Riverine
- + Geographic Control Points



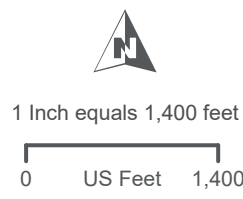
1 Inch equals 1,400 feet
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DATA SOURCES:
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 Wetlands: NWI
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 Utah Stateplane Central
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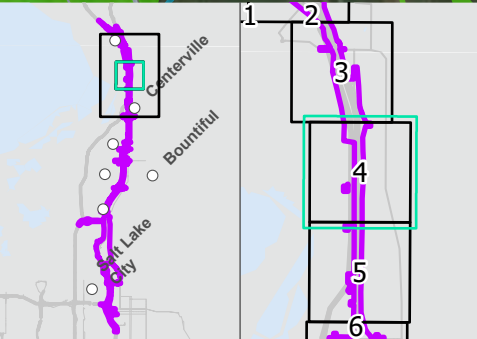


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- Freshwater Emergent Wetland
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- Freshwater Pond
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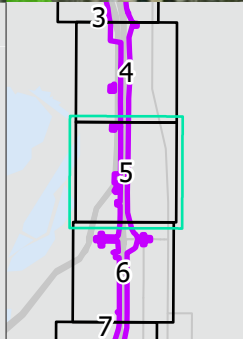
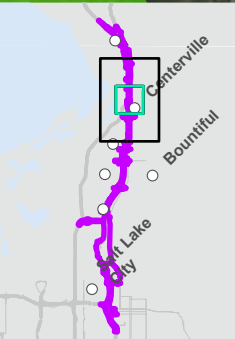
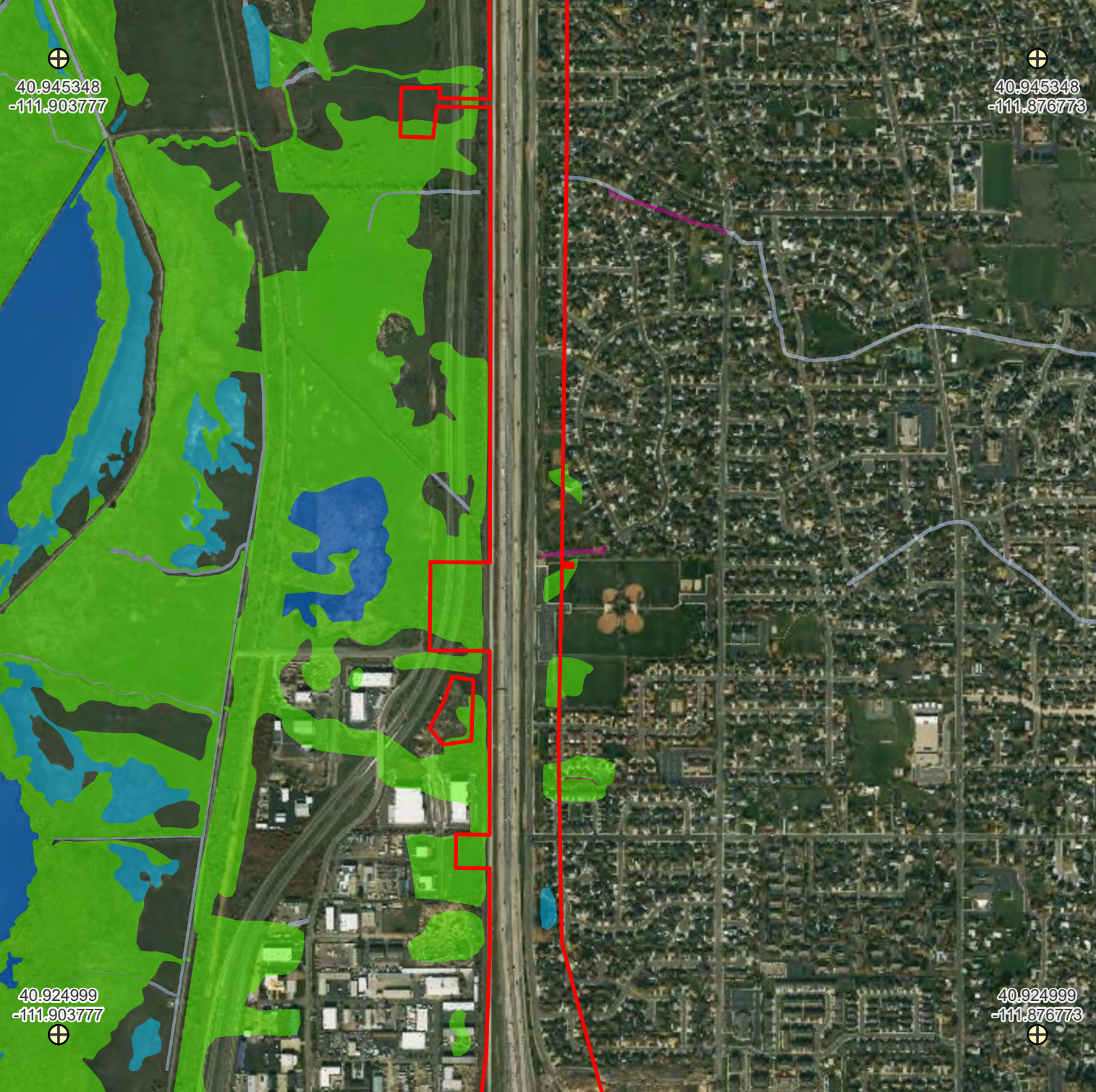
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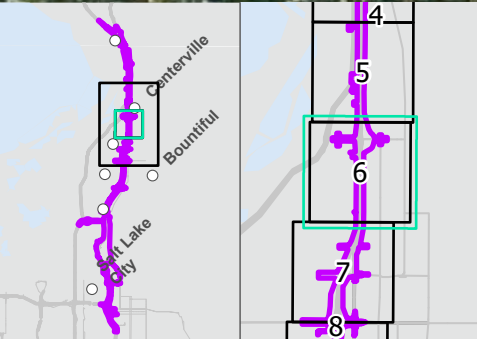
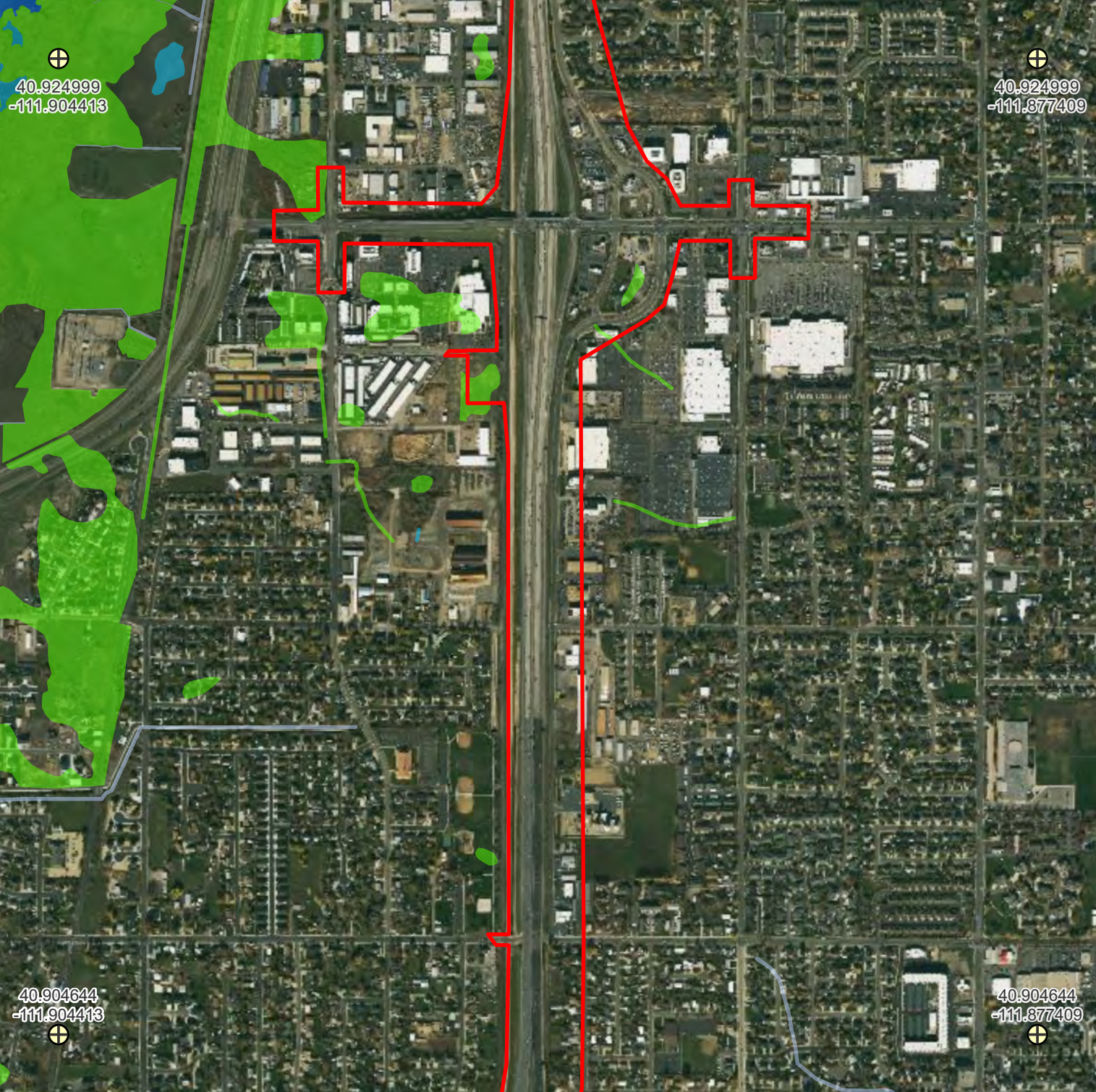
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- Freshwater Pond
- Lake
- Riverine
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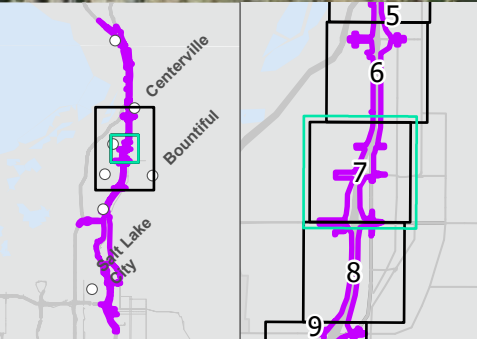
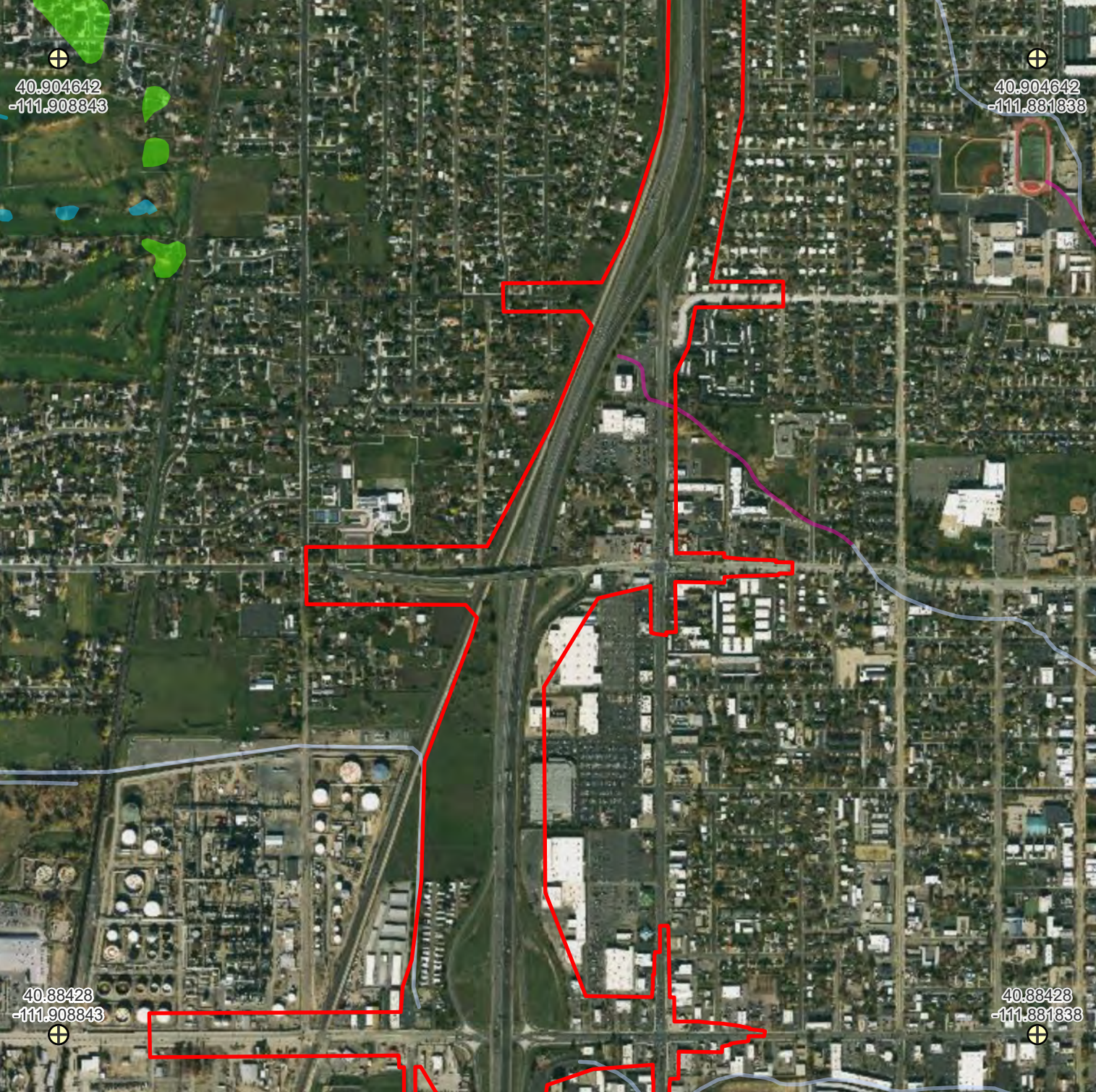
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- Freshwater Pond
- Riverine
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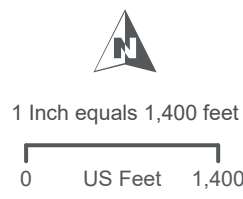
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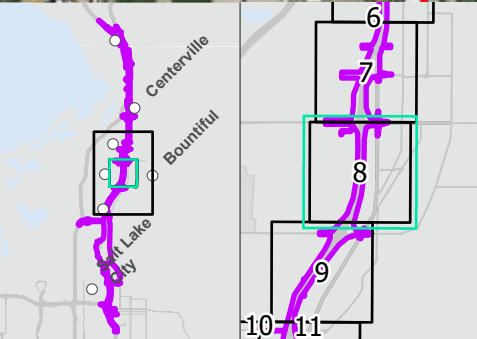
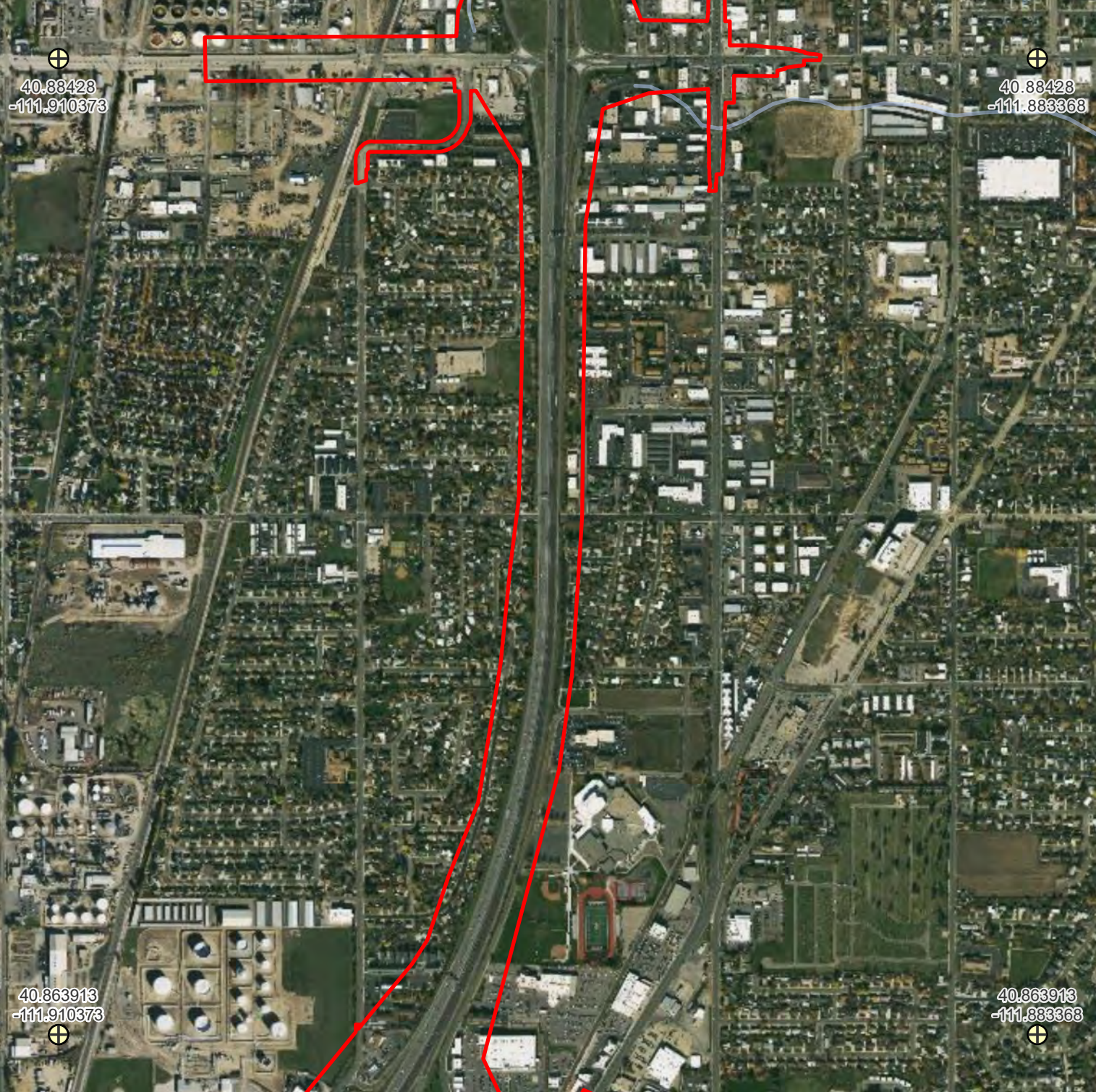


- Survey Area
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- Riverine
- + Geographic Control Points



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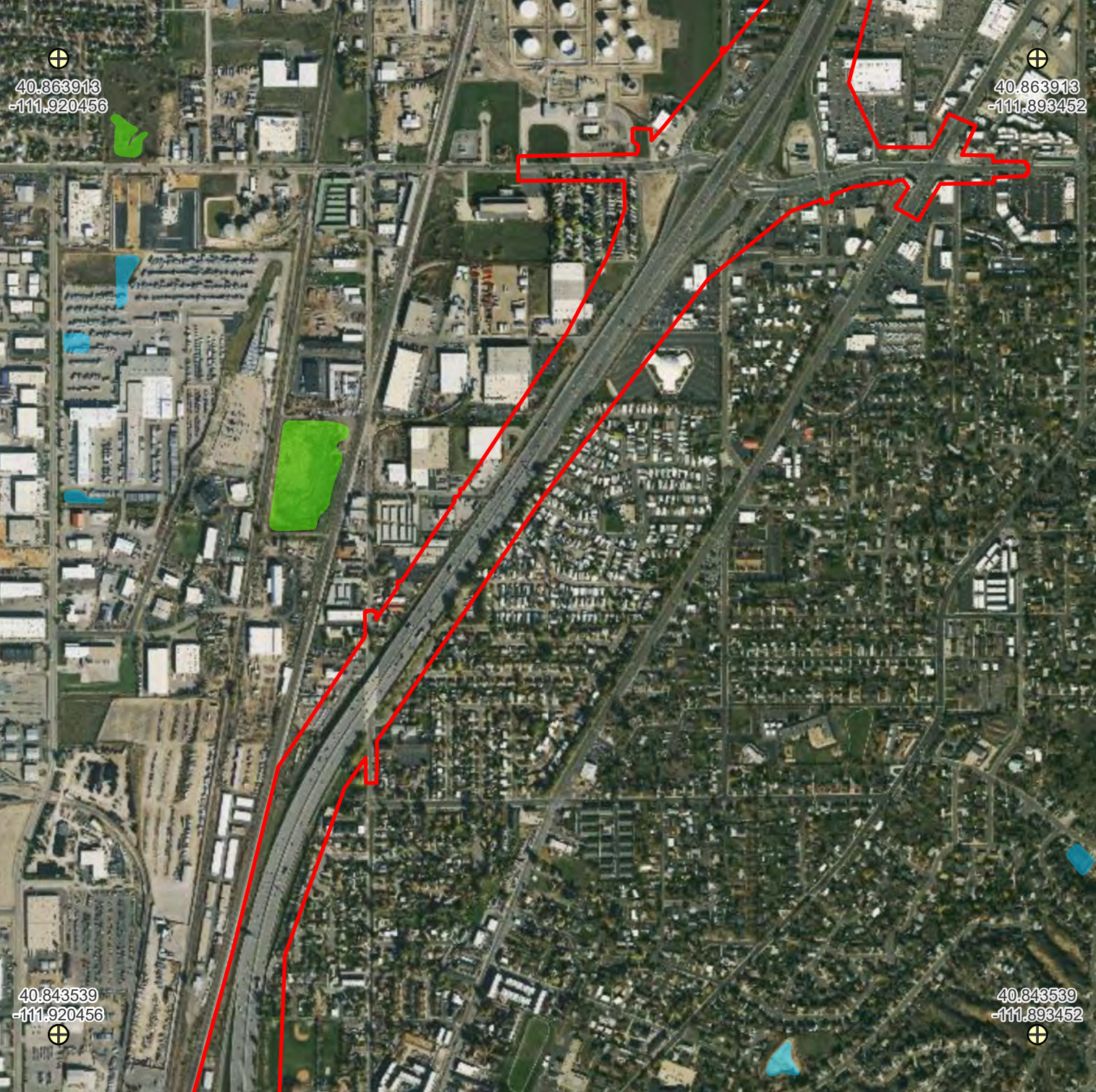
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- Riverine
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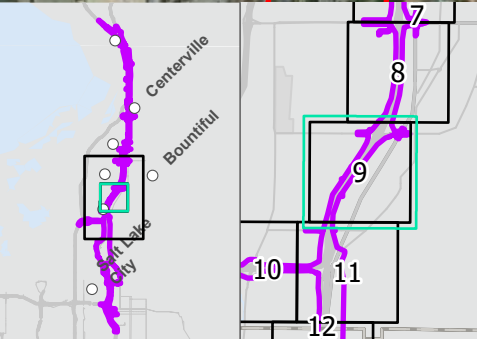


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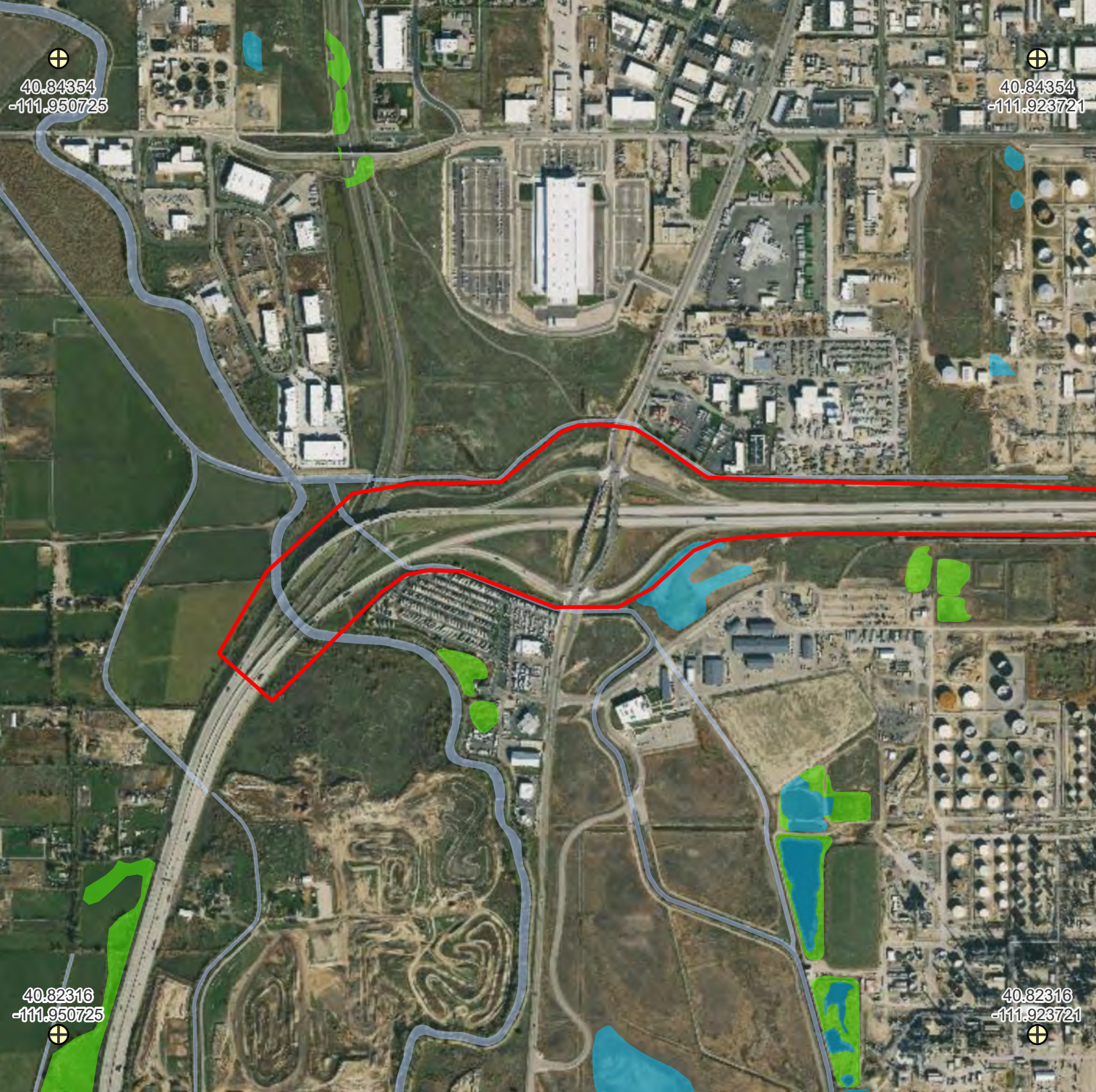
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I-15 EIS: FARMINGTON TO SALT LAKE CITY

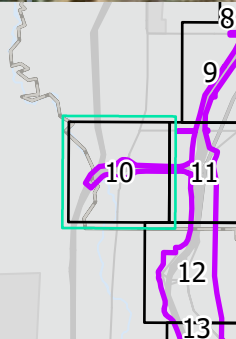
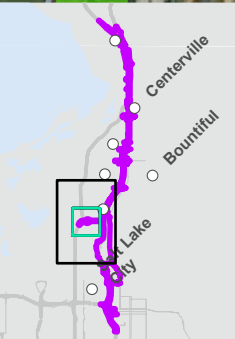


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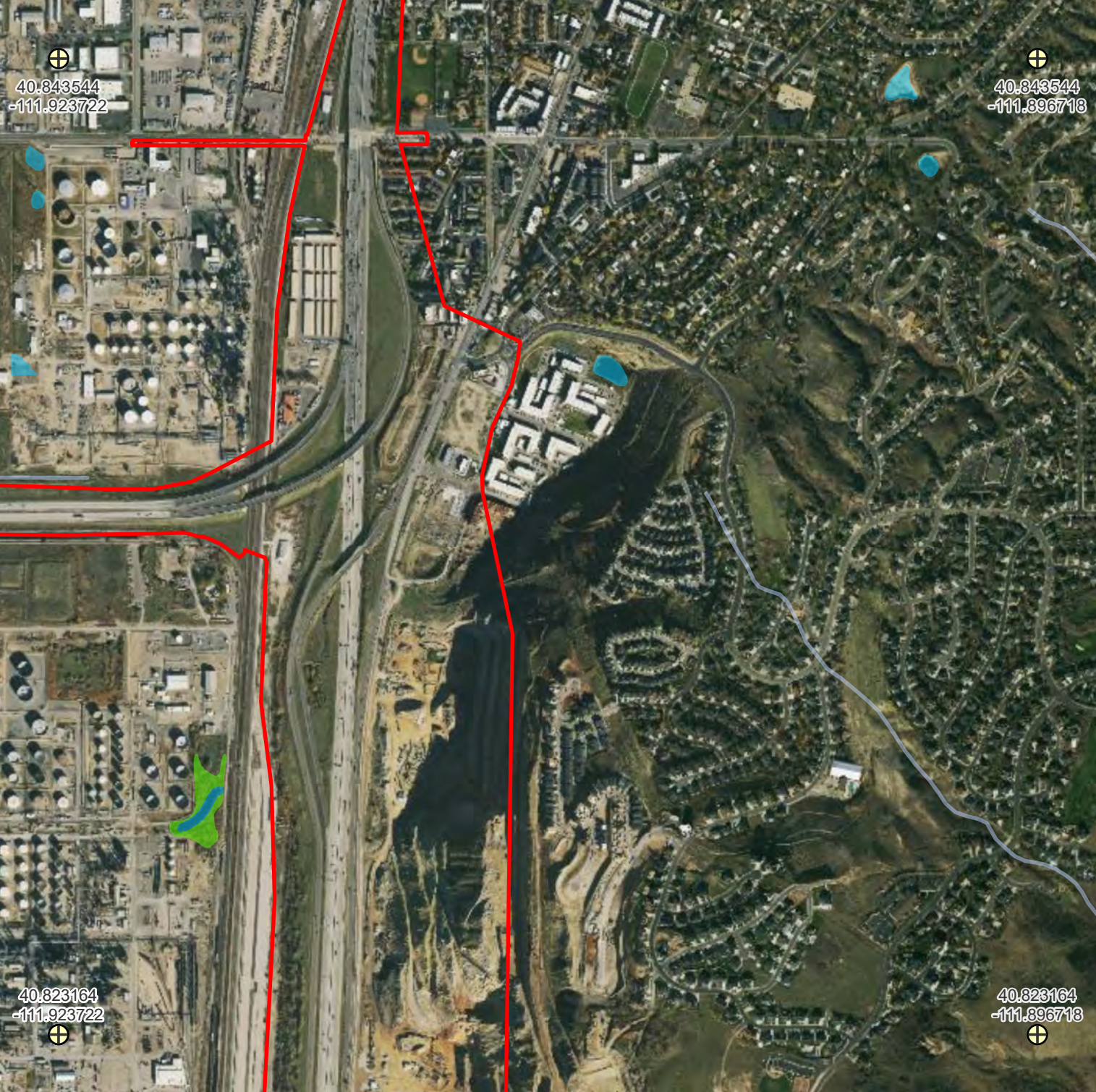
- Survey Area
- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine
- Geographic Control Points



1 Inch equals 1,400 feet
0 US Feet 1,400

DATA SOURCES:
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I-15 EIS: FARMINGTON TO SALT LAKE CITY

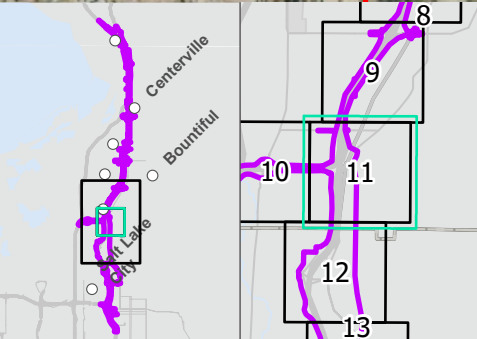


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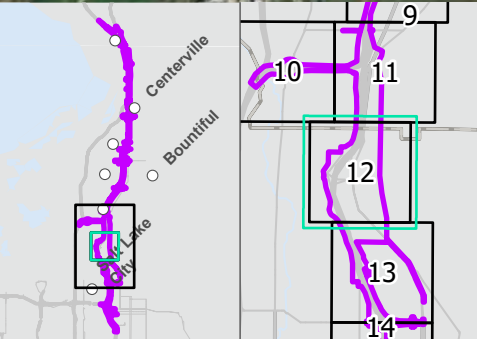
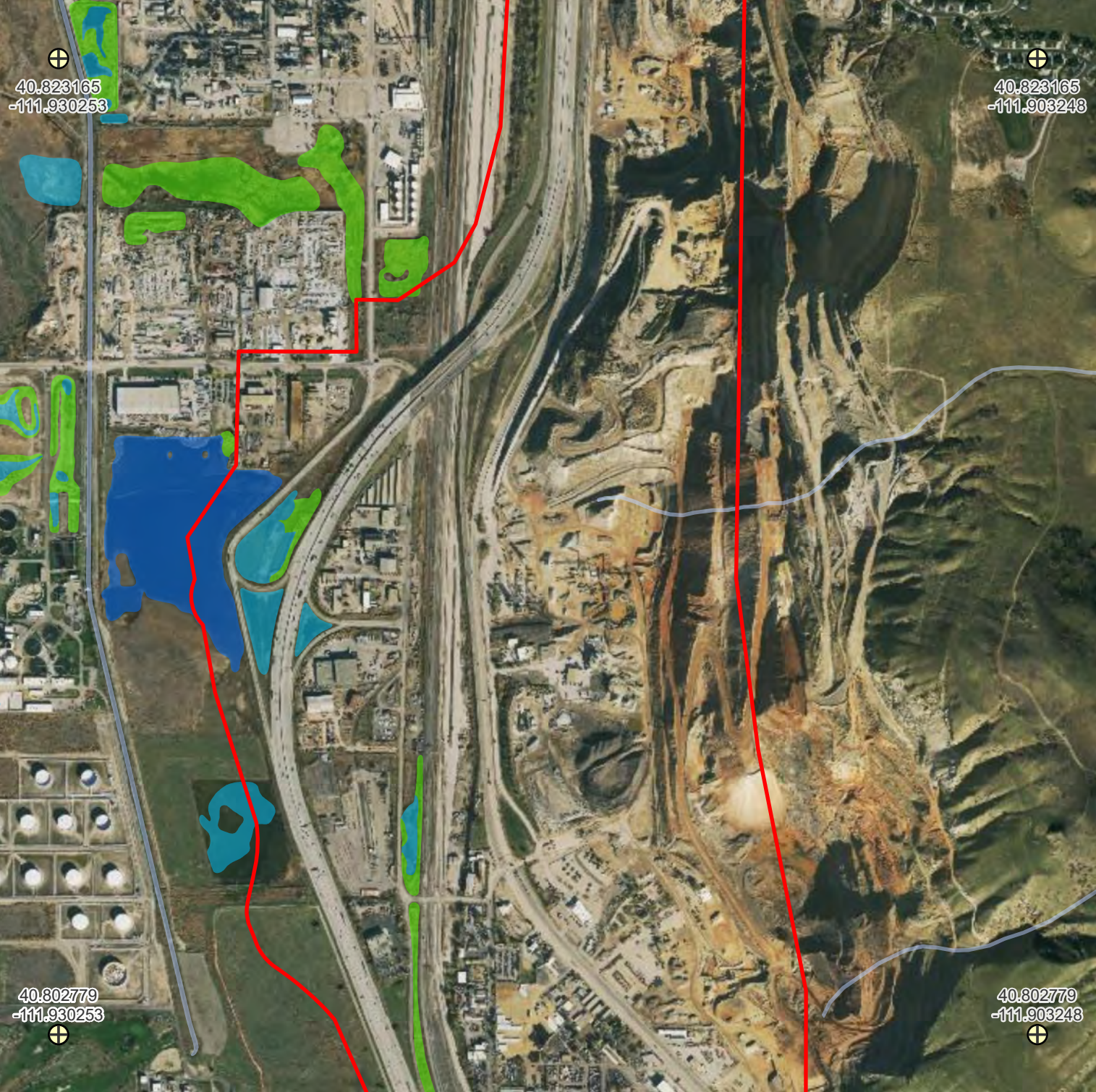
- Survey Area
- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine
- + Geographic Control Points



1 Inch equals 1,400 feet
0 US Feet 1,400

DATA SOURCES:
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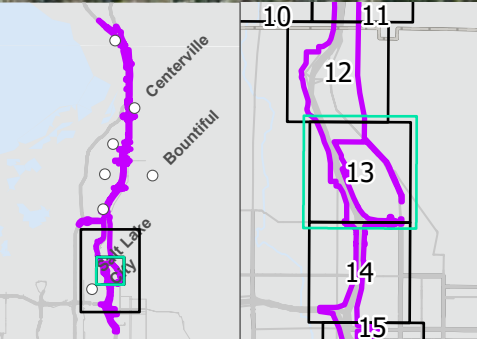
- Survey Area
- Freshwater Emergent Wetland
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- Lake
- Riverine
- + Geographic Control Points



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DATA SOURCES:
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 Utah Stateplane Central
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I-15 EIS: FARMINGTON TO SALT LAKE CITY



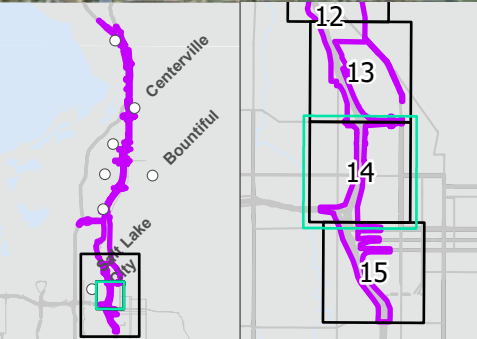
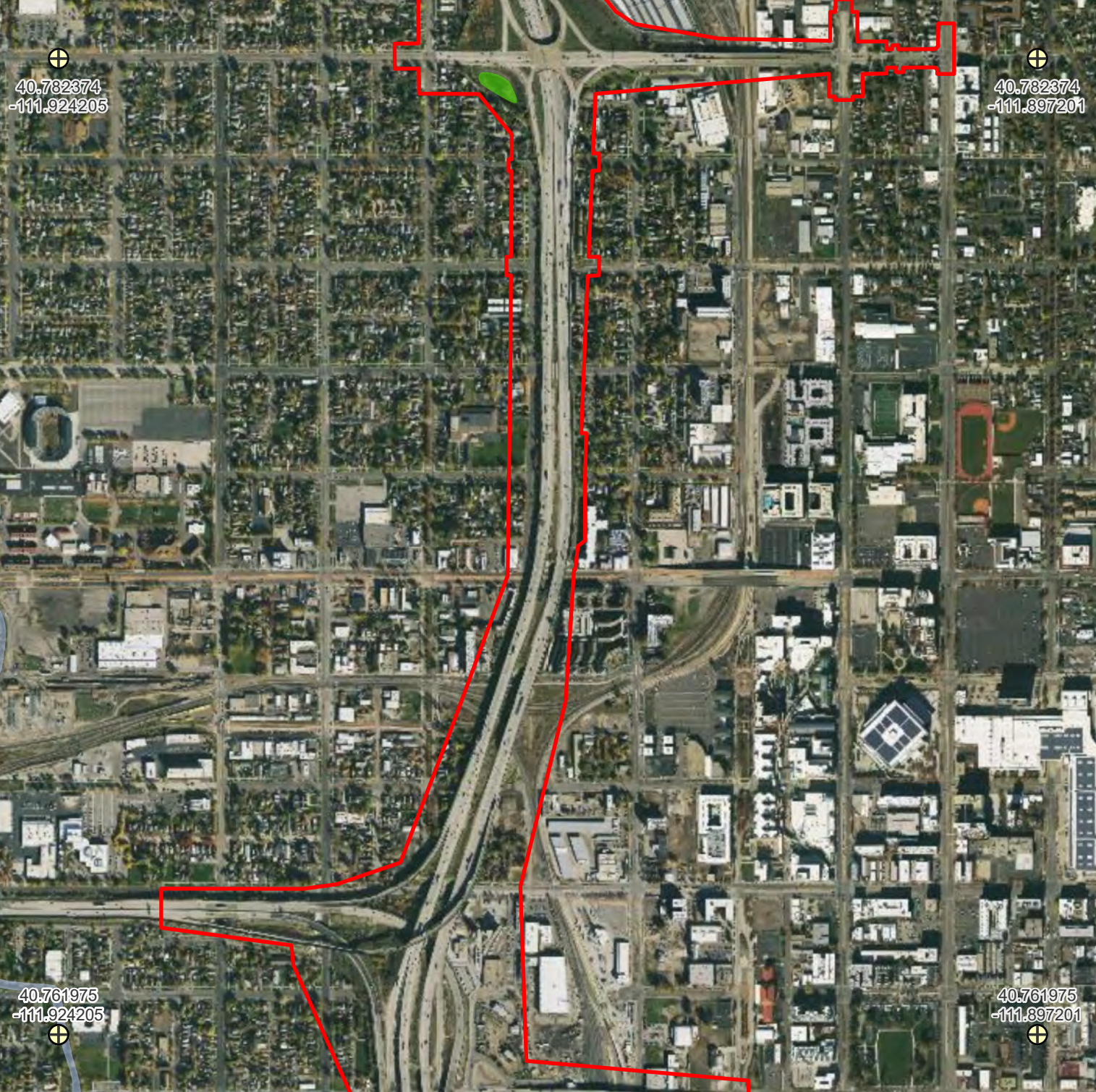
- Survey Area
- Freshwater Emergent Wetland
- Riverine
- Geographic Control Points



1 Inch equals 1,400 feet
 0 US Feet 1,400

DATA SOURCES:
 Aerial Imagery: State of Utah Google Imagery
 Wetlands: NWI
PROJECTION
 Utah Stateplane Central
CARTOGRAPHER
 HDR

NATIONAL WETLAND INVENTORY MAP SERIES
I-15 EIS: FARMINGTON TO SALT LAKE CITY



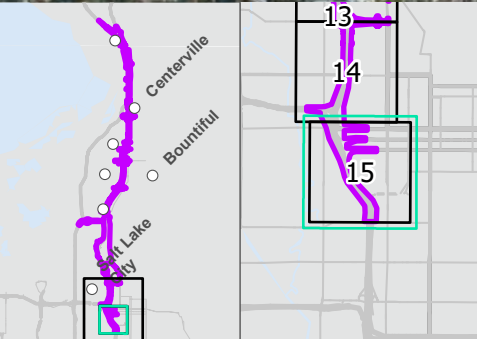
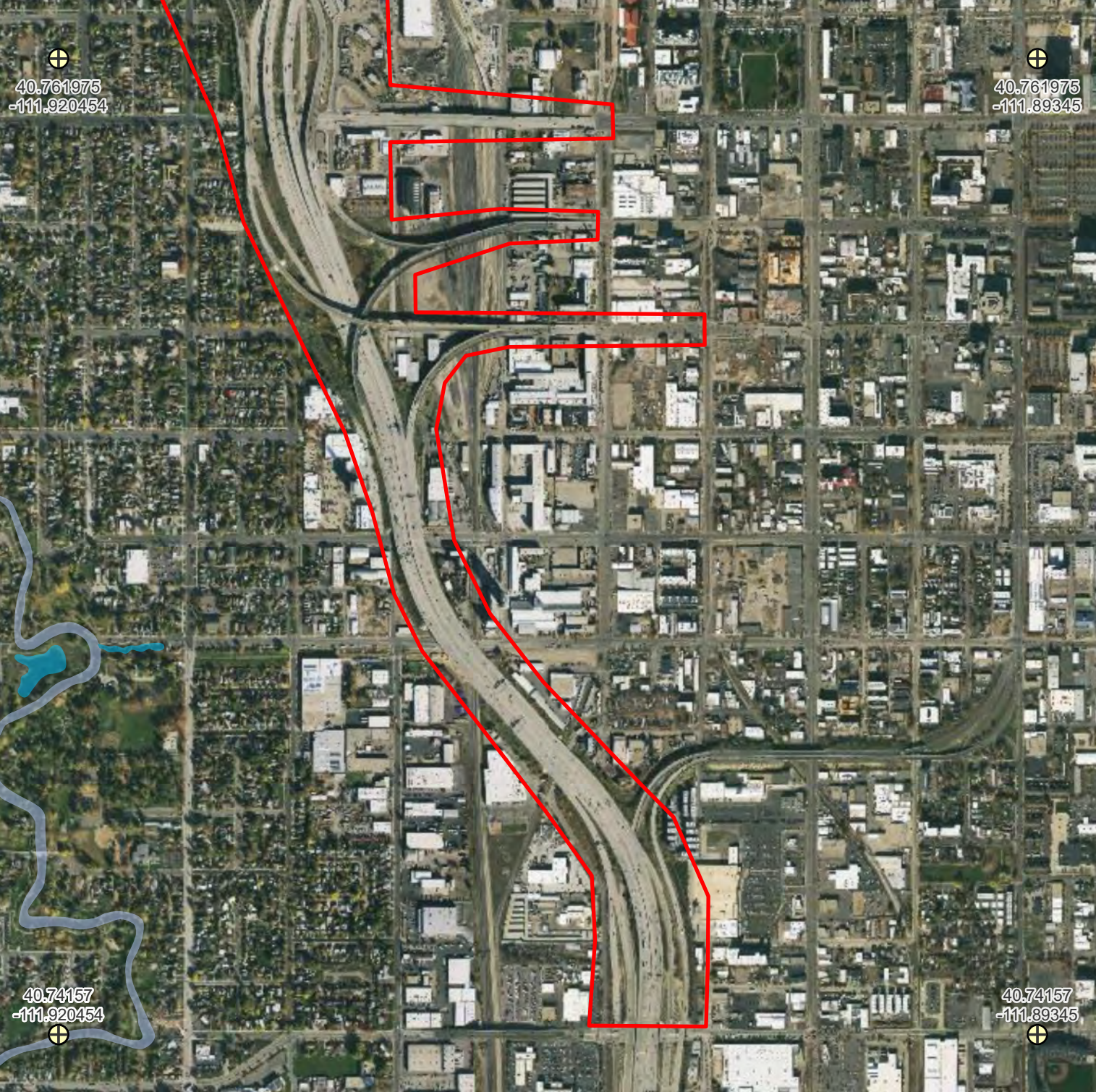
- Survey Area
- Freshwater Emergent Wetland
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NATIONAL WETLAND INVENTORY MAP SERIES
I-15 EIS: FARMINGTON TO SALT LAKE CITY



- Survey Area
- Freshwater Pond
- Riverine
- ⊕ Geographic Control Points



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NATIONAL WETLAND INVENTORY MAP SERIES
I-15 EIS: FARMINGTON TO SALT LAKE CITY

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ATTACHMENT E

Plant Species Observed

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Appendix E. Plant Species Observed

Scientific Name ^a	Common Name ^b	Wetland Indicator Status ^c
<i>Acer negundo</i>	boxelder	FACW
<i>Agropyron cristatum</i>	crested wheatgrass	UPL
<i>Ailanthus altissima</i>	tree of heaven	UPL
<i>Sporobolus airoides</i>	alkali sacaton	FAC
<i>Alliaria petiolata</i>	garlic mustard	FACU
<i>Amaranthus palmeri</i>	carelessweed	FACU
<i>Ambrosia artemisiifolia</i>	perennial ragweed	FACU
<i>Ambrosia psilostachya</i>	cuman ragweed	FACU
<i>Artemisia nova</i>	black sagebrush	UPL
<i>Artemisia tridentata</i>	little sagebrush	UPL
<i>Atriplex prostrata</i>	triangle orache	FACW
<i>Bassia hyssopifolia</i>	fivehorn smotherweed	FACU
<i>Bassia scoparia</i>	burningbush	FAC
<i>Bromus inermis</i>	smooth brome	FACU
<i>Bromus tectorum</i>	cheatgrass	UPL
<i>Cardaria draba</i>	whitetop	UPL
<i>Carex nebrascensis</i>	Nebraska sedge	OBL
<i>Cerastium arvense</i>	field chickweed	FACU
<i>Chenopodium album</i>	lambquarter	FACU
<i>Cichorium intybus</i>	chicory	FACU
<i>Cirsium arvense</i>	Canadian thistle	FACU
<i>Cirsium undulatum</i>	wavyleaf thistle	FACU
<i>Cirsium vulgare</i>	bull thistle	FACU
<i>Conium maculatum</i>	poison hemlock	FACW
<i>Convolvulus arvensis</i>	field bindweed	UPL
<i>Cynodon dactylon</i>	bermudagrass	FACU
<i>Deschampsia caespitosa</i>	tufted hairgrass	FACW
<i>Dipsacus fullonum</i>	Fuller's teasel	FAC
<i>Distichlis spicata</i>	saltgrass	FAC
<i>Elaeagnus angustifolia</i>	Russian olive	FAC
<i>Elymus trachycaulus</i>	slender wild rye	FACU
<i>Ephedra viridis</i>	mormon tea	UPL
<i>Ericameria nauseosa</i>	rubber rabbitbrush	UPL
<i>Erigeron canadensis</i>	Canadian horseweed	FACU
<i>Erodium cicutarium</i>	redstem stork's bill	UPL
<i>Euthamia occidentalis</i>	western goldentop	FACW
<i>Fraxinus pennsylvanica</i>	green ash	FACW

(continued on next page)

Appendix E. Plant Species Observed

Scientific Name ^a	Common Name ^b	Wetland Indicator Status ^c
<i>Grindelia squarrosa</i>	curly cup gumweed	FACU
<i>Gutierrezia sarothrae</i>	broom snakeweed	UPL
<i>Helianthus annuus</i>	common sunflower	FACU
<i>Helianthus petiolaris</i>	prairie sunflower	UPL
<i>Hordeum jubatum</i>	foxtail barley	FAC
<i>Hordeum murinum</i>	wall barley	FACU
<i>Hordeum pusillum</i>	little barley	FACU
<i>Juncus arcticus</i> ssp. <i>littoralis</i> (<i>J. balticus</i>)	mountain rush	FACW
<i>Krascheninnikovia lanata</i>	winterfat	UPL
<i>Lactuca serriola</i>	prickly lettuce	FACU
<i>Lepidium lasiocarpum</i>	shaggyfruit pepperweed	UPL
<i>Lepidium perfoliatum</i>	clasping pepperweed	FACU
<i>Leymus cinereus</i>	basin wildrye	FAC
<i>Medicago sativa</i>	alfalfa	UPL
<i>Melilotus officinalis</i>	yellow sweetclover	FACU
<i>Onopordum acanthium</i>	Scotch cottonthistle	UPL
<i>Panicum dichotomiflorum</i>	fall panicgrass	FACW
<i>Pentagramma triangularis</i>	goldback fern	UPL
<i>Phalaris arundinacea</i>	reed canarygrass	FACW
<i>Phleum pratense</i>	timothy	FACU
<i>Phragmites australis</i>	common reed	FACW
<i>Poa bulbosa</i>	bulbous bluegrass	FACU
<i>Poa pratensis</i>	Kentucky bluegrass	FAC
<i>Polygonum aviculare</i>	prostrate knotweed	FAC
<i>Populus angustifolia</i>	narrowleaf cottonwood	FACW
<i>Populus fremontii</i>	Fremont cottonwood	FAC
<i>Pseudoroegneria spicata</i>	bluebunch wheatgrass	UPL
<i>Ranunculus cymbalaria</i>	alkali buttercup	OBL
<i>Rhus aromatica</i>	fragrant sumac	FACU
<i>Rosa canina</i>	dog rose	UPL
<i>Rosa woodsii</i>	Wood's rose	FACU
<i>Rumex crispus</i>	curly dock	FAC
<i>Salix boothii</i>	Booth's willow	FACW
<i>Salix exigua</i>	narrowleaf willow	FACW
<i>Salix fragilis</i>	crack willow	FAC
<i>Salsola tragus</i>	prickly Russian thistle	FACU
<i>Sarcocornia utahensis</i>	Utah swampfire	OBL

(continued on next page)

Appendix E. Plant Species Observed

Scientific Name ^a	Common Name ^b	Wetland Indicator Status ^c
<i>Schoenoplectus acutus</i>	hardstem bulrush	OBL
<i>Schoenoplectus tabernaemontani</i>	softstem bulrush	OBL
<i>Solidago canadensis</i>	Canada goldenrod	FACW
<i>Spergularia maritima</i>	media sandspurry	FACW
<i>Sporobolus airoides</i>	alkali sacaton	FAC
<i>Suaeda occidentalis</i>	western seepweed	FACW
<i>Symphotrichum ericoides</i>	white heath American- aster	FAC
<i>Tamarix chinensis</i>	five-stamen tamarisk	FAC
<i>Taraxacum officinale</i>	common dandelion	FACU
<i>Thinopyrum intermedium</i>	intermediate wheatgrass	UPL
<i>Thlaspi arvense</i>	field pennycress	UPL
<i>Tribulus terrestris</i>	puncturevine	UPL
<i>Trifolium fragiferum</i>	strawberry clover	FAC
<i>Trifolium repens</i>	white clover	FACU
<i>Typha latifolia</i>	broadleaf cattail	OBL
<i>Ulmus pumila</i>	Siberian elm	UPL

^{a, b} Naming conventions according to USDA NRCS Plants Database (<https://plants.usda.gov>).

^c Indicator Status as assigned for the Arid West Region in the National Wetland Plant List (USACE 2020).

FAC = facultative; **FACU** = facultative upland; **FACW** = facultative wetland; **UPL** = upland plants (or not listed species assumed to be upland); **OBL** = obligate wetland.

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ATTACHMENT F

USDA NRCS Custom Soil Resource Report

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United States
Department of
Agriculture

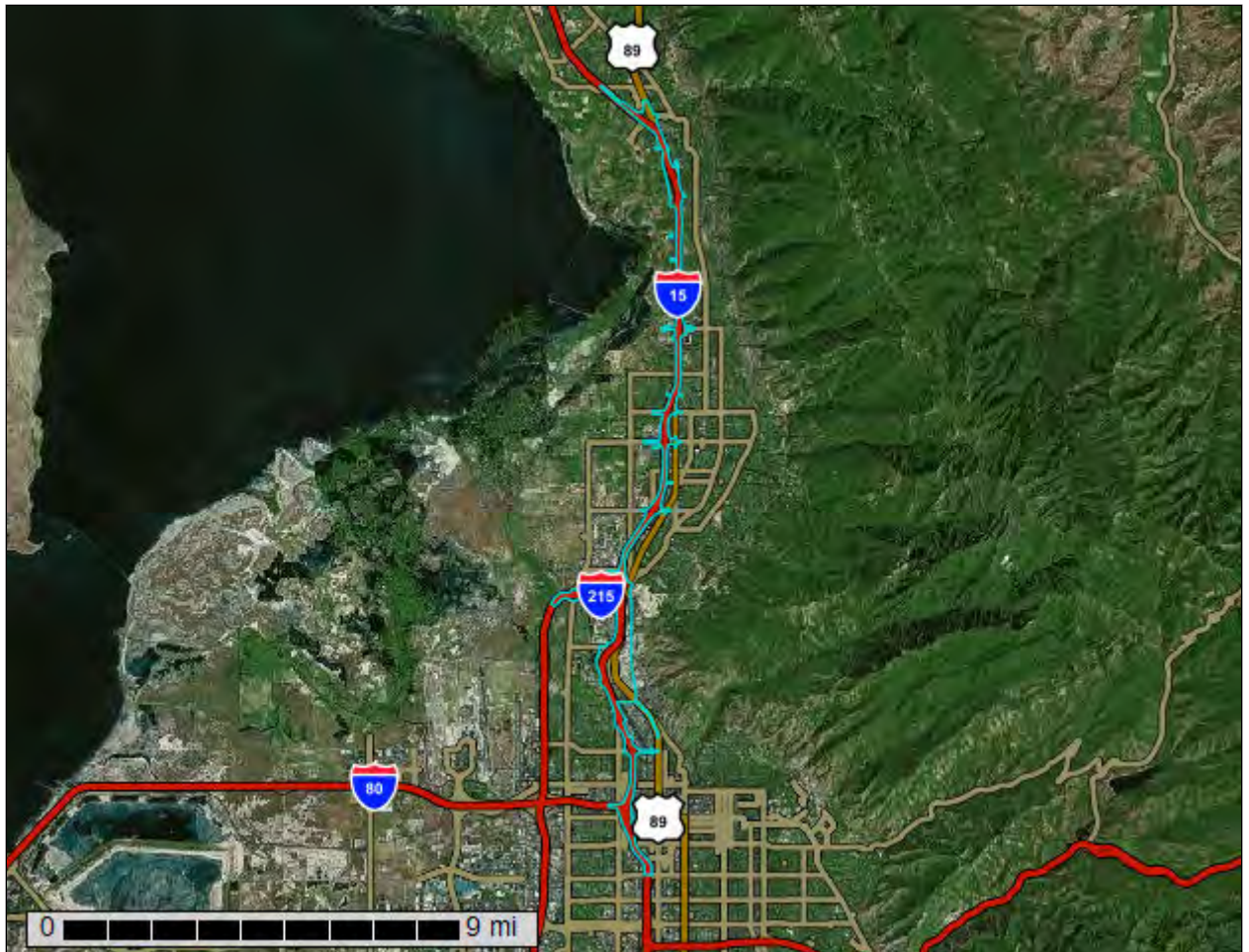
NRCS

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 Davis-Weber Area, Utah, and Salt Lake Area, Utah

I-15 Farmington to Salt Lake City 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

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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

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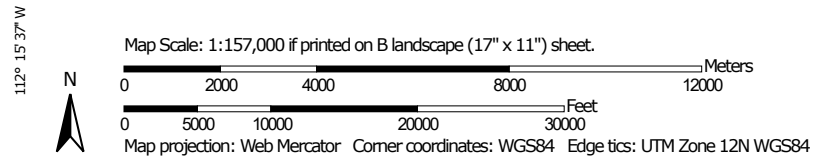
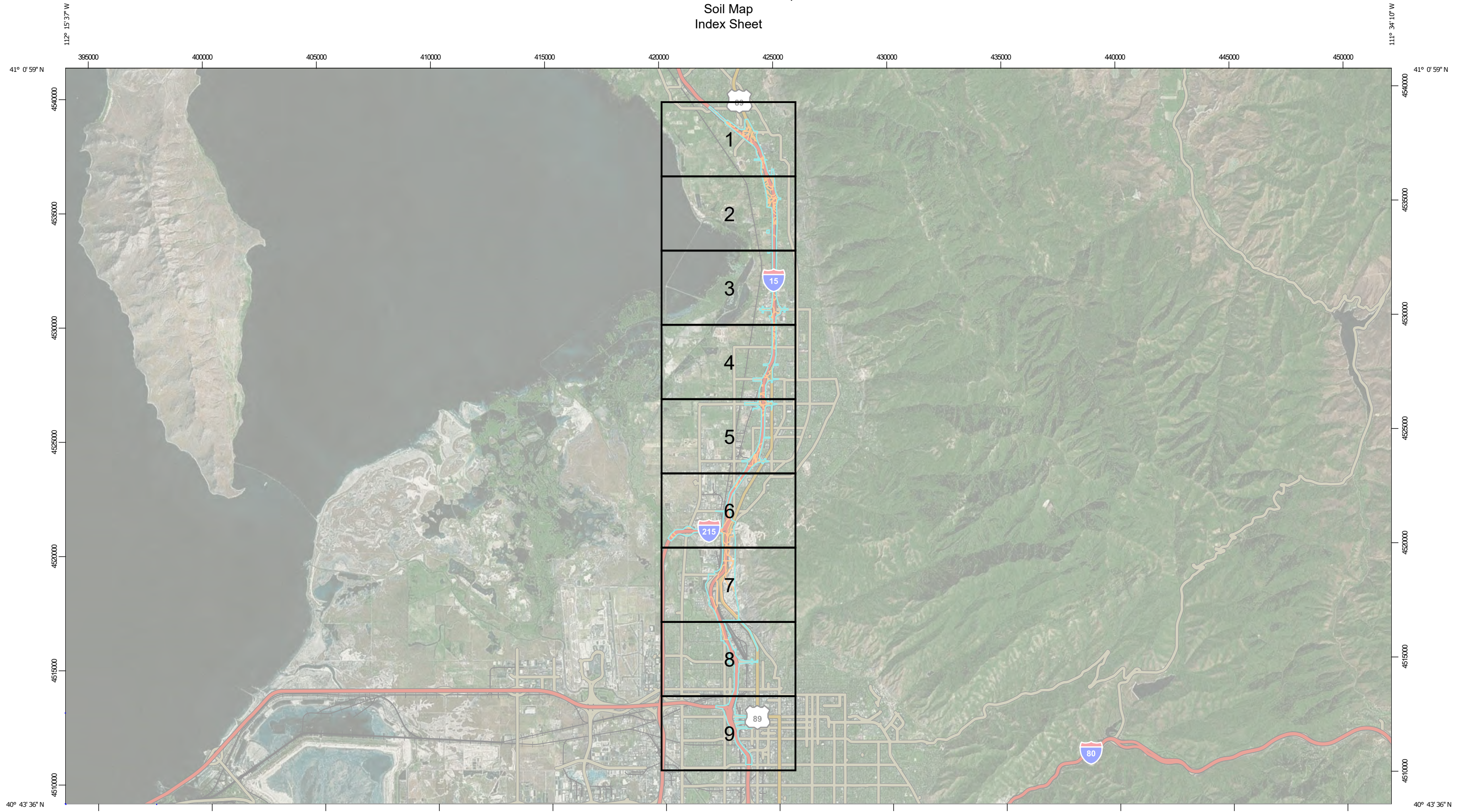
identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

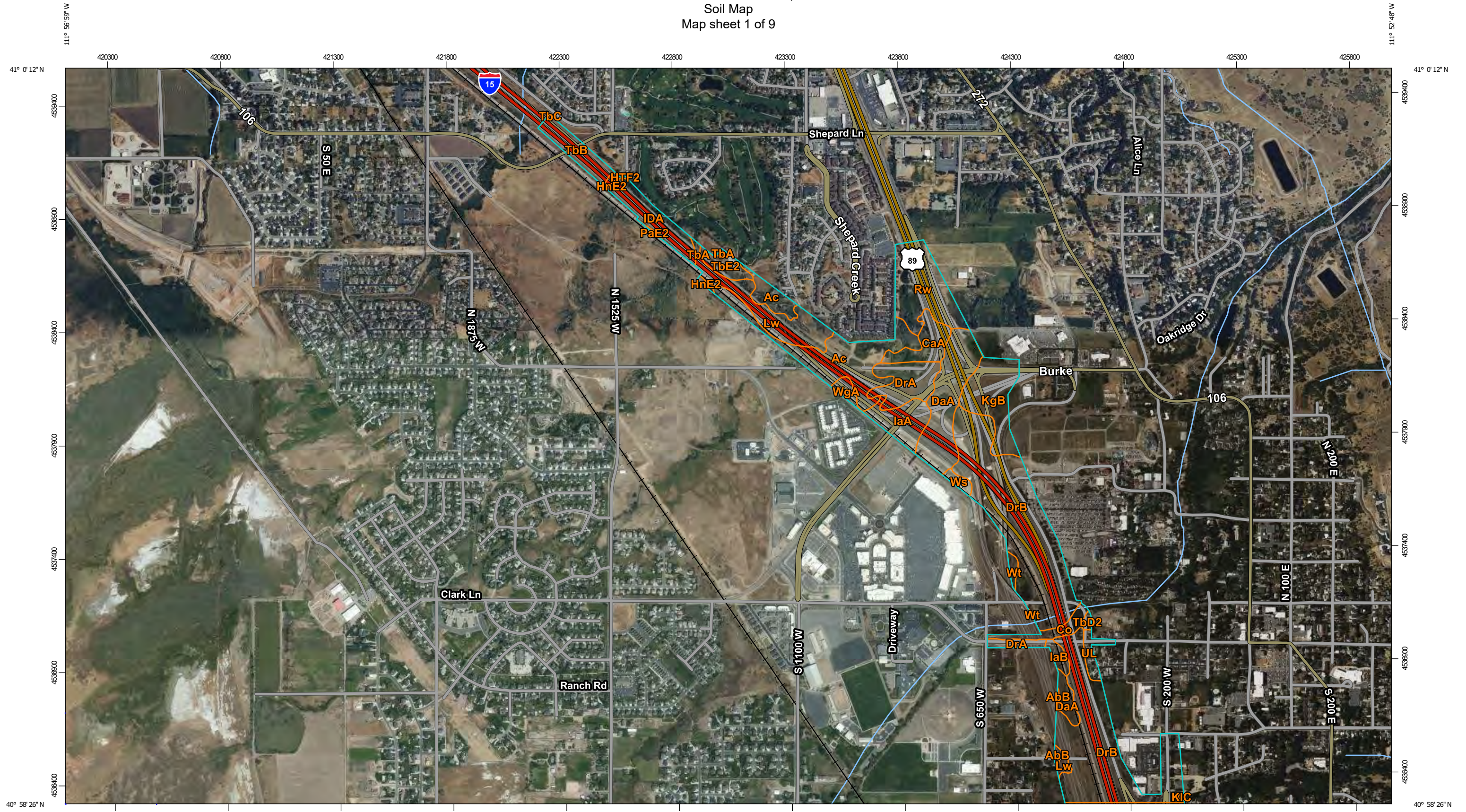
The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

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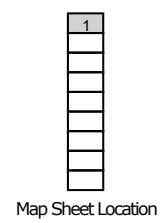
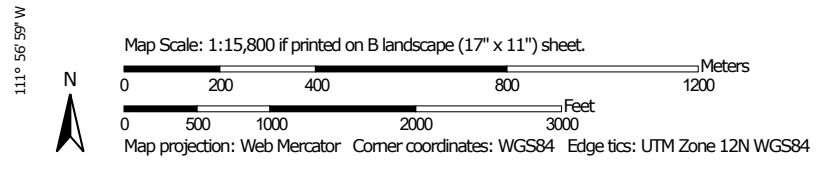
Custom Soil Resource Report
Soil Map
Index Sheet



Custom Soil Resource Report
Soil Map
Map sheet 1 of 9

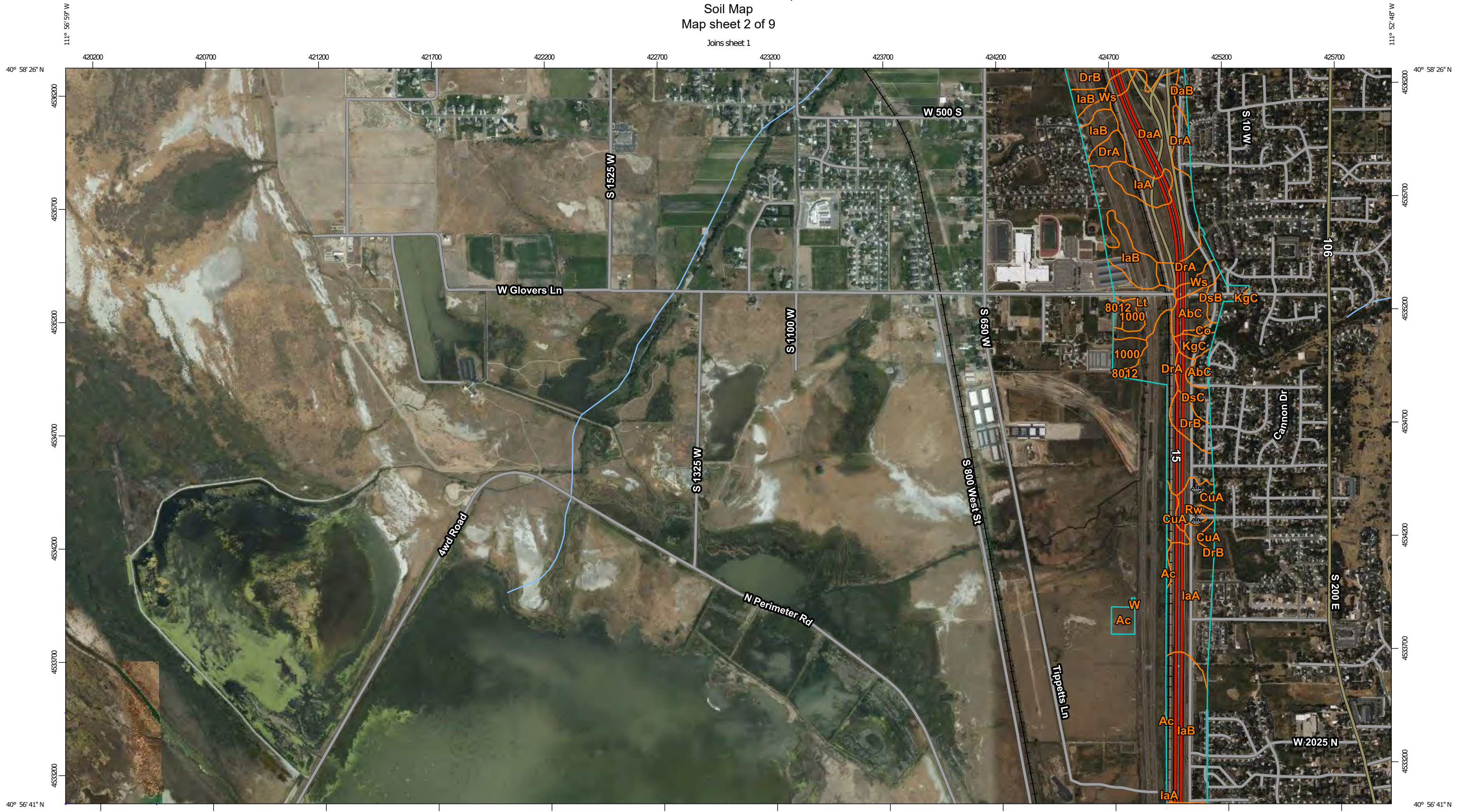


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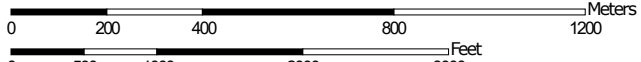
Custom Soil Resource Report
Soil Map
Map sheet 2 of 9

Joins sheet 1

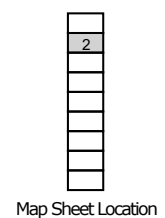


Joins sheet 3

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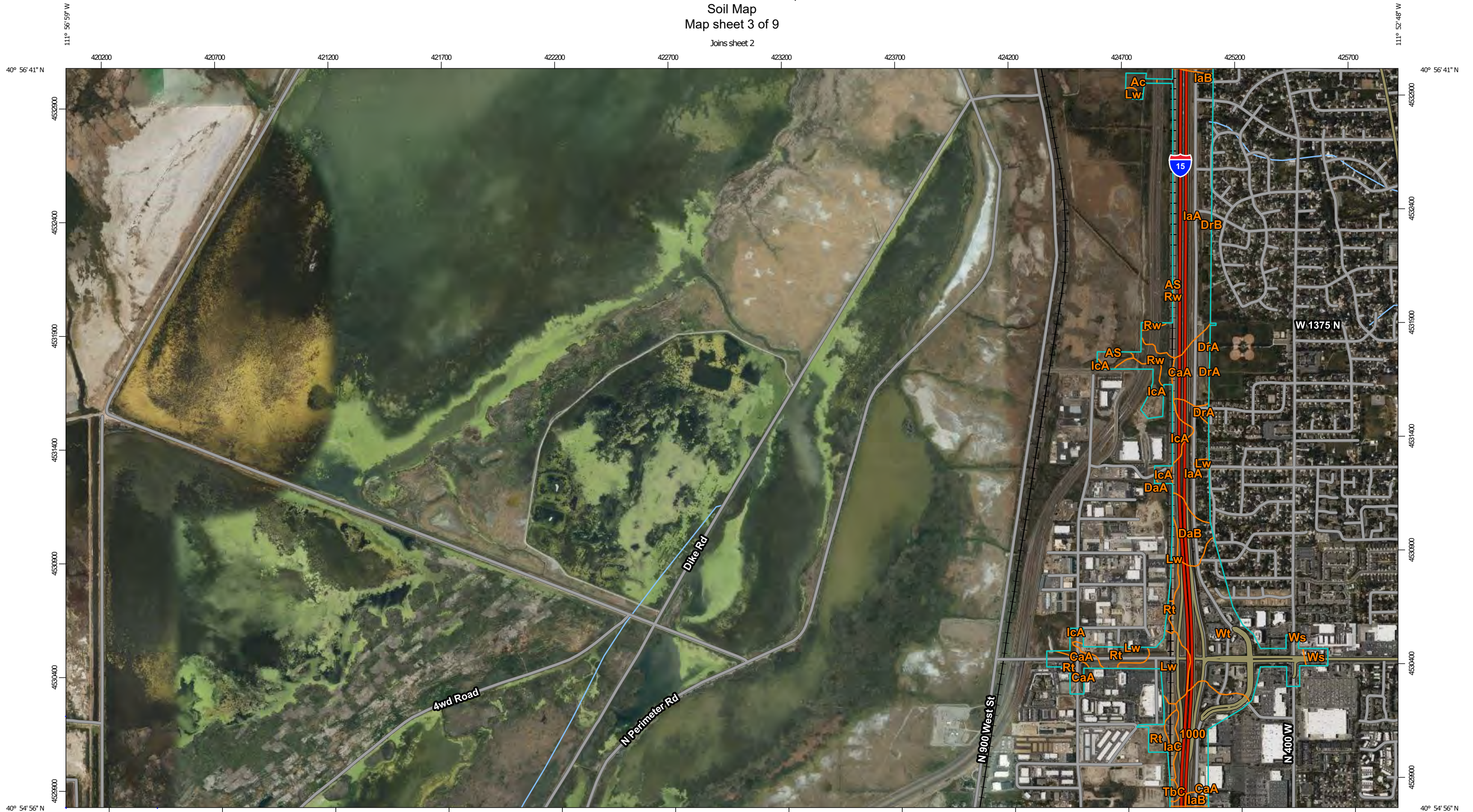
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84



Map Sheet Location

Custom Soil Resource Report
Soil Map
Map sheet 3 of 9

Joins sheet 2

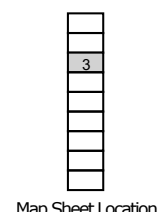


Joins sheet 4

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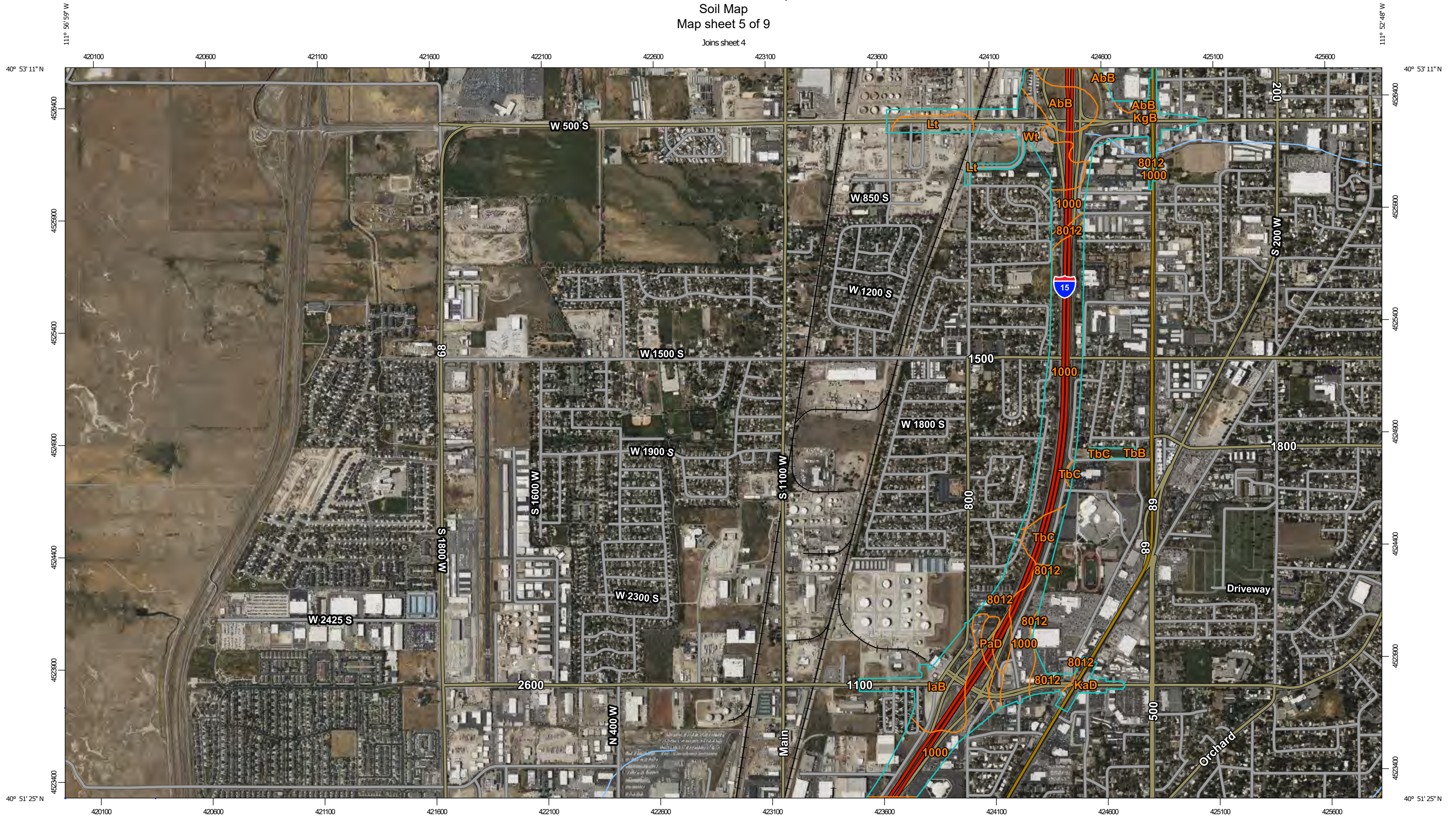
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84



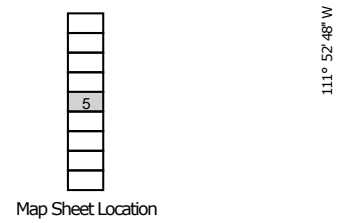
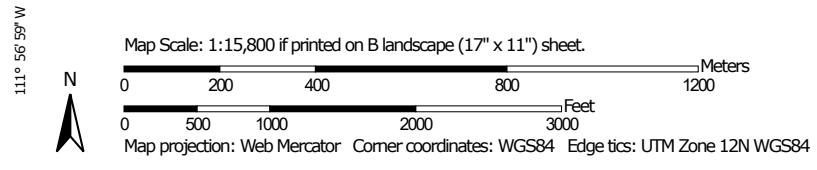
Map Sheet Location

Custom Soil Resource Report
Soil Map
Map sheet 5 of 9

Joins sheet 4

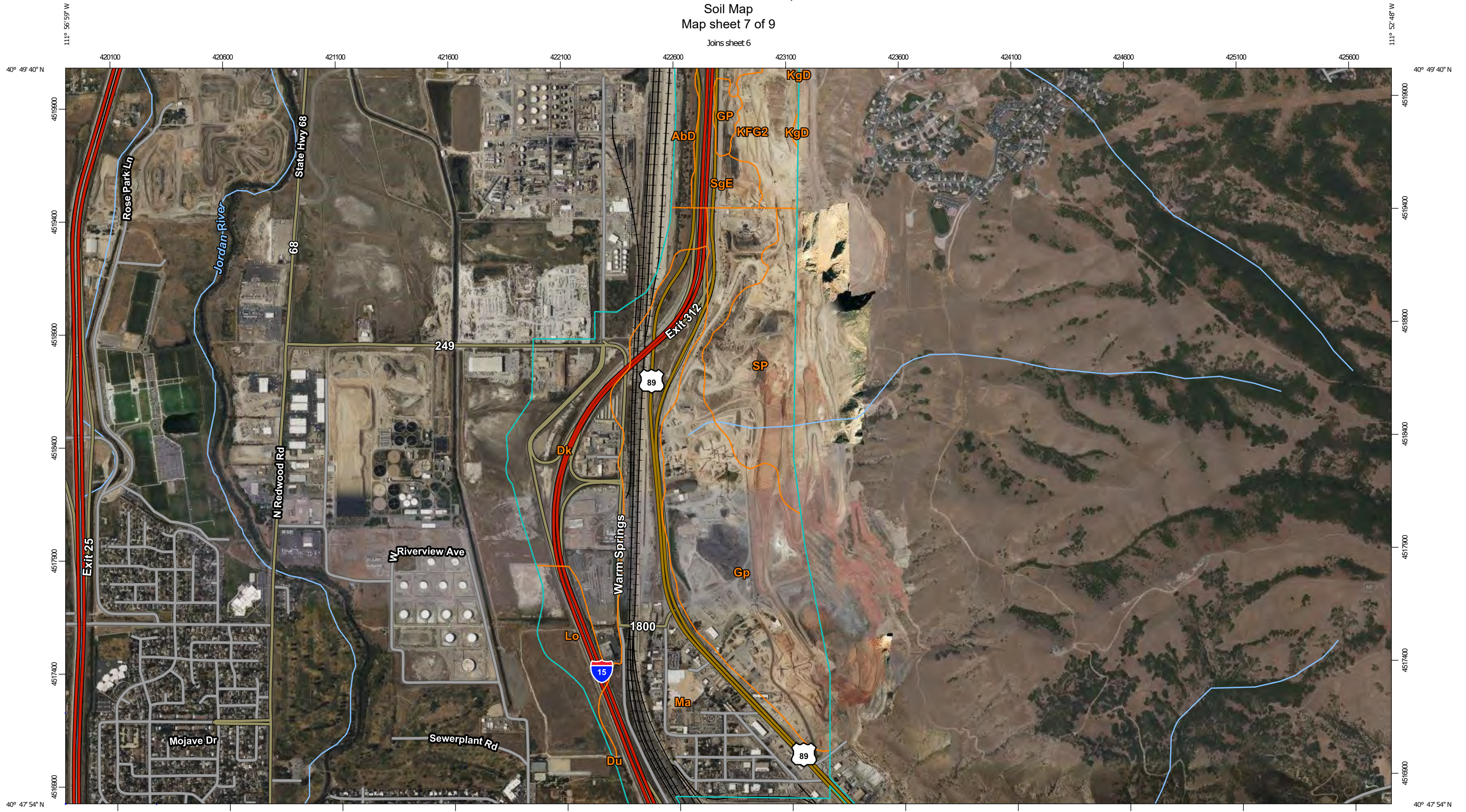


Joins sheet 6



Custom Soil Resource Report
Soil Map
Map sheet 7 of 9

Joins sheet 6

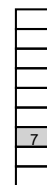


Joins sheet 8

Map Scale: 1:15,800 if printed on B landscape (17" x 11") sheet.



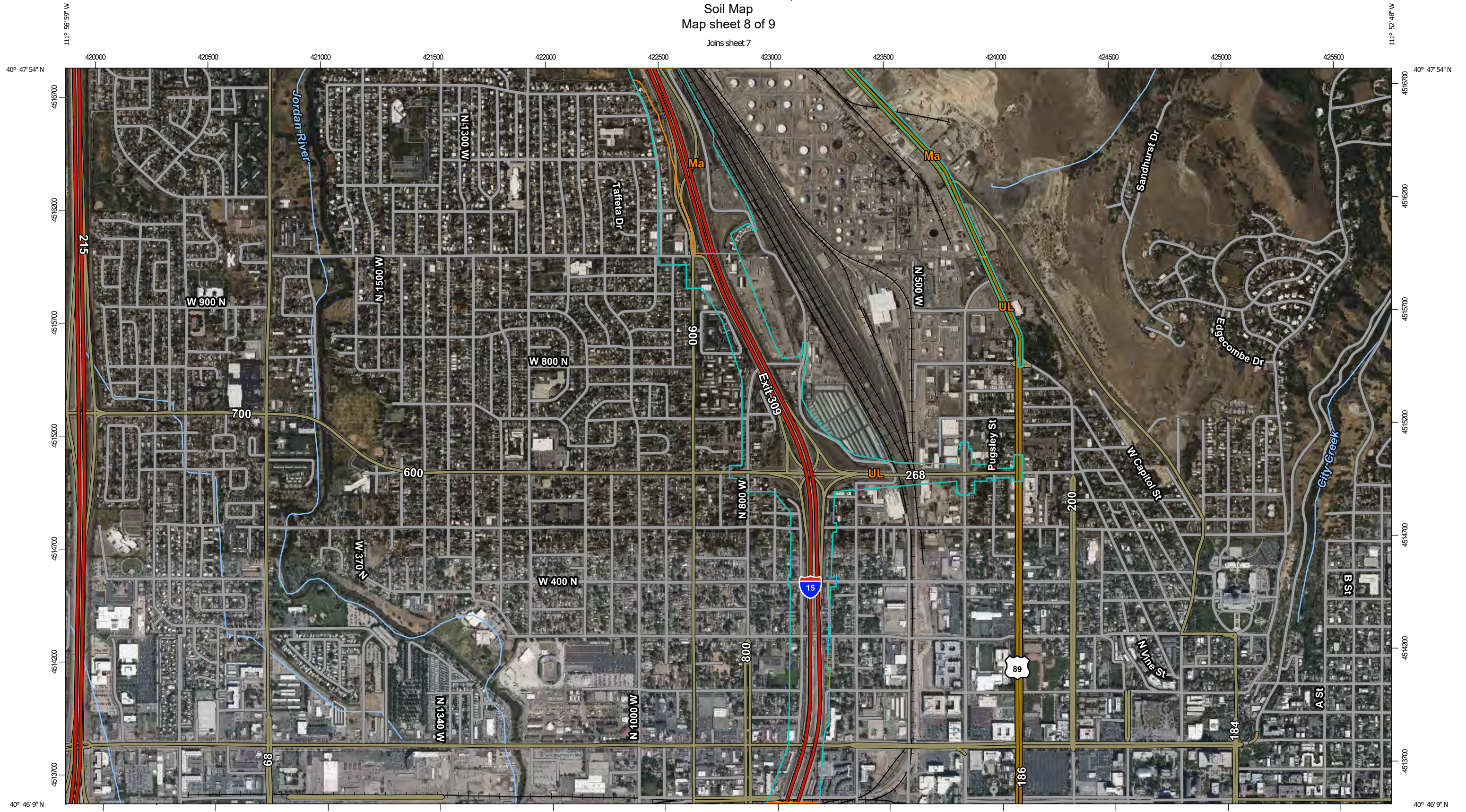
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84



Map Sheet Location

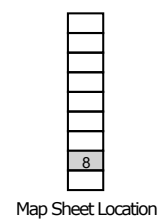
Custom Soil Resource Report
Soil Map
Map sheet 8 of 9

Joins sheet 7



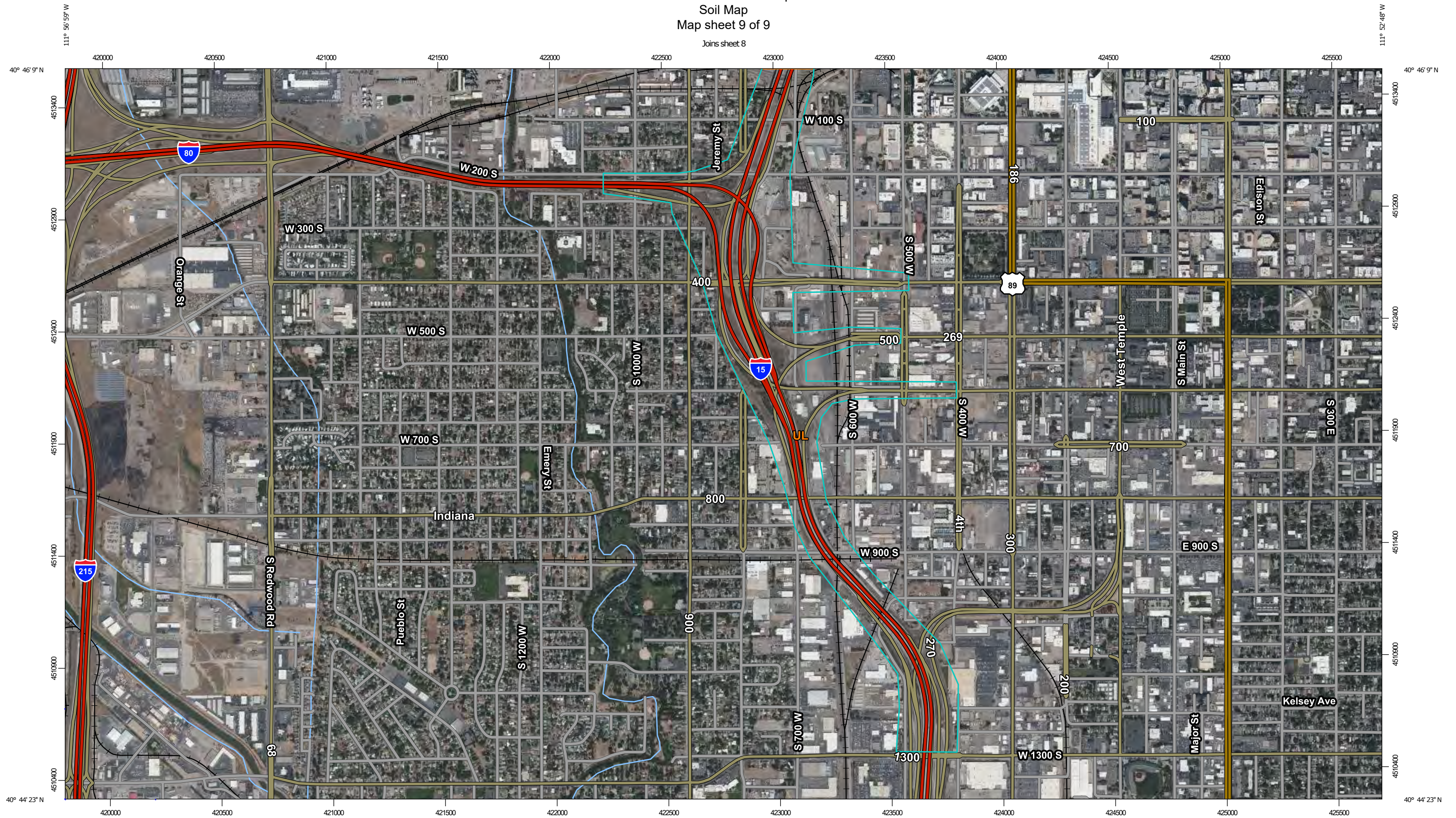
Joins sheet 9

Map Scale: 1:15,800 if printed on B landscape (17" x 11") sheet.
0 200 400 800 1200 Meters
0 500 1000 2000 3000 Feet
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

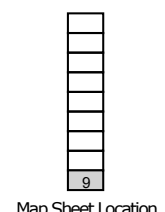


Custom Soil Resource Report
Soil Map
Map sheet 9 of 9

Joins sheet 8




Map Scale: 1:15,800 if printed on B landscape (17" x 11") sheet.
0 200 400 800 1200 Meters
0 500 1000 2000 3000 Feet
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84




MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)




















Soils







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:15,800 to 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

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 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.

Soil Survey Area: Davis-Weber Area, Utah
 Survey Area Data: Version 17, Sep 8, 2023

Soil Survey Area: Salt Lake Area, Utah
 Survey Area Data: Version 16, Sep 8, 2023

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1000	Parleys loam, 0 to 4 percent slopes	151.5	5.3%
8012	Parleys loam, 3 to 8 percent slopes	22.6	0.8%
AbB	Ackmen loam, 1 to 3 percent slopes	25.0	0.9%
AbC	Ackmen loam, 3 to 6 percent slopes	9.2	0.3%
AbD	Ackmen loam, 6 to 10 percent slopes	21.0	0.7%
Ac	Airport silt loam, 0 to 2 percent slopes	35.7	1.2%
AS	Arave-Saltair complex, 0 to 1 percent slopes	4.8	0.2%
CaA	Chance loam, 0 to 3 percent slopes	21.8	0.8%
Co	Cobbly alluvial land	5.4	0.2%
CuA	Cudahy silt loam, 0 to 1 percent slopes	7.5	0.3%
DaA	Draper loam, 0 to 1 percent slopes	79.0	2.8%
DaB	Draper loam, 1 to 3 percent slopes	11.2	0.4%
DrA	Draper loam, drained, 0 to 1 percent slopes	171.0	6.0%
DrB	Draper loam, drained, 1 to 3 percent slopes	144.5	5.0%
DsB	Draper gravelly loam, gravelly subsoil variant, 1 to 3 percent slopes	4.7	0.2%
DsC	Draper gravelly loam, gravelly subsoil variant, 3 to 6 percent slopes	5.4	0.2%
GP	Gravel pits	27.8	1.0%
HnE2	Hillfield soils, 10 to 20 percent slopes, eroded	1.1	0.0%
HTF2	Hillfield-Timpanogos-Parleys complex, 20 to 30 percent slopes, eroded	0.1	0.0%
IaA	Ironton silt loam, 0 to 1 percent slopes	123.7	4.3%
IaB	Ironton silt loam, 1 to 3 percent slopes	78.1	2.7%
IaC	Ironton silt loam, 3 to 6 percent slopes	2.9	0.1%

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Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
IcA	Ironton silt loam, saline, sodic, 0 to 1 percent slopes	9.8	0.3%
IDA	Ironton-Draper complex, 0 to 3 percent slopes	10.4	0.4%
KaD	Kidman fine sandy loam, 6 to 10 percent slopes	27.4	1.0%
KFG2	Kilburn-Francis association, 30 to 50 percent slopes, eroded	68.3	2.4%
KgB	Kilburn gravelly sandy loam, 1 to 3 percent slopes	52.8	1.8%
KgC	Kilburn gravelly sandy loam, 3 to 6 percent slopes	3.8	0.1%
KgD	Kilburn gravelly sandy loam, 6 to 10 percent slopes	0.6	0.0%
KIC	Kilburn cobbly sandy loam, 3 to 10 percent slopes	0.2	0.0%
Lt	Logan silty clay loam, 0 to 3 percent slopes	34.3	1.2%
Lw	Logan silty clay loam, shallow water table, 0 to 3 percent slopes	30.6	1.1%
PaD	Parleys loam, 6 to 10 percent slopes	5.1	0.2%
PaE2	Parleys loam, 10 to 20 percent slopes, eroded	0.1	0.0%
PNA	Payson-Warm Springs complex, 0 to 3 percent slopes	68.9	2.4%
Rt	Roshe Springs silt loam, drained, clayey substratum, 0 to 3 percent slopes	17.0	0.6%
Rw	Roshe Springs silt loam, 0 to 3 percent slopes	30.7	1.1%
SfD	Sterling gravelly loam, 6 to 10 percent slopes	40.9	1.4%
SgE	Sterling cobbly loam, 8 to 20 percent slopes	55.8	2.0%
SkB	Sunset loam, drained, 1 to 3 percent slopes	4.0	0.1%
TbA	Timpanogos loam, 0 to 1 percent slopes	0.3	0.0%
TbB	Timpanogos loam, 1 to 3 percent slopes	103.3	3.6%
TbC	Timpanogos loam, 3 to 6 percent slopes	19.4	0.7%
TbD2	Timpanogos loam, 6 to 10 percent slopes, eroded	0.7	0.0%
TbE2	Timpanogos loam, 10 to 20 percent slopes, eroded	4.0	0.1%
UL	Urban land	3.0	0.1%

Custom Soil Resource Report

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
W	Water	0.0	0.0%
WaA	Warm Springs fine sandy loam, 0 to 1 percent slopes	15.2	0.5%
WgA	Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes	10.0	0.3%
Ws	Woods Cross silty clay loam, 0 to 3 percent slopes	11.6	0.4%
Wt	Woods Cross silty clay loam, drained, 0 to 3 percent slopes	71.2	2.5%
Subtotals for Soil Survey Area		1,653.3	57.7%
Totals for Area of Interest		2,863.5	100.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ch	Chipman silty clay loam, 0 to 1 percent slopes	8.1	0.3%
Dk	Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes	143.6	5.0%
Du	Dumps	0.0	0.0%
Gp	Gravel pits	202.1	7.1%
Lo	Loamy borrow pits	29.1	1.0%
Ma	Made land	284.1	9.9%
SP	Stony terrace escarpments	80.5	2.8%
UL	Urban land	461.5	16.1%
W	Water	1.2	0.0%
Subtotals for Soil Survey Area		1,210.2	42.3%
Totals for Area of Interest		2,863.5	100.0%

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

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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.

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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.

Davis-Weber Area, Utah

1000—Parleys loam, 0 to 4 percent slopes

Map Unit Setting

National map unit symbol: 2tjtg
Elevation: 4,210 to 5,400 feet
Mean annual precipitation: 12 to 18 inches
Mean annual air temperature: 49 to 51 degrees F
Frost-free period: 130 to 180 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Parleys and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Parleys

Setting

Landform: Stream terraces, lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lacustrine deposits and/or alluvium derived from igneous and sedimentary rock

Typical profile

Ap - 0 to 6 inches: loam
A - 6 to 15 inches: loam
Bt - 15 to 26 inches: clay loam
Bk - 26 to 33 inches: silty clay loam
CBk - 33 to 48 inches: silt loam
C - 48 to 60 inches: stratified fine sand to silty clay loam

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water supply, 0 to 60 inches: High (about 10.8 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North

Custom Soil Resource Report

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 15 percent
Hydric soil rating: No

8012—Parleys loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2tjxx
Elevation: 4,210 to 5,910 feet
Mean annual precipitation: 12 to 18 inches
Mean annual air temperature: 49 to 51 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Parleys and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Parleys

Setting

Landform: Stream terraces, lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Lacustrine deposits and/or alluvium derived from igneous and sedimentary rock

Typical profile

Ap - 0 to 6 inches: loam
A - 6 to 11 inches: loam
Bt1 - 11 to 15 inches: silty clay loam
Bt2 - 15 to 19 inches: silty clay loam
Btk - 19 to 26 inches: silty clay loam
Bk - 26 to 30 inches: silty clay loam
CBk - 30 to 42 inches: silty clay loam
C1 - 42 to 52 inches: silty clay loam
C2 - 52 to 60 inches: silt loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 5.0

Available water supply, 0 to 60 inches: High (about 11.0 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(O28AY310UT)

Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 10 percent

Hydric soil rating: No

AbB—Ackmen loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: j52c

Elevation: 4,400 to 5,300 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 120 to 150 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Ackmen and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ackmen

Setting

Landform: Alluvial fans

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Slope alluvium

Typical profile

Ap - 0 to 6 inches: loam

AC - 6 to 32 inches: loam

C - 32 to 60 inches: loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
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
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): 2e
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: B
Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North
Other vegetative classification: Upland Loam (Mountain Big Sagebrush) (028AY310UT)
Hydric soil rating: No

AbC—Ackmen loam, 3 to 6 percent slopes

Map Unit Setting

National map unit symbol: j52d
Elevation: 4,400 to 5,300 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 120 to 150 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Ackmen and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ackmen

Setting

Landform: Alluvial fans
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Slope alluvium

Typical profile

Ap - 0 to 6 inches: loam
AC - 6 to 32 inches: loam
C - 32 to 60 inches: loam

Properties and qualities

Slope: 3 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained

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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

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): 3s

Hydrologic Soil Group: B

Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)

Hydric soil rating: No

AbD—Ackmen loam, 6 to 10 percent slopes

Map Unit Setting

National map unit symbol: j52f

Elevation: 4,400 to 5,300 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 120 to 150 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Ackmen and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ackmen

Setting

Landform: Alluvial fans

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Slope alluvium

Typical profile

Ap - 0 to 6 inches: loam

AC - 6 to 32 inches: loam

C - 32 to 60 inches: loam

Properties and qualities

Slope: 6 to 10 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

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

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Frequency of ponding: None

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): 4e

Hydrologic Soil Group: B

Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)

Hydric soil rating: No

Ac—Airport silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: j52h

Elevation: 4,200 to 4,300 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 160 to 180 days

Farmland classification: Not prime farmland

Map Unit Composition

Airport and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Airport

Setting

Landform: Lake terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Lacustrine deposits

Typical profile

H1 - 0 to 6 inches: silty clay loam

H2 - 6 to 19 inches: silty clay loam

H3 - 19 to 32 inches: silty clay loam

H4 - 32 to 40 inches: clay loam

H5 - 40 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 24 to 42 inches

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Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 60 percent
Maximum salinity: Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 50.0
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D
Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)
Hydric soil rating: No

Minor Components

Poorly drained soils, hydric, not correlated

Percent of map unit: 5 percent
Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

AS—Arave-Saltair complex, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j529
Elevation: 4,200 to 4,300 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Arave and similar soils: 75 percent
Saltair and similar soils: 20 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Arave

Setting

Landform: Lake plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lacustrine deposits

Typical profile

A1 - 0 to 8 inches: silt loam

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B1ca - 8 to 12 inches: loam
B2tca - 12 to 18 inches: clay loam
C1 - 18 to 36 inches: silty clay loam
C2 - 36 to 42 inches: silty clay loam
C3 - 42 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 20 to 40 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 30.0 mmhos/cm)
Sodium adsorption ratio, maximum: 60.0
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 7w
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D
Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)
Hydric soil rating: No

Description of Saltair

Setting

Landform: Lake plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lacustrine deposits

Typical profile

H1 - 0 to 1 inches: silt loam
H2 - 1 to 4 inches: silt loam
H3 - 4 to 9 inches: silt loam
H4 - 9 to 20 inches: silty clay loam
H5 - 20 to 32 inches: silt loam
H6 - 32 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: Occasional
Frequency of ponding: Occasional
Calcium carbonate, maximum content: 40 percent
Gypsum, maximum content: 2 percent

Custom Soil Resource Report

Maximum salinity: Strongly saline (100.0 to 250.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1,000.0
Available water supply, 0 to 60 inches: Very low (about 0.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Ecological site: R028AY132UT - Desert Salty Silt (Iodinebush)
Hydric soil rating: Yes

Minor Components

Croy

Percent of map unit: 3 percent
Landform: Lake plains

Goggin

Percent of map unit: 2 percent
Landform: Ridges, dunes
Landform position (three-dimensional): Riser
Down-slope shape: Convex
Across-slope shape: Linear, convex
Ecological site: R028AY330UT - Upland Sand (Black Greasewood, Indian Ricegrass)

CaA—Chance loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: j52p
Elevation: 4,200 to 4,500 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Chance and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chance

Setting

Landform: Depressions on lake terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Parent material: Alluvium

Custom Soil Resource Report

Typical profile

A11 - 0 to 3 inches: loam
A12 - 3 to 8 inches: loam
AC - 8 to 19 inches: silt loam
C1G - 19 to 41 inches: loamy fine sand
C1G - 41 to 57 inches: loamy fine sand
C3G - 57 to 72 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
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: About 0 to 18 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: B/D
Ecological site: R028AY020UT - Wet Fresh Meadow
Hydric soil rating: Yes

Co—Cobbly alluvial land

Map Unit Setting

National map unit symbol: j52q
Elevation: 4,200 to 4,500 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Cobbly alluvial land: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cobbly Alluvial Land

Setting

Landform: Flood plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Linear
Across-slope shape: Concave

Typical profile

C - 0 to 60 inches: stratified cobbly sand to sand to fine sandy loam

Properties and qualities

Drainage class: Somewhat poorly drained

Frequency of flooding: Frequent

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8w

Hydric soil rating: Yes

Minor Components

Poorly drained soils, hydric, not correlated

Percent of map unit: 10 percent

Landform: Flood plains

Landform position (three-dimensional): Dip, talf

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: Yes

CuA—Cudahy silt loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j52s

Elevation: 4,200 to 4,450 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 160 to 180 days

Farmland classification: Not prime farmland

Map Unit Composition

Cudahy and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cudahy

Setting

Landform: Lake terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Lacustrine deposits

Typical profile

A1 - 0 to 6 inches: silt loam

A12ca - 6 to 16 inches: silt loam

C1cag - 16 to 23 inches: silt loam

C2cam - 23 to 31 inches: indurated

C3cam - 31 to 44 inches: indurated

Custom Soil Resource Report

C4g - 44 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: 20 to 40 inches to petrocalcic

Drainage class: Poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.07 in/hr)

Depth to water table: About 0 to 24 inches

Frequency of flooding: Occasional

Frequency of ponding: None

Calcium carbonate, maximum content: 75 percent

Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum: 30.0

Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 3w

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: D

Ecological site: R028AY020UT - Wet Fresh Meadow

Hydric soil rating: Yes

DaA—Draper loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j52t

Elevation: 4,250 to 5,000 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 130 to 175 days

Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Draper and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Draper

Setting

Landform: Depressions on flood plains

Landform position (three-dimensional): Dip, talf

Down-slope shape: Concave, linear

Across-slope shape: Concave

Parent material: Alluvium

Typical profile

Ap - 0 to 8 inches: loam

A12 - 8 to 21 inches: loam

A13 - 21 to 30 inches: loam

Custom Soil Resource Report

C1 - 30 to 53 inches: loam

C2 - 53 to 60 inches: loam

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

*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: About 24 to 36 inches

Frequency of flooding: Rare

Frequency of ponding: None

Calcium carbonate, maximum content: 5 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): 2w

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: C

Ecological site: R028AY012UT - Semiwet Fresh Meadow

Hydric soil rating: No

Minor Components

Poorly drained soils

Percent of map unit: 10 percent

Landform: Flood plains

Landform position (three-dimensional): Dip, talf

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: Yes

DaB—Draper loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: j52v

Elevation: 4,250 to 5,000 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 130 to 175 days

Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Draper and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Draper

Setting

Landform: Depressions, flood plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Concave, linear
Across-slope shape: Concave
Parent material: Alluvium

Typical profile

Ap - 0 to 8 inches: loam
A12 - 8 to 21 inches: loam
A13 - 21 to 30 inches: loam
C1 - 30 to 53 inches: loam
C2 - 53 to 60 inches: loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
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: About 24 to 36 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 5 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): 2w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C
Ecological site: R028AY012UT - Semiwet Fresh Meadow
Hydric soil rating: No

Minor Components

Poorly drained soils, hydric, not correlated

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

DrA—Draper loam, drained, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j52w

Custom Soil Resource Report

Elevation: 4,250 to 5,000 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 130 to 175 days
Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Draper and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Draper

Setting

Landform: Flood plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Alluvium

Typical profile

Ap - 0 to 8 inches: loam
A12 - 8 to 21 inches: loam
A13 - 21 to 30 inches: loam
C1 - 30 to 53 inches: loam
C2 - 53 to 60 inches: loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
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: About 36 to 60 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 5 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): 2w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B
Ecological site: R028AY012UT - Semiwet Fresh Meadow
Hydric soil rating: No

Minor Components

Poorly drained soils

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

DrB—Draper loam, drained, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: j52x

Elevation: 4,250 to 5,000 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 130 to 175 days

Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Draper and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Draper

Setting

Landform: Alluvial fans, flood plains

Landform position (three-dimensional): Dip, talf

Down-slope shape: Concave, linear

Across-slope shape: Convex, concave

Parent material: Alluvium

Typical profile

Ap - 0 to 8 inches: loam

A12 - 8 to 21 inches: loam

A13 - 21 to 30 inches: loam

C1 - 30 to 53 inches: loam

C2 - 53 to 60 inches: loam

Properties and qualities

Slope: 1 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

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: About 36 to 60 inches

Frequency of flooding: Rare

Frequency of ponding: None

Calcium carbonate, maximum content: 5 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): 2w

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: B

Ecological site: R028AY012UT - Semiwet Fresh Meadow

Hydric soil rating: No

DsB—Draper gravelly loam, gravelly subsoil variant, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: j52z
Elevation: 4,250 to 5,000 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 130 to 175 days
Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Draper variant and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Draper Variant

Setting

Landform: Alluvial fans, flood plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Concave, linear
Across-slope shape: Convex, concave
Parent material: Alluvium

Typical profile

H1 - 0 to 8 inches: gravelly loam
H2 - 8 to 24 inches: gravelly loam
H3 - 24 to 60 inches: gravelly loamy fine sand

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
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: About 36 to 60 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B
Ecological site: R028AY012UT - Semiwet Fresh Meadow
Hydric soil rating: No

DsC—Draper gravelly loam, gravelly subsoil variant, 3 to 6 percent slopes

Map Unit Setting

National map unit symbol: j530

Elevation: 4,250 to 5,000 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 130 to 175 days

Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Draper variant and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Draper Variant

Setting

Landform: Alluvial fans

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Alluvium

Typical profile

H1 - 0 to 8 inches: gravelly loam

H2 - 8 to 24 inches: gravelly loam

H3 - 24 to 60 inches: gravelly loamy fine sand

Properties and qualities

Slope: 3 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

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: About 36 to 60 inches

Frequency of flooding: Very rare

Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): 3w

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: B

Ecological site: R028AY012UT - Semiwet Fresh Meadow

Hydric soil rating: No

GP—Gravel pits

Map Unit Setting

National map unit symbol: jk56
Elevation: 4,200 to 5,300 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Gravel pits: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

HnE2—Hillfield soils, 10 to 20 percent slopes, eroded

Map Unit Setting

National map unit symbol: j53m
Elevation: 4,300 to 4,900 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Hillfield and similar soils: 60 percent
Hillfield and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hillfield

Setting

Landform: Escarpments on terraces
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium and/or lacustrine deposits

Typical profile

Ap - 0 to 6 inches: silt loam
C1ca - 6 to 12 inches: silt loam
C2 - 12 to 21 inches: silt loam
C3 - 21 to 60 inches: stratified very fine sandy loam to clay loam

Properties and qualities

Slope: 10 to 20 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained

Custom Soil Resource Report

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: 25 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 10.0
Available water supply, 0 to 60 inches: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North
Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)
Hydric soil rating: No

Description of Hillfield

Setting

Landform: Terraces on escarpments
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium and/or lacustrine deposits

Typical profile

Ap - 0 to 6 inches: fine sandy loam
C1ca - 6 to 12 inches: silt loam
C2 - 12 to 21 inches: silt loam
C3 - 21 to 60 inches: stratified very fine sandy loam to clay loam

Properties and qualities

Slope: 10 to 20 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: 25 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North
Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)
Hydric soil rating: No

HTF2—Hillfield-Timpanogos-Parleys complex, 20 to 30 percent slopes, eroded

Map Unit Setting

National map unit symbol: j53f
Elevation: 4,400 to 5,100 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Hillfield and similar soils: 60 percent
Timpanogos and similar soils: 20 percent
Parleys and similar soils: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hillfield

Setting

Landform: Escarpments on terraces
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium and/or lacustrine deposits

Typical profile

Ap - 0 to 6 inches: silt loam
C1ca - 6 to 12 inches: silt loam
C2 - 12 to 21 inches: silt loam
C3 - 21 to 60 inches: stratified very fine sandy loam to clay loam

Properties and qualities

Slope: 20 to 30 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 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: 25 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 10.0
Available water supply, 0 to 60 inches: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e

Custom Soil Resource Report

Hydrologic Soil Group: B

Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)

Hydric soil rating: No

Description of Timpanogos

Setting

Landform: Escarpments on terraces

Landform position (three-dimensional): Riser

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Lacustrine deposits

Typical profile

Ap - 0 to 6 inches: loam

A12 - 6 to 15 inches: loam

B2t - 15 to 27 inches: loam

C1ca - 27 to 39 inches: loam

C2 - 39 to 60 inches: fine sandy loam

Properties and qualities

Slope: 20 to 30 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 13.0

Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C

Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)

Hydric soil rating: No

Description of Parleys

Setting

Landform: Escarpments on terraces

Landform position (three-dimensional): Riser

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Lacustrine deposits

Typical profile

Ap - 0 to 6 inches: loam

A12 - 6 to 15 inches: loam

Custom Soil Resource Report

B2t - 15 to 26 inches: clay loam
B3ca - 26 to 33 inches: silty clay loam
C1ca - 33 to 48 inches: silt loam
C2 - 48 to 60 inches: stratified fine sand to silty clay loam

Properties and qualities

Slope: 20 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North
Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)
Hydric soil rating: No

1aA—Ironton silt loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j53p
Elevation: 4,200 to 4,750 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Ironton and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ironton

Setting

Landform: Lake terraces, flood plains
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Linear, concave

Parent material: Alluvium and/or lacustrine deposits

Typical profile

A11 - 0 to 6 inches: silt loam

A12 - 6 to 16 inches: silt loam

A13ca - 16 to 21 inches: loam

C1ca - 21 to 36 inches: loam

C2ca - 36 to 48 inches: silt loam

C3 - 48 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: About 24 to 36 inches

Frequency of flooding: Rare

Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum: 13.0

Available water supply, 0 to 60 inches: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): 2w

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: C

Ecological site: R028AY012UT - Semiwet Fresh Meadow

Hydric soil rating: No

Minor Components

Poorly drained soils

Percent of map unit: 10 percent

Landform: Lake terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: Yes

1aB—Ironton silt loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: j53q

Elevation: 4,200 to 4,750 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 160 to 180 days

Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Ironton and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ironton

Setting

Landform: Flood plains, lake terraces

Landform position (three-dimensional): Tread, dip, talf

Down-slope shape: Linear

Across-slope shape: Concave, linear

Parent material: Alluvium and/or lacustrine deposits

Typical profile

A11 - 0 to 6 inches: silt loam

A12 - 6 to 16 inches: silt loam

A13ca - 16 to 21 inches: loam

C1ca - 21 to 36 inches: loam

C2ca - 36 to 48 inches: silt loam

C3 - 48 to 60 inches: silt loam

Properties and qualities

Slope: 1 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: About 24 to 36 inches

Frequency of flooding: Rare

Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum: 13.0

Available water supply, 0 to 60 inches: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): 2w

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: C

Ecological site: R028AY012UT - Semiwet Fresh Meadow

Hydric soil rating: No

Minor Components

Poorly drained soils, hydric, not correlated

Percent of map unit: 10 percent

Landform: Lake terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: Yes

1aC—Ironton silt loam, 3 to 6 percent slopes

Map Unit Setting

National map unit symbol: j53r
Elevation: 4,200 to 4,750 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Ironton and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ironton

Setting

Landform: Flood plains, lake terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear
Across-slope shape: Concave, linear
Parent material: Alluvium and/or lacustrine deposits

Typical profile

A11 - 0 to 6 inches: silt loam
A12 - 6 to 16 inches: silt loam
A13ca - 16 to 21 inches: loam
C1ca - 21 to 36 inches: loam
C2ca - 36 to 48 inches: silt loam
C3 - 48 to 60 inches: silt loam

Properties and qualities

Slope: 3 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 24 to 36 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C
Ecological site: R028AY012UT - Semiwet Fresh Meadow

Hydric soil rating: No

IcA—Ironton silt loam, saline, sodic, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j53s
Elevation: 4,200 to 4,750 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Ironton and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ironton

Setting

Landform: Flood plains, depressions on lake terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear, concave
Across-slope shape: Concave, linear
Parent material: Alluvium and/or lacustrine deposits

Typical profile

A11 - 0 to 6 inches: silt loam
A12 - 6 to 16 inches: silt loam
A13ca - 16 to 21 inches: loam
C1ca - 21 to 36 inches: loam
C2ca - 36 to 48 inches: silt loam
C3 - 48 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
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: About 24 to 36 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0
Available water supply, 0 to 60 inches: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: D

Custom Soil Resource Report

Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)
Hydric soil rating: No

Minor Components

Poorly drained soils, hydric, not correlated

Percent of map unit: 10 percent
Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

IDA—Ironton-Draper complex, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: j53n
Elevation: 4,200 to 5,000 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 130 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Ironton and similar soils: 60 percent
Draper and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ironton

Setting

Landform: Flood plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Alluvium and/or lacustrine deposits

Typical profile

A11 - 0 to 6 inches: silt loam
A12 - 6 to 16 inches: silt loam
A13ca - 16 to 21 inches: loam
C1ca - 21 to 36 inches: loam
C2ca - 36 to 48 inches: silt loam
C3 - 48 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Custom Soil Resource Report

Depth to water table: About 24 to 36 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C
Ecological site: R028AY012UT - Semiwet Fresh Meadow
Hydric soil rating: No

Description of Draper

Setting

Landform: Flood plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Alluvium

Typical profile

Ap - 0 to 8 inches: loam
A12 - 8 to 21 inches: loam
A13 - 21 to 30 inches: loam
C1 - 30 to 53 inches: loam
C2 - 53 to 60 inches: loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
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: About 24 to 36 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 5 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): 2w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C
Ecological site: R028AY012UT - Semiwet Fresh Meadow
Hydric soil rating: No

KaD—Kidman fine sandy loam, 6 to 10 percent slopes

Map Unit Setting

National map unit symbol: j541
Elevation: 4,200 to 4,300 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Kidman and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kidman

Setting

Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lacustrine deposits

Typical profile

H1 - 0 to 11 inches: fine sandy loam
H2 - 11 to 17 inches: fine sandy loam
H3 - 17 to 27 inches: fine sandy loam
H4 - 27 to 37 inches: fine sandy loam
H5 - 37 to 49 inches: very fine sandy loam
H6 - 49 to 60 inches: very fine sandy loam

Properties and qualities

Slope: 6 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 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: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: A
Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North

Custom Soil Resource Report

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)
Hydric soil rating: No

KFG2—Kilburn-Francis association, 30 to 50 percent slopes, eroded

Map Unit Setting

National map unit symbol: j53w
Elevation: 4,300 to 5,300 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 54 degrees F
Frost-free period: 145 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Kilburn and similar soils: 75 percent
Francis and similar soils: 20 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kilburn

Setting

Landform: Alluvial fans
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Lacustrine deposits

Typical profile

A11 - 0 to 5 inches: gravelly sandy loam
A12 - 5 to 11 inches: gravelly sandy loam
B2 - 11 to 24 inches: very cobbly sandy loam
C - 24 to 60 inches: very gravelly loamy coarse sand

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 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: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R028AY306UT - Upland Gravelly Loam (Bonneville Big Sagebrush)
Hydric soil rating: No

Description of Francis

Setting

Landform: Alluvial fans
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Lacustrine deposits

Typical profile

Ap - 0 to 7 inches: loamy fine sand
A12 - 7 to 13 inches: loamy fine sand
C1 - 13 to 23 inches: loamy fine sand
C2 - 23 to 73 inches: fine sand

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 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: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R028AY330UT - Upland Sand (Black Greasewood, Indian Ricegrass)
Hydric soil rating: No

Minor Components

Stony soils

Percent of map unit: 3 percent

Rock outcrop

Percent of map unit: 2 percent

KgB—Kilburn gravelly sandy loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: j547
Elevation: 4,400 to 5,300 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Kilburn and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kilburn

Setting

Landform: Alluvial fans

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Lacustrine deposits

Typical profile

A11 - 0 to 5 inches: gravelly sandy loam

A12 - 5 to 11 inches: gravelly sandy loam

B2 - 11 to 24 inches: very cobbly sandy loam

C - 24 to 60 inches: very gravelly loamy coarse sand

Properties and qualities

Slope: 1 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 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: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): 3s

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: A

Ecological site: R028AY306UT - Upland Gravelly Loam (Bonneville Big Sagebrush)

Hydric soil rating: No

KgC—Kilburn gravelly sandy loam, 3 to 6 percent slopes

Map Unit Setting

National map unit symbol: j548

Elevation: 4,400 to 5,300 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 160 to 180 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Kilburn and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kilburn

Setting

Landform: Alluvial fans
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Lacustrine deposits

Typical profile

A11 - 0 to 5 inches: gravelly sandy loam
A12 - 5 to 11 inches: gravelly sandy loam
B2 - 11 to 24 inches: very cobbly sandy loam
C - 24 to 60 inches: very gravelly loamy coarse sand

Properties and qualities

Slope: 3 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 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: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A
Ecological site: R028AY306UT - Upland Gravelly Loam (Bonneville Big Sagebrush)
Hydric soil rating: No

KgD—Kilburn gravelly sandy loam, 6 to 10 percent slopes

Map Unit Setting

National map unit symbol: j549
Elevation: 4,400 to 5,200 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Kilburn and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kilburn

Setting

Landform: Fans
Down-slope shape: Concave

Custom Soil Resource Report

Across-slope shape: Convex
Parent material: Lacustrine deposits

Typical profile

A11 - 0 to 5 inches: gravelly sandy loam
A12 - 5 to 11 inches: gravelly sandy loam
B2 - 11 to 24 inches: very cobbly sandy loam
C - 24 to 60 inches: very gravelly loamy coarse sand

Properties and qualities

Slope: 6 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 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: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A
Ecological site: R028AY306UT - Upland Gravelly Loam (Bonneville Big Sagebrush)
Hydric soil rating: No

KIC—Kilburn cobbly sandy loam, 3 to 10 percent slopes

Map Unit Setting

National map unit symbol: j54c
Elevation: 4,400 to 5,300 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Kilburn and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kilburn

Setting

Landform: Alluvial fans
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Lacustrine deposits

Typical profile

A1 - 0 to 5 inches: very cobbly sandy loam
A2 - 5 to 11 inches: very cobbly sandy loam

Custom Soil Resource Report

B - 11 to 24 inches: very cobbly sandy loam

C - 24 to 60 inches: very cobbly loamy coarse sand

Properties and qualities

Slope: 3 to 10 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 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: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): 4s

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: A

Ecological site: R028AY306UT - Upland Gravelly Loam (Bonneville Big Sagebrush)

Hydric soil rating: No

Lt—Logan silty clay loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: j54x

Elevation: 4,200 to 4,650 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 160 to 180 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Logan and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Logan

Setting

Landform: Lake terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium and/or lacustrine deposits

Typical profile

Ap - 0 to 5 inches: silty clay loam

A12 - 5 to 12 inches: silty clay loam

C1cag - 12 to 29 inches: silty clay loam

C2cag - 29 to 46 inches: silt loam

C3g - 46 to 60 inches: stratified fine sand to silty clay

Custom Soil Resource Report

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly 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: About 12 to 30 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 60 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: C/D
Ecological site: R028AY020UT - Wet Fresh Meadow
Hydric soil rating: Yes

Minor Components

Peat surface soils

Percent of map unit: 5 percent
Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Lw—Logan silty clay loam, shallow water table, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: j54z
Elevation: 4,200 to 4,650 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Logan and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Logan

Setting

Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium and/or lacustrine deposits

Typical profile

Ap - 0 to 5 inches: silty clay loam
A12 - 5 to 12 inches: silty clay loam
C1cag - 12 to 29 inches: silty clay loam
C2cag - 29 to 46 inches: silt loam
C3g - 46 to 60 inches: stratified fine sand to silty clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 0 to 10 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Calcium carbonate, maximum content: 60 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0
Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D
Ecological site: R028AY020UT - Wet Fresh Meadow
Hydric soil rating: Yes

Minor Components

Peat surface soils

Percent of map unit: 5 percent
Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

PaD—Parleys loam, 6 to 10 percent slopes

Map Unit Setting

National map unit symbol: j55c
Elevation: 4,300 to 5,050 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Parleys and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Parleys

Setting

Landform: Lake terraces, escarpments
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lacustrine deposits

Typical profile

Ap - 0 to 6 inches: loam
A12 - 6 to 15 inches: loam
B2t - 15 to 26 inches: clay loam
B3ca - 26 to 33 inches: silty clay loam
C1ca - 33 to 48 inches: silt loam
C2 - 48 to 60 inches: stratified fine sand to silty clay loam

Properties and qualities

Slope: 6 to 10 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 high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North

Custom Soil Resource Report

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)
Hydric soil rating: No

PaE2—Parleys loam, 10 to 20 percent slopes, eroded

Map Unit Setting

National map unit symbol: j55d
Elevation: 4,300 to 5,050 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Parleys and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Parleys

Setting

Landform: Lake terraces, escarpments
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lacustrine deposits

Typical profile

Ap - 0 to 6 inches: loam
A12 - 6 to 15 inches: loam
B2t - 15 to 26 inches: clay loam
B3ca - 26 to 33 inches: silty clay loam
C1ca - 33 to 48 inches: silt loam
C2 - 48 to 60 inches: stratified fine sand to silty clay loam

Properties and qualities

Slope: 10 to 20 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 high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e

Custom Soil Resource Report

Hydrologic Soil Group: C

Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)

Hydric soil rating: No

PNA—Payson-Warm Springs complex, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: j557

Elevation: 4,200 to 4,600 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 160 to 180 days

Farmland classification: Not prime farmland

Map Unit Composition

Payson and similar soils: 65 percent

Warm springs, deep over clay, and similar soils: 30 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Payson

Setting

Landform: Swales on lake terraces

Landform position (three-dimensional): Tread, dip, talf

Down-slope shape: Linear, concave

Across-slope shape: Linear, concave

Parent material: Lacustrine deposits

Typical profile

A21 - 0 to 2 inches: silt loam

A22 - 2 to 4 inches: silt loam

B2T - 4 to 9 inches: silty clay loam

B3CA - 9 to 24 inches: clay

C - 24 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 30 to 48 inches

Frequency of flooding: Rare

Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)

Sodium adsorption ratio, maximum: 60.0

Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D
Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)
Hydric soil rating: No

Description of Warm Springs, Deep Over Clay

Setting

Landform: Knolls on lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Lacustrine deposits

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 15 inches: fine sandy loam
H3 - 15 to 24 inches: fine sandy loam
H4 - 24 to 37 inches: fine sandy loam
H5 - 37 to 60 inches: clay

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 30 to 48 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Very slightly saline to strongly saline (2.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0
Available water supply, 0 to 60 inches: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D
Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)
Hydric soil rating: No

Minor Components

Alkali soils, hydric, not correlated

Percent of map unit: 2 percent
Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Hardpan soils

Percent of map unit: 2 percent

Ponded soils, hydric, not correlated

Percent of map unit: 1 percent
Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Rt—Roshe Springs silt loam, drained, clayey substratum, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: j55y
Elevation: 4,200 to 4,500 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Roshe springs, drained, and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Roshe Springs, Drained

Setting

Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium and/or lacustrine deposits

Typical profile

Ap - 0 to 7 inches: silt loam
A12ca - 7 to 12 inches: loam
C1cag - 12 to 33 inches: loam
C2cag - 33 to 52 inches: loam
C3g - 52 to 80 inches: clay

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): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 20 to 36 inches

Custom Soil Resource Report

Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum content: 80 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): 4w
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: C
Ecological site: R028AY020UT - Wet Fresh Meadow
Hydric soil rating: Yes

Minor Components

Roshe springs, shallow water table, uncorrelated

Percent of map unit: 5 percent
Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R028AY020UT - Wet Fresh Meadow
Hydric soil rating: Yes

Rw—Roshe Springs silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: j55z
Elevation: 4,200 to 4,600 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Roshe springs, shallow water table, and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Roshe Springs, Shallow Water Table

Setting

Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium and/or lacustrine deposits

Typical profile

Ap - 0 to 7 inches: silt loam

Custom Soil Resource Report

A12ca - 7 to 12 inches: loam
C1cag - 12 to 33 inches: loam
C2cag - 33 to 52 inches: loam
C3g - 52 to 80 inches: sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 0 to 10 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum content: 80 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): 4w
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: C/D
Ecological site: R028AY020UT - Wet Fresh Meadow
Hydric soil rating: Yes

SfD—Sterling gravelly loam, 6 to 10 percent slopes

Map Unit Setting

National map unit symbol: j565
Elevation: 4,400 to 4,500 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 45 to 54 degrees F
Frost-free period: 120 to 175 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Sterling and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sterling

Setting

Landform: Alluvial fans
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Slope alluvium

Typical profile

Ap - 0 to 5 inches: gravelly loam

Custom Soil Resource Report

A12 - 5 to 16 inches: gravelly loam
C1ca - 16 to 22 inches: very cobbly loam
C2ca - 22 to 27 inches: very cobbly sandy loam
C3 - 27 to 60 inches: very cobbly sandy loam

Properties and qualities

Slope: 6 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 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)
Sodium adsorption ratio, maximum: 10.0
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: R028AY334UT - Upland Stony Loam (Wyoming Big Sagebrush)
Other vegetative classification: Upland Stony Loam (Mountain Big Sagebrush)
(028AY334UT)
Hydric soil rating: No

SgE—Sterling cobbly loam, 8 to 20 percent slopes

Map Unit Setting

National map unit symbol: j566
Elevation: 4,400 to 4,500 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 45 to 54 degrees F
Frost-free period: 120 to 175 days
Farmland classification: Not prime farmland

Map Unit Composition

Sterling and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sterling

Setting

Landform: Ridges, alluvial fans
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluvium, crest
Down-slope shape: Convex, concave
Across-slope shape: Convex
Parent material: Slope alluvium

Custom Soil Resource Report

Typical profile

Ap - 0 to 5 inches: cobbly loam
A12 - 5 to 16 inches: cobbly loam
C1ca - 16 to 22 inches: very cobbly loam
C2ca - 22 to 27 inches: very cobbly sandy loam
C3 - 27 to 60 inches: very cobbly sandy loam

Properties and qualities

Slope: 8 to 20 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 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)
Sodium adsorption ratio, maximum: 10.0
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: R028AY334UT - Upland Stony Loam (Wyoming Big Sagebrush)
Other vegetative classification: Upland Stony Loam (Mountain Big Sagebrush)
(028AY334UT)
Hydric soil rating: No

SKB—Sunset loam, drained, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: j569
Elevation: 4,200 to 4,800 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Sunset and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sunset

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Concave

Custom Soil Resource Report

Parent material: Alluvium

Typical profile

Ap - 0 to 7 inches: loam
A12 - 7 to 18 inches: loam
AC - 18 to 32 inches: loam
C1 - 32 to 44 inches: loam
C2 - 44 to 68 inches: loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Low
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: About 42 to 60 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: B
Ecological site: R028AY012UT - Semiwet Fresh Meadow
Hydric soil rating: No

TbA—Timpanogos loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j56j
Elevation: 4,300 to 5,050 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Timpanogos and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Timpanogos

Setting

Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear

Custom Soil Resource Report

Parent material: Lacustrine deposits

Typical profile

Ap - 0 to 6 inches: loam
A12 - 6 to 15 inches: loam
B2t - 15 to 27 inches: loam
C1ca - 27 to 39 inches: loam
C2 - 39 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: C
Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North
Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)
Hydric soil rating: No

Minor Components

Somewhat poorly drained soils

Percent of map unit: 5 percent
Hydric soil rating: No

TbB—Timpanogos loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: j56k
Elevation: 4,300 to 5,050 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Timpanogos and similar soils: 95 percent
Minor components: 5 percent

Custom Soil Resource Report

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Timpanogos

Setting

Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lacustrine deposits

Typical profile

Ap - 0 to 6 inches: loam
A12 - 6 to 15 inches: loam
B2t - 15 to 27 inches: loam
C1ca - 27 to 39 inches: loam
C2 - 39 to 60 inches: fine sandy loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): 2c
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: C
Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North
Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)
Hydric soil rating: No

Minor Components

Somewhat poorly drained soils

Percent of map unit: 5 percent
Hydric soil rating: No

TbC—Timpanogos loam, 3 to 6 percent slopes

Map Unit Setting

National map unit symbol: j56l

Custom Soil Resource Report

Elevation: 4,300 to 5,050 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Timpanogos and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Timpanogos

Setting

Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lacustrine deposits

Typical profile

Ap - 0 to 6 inches: loam
A12 - 6 to 15 inches: loam
B2t - 15 to 27 inches: loam
C1ca - 27 to 39 inches: loam
C2 - 39 to 60 inches: fine sandy loam

Properties and qualities

Slope: 3 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North
Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)
Hydric soil rating: No

TbD2—Timpanogos loam, 6 to 10 percent slopes, eroded

Map Unit Setting

National map unit symbol: j56m
Elevation: 4,300 to 5,050 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Timpanogos and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Timpanogos

Setting

Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lacustrine deposits

Typical profile

Ap - 0 to 6 inches: loam
A12 - 6 to 15 inches: loam
B2t - 15 to 27 inches: loam
C1ca - 27 to 39 inches: loam
C2 - 39 to 60 inches: fine sandy loam

Properties and qualities

Slope: 6 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North
Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)

Hydric soil rating: No

TbE2—Timpanogos loam, 10 to 20 percent slopes, eroded

Map Unit Setting

National map unit symbol: j56n

Elevation: 4,300 to 5,050 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 160 to 180 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Timpanogos and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Timpanogos

Setting

Landform: Lake terraces

Landform position (three-dimensional): Riser

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Lacustrine deposits

Typical profile

Ap - 0 to 6 inches: loam

A12 - 6 to 15 inches: loam

B2t - 15 to 27 inches: loam

C1ca - 27 to 39 inches: loam

C2 - 39 to 60 inches: fine sandy loam

Properties and qualities

Slope: 10 to 20 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 13.0

Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): 4e

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North

Custom Soil Resource Report

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)
Hydric soil rating: No

UL—Urban land

Map Unit Setting

National map unit symbol: 1t3j5
Elevation: 4,200 to 9,000 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

W—Water

Map Unit Setting

National map unit symbol: j56t
Elevation: 4,200 to 5,600 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

WaA—Warm Springs fine sandy loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j56w
Elevation: 4,200 to 4,400 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Warm springs and similar soils: 95 percent

Custom Soil Resource Report

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Warm Springs

Setting

Landform: Lake terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Lacustrine deposits

Typical profile

H1 - 0 to 8 inches: fine sandy loam

H2 - 8 to 15 inches: fine sandy loam

H3 - 15 to 24 inches: fine sandy loam

H4 - 24 to 37 inches: fine sandy loam

H5 - 37 to 60 inches: loamy fine sand

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Runoff class: Low

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: About 36 to 48 inches

Frequency of flooding: Rare

Frequency of ponding: None

Calcium carbonate, maximum content: 30 percent

Maximum salinity: Very slightly saline to strongly saline (2.0 to 16.0 mmhos/cm)

Sodium adsorption ratio, maximum: 30.0

Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): 2w

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: C

Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)

Hydric soil rating: No

Minor Components

Warm springs, shallow water table, uncorrelated

Percent of map unit: 5 percent

Landform: Lake terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R028AY024UT - Wet Saline Meadow (Saltgrass)

Hydric soil rating: Yes

WgA—Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j56z
Elevation: 4,200 to 4,400 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Warm springs, strongly alkali, and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Warm Springs, Strongly Alkali

Setting

Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lacustrine deposits

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 15 inches: fine sandy loam
H3 - 15 to 24 inches: fine sandy loam
H4 - 24 to 37 inches: fine sandy loam
H5 - 37 to 60 inches: loamy fine sand

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
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: About 24 to 42 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Strongly saline (16.0 to 32.0 mmhos/cm)
Sodium adsorption ratio, maximum: 60.0
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): 4w
Land capability classification (nonirrigated): 7w

Custom Soil Resource Report

Hydrologic Soil Group: D

Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)

Hydric soil rating: No

Minor Components

Warm springs, shallow water table, uncorrelated

Percent of map unit: 5 percent

Landform: Lake terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R028AY024UT - Wet Saline Meadow (Saltgrass)

Hydric soil rating: Yes

Ws—Woods Cross silty clay loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: j573

Elevation: 4,250 to 4,500 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 160 to 180 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Woods cross and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Woods Cross

Setting

Landform: Flood plains

Landform position (three-dimensional): Dip, talf

Down-slope shape: Linear

Across-slope shape: Concave

Parent material: Alluvium

Typical profile

Ap - 0 to 6 inches: silty clay loam

A12 - 6 to 37 inches: silty clay loam

Cg - 37 to 72 inches: silty clay

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: Very 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: About 0 to 18 inches

Custom Soil Resource Report

Frequency of flooding: Occasional

Frequency of ponding: None

Calcium carbonate, maximum content: 3 percent

Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)

Available water supply, 0 to 60 inches: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): 3w

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: C/D

Ecological site: R028AY024UT - Wet Saline Meadow (Saltgrass)

Hydric soil rating: Yes

Wt—Woods Cross silty clay loam, drained, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: j574

Elevation: 4,250 to 4,500 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 160 to 180 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Woods cross, drained, and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Woods Cross, Drained

Setting

Landform: Flood plains

Landform position (three-dimensional): Dip, talf

Down-slope shape: Linear

Across-slope shape: Concave

Parent material: Alluvium

Typical profile

Ap - 0 to 6 inches: silty clay loam

A12 - 6 to 37 inches: silty clay loam

Cg - 37 to 72 inches: silty clay

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly 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: About 30 to 48 inches

Frequency of flooding: Occasional

Frequency of ponding: None

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Calcium carbonate, maximum content: 3 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): 3w

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: C

Ecological site: R028AY020UT - Wet Fresh Meadow

Hydric soil rating: Yes

Minor Components

Poorly drained soils, hydric, not correlated

Percent of map unit: 5 percent

Landform: Flood plains

Landform position (three-dimensional): Dip, talf

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: Yes

Salt Lake Area, Utah

Ch—Chipman silty clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j6h0
Elevation: 4,200 to 4,350 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Chipman and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chipman

Setting

Landform: Flood plains
Landform position (three-dimensional): Talf, dip
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Alluvium

Typical profile

A11 - 0 to 6 inches: silty clay loam
A12 - 6 to 16 inches: silty clay loam
C1ca - 16 to 36 inches: silty clay loam
C2ca - 36 to 46 inches: silty clay loam
C3ca - 46 to 51 inches: silty clay loam
C4 - 51 to 59 inches: silty clay

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 60 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D
Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)
Hydric soil rating: No

Minor Components

Magna

Percent of map unit: 3 percent
Landform: Flood plains
Landform position (three-dimensional): Talf, dip
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R028AY024UT - Wet Saline Meadow (Saltgrass)
Hydric soil rating: Yes

Stony alluvial land

Percent of map unit: 2 percent

Ironton

Percent of map unit: 2 percent

Welby

Percent of map unit: 2 percent

Magna, peaty surface

Percent of map unit: 2 percent
Landform: Flood plains
Landform position (three-dimensional): Talf, dip
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R028AY024UT - Wet Saline Meadow (Saltgrass)
Hydric soil rating: Yes

Bramwell, hardpan variant

Percent of map unit: 2 percent

Chipman, saline-alkali, gravelly substratum

Percent of map unit: 2 percent

Dk—Deckerman loam, strongly saline, sodic, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j6hd
Elevation: 4,200 to 4,300 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Deckerman and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Deckerman

Setting

Landform: Lake plains
Landform position (three-dimensional): Talf, rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium and/or lacustrine deposits

Typical profile

A11&A12 - 0 to 6 inches: loam
C1 - 6 to 12 inches: loam
C2ca - 12 to 20 inches: loam
C3 - 20 to 35 inches: sandy loam
C4 - 35 to 43 inches: loam
IIC5 - 43 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Strongly saline (16.0 to 60.0 mmhos/cm)
Sodium adsorption ratio, maximum: 60.0
Available water supply, 0 to 60 inches: Low (about 3.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D
Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)
Hydric soil rating: No

Minor Components

Lasil

Percent of map unit: 5 percent
Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)

Saltair

Percent of map unit: 5 percent
Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R028AY132UT - Desert Salty Silt (Iodinebush)
Hydric soil rating: Yes

Du—Dumps

Map Unit Setting

National map unit symbol: j6hg

Elevation: 4,200 to 9,000 feet

Farmland classification: Not prime farmland

Map Unit Composition

Dumps: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Gp—Gravel pits

Map Unit Setting

National map unit symbol: j6hn

Elevation: 4,200 to 9,000 feet

Farmland classification: Not prime farmland

Map Unit Composition

Gravel pits: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Lo—Loamy borrow pits

Map Unit Setting

National map unit symbol: j6k1

Elevation: 4,200 to 4,800 feet

Farmland classification: Not prime farmland

Map Unit Composition

Loamy borrow pits: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Ma—Made land

Map Unit Composition

Made land: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

SP—Stony terrace escarpments

Map Unit Setting

National map unit symbol: j6kt
Elevation: 4,200 to 5,200 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 49 to 56 degrees F
Frost-free period: 130 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Stony terrace escarpments: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Stony Terrace Escarpments

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear

UL—Urban land

Map Unit Setting

National map unit symbol: j6lf
Elevation: 4,200 to 9,000 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

W—Water

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

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