# **APPENDIX B** Wetland Delineation Report

Prepared for

Lake Restoration Solutions, LLC 3300 N. Triumph Boulevard, Suite 100 Lehi, Utah 84043

## UTAH LAKE RESTORATION PROJECT DRAFT WETLAND DELINEATION REPORT

Prepared by



engineers | scientists | innovators

Geosyntec Consultants, Inc. 215 South State Street, Suite 500 Salt Lake City, Utah 84111

Project Number DE0475

and SWCA Environmental Consultants, Inc. 257 East 200 South, Suite 200 Salt Lake City, Utah 84111

November 2021

Privileged and Confidential

### **TABLE OF CONTENTS**

| 1. | Project Background And Site Description<br>1.1. Area of Analysis   |          |
|----|--|----------|
| 2. | <ul><li>Existing Site Conditions</li><li>2.1. Wetlands</li><li>2.2. Soils</li><li>2.3. Climatic Conditions</li></ul> | .3<br>.4 |
| 3. | Survey Methodology   | .9       |
| 4. | Survey Results   | 12       |
| 5. | Statement Of Limitations   | 13       |
| 6. | References   | 14       |

# Geosyntec<sup>></sup>

#### **TABLE OF CONTENTS (Continued)**

#### LIST OF TABLES

| Table 1. | NWI and Cowardin Classification Results of the Wetlands Desktop Assessment. | 3  |
|----------|---|----|
| Table 2: | Soils Within the Area of Analysis   | 4  |
| Table 3: | Aquatic Resources Within the Area of Analysis                               | 12 |

#### LIST OF FIGURES

Figure 2: NRCS Soil Series Map

#### LIST OF APPENDICES

- Appendix A: Field Delineation Results Mapbook
- Appendix B: Wetland Determination Data Forms
- Appendix C: Photographic Log

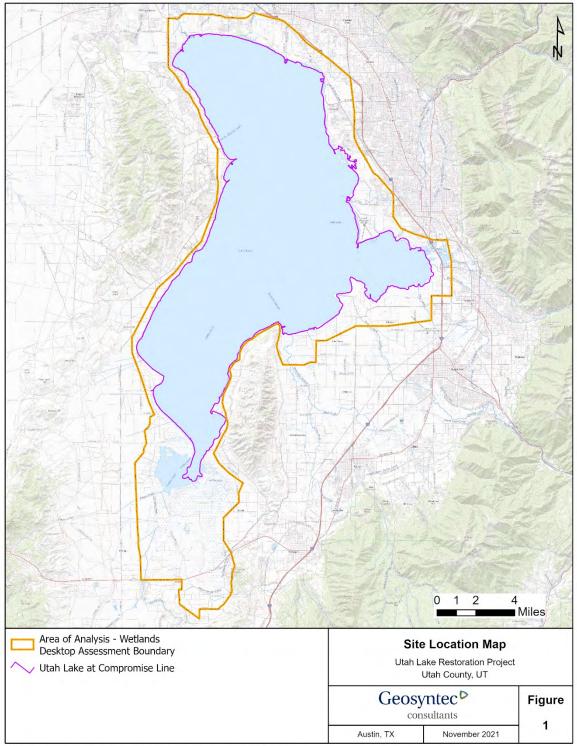
### 1. PROJECT BACKGROUND AND SITE DESCRIPTION

Lake Restoration Solutions, LLC tasked Geosyntec Consultants, Inc. (Geosyntec) to conduct a wetland and stream delineation for the Utah Lake Restoration Project (ULRP or Project) within Utah Lake in Utah County, Utah (area of analysis). The area of analysis is bounded by the City of Saratoga Springs and the Lake Mountains to the west; the cities of Lehi and American Fork to the north; the Cities of Pleasant Grove, Lindon, Orem, Provo, Springville, and Vineyard to the east; and the City of Genola, agricultural land, and West Mountain to the south.

Geosyntec conducted a field survey to document potentially jurisdictional wetlands and streams within the area of analysis (Figure 1) from 6 July to 11 July 2021. The field survey was only conducted on lands with public access that were located inside the defined area of analysis. These lands included the littoral shelf around Utah Lake, which was accessed via boat, and 10 public parks.

#### 1.1. Area of Analysis

The proposed Project's area of analysis is defined by the Wetlands Desktop Assessment Boundary depicted on Figure 1. The area of analysis totals 146,247 acres or 229 square miles—approximately 58% open water and 42% terrestrial habitats. Terrestrial land use/landcover habitats include upland grasslands, woodlands, shrublands, developed/urban landscape, agriculture, sparsely-vegetated, and wetlands. Specific wetland habitats within the area of analysis are discussed further below.



D:\Utah Lake - EIS\M - GIS\UtahLake\_Pro\UtahLake\_Pro\_WDSIR.aprx 11/16/2021 10:56 AM

#### 2. EXISTING SITE CONDITIONS

#### 2.1. <u>Wetlands</u>

The desktop evaluation identified several wetland types within the area of analysis. Adopted by the USFWS in 1979, the NWI code is based on *the Classification of Wetlands and Deepwater Habitats of the United States* developed by Cowardin which serves as the national mapping standard for classifying wetlands and deepwater habitats (Cowardin et al. 1979). During the desktop assessment, each wetland polygon was mapped and assigned an NWI mapping convention that classifies the wetland type. The core components of the NWI code are System + Subsystem (optional) + Class + Subclass (optional), followed by a modifier shown in parenthesis that describes the water regime of the wetland. The modifier for the water regime is represented by letters that range from (A) Temporary Flooded, to (K) Artificially Flooded. An example of one of many wetlands along the shoreline of Utah Lake are classified as L2AB (F). This code includes the Lacustrine (L) system + Littoral subsystem (2) + Aquatic Bed (AB) class + Semipermanently Flooded (F). Table 1 details the wetland types from the desktop assessment.

| Wetland Type                      | Common Description   | NWI Code (*)      | Cowardin Classification<br>(System, Subsystem, Class)        | Acres     |
|-----------------------------------|--|-------------------|--|-----------|
| Lake                              | Deepwater lake   | L1UB (G,H)        | Lacustrine, limnetic,<br>unconsolidated bottom               | 63,099.16 |
| Lake                              | Shallow lake marshes   | L2AB (F,H)        | Lacustrine, littoral, aquatic bed                            | 18,768.79 |
| Lake                              | Shallow lake   | L2UB (F)          | Lacustrine, littoral,<br>unconsolidated bottom               | 32.85     |
| Lake                              | Dry alkaline lake beds   | L2US (A,C,F)      | Lacustrine, littoral,<br>unconsolidated shore                | 3,392.35  |
| Freshwater Pond                   | Deep basins, impoundments,<br>sewage treatment ponds,<br>beaver ponds                    | PAB (F,G,K)       | Palustrine, aquatic bed                                      | 105.35    |
| Freshwater Pond                   | Open water, gravel pits  | PUB (F)           | Palustrine, unconsolidated bottom                            | 98.01     |
| Freshwater Pond                   | Salt flats   | PUS (A,C,K)       | Palustrine, unconsolidated shore                             | 126.54    |
| Freshwater<br>Emergent<br>Wetland | Sparsely vegetated playas, salt flats  | PEM1/US (A)       | Palustrine, emergent<br>persistent / unconsolidated<br>shore | 89.23     |
| Freshwater<br>Emergent<br>Wetland | Basins, depressions, marches,<br>meadows, springs, seeps, or<br>vegetated drainage areas | PEM1<br>(A,B,C,F) | Palustrine, emergent<br>persistent                           | 25,699.64 |
| Freshwater<br>Forested<br>Wetland | Cottonwood, riverbanks, floodplains, or drainage areas                                   | PFO (A)           | Palustrine, forested   | 87.62     |
| Freshwater<br>Shrub Wetland       | Willow thicket, river banks or drainage areas  | PSS (A,C)         | Palustrine, scrub-shrub                                      | 585.61    |

|              |  |              | Total   | 112,298.41 |
|--------------|--|--------------|---|------------|
| Riverine     | Irrigation ditches                           | R5UB (F,H)   | Riverine, unknown perennial, unconsolidated bottom    | 39.18      |
| Riverine     | Small streams, creeks, or irrigation ditches | R4SB (C)     | Riverine, intermittent, streambed                     | 118.16     |
| Riverine     | Meandering rivers, low gradient              | R2UB (G,H)   | Riverine, lower perennial, unconsolidated bottom      | 55.92      |
| Wetland Type | Common Description                           | NWI Code (*) | Cowardin Classification<br>(System, Subsystem, Class) | Acres      |

\* - Water Regime Modifiers are identified in parenthesis: A - Temporary Flooded, B - Seasonally Saturated, C -Seasonally Flooded, E - Seasonally Flooded / Saturated, F - Semipermanently Flooded, G - Intermittently Exposed, H -Permanently Flooded, K - Artificially Flooded

During the field verification, each plant species was assigned an indicator status based on the National Wetland Plant List (Lichvar, 2018). The following indicator statuses were assigned to each plant species obligate (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), upland (UPL).

Common herbaceous species within the delineated PEM wetlands included common reed (*Phragmites australis*, FACW), broadleaf cattail (*Typha latifolia*, OBL), Nevada bulrush (*Scirpus nevadensis*, OBL), and hard-stem club rush (*Schoenoplectus actus*, OBL). Common shrub species within the PSS wetlands included five-stamen tamarisk (*Tamarix chinens*, FAC) and athel tamarisk (*Tamarix aphylla*, FAC). Common tree species within the PFO wetlands included arroyo willow (*Salix lasiolepis*, FACW) and narrow-leaf cottonwood (*Populus angustifolia*, FACW) (Photographic Log, Appendix C).

#### 2.2. <u>Soils</u>

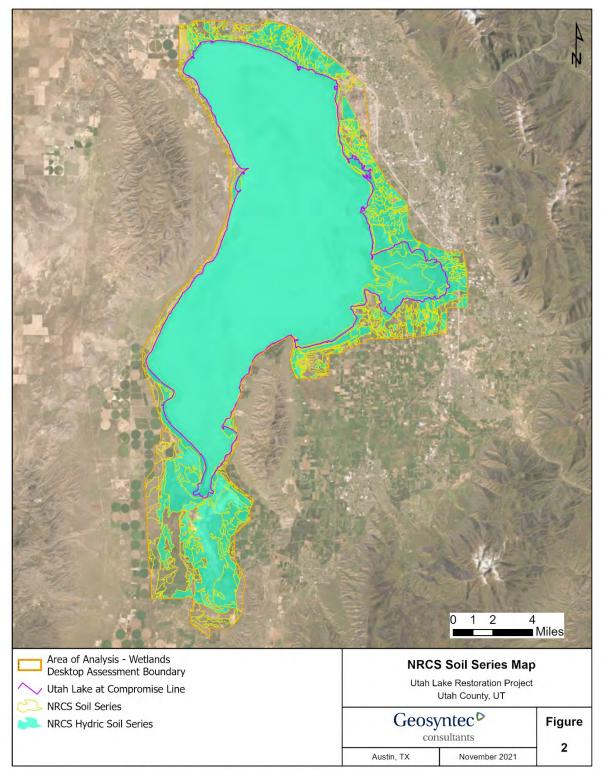
A U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) Web Soil Survey report was run for the Project Area to identify soil types. The report identified 60 soil types within the area of analysis; 31 soil series were identified as hydric. The soil series descriptions and characteristics are listed in Table 2 and illustrated in Figure 2.

| Map<br>Unit<br>Symbol | Soil Series                            | Acres<br>within<br>Project | Hydric? |
|-----------------------|--|----------------------------|---------|
| AF                    | Aquic Ustifluvents, saline             | 482.35                     | Yes     |
| BA                    | Beaches                                | 681.34                     | Yes     |
| BC                    | Beaches                                | 505.06                     | Yes     |
| Be                    | Benjamin silty clay, moderately alkali | 106.73                     | Yes     |
| Bm                    | Bramwell silt loam                     | 36.68                      | Yes     |

Table 2:Soils Within the Area of Analysis

| Map<br>Unit<br>Symbol | Soil Series  | Acres<br>within<br>Project | Hydric? |
|-----------------------|--|----------------------------|---------|
| Bs                    | Bramwell silty clay loam, drained  | 4.98                       | Yes     |
| Ch                    | Chipman loam   | 0.45                       | Yes     |
| Ck                    | Chipman silty clay loam  | 8.02                       | Yes     |
| Cm                    | Chipman silty clay loam, moderately deep water table                       | 367.86                     | Yes     |
| Cn                    | Chipman silty clay loam, moderately saline                                 | 177.20                     | Yes     |
| Co                    | Chipman silty clay loam, strongly saline                                   | 2.52                       | Yes     |
| Ср                    | Chipman-McBeth complex   | 32.60                      | Yes     |
| DdC                   | Donnardo stony loam, 2 to 8 percent slopes                                 | 13.29                      | No      |
| DdE                   | Donnardo stony loam, 8 to 25 percent slopes                                | 17.56                      | No      |
| DdF                   | Donnardo stony loam, 25 to 40 percent slopes                               | 14.03                      | No      |
| DeF                   | Donnardo-Hiko Peak complex, 25 to 40 percent slopes                        | 3.05                       | No      |
| FaB                   | Firmage gravelly loam, dry, 2 to 4 percent slopes                          | 10.66                      | No      |
| FgB                   | Freedom silt loam, 0 to 2 percent slopes                                   | 3.34                       | No      |
| HdC                   | Hiko Peak stony sandy loam, 4 to 8 percent slopes                          | 14.92                      | No      |
| HdE                   | Hiko Peak stony sandy loam, 15 to 25 percent slopes                        | 0.90                       | No      |
| Hr                    | Holdaway silt loam   | 53.04                      | Yes     |
| Hs                    | Holdaway silt loam, strongly saline-alkali                                 | 85.38                      | Yes     |
| Ir                    | Ironton loam   | 6.06                       | Yes     |
| Is                    | Ironton loam, moderately saline-alkali                                     | 4.49                       | Yes     |
| JbC                   | Juab loam, 4 to 8 percent slopes   | 1.08                       | No      |
| Jo                    | Jordan silt loam   | 0.34                       | No      |
| Ks                    | Kirkham silty clay loam  | 7.71                       | No      |
| Kt                    | Kirkham silty clay loam, moderately saline-alkali                          | 25.84                      | No      |
| Ku                    | Kirkham silty clay loam, strongly saline-alkali                            | 12.77                      | Yes     |
| LaC                   | Linoyer very fine sandy loam, 2 to 5 percent slopes                        | 2.90                       | No      |
| LmA                   | Layton fine sandy loam, slowly permeable substratum, 0 to 1 percent slopes | 0.54                       | No      |
| Lo                    | Logan silty clay loam  | 156.77                     | Yes     |
| MbC2                  | Manassa silt loam, 2 to 5 percent slopes, eroded                           | 19.95                      | No      |
| Mg                    | Mellor silt loam   | 92.99                      | No      |
| Mh                    | McBeth silt loam   | 60.35                      | Yes     |
| Mn                    | McBeth silt loam, moderately saline  | 18.09                      | Yes     |
| MU                    | Mixed alluvial land  | 1555.07                    | Yes     |
| MX                    | Mixed alluvial land, saline  | 20.82                      | Yes     |
| Pd                    | Payson silty clay loam   | 5.79                       | No      |
| Pf                    | Peteetneet peat  | 450.41                     | Yes     |
| Pg                    | Peteetneet-Holdaway complex  | 6.31                       | Yes     |
| PK                    | Pits and dumps   | 5.34                       | No      |
| PnA                   | Pleasant Vale loam, 0 to 2 percent slopes                                  | 7.02                       | No      |
| Ро                    | Provo Bay silt loam  | 562.13                     | Yes     |

| Map<br>Unit<br>Symbol | Soil Series  | Acres<br>within<br>Project | Hydric? |
|-----------------------|--|----------------------------|---------|
| PoC                   | Pleasant Vale loam, extended season, 3 to 6 percent slopes | 3.33                       | No      |
| PsB                   | Pleasant Vale silty clay loam, 1 to 3 percent slopes       | 1.29                       | No      |
| PY                    | Provo Bay peaty silt loam                                  | 139.54                     | Yes     |
| Pz                    | Provo Bay silty clay loam                                  | 2499.89                    | Yes     |
| Rr                    | Roshe Springs silt loam                                    | 14.52                      | Yes     |
| RV                    | Riverwash  | 4.41                       | Yes     |
| Sa                    | Saltair silt loam  | 259.57                     | Yes     |
| ScD                   | Sanpete gravelly fine sandy loam, 4 to 15 percent slopes   | 64.60                      | No      |
| ScF                   | Sanpete gravelly fine sandy loam, 15 to 40 percent slopes  | 7.53                       | No      |
| SdE                   | Saxby-Rock outcrop complex, 10 to 30 percent slopes        | 7.34                       | No      |
| Sr                    | Sunset loam  | 10.17                      | No      |
| Ss                    | Sunset loam, gravelly substratum                           | 0.78                       | No      |
| St                    | Sunset loam, clay substratum                               | 0.00                       | No      |
| Su                    | Sunset loam, moderately saline                             | 24.67                      | No      |
| UL                    | Urban land   | 26.45                      | No      |
| W                     | Water  | 84453.88                   | Yes     |



D:\Utah Lake - EIS\M - GIS\UtahLake\_Pro\UtahLake\_Pro\_WDSIR.aprx 11/16/2021 11:26 AM

#### 2.3. <u>Climatic Conditions</u>

The field surveys were conducted during 6 through 11 July 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). Only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25/21 through the end of the survey date. The observed Year-to-Date amount was 6.64", which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District, the lake elevation was 4,485.346', which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the results of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. See Wetland Determination Data Forms (Appendix B) for additional climatic discussion.

### 3. SURVEY METHODOLOGY

Prior to field efforts, Geosyntec ecologists completed a desktop assessment of the area of analysis using ESRI® ArcMap geographic information systems (GIS) software and available federal and state digital data.

The GIS desktop assessment was conducted to identify potential water resources associated with wetlands, streams, seeps/springs, water bodies, and other waters of the U.S. and/or state to be further supported by ground-truthing of the results with pedestrian field verifications. The desktop assessment used a variety of publicly available datasets and remote sensing technologies:

- United States Geological Survey (USGS) 1:24,000 quadrangles
- Light Detection and Ranging (LiDAR)-derived digital elevation model or digital terrain model backgrounds
- Image classification and multispectral analysis using current and historical high-resolution visible and infrared (IR) aerial imagery and georeferenced aerial photography
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI)
- Utah State Geographic Information Database wetlands
- USGS National Hydrography Dataset (NHD) flowlines and water bodies
- US Department of Agricultural Natural Resources Conservation Service soil series and hydric soils
- Federal Emergency Management Agency National Flood Hazard Layer
- USGS GAP/LANDFIRE National Terrestrial Ecosystems and National Land Cover Database land cover datasets
- Antecedent Precipitation Tool, National Weather Service National Oceanic and Atmospheric Administration (NOAA) Online Weather Data Climatic Summary, and U.S. Drought Monitor
- Utah Division of Water Rights Utah Lake contents

In addition to the above sources, the desktop assessment included remote sensing on current and historical high-resolution visible and Infrared (IR) aerial imagery that were referenced to seasonal dry/wet periods to identify high lake base levels. IR imagery during drought periods (e.g., 2016) were used to identify contributing seeps/springs by locating areas with distinct plant growth vigor. The remote sensing used aerial imagery from the following years: 1996, 2006, 2009, 2011, 2012, 2014, 2016, 2018, 2020, and 2021.

USFWS NWI polygons were used as the base and augmented to include any areas with a wet signature. Additionally, an area was mapped as a wetland if an aerial imagery review showed it possessed a remote-sensed signature of either inundation or saturation. The NHD flowlines were used to identify the primary and secondary tributaries to the lake, including irrigation ditches and canals. The Cowardin classification was applied to each desktop wetland polygon utilizing *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1992) following USFWS mapping and coding procedures.

Geosyntec conducted a pedestrian survey of lands that were publicly accessible between 6 July and 11 July 2021. This included a lakeside verification of the littoral shelf around Utah Lake—accessed via boat—and 10 public parks. These parks included:

- 1. Marina Park
- 2. Saratoga Springs Park
- 3. Eagle Park
- 4. Unnamed open space along the edge of Saratoga Springs (adjacent to residential)
- 5. Inlet Park
- 6. Shoreline Park
- 7. American Fork Boat Harbor
- 8. Geneva Resort
- 9. Utah Lake State Park
- 10. Lincoln Beach

Upland and wetland features were delineated and recorded using a handheld global positioning system (GPS) device capable of submeter accuracy. Wetlands were described in the field using Cowardin classification (Cowardin, et al., 1979), which categorizes wetlands based on the associated ecological system: marine, estuarine, riverine, lacustrine, and palustrine. Wetland and upland data sheets are compiled in Appendix B. Photographs were taken at each area of interest and compiled into the attached photographic log in Appendix C.

In general, wetlands and other Waters of the U.S. are federally protected under Section 404 of the Clean Water Act. The definition of wetlands (40 Code of Federal Regulations §230.3(t)) is "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas."

Geosyntec performed a wetlands/waters delineation of the publicly accessible land within the area of analysis in accordance with the three-parameter methodology outlined in the 1987 USACE *Wetlands Delineation Manual* (Manual; Environmental Laboratory, 1987); the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0* (Environmental Laboratory, 2008).

The three parameters required for identifying a jurisdictional wetland are as follows:

<u>Hydrophytic vegetation</u> - Hydrophytic vegetation is determined by the dominant species present at any given data point, where each species is assigned a plant indicator status as to its preference/tolerance for wetland conditions. Data points with dominant species that are greater than 50 percent facultative or wetter are considered to meet the hydrophytic vegetation criterion.

<u>Hydrology</u> - At each data point, the delineator evaluates the area for evidence of hydrology. The Manual identifies both primary and secondary hydrologic indicators, where one primary indicator or two secondary indicators must be observed for the data point to meet the hydrology criterion. Indicators include saturated soils in the upper 12 inches, inundation, water marks, drift lines, sediment deposits, drainage patterns, oxidized root channels in the upper 12 inches, water-stained leaves, local soil survey data, etc.

<u>Hydric soils</u> - Evaluating hydric soils presence requires the delineator to sample the upper 12 inches of soil to obtain a profile description and identify hydric soil indicators, such as histosols, histic epipedons, sulfidic odor, aquic moisture regime, reducing conditions, gleyed or low-chroma colors, concretions, etc. In most cases, hydric soils are most efficiently identified by the profile description, where the soil coloration is compared to the Munsell Color chart system to determine if the material meets hydric conditions.

Geosyntec identified and delineated resources potentially regulated under the 1972 Clean Water Act as *Waters of the United States* and under Utah Administrative Code (UAC) R317-2.

Geosyntec also conducted an evaluation to identify and delineate watercourses that was based on whether the feature exhibited typical watercourse characteristics such as a defined streambed and streambanks, an exclusion of terrestrial vegetation, hydrologically sorted substrate material, and the presence of an ordinary high water mark. These watercourses were identified and classified as regulated under the 1972 Clean Water Act as *Waters of the United States* and under UAC R317-2.

Wetlands and streams located within the Area of analysis which were available for public access were identified, delineated, and boundaries mapped utilizing the methods identified above.

#### 4. SURVEY RESULTS

A summary of wetland and stream (riverine) areas identified within the area of analysis through the desktop survey and verified in the field totaled 112,140.09 acres and is provided in Table 3. Figures showing the locations of delineated wetlands are presented in Appendix A.

|                             | Verified<br>Wetlands | Desktop<br>Wetlands |
|-----------------------------|----------------------|---------------------|
| Wetland Type                | Acreage              | Acreage             |
| Freshwater Emergent Wetland | 25,788.87            | 21,385.91           |
| Freshwater Forested Wetland | 87.62                | 32.40               |
| Freshwater Pond             | 329.90               | 327.53              |
| Freshwater Shrub Wetland    | 585.61               | 910.68              |
| Lake                        | 85,293.16            | 89,273.36           |
| Riverine                    | 213.25               | 210.21              |
| Total                       | 112,298.41           | 112,140.09          |

Table 3: Aquatic Resources Within the Area of Analysis

#### 5. STATEMENT OF LIMITATIONS

This investigation was limited to the Project Area shown herein. Geosyntec did not examine areas outside of the area of analysis or lands that were privately owned, thus no information is provided regarding the presence or absence of regulated wetlands and watercourses in these areas.

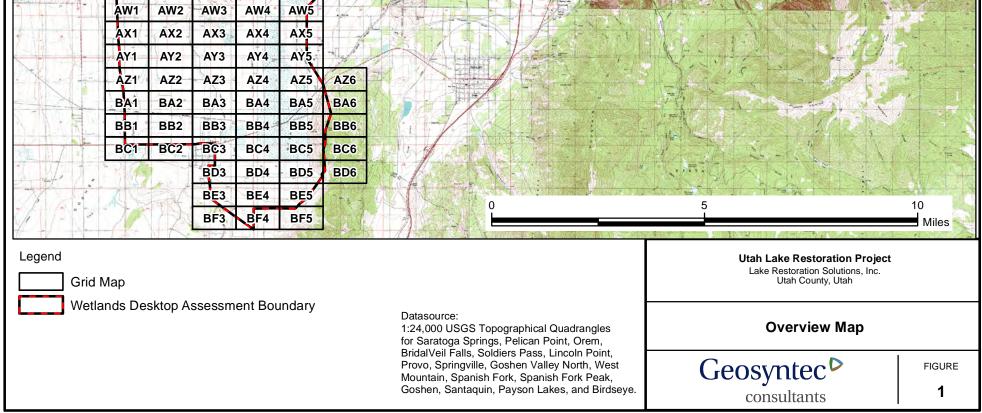
This investigation was conducted 6 July through 11 July 2021. Human-induced or natural changes at the site may occur after this date which may cause changes in the presence and extent of potentially regulated wetlands and watercourses.

#### 6. **REFERENCES**

- Cowardin, L.M., V. Carter V., F.C. Golet, E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service Report No. FWS/OBS/-79/31.Washington, D.C.
- Deter, J. 2020. Antecedent Precipitation Tool (Version 1.0.13). U.S. Army Corps of Engineers. Downloaded from https://github.com/jDeters-USACE/Antecedent-Precipitation-Tool/releases/tag/v1.0.13. August 1, 2020.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Department of the Army, Waterways Experiment Station. Vicksburg, Mississippi. 117 pages.
- U.S. Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey. Accessed October 2021 at <u>https://websoilsurvey.nrcs.usda.gov/app/</u>
- U.S. Department of Agriculture, Natural Resources Conservation Service, Field Office Technical Guide. State Soil Data Access (SDA) Hydric Soils List for Utah Accessed October 2021 at https://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/nrcseprd1316619.html#reportr ef.
- U.S. Army Corps of Engineers. 2018. National Wetland Plant List, version 3.4. Accessed July 2021 at http://wetland\_plants.usace.army.mil/
- U.S. Army Corps of Engineers. 2008. **Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0**, ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- Utah Administrative Code R317-2. Water Quality. Rule 2: Standards of Quality for Waters of the State. Accessed August 2021 at https://adminrules.utah.gov/public/search/R317-2/Current%20Rule

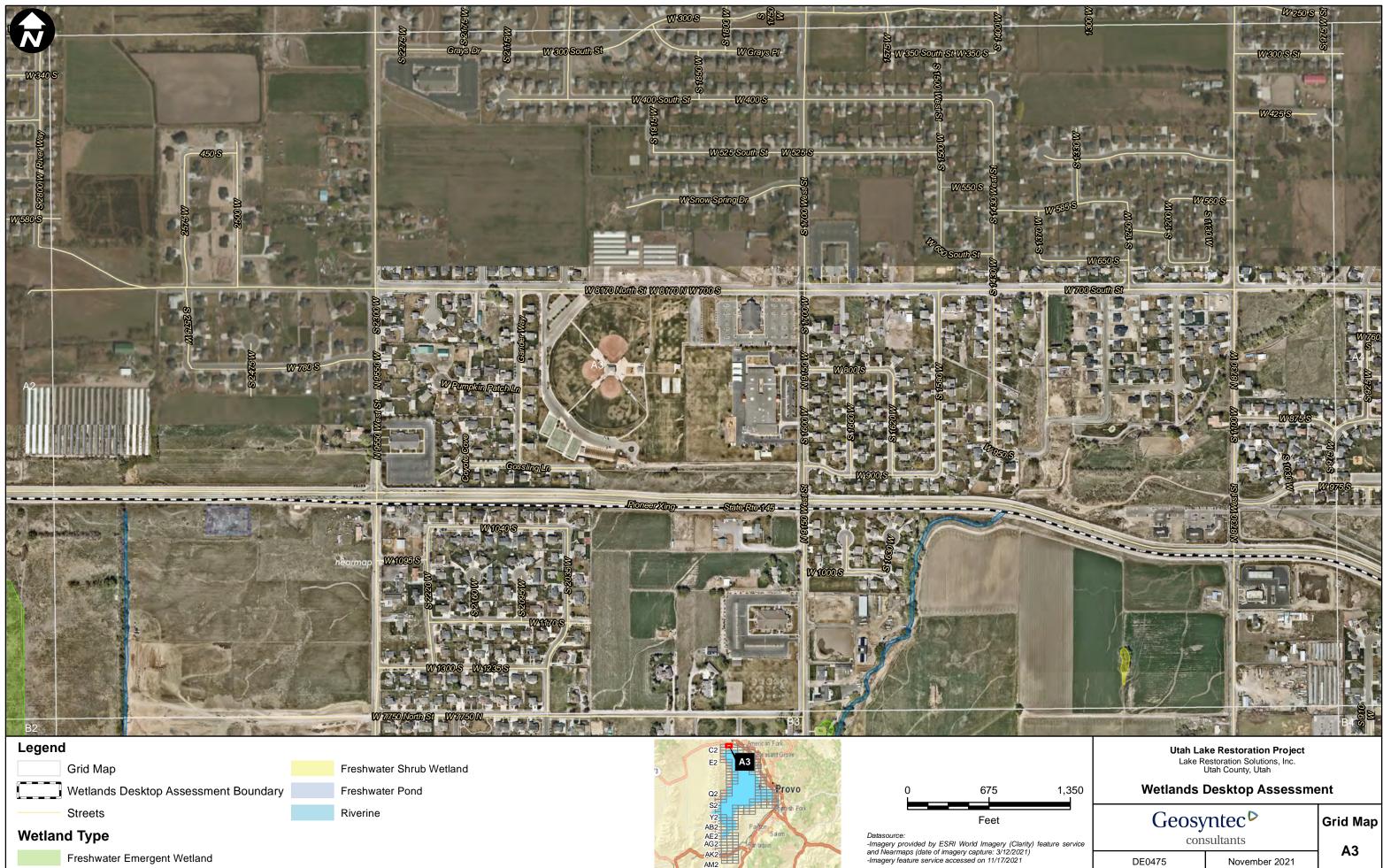
## **APPENDIX A Field Delineation Results Mapbook**

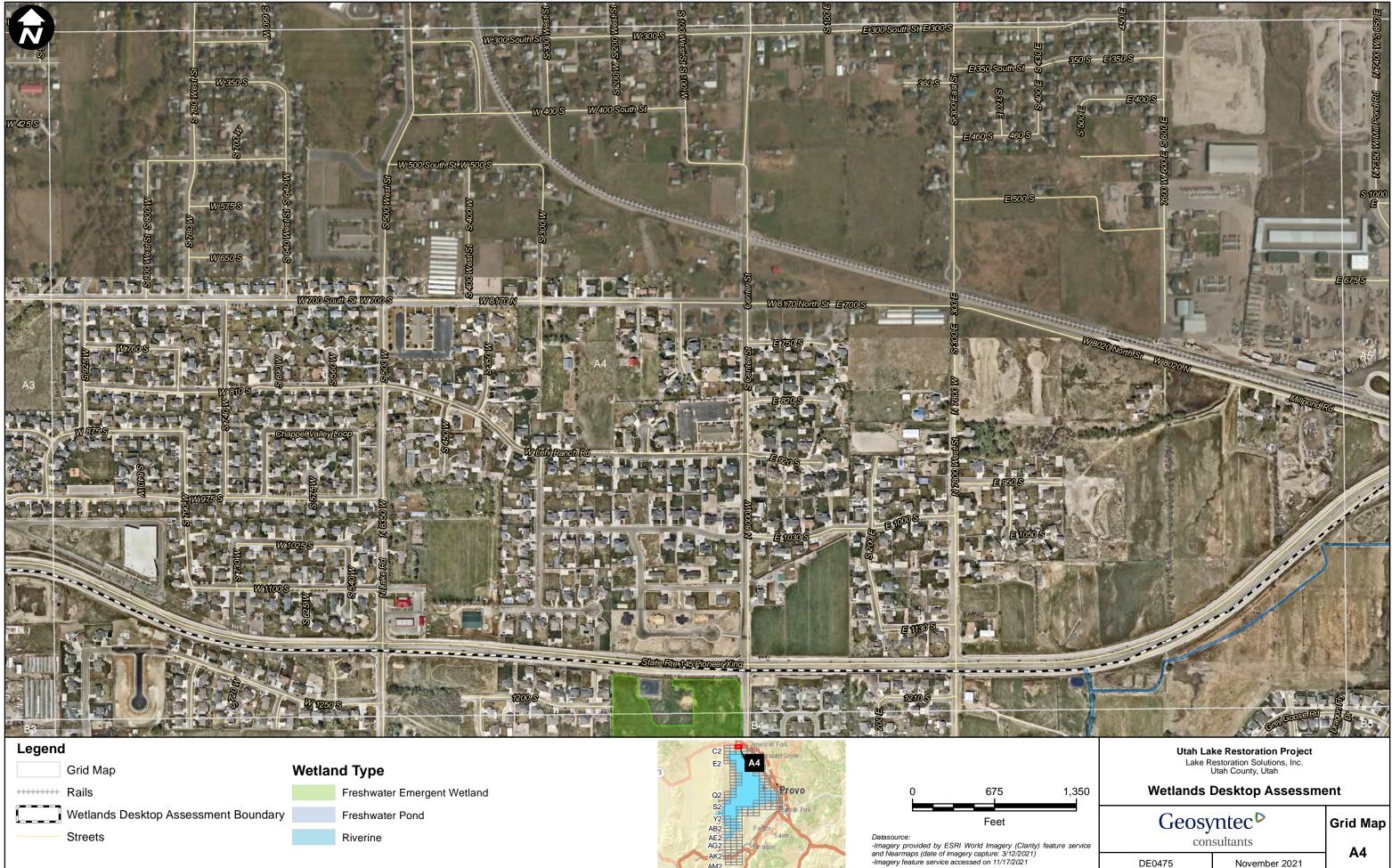
|                   |          | 11           | 7          |       |       |         |         | E L      |         |       |             | Me   | 1                  | 1 1            |                       | 17 (J.S.M.) (  |   | all at the  | 2                      |
|-------------------|----------|--------------|------------|-------|-------|---------|---------|----------|---------|-------|-------------|--|--------------------|----------------|-----------------------|----------------|---|---|------------------------|
|                   | -        | A2           | A3         | - 0.4 | A5-   | A6      | AT      | A8       |         | 新安日   |             |  | 6.1                |                | C.L.                  |                | A CONTRACTOR  | 1   | 6.                     |
| E A SE            |          | B2           | B3         | B4    | B5    | B6      | B7      | B8       | B9      | - And |             |  |                    |                | A Survey              | AT I           |   | 7   | N                      |
| ARA               | A.       | C2           | C3         | C4    | C5    | C6      | C7      | , Do     | C9      |       |             |  | 國也                 | ANTE !!        | *** (A)               | 7              |   | an opping the second  |                        |
| 有人们的              |          | D2           | D3         | D4    | D5    | D6      | D7      | D8       | D9      | D10   |             | A A A A A A A A A A A A A A A A A A A  |                    |                | ·                     | ALE.           |   | The second  |                        |
|                   |          | E2           | E3         | E4    |       | E6      | E7      | E8       | E9      | E10   | E110        | Provide The Provide Pr |                    |                | 1-10                  | CINTA N        |   |   | 1                      |
| まえ                |          | F2-1         | F3         | F4    |       |         | F7      | F8       | F9      | F10   | F11         |  |                    |                | A ser                 | Idean ion      |   |   | $\overline{\chi}_{1}V$ |
|                   | Der 7    | A CONTRACTOR | G3         | G4    |       |         |         | G8       | G9      | G10   | G11         | G12  |                    |                | TRE                   | and the second |   | 1 m   |                        |
| 1 ANTA            | ALE A    |              | H3         | H4    | H5    | 1       |         |          | H9      | H10   | (H11        | H12  |                    | the the        | X.                    | 山市             | 1 2-  | The s   | 1.5                    |
|                   | - J "    |              | 13         | 14    | 15    |         |         |          | 19      | 110   | 111         | 112  |                    |                |                       |                | A.  |   | 12/10/2                |
|                   |          |              |            | J4    | J5    |         |         |          | . J9    | J10   | J11         | J12  |                    |                |                       |                |   | 1.  |                        |
|                   |          |              |            | K4    | K5    |         |         |          |         | K10   | K11         | K12  |                    |                |                       |                | Stat.   | the long  |                        |
|                   |          | 1540         | X          | L4    | L5    | L6      |         |          | +       | L10   | L11         | L12  |                    |                |                       | 霍谷             |   | Short -   | Serie a                |
|                   |          |              | 公?         | M4    | M5    | M6      | -       |          |         | M10   | M11         | M12  |                    |                |                       | Note:          | 新生??  |   | S Fizz                 |
|                   |          |              |            |       | N5    | N6      |         |          |         | N10   | N11         | N12  |                    |                |                       |                |   | · tra   |                        |
|                   |          | - Alana      |            | 一     | 05    | Ō6      |         |          |         | 010   | 011         | 012  |                    | TAT            |                       | 花月香            |   | 5-12  | किंग्रे द              |
|                   | 7 E      |              |            |       | P5    | P6      |         |          |         | P10   | P11         | P12  | P13                |                |                       |                |   | Anei-   | N.                     |
|                   |          | - 10 -       | BAD .      | - 12- | Q5    | Q6      |         |          |         |       | Q11         | Q12  | Q13                |                |                       |                |   |   | n. Star                |
|                   | 1.65     | d'           | the state  | 可治    | R5    | R6      |         |          |         |       | R11         | R12  | R13                | R14            |                       |                |   | (-1)  | the second             |
|                   |          |              |            |       | S5    | S6      | 1       |          |         |       | S11         | S12  | S13                | S14            |                       |                |   |   |                        |
| 1 - C - C - CA    |          |              |            | T4    | т5    | Т6      | 1       |          |         |       | T11         | T12-   | T13                | T14            |                       |                | Arriter -   | X   |                        |
|                   |          | ANC.         | 373        | U4    | U5    |         | 1       |          |         |       | U11         | U12  | U13                | U14            |                       |                |   |   | 1                      |
| +                 | - 12-1-  | $V_{1}$      | N.S.S.     | V4    | V5    |         |         |          |         |       | V11         | V12  | V13                | V14            | V-15                  | V16            | HE  |   |                        |
|                   |          | -1           | 1/         | W4    | W5    |         | +       |          |         |       | W11         | W12  | W13                | W14            | W15                   | W16            | State 1   |   |                        |
|                   | 27.5     |              | X3         | X4    | X5    |         |         |          |         |       | X11         | X12  | X13                | X14            | X15                   | X16            | X17   | U I N A   |                        |
|                   | The lite | 1 the        | ¥3         | Y4    |       | v       | T A H   | 1 A 8    | 1       |       | Y11         | Y12  | Y13                | Y14            | Y15                   | Y16            | Y17   | T-A   | A L                    |
|                   |          | Z2 /         | Z3         | Z4    |       |         |         |          |         |       | Z11         | Z12  | Z13                | Z14            | Z15                   | Z16            | Z17   |   | The state              |
| A the second      | X        | AA2          | AA3        | AA4   | 1     |         |         | Er her   |         | AA10  | AA11        | AA12   | AA13               | AA14           | AA15                  | AA16           | AA17  |   | NTS /                  |
|                   | AB1      | AB2          | AB3        | +     | 1     |         | 1       |          | t       | AB10  | AB11        | AB12   | AB13               | AB14           | AB15                  | AB16           | AB17  | and a state   |                        |
|                   | AC1      | AC2          | AC3        |       |       |         | AC7     | AC8      | AC9     | AC10  | AC11        | AC12   | and the            | AC14           | and the second second | AC16           |   |   |                        |
| S. HALL           | AD1      | AD2          | -          |       |       | AD6     | AD7     | AD8      | AD9     | AD10  | AD11        | AD12   | AD13               | AD14           | AD15                  | AD16           | RIK   | A TE  | 6 M                    |
|                   | AE1      | AE2          | - April 1  |       |       | AE6     | AE7     | AE8      | AE9     | AE10  | AE11        | AE12   | AE13               | AE14           |                       | 5 19           |   |   |                        |
| 2. F. M. 11       | AF1      | AF2          |            |       | AF5   | AF6     | AF7     | AF8      | AF9     | AF10  | AF11        | X  | LA.                | >              |                       |                |   | 45  |                        |
|                   | AG1      | AG2          |            |       | AG5   | AG6     |         | AG8      | AG9     | AG10  | 1.0         | 4.   | ERE                |                | K                     | X              | AA  | FZ.   |                        |
|                   | AH1      | AH2          |            |       | AH5   | AH6     | and a   | AH8      | AH9     | AH10  |             |  |                    |                | 1                     |                |   | X   | VE                     |
|                   | AI1      | Al2          | AI3        |       | AI5   | AI6     |         | 17 4     | Elan.   | 20    |             | <b>G</b> • <b>F</b> .  |                    |                |                       |                |   | AL  |                        |
|                   | AJ1      | AJ2          | AJ3        | AJ4   | AJ5   | AJ6     | 1.10    | SA-D     | 4X      | 1     | 15          | 12   | 74/                | X              |                       |                |   | 1 Am  | -                      |
|                   | AK1      | AK2          | AK3        | AK4   | AK5   | C. A.C. |         | SH       |         | - P.  | 12          |  | Kil                | XI             | - John                | NA             |   | 1   |                        |
|                   | AL1      | AL2          | AL3        | AL4   | AL5   | 1.12    |         | S X      |         | A.F   | 112         | 1. 1   |                    | 1              |                       | PZZ            | A LAND  | 12 BA   | ジョン                    |
|                   | AM1      | AM2          | AM3        | AM4   | AM5   | 1500    |         |          |         |       | M           | EX.  | The.               |                |                       | AL             | A AF  |   | 14                     |
| <u>o Mara Ki</u>  | AN1      | AN2          | AN3        | AN4   | AN5   |         | * 4-1 E |          |         |       | 2.15.20     | X  | KI/                |                | ASA                   |                | and the second second   |   |                        |
|                   | A01      | AO2          | AO3        | AO4   | A05   | Ne.     | a for   |          |         | - Alt | A.          | X  | Y.                 |                | SA                    |                |   | SAL   | 107 No                 |
|                   | AP1      | AP2          | AP3        | AP4   | AP5   | get.    | and the | 44       |         |       | 12          |  |                    | - Ale          |                       |                |   |   |                        |
|                   | AQ1      | AQ2          | AQ3        | AQ4   | AQ5   |         |         | 行代       | 1.1     | -     |             |  |                    | TH             |                       |                | DAN   | 1 1   |                        |
| Strong Res        | AR1      | AR2          | AR3        | AR4   | AR5   |         | 記で初     | y IT     | N.      | JAF.  | 1           |  |                    |                | He -                  | 1 Carl         |   |   |                        |
| 下了20万倍            | AS1      | AS2          | AS3        | AS4   | AS5   | AS6     |         | Ser V    |         | AP    |             |  |                    | -              | T                     |                |   |   | hil-                   |
|                   | AT1      | AT2          | AT3        | AT4   | AT5 - | AT6     | A ser   |          | X       | A L   | 14          | 学开   | te [               |                | 15                    | AC             | 香   | 1 Th  |                        |
|                   | AU1      | AU2          | AU3        | AU4   | AU5   | AU6     | 1 No    | S A      | K-F     |       | AK.         | The second   | 12                 | LA.            | 含人                    | RAT            | 24  | A CAR   | 3-10                   |
|                   | AV1      | AV2          | AV3        | AV4   | AV5   | AV6     |         | <u>c</u> | MAN.    | CH-   | TA:         |  | Jonn of the second | - Verter       | ALL.                  | A              |   |   | and the s              |
|                   | AW1      | AW2          | AW3        | AW4   | AW5   | 14      |         |          |         |       | 周           | Partie   |                    |                | 11                    | 122            |   | 1 1   | All and a second       |
| A TOTAL ALL AND A | -        | Not the      | A MARSINGS |       | 1     | 1 1     | WY ISE  | RELET    | - TRANK |       | Ref Control | A UN GAR   | ALSO ALSO          | 100 100 100000 | THE PART              | THE CONTRACTOR | and the state of the | THE REAL PROPERTY OF THE PARTY | tont aller             |





D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM





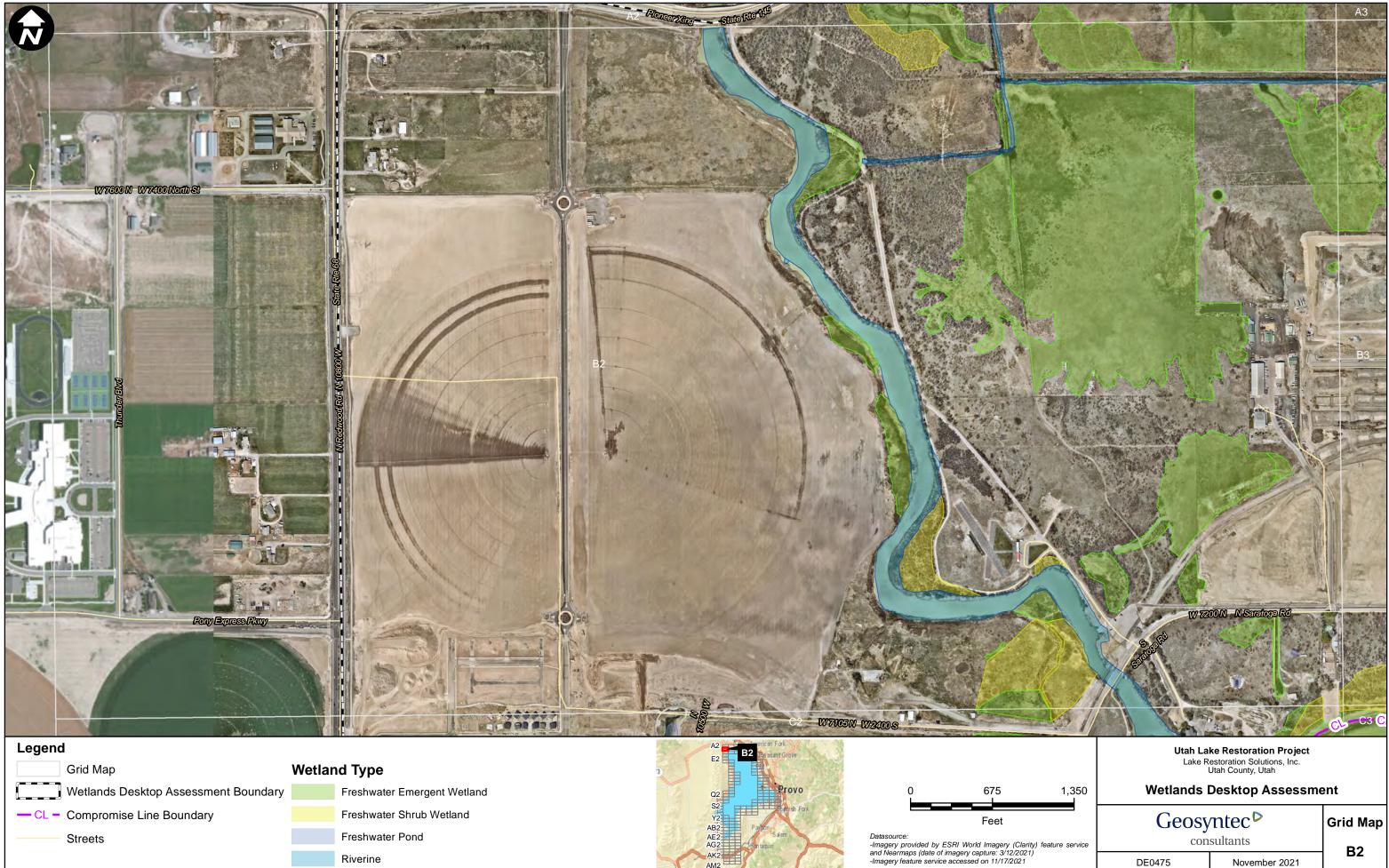
AM2

D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

DE0475

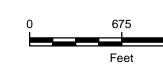
November 2021

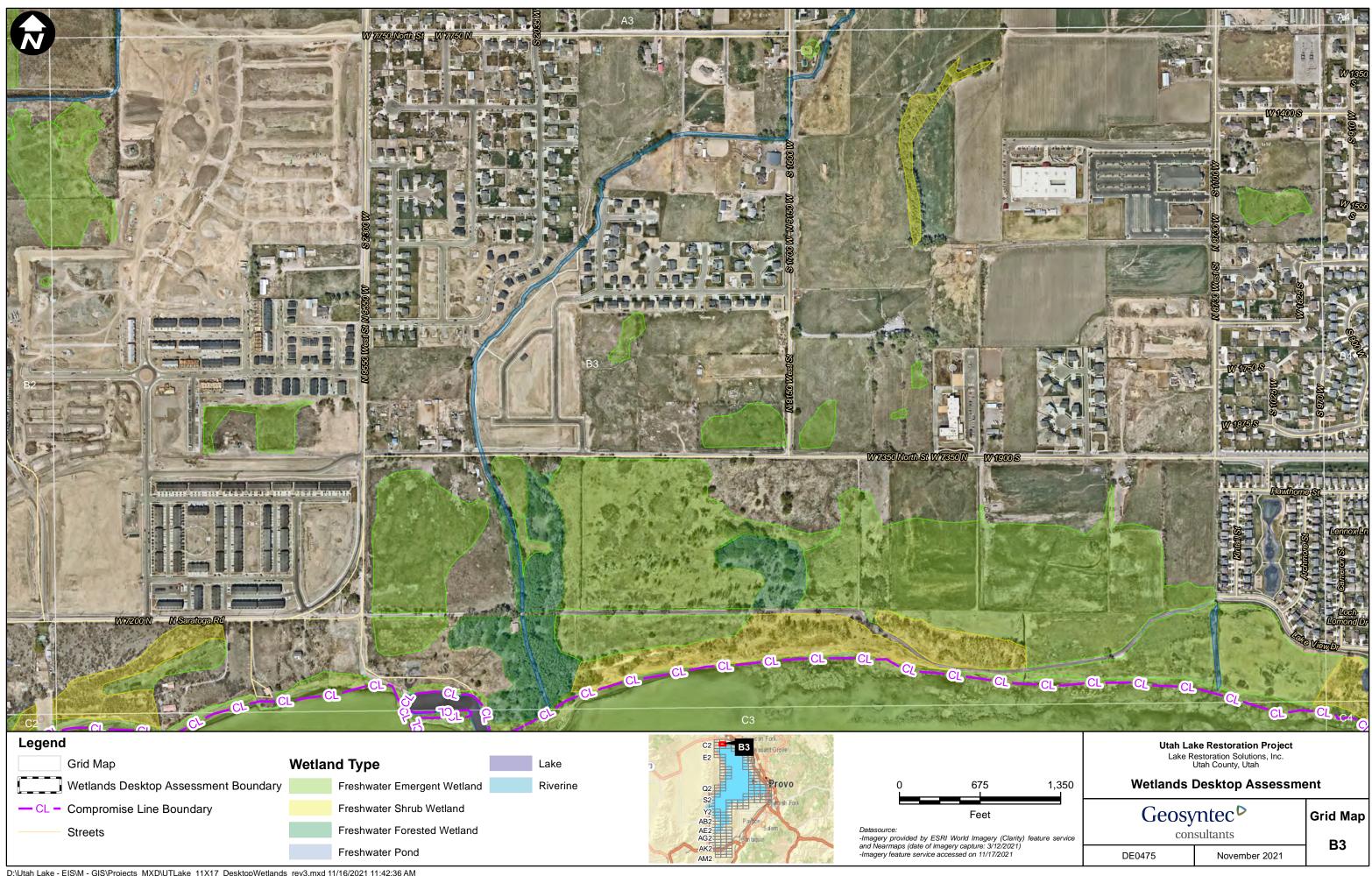


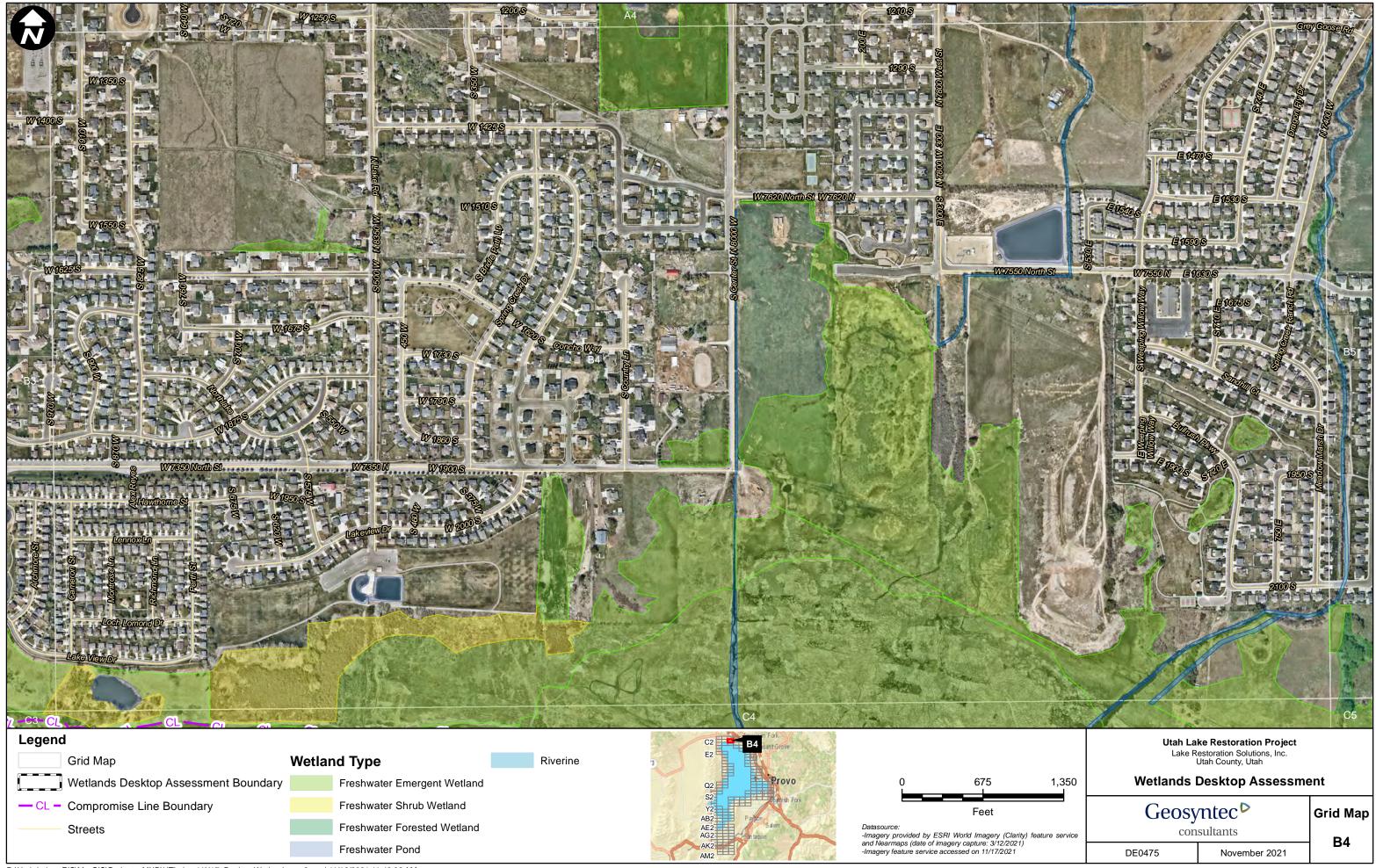


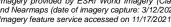


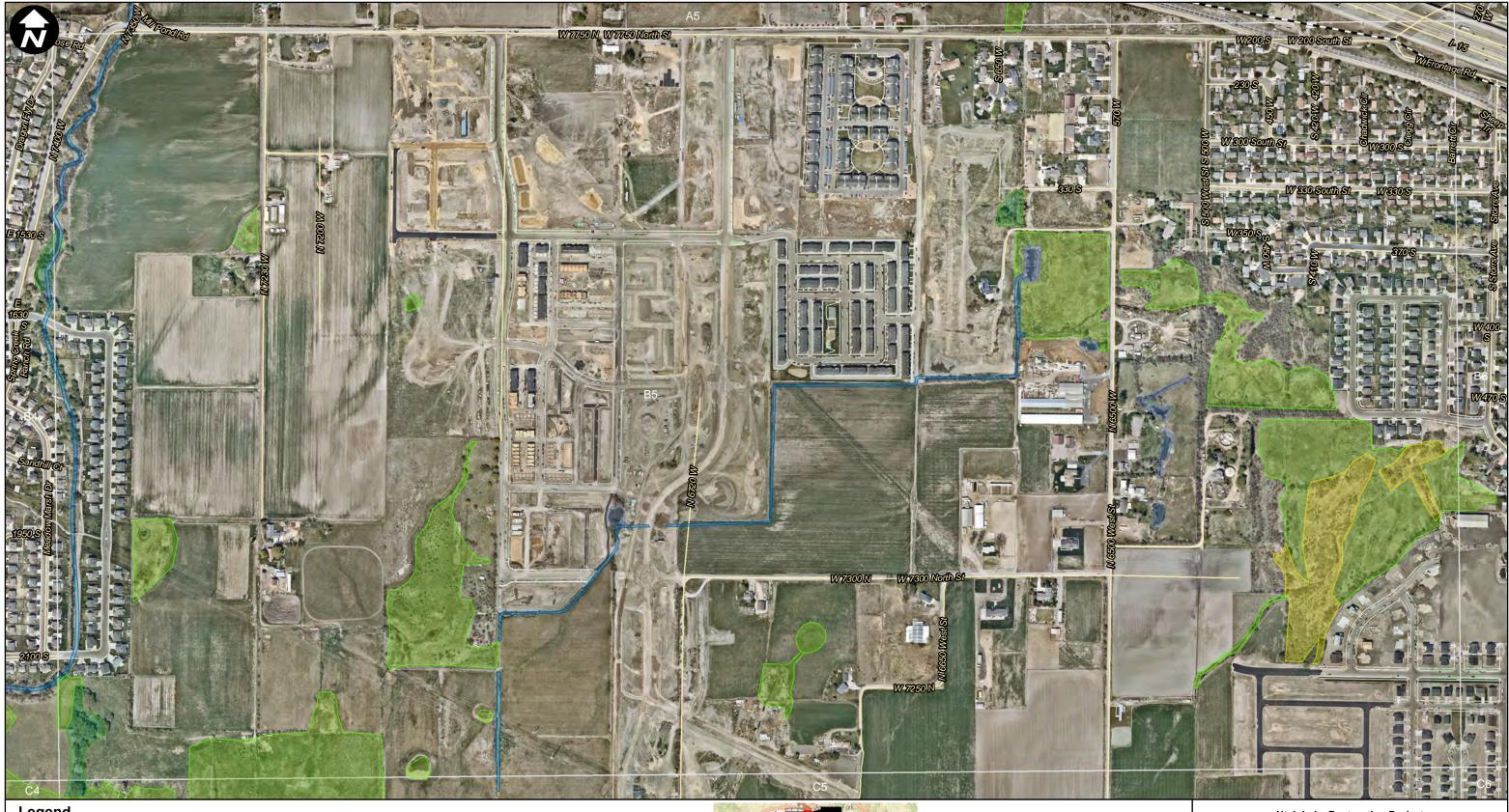








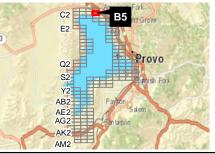




### Legend Grid Map Wetland Type HIN Rails Wetlands Desktop Assessment Boundary Streets

Freshwater Emergent Wetland Freshwater Shrub Wetland Freshwater Forested Wetland Freshwater Pond

Riverine





-Imagery provided by ESRI World Imagery (Clarity) feature service and Nearmaps (date of imagery capture: 3/12/2021) -Imagery feature service accessed on 11/17/2021

D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

Utah Lake Restoration Project Lake Restoration Solutions, Inc. Utah County, Utah

1,350

### Wetlands Desktop Assessment

Geosyntec<sup>▷</sup> consultants

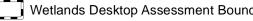
Grid Map

DE0475

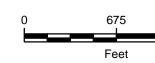
November 2021

B5

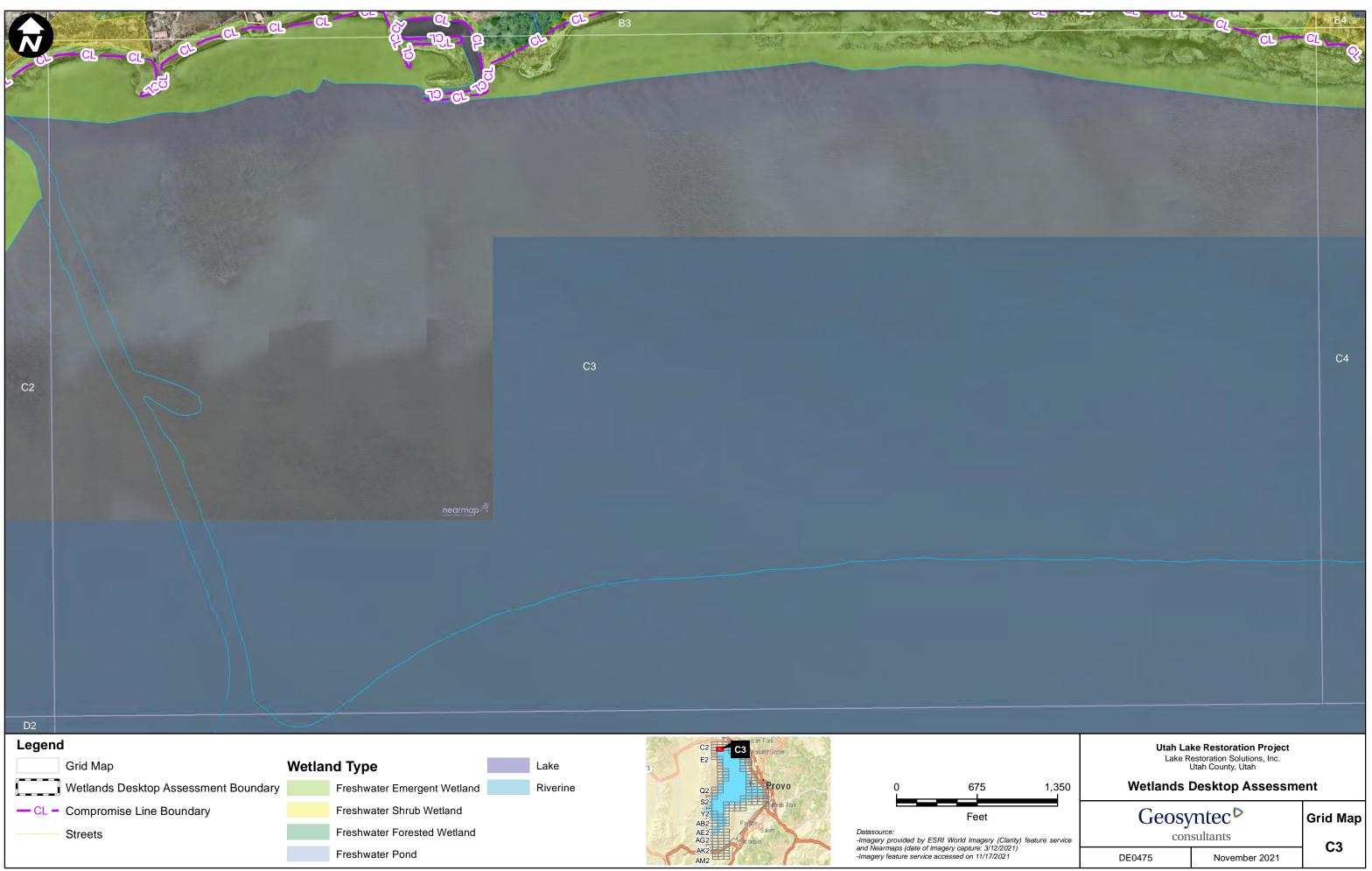


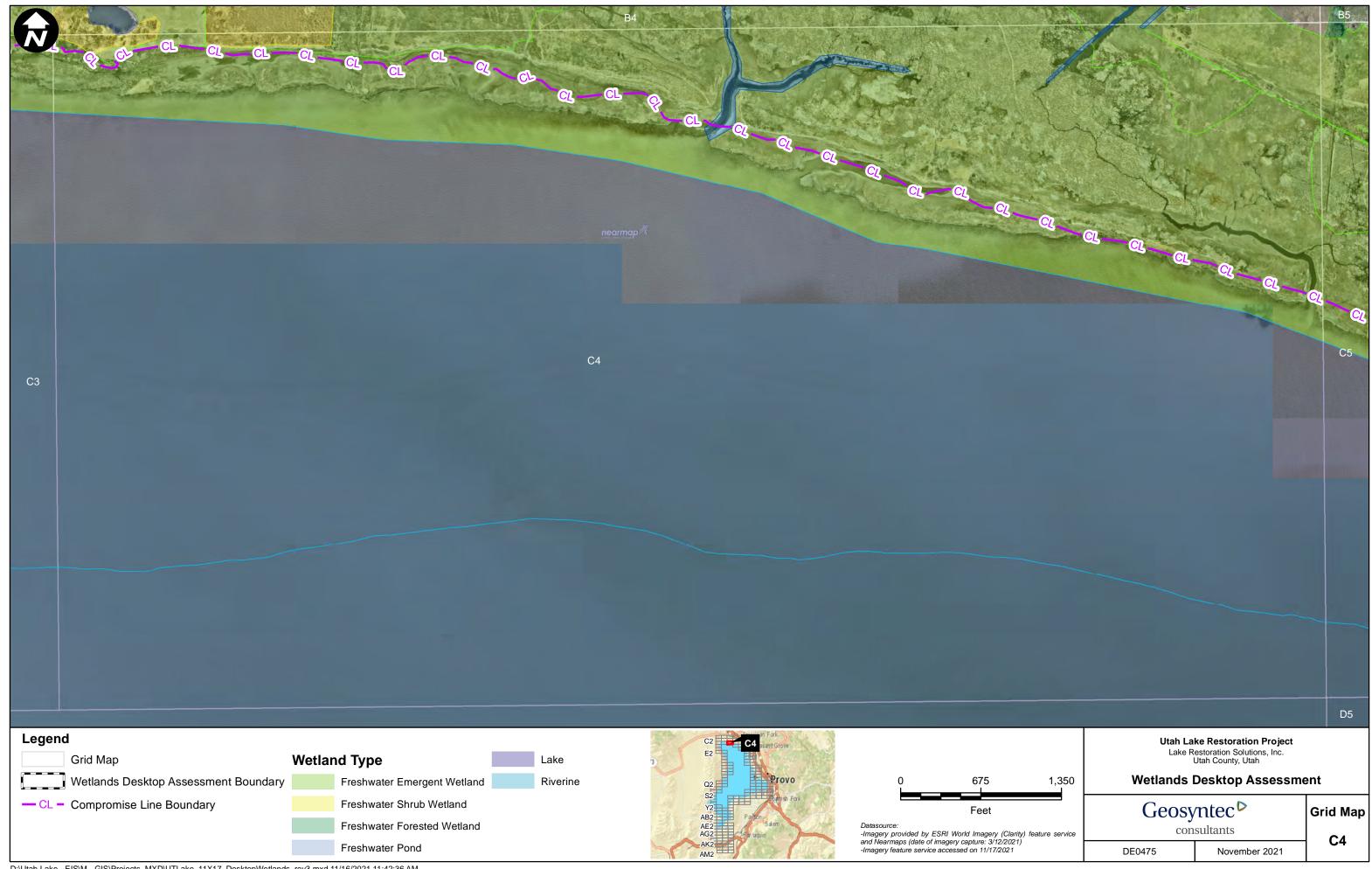




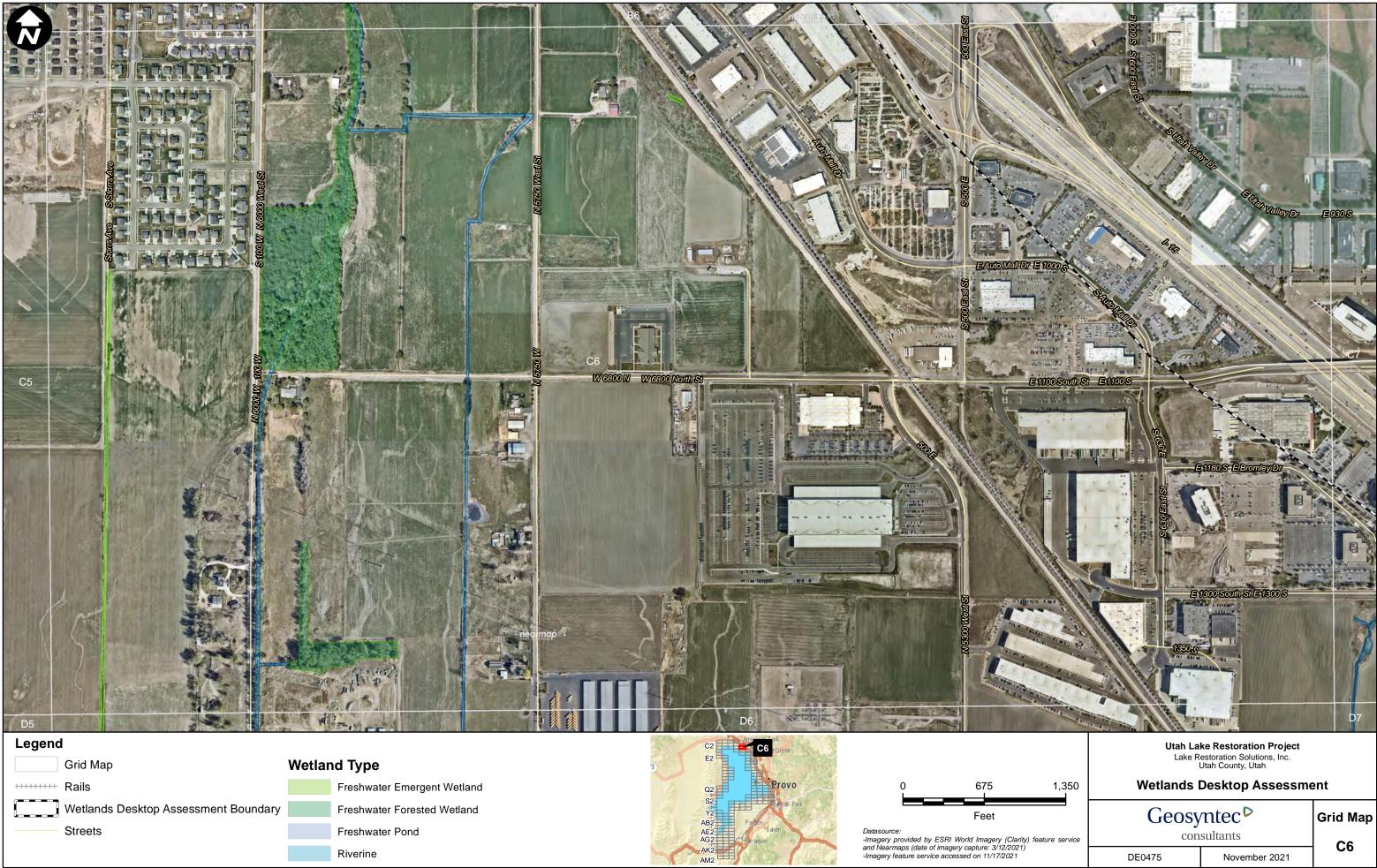




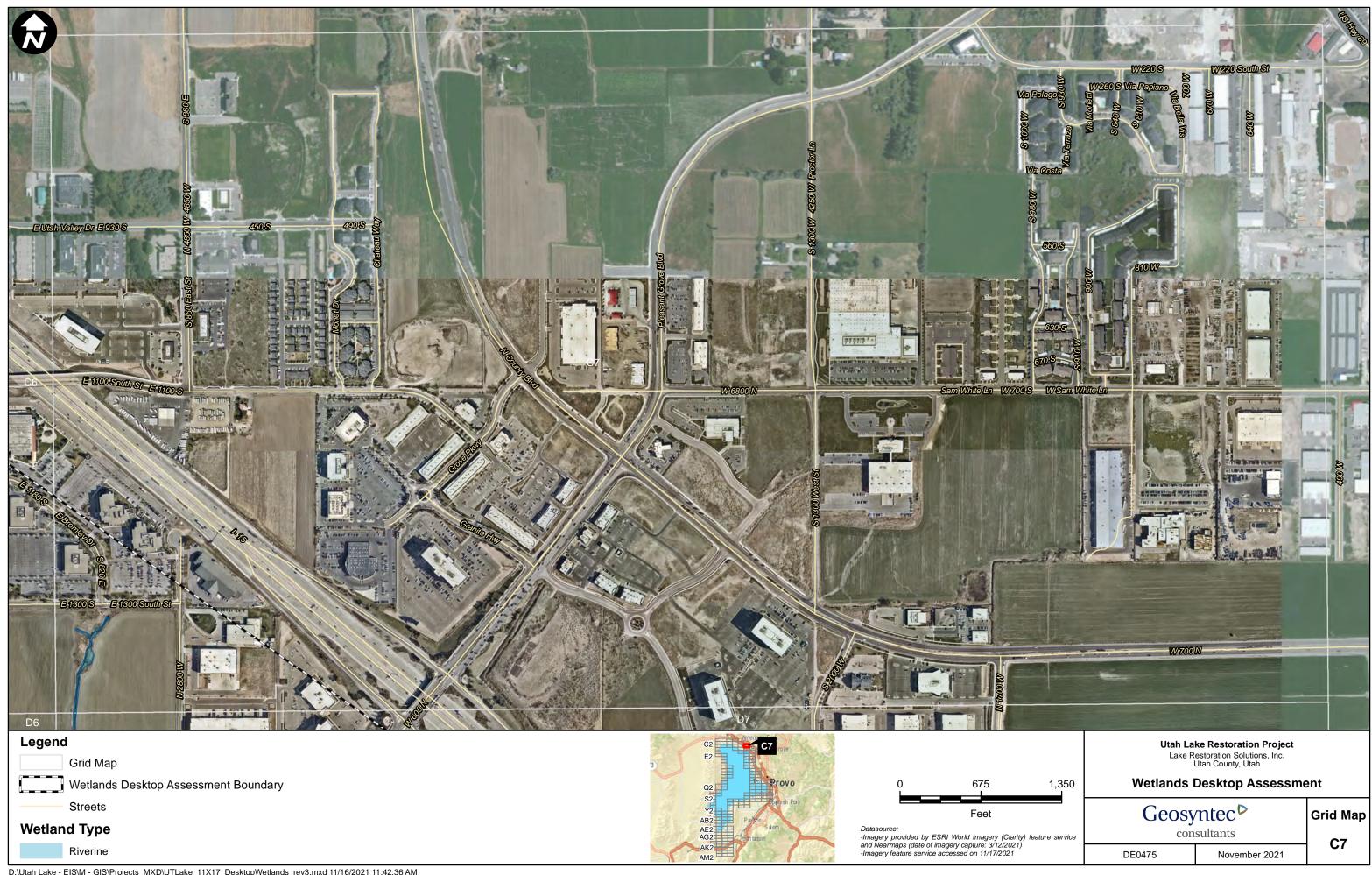








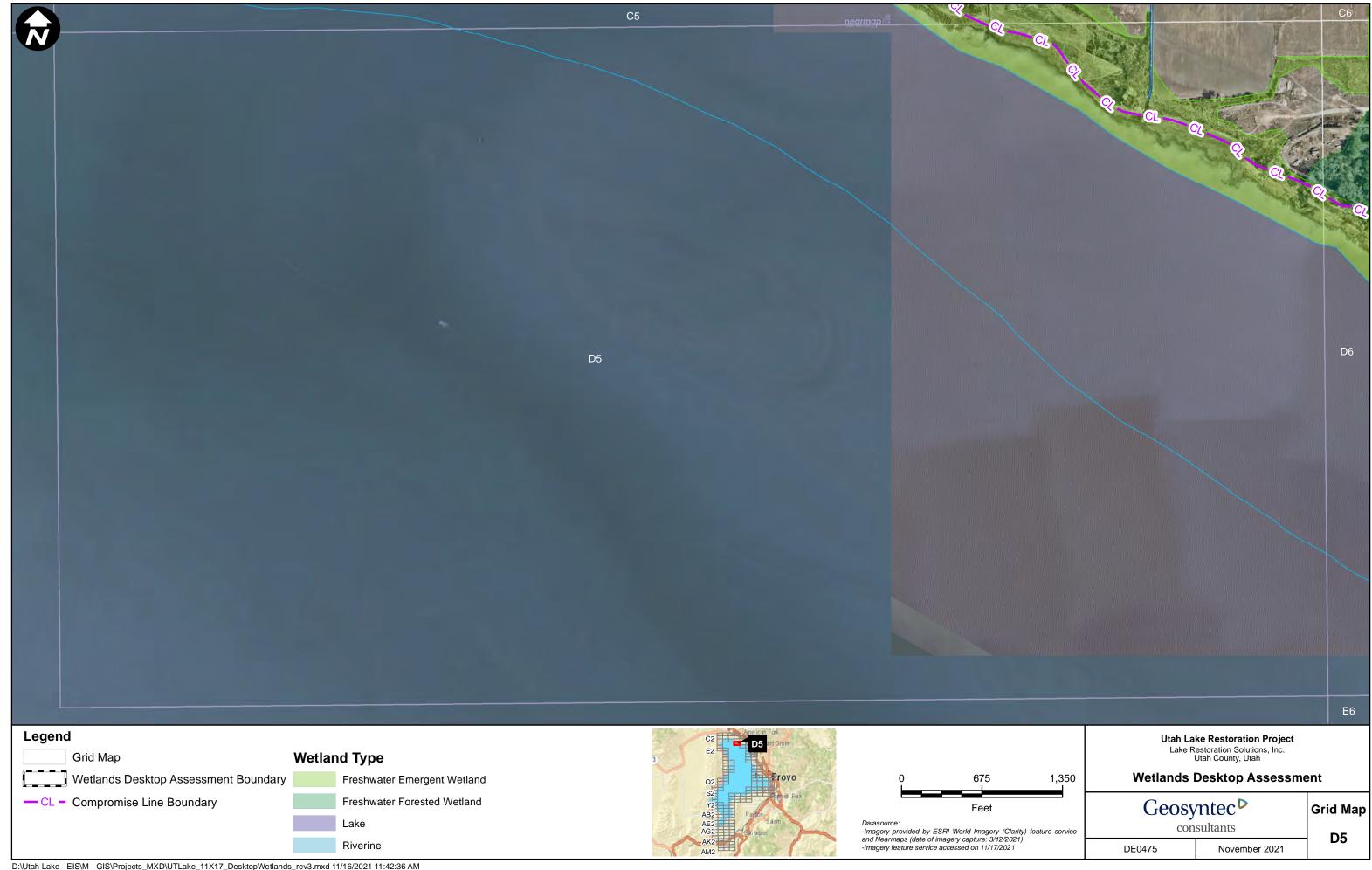


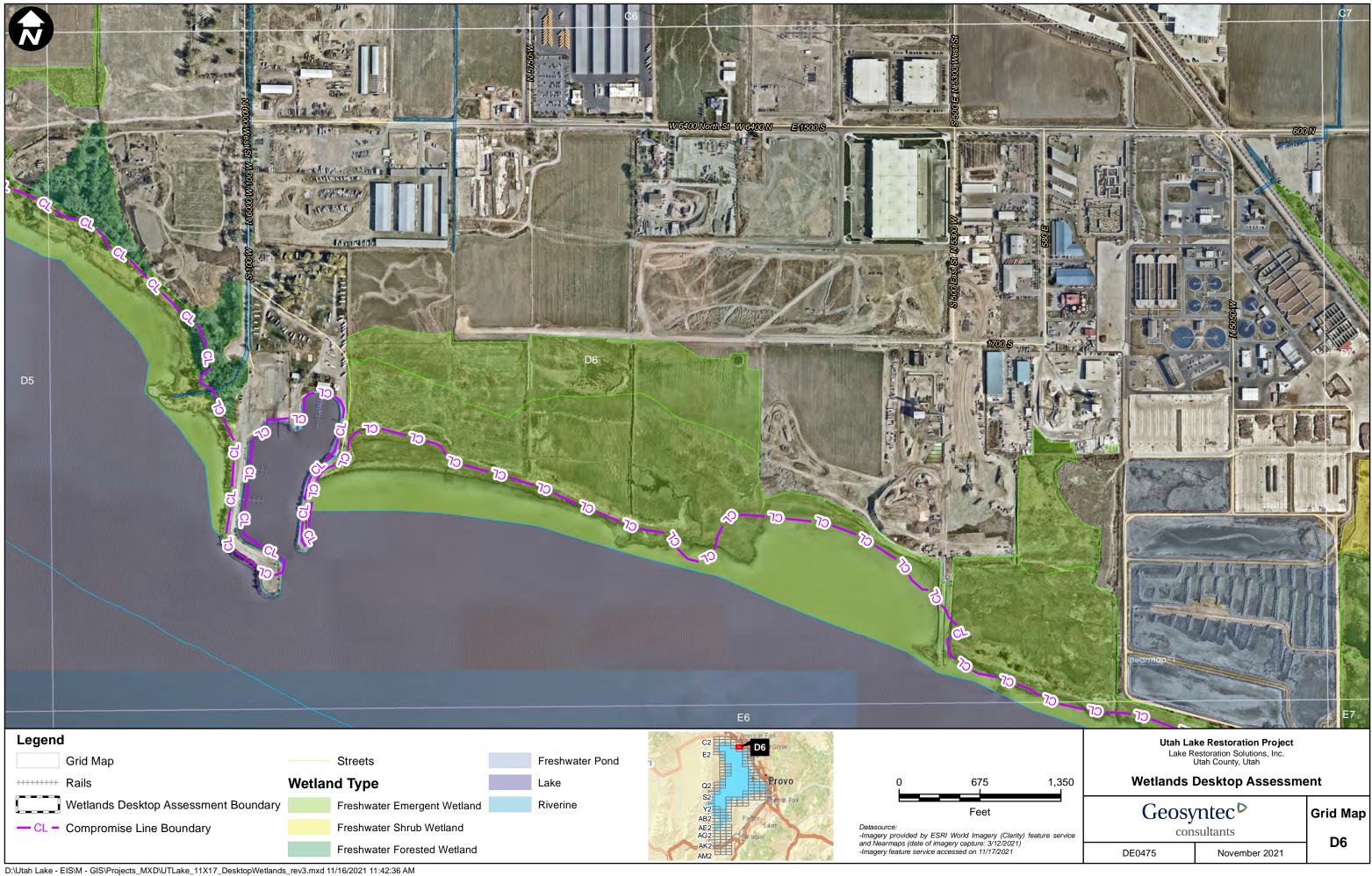


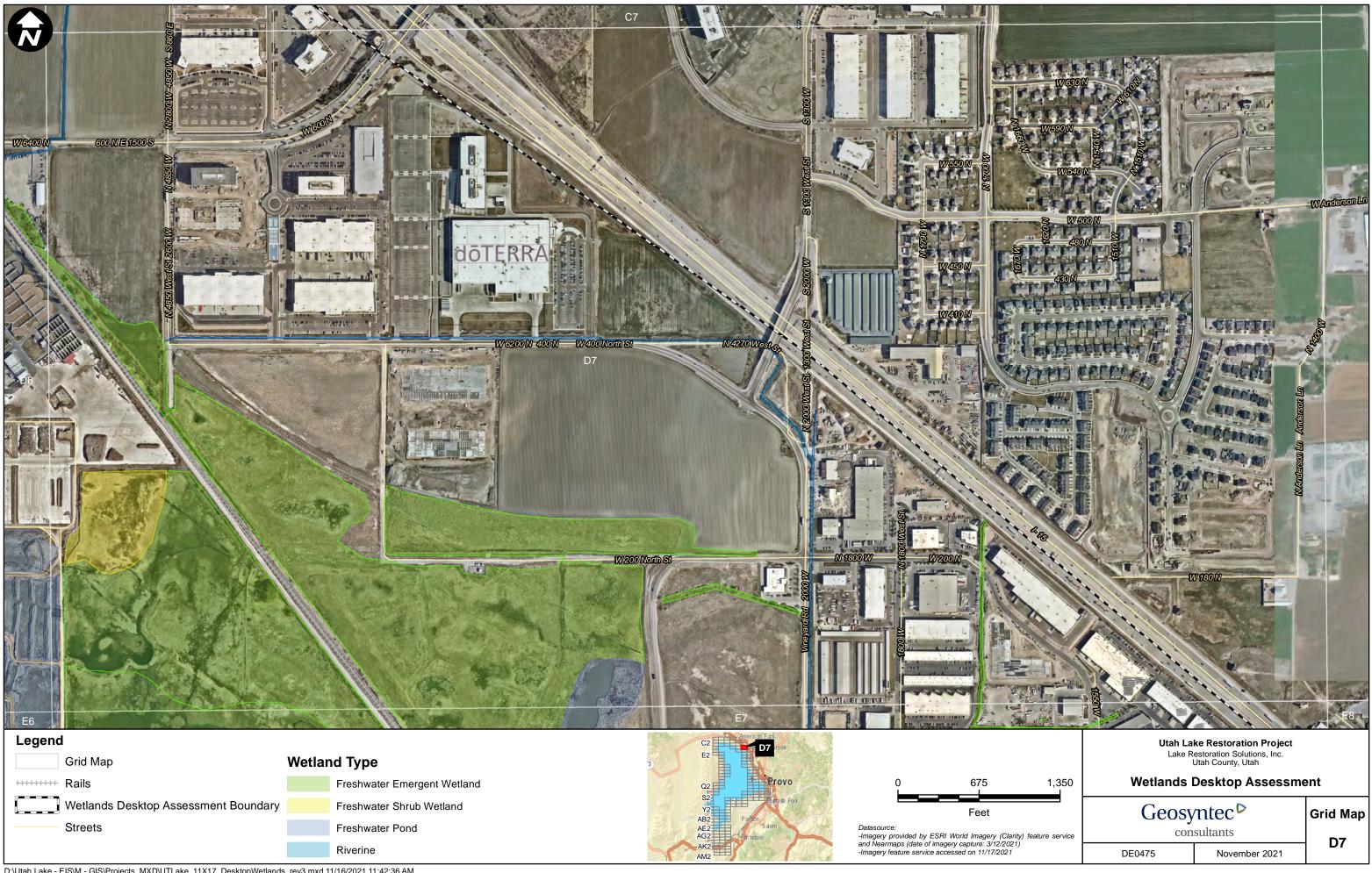
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM



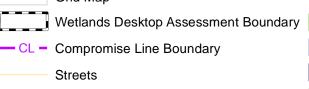
|                 |                   |  | C3       |
|-----------------|-------------------|--|----------|
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  | /        |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 |                   |  |          |
|                 | Utah La<br>Lake R | <b>ke Restoration Project</b><br>estoration Solutions, Inc.<br>Utah County, Utah |          |
| 1,350           |                   | Desktop Assessme   | ent      |
|                 | Geosy             | ∕ntec <sup>⊳</sup>   | Grid Map |
| feature service | con               | sultants   | D2       |
|                 | DE0475            | November 2021  |          |

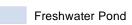


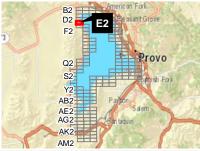








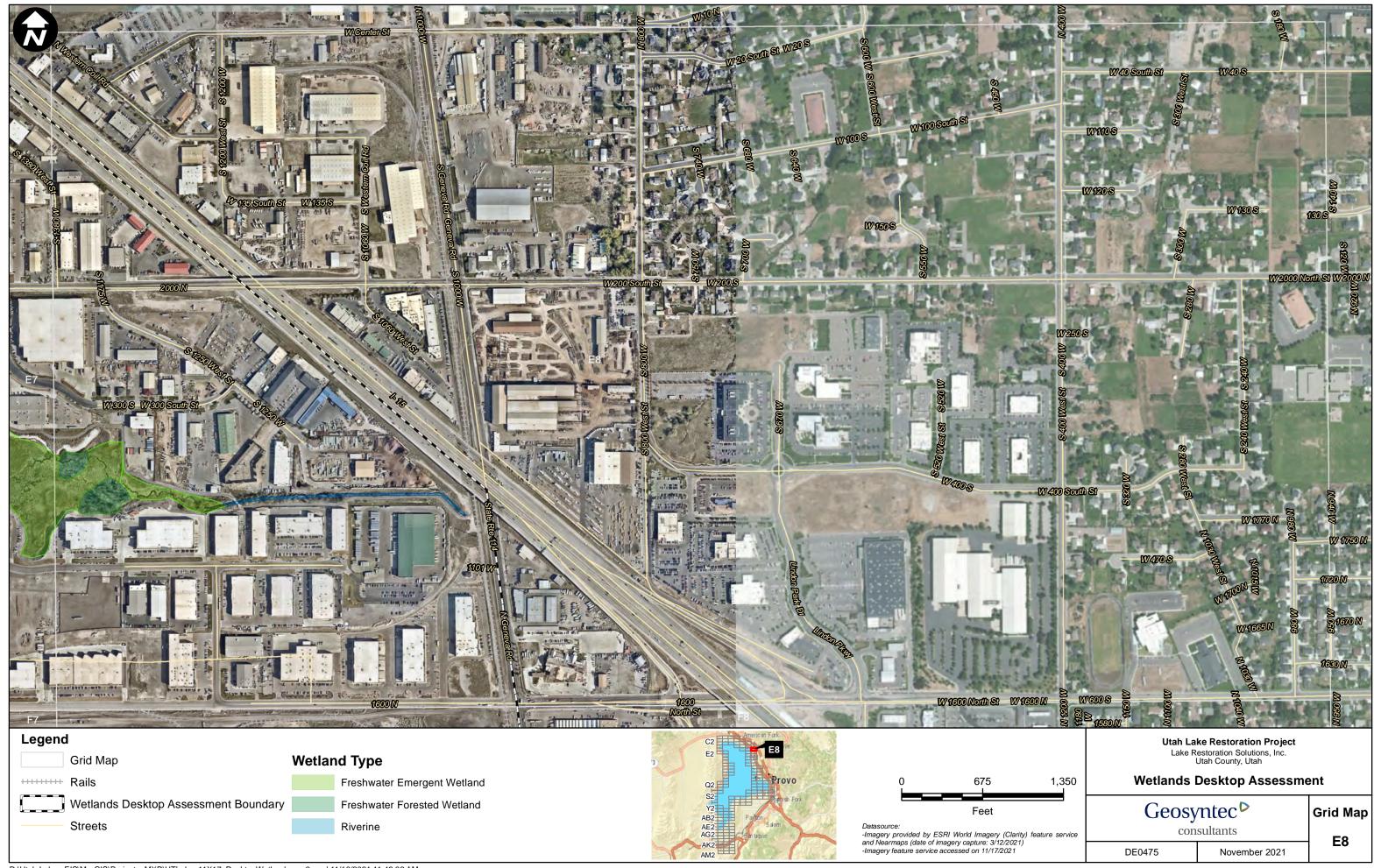


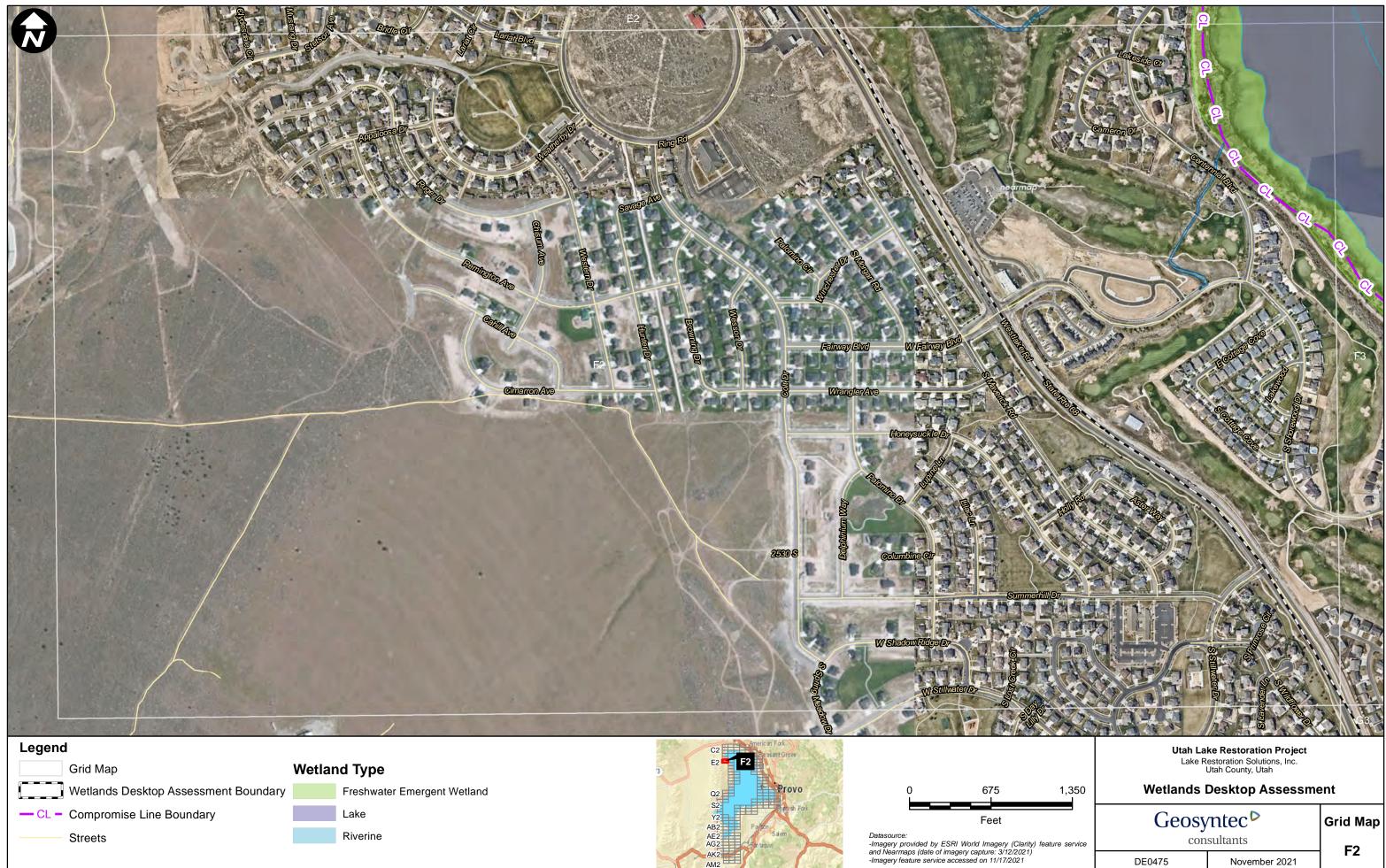




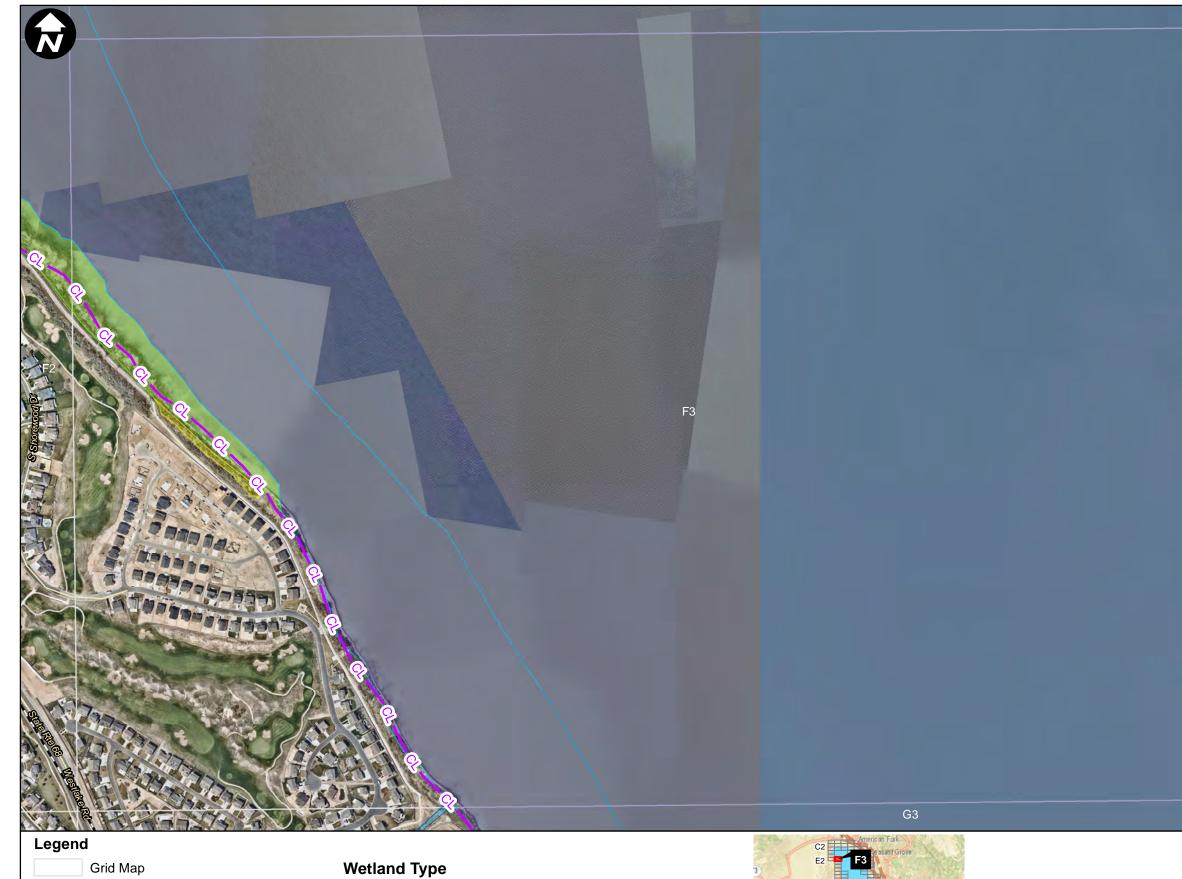








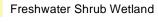
| Geosyntec <sup>▷</sup> |
|------------------------|
| consultants            |





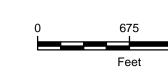
Freshwater Emergent Wetland

Riverine









Datasource: -Imagery provided by ESRI World Imagery (Clarity) and Nearmaps (date of imagery capture: 3/12/2021) -Imagery feature service accessed on 11/17/2021

|                | litah l  | ake Restoration Proj                            | ect      |
|----------------|----------|---|----------|
|                | Lake     | Restoration Solutions, Inc<br>Utah County, Utah |          |
| 1,350          | Wetlands | Desktop Asses                                   | sment    |
|                | Geos     | yntec⊳  | Grid Map |
|                | 0000     |   |          |
| eature service | CO       | nsultants                                       | — F3     |

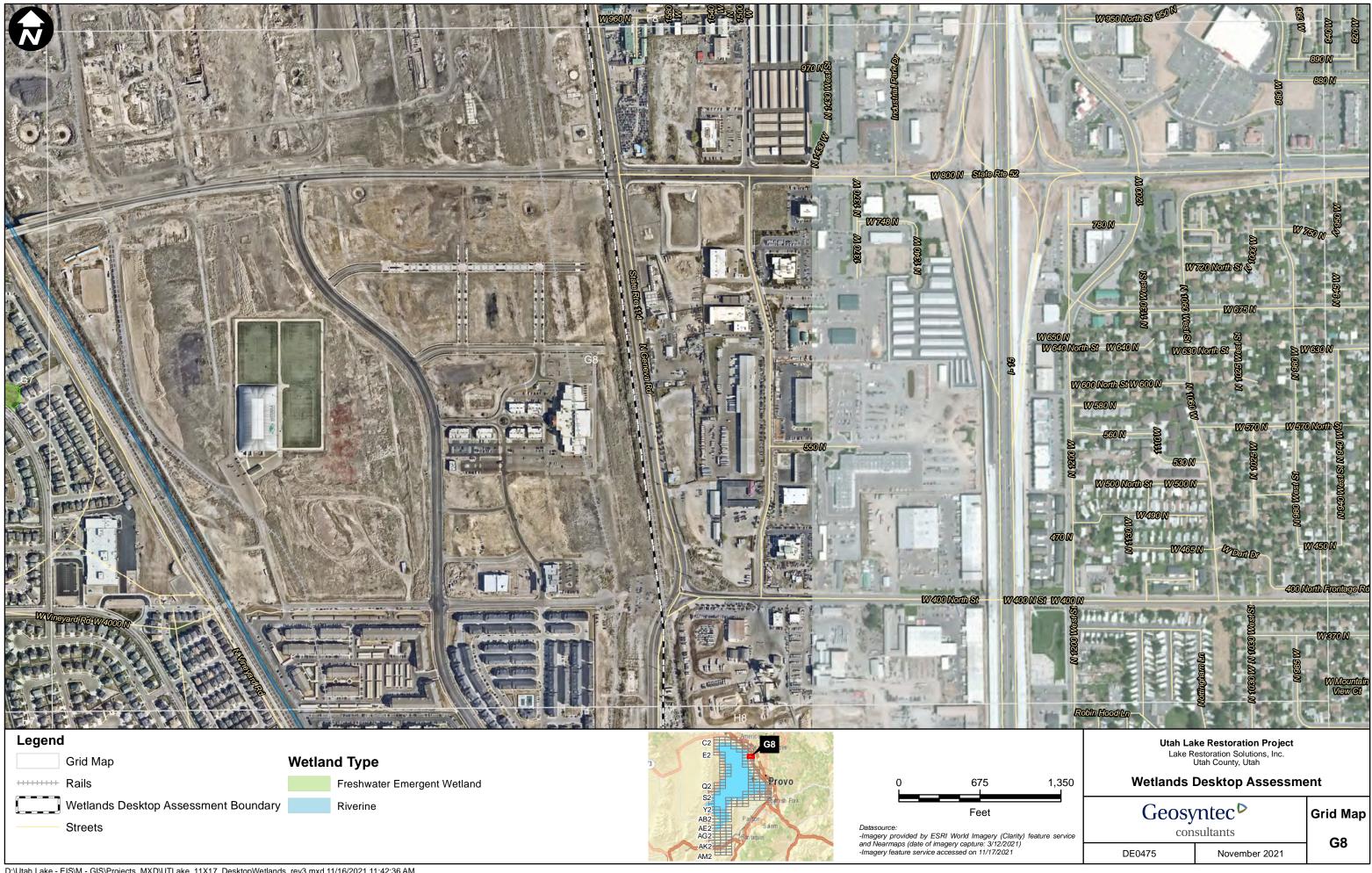


| ature | servi | ice |  |
|-------|-------|-----|--|
|       |       |     |  |











|                                      | G7                       |  |
|--------------------------------------|--------------------------|--|
|                                      |                          |  |
|                                      |                          |  |
|                                      |                          |  |
|                                      |                          |  |
|                                      |                          |  |
|                                      |                          |  |
|                                      |                          |  |
|                                      | 8                        | e clift  |
|                                      |                          | F FIFFI  |
|                                      | 8                        |  |
|                                      |                          |  |
|                                      | 6                        |  |
|                                      |                          | CenterS  |
|                                      | нт 🗸                     |  |
|                                      |                          |  |
|                                      |                          |  |
|                                      |                          |  |
|                                      |                          |  |
|                                      |                          | 111 - 201 2  |
|                                      | 3                        | Papatan Citte  |
|                                      |                          | P HERE ALL DRIVE   |
|                                      | 6                        |  |
|                                      |                          |  |
|                                      | S & AL                   |  |
|                                      |                          |  |
|                                      |                          |  |
|                                      |                          | Contraction of the Contraction o |
|                                      | 28 M7                    |  |
| Legend                               | C2 H7 Grove              |  |
| Grid Map Wetland Type                | 3 E2                     |  |
| Wetlands Desktop Assessment Boundary | Q2 Prov                  | 0 675  |
| - CL - Compromise Line Boundary Lake | Y2<br>AB2<br>Parton      | Feet   |
| Streets                              | AE2<br>AG2<br>AK2<br>AK2 | Datasource:<br>-Imagery provided by ESRI World Imagery (Cla<br>and Nearmaps (date of imagery capture: 3/12/20<br>-Imagery feature service accessed on 11/17/202  |
|                                      | ANZ<br>AM2               | -Imagery feature service accessed on 11/17/202   |

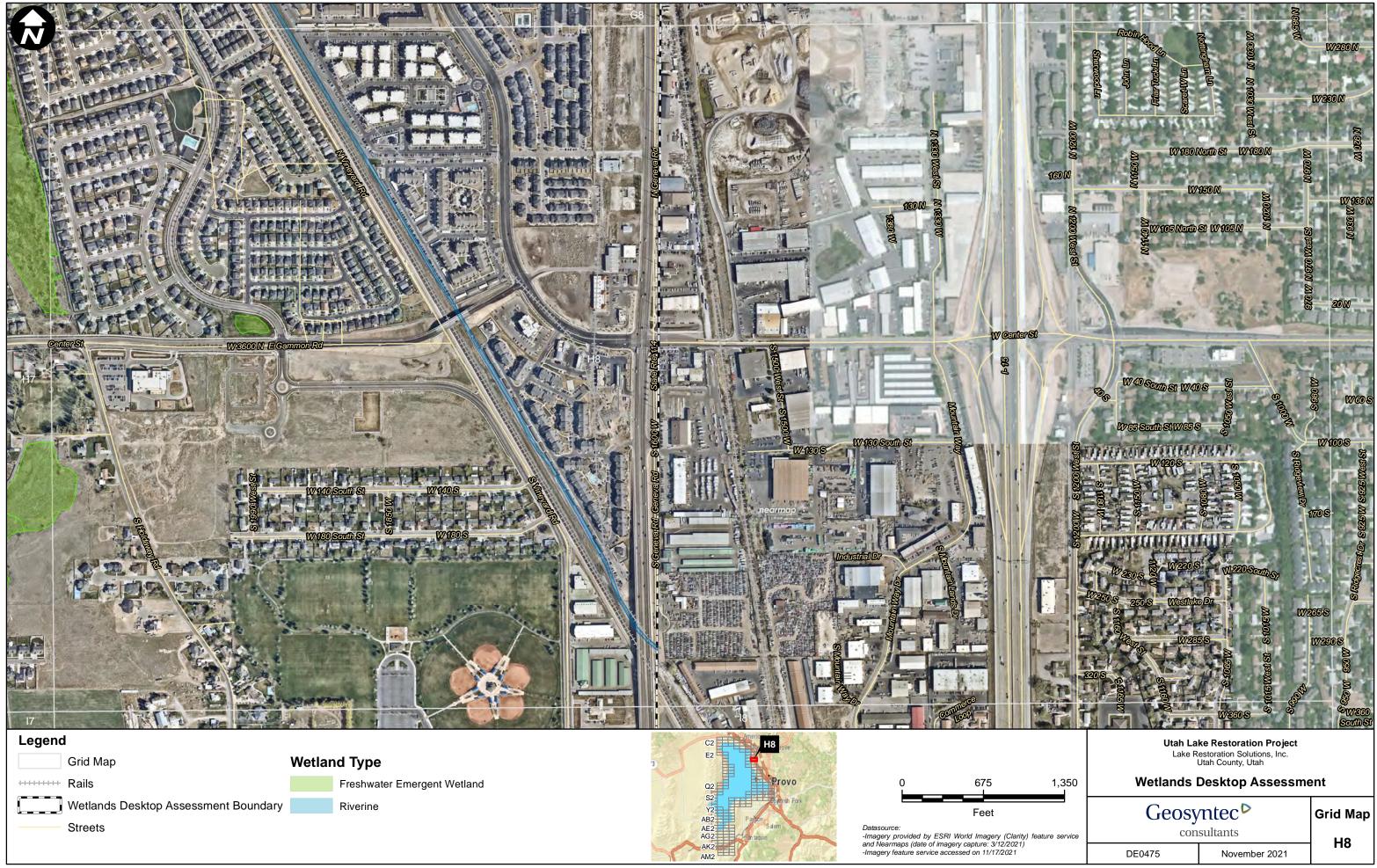


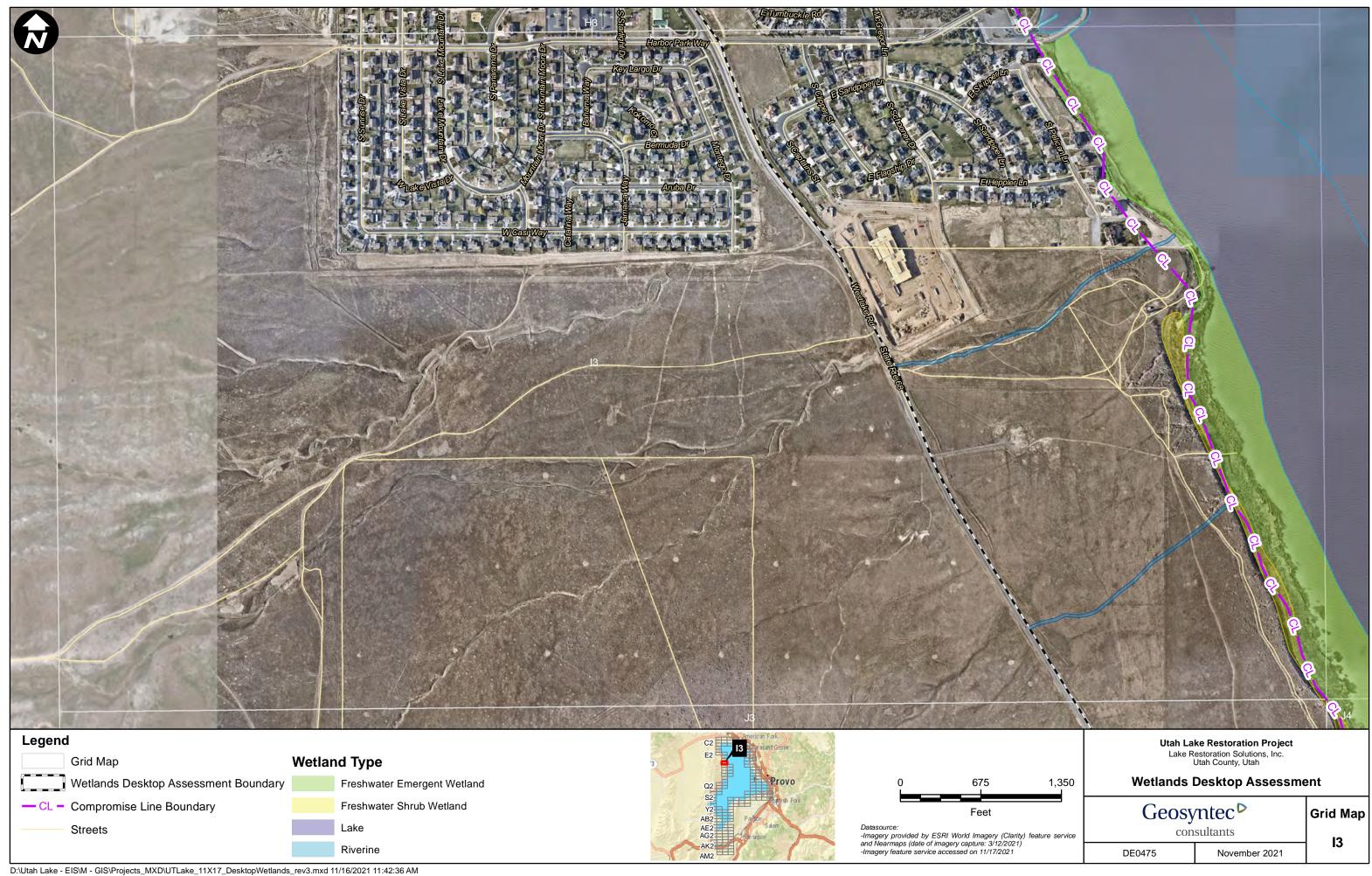
feature service

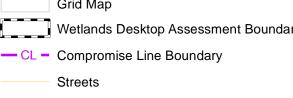
Geosyntec<sup>▷</sup> consultants

November 2021

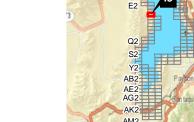
H7

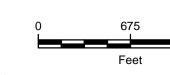
















Wetlands Desktop Assessment Boundary

Streets

Freshwater Pond

Lake

Freshwater Shrub Wetland

Datasource:

AB2 AE2 AG2

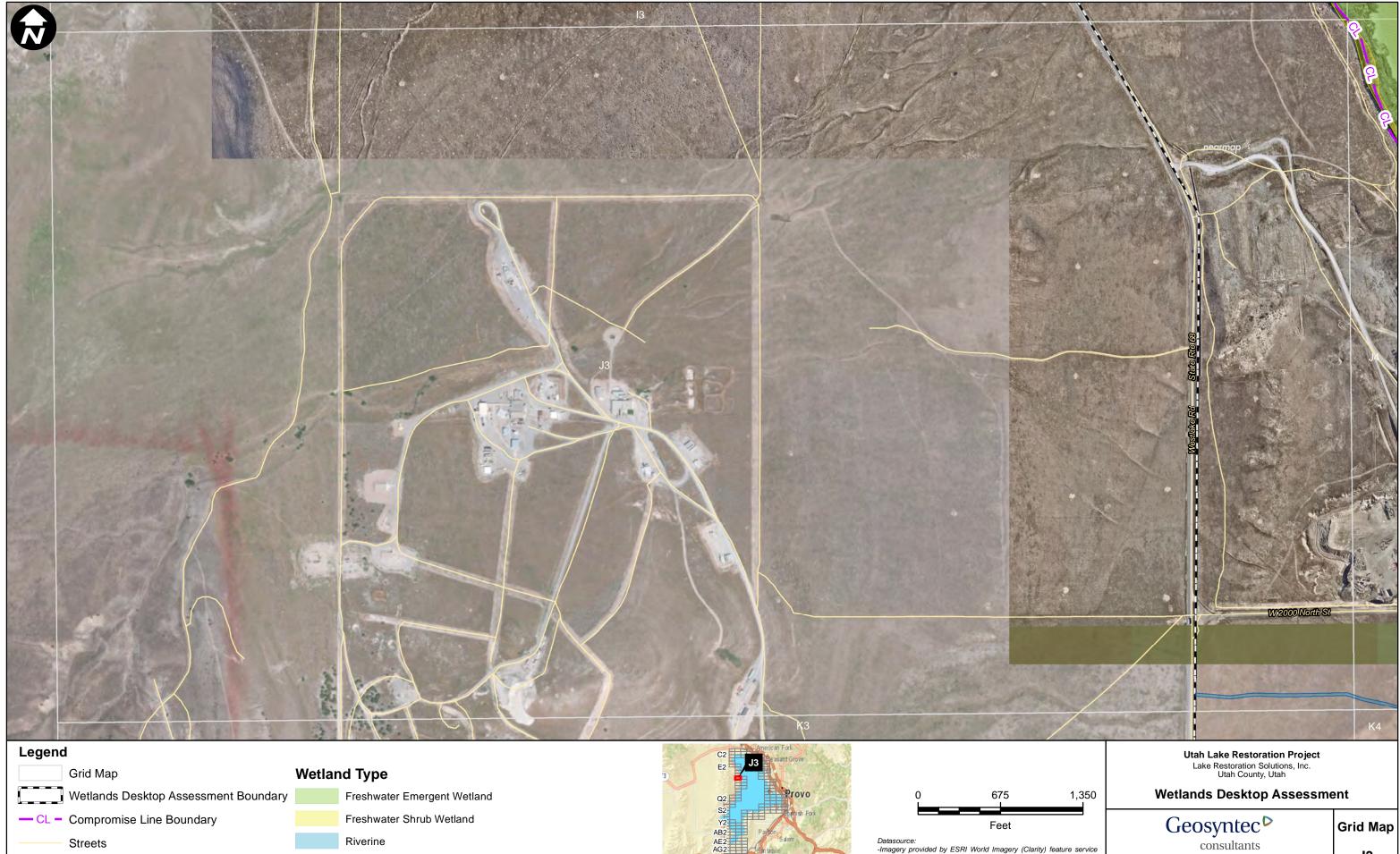
AK2

AM2

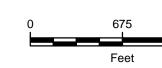
-Imagery provided by ESRI World Imagery (Clarity) and Nearmaps (date of imagery capture: 3/12/2021) -Imagery feature service accessed on 11/17/2021

Feet

| 14 AN 12        | 8   |   |  |
|-----------------|---|---|--|
|                 | 0   |   | ano  |
|                 | Wecos   | MIN St W 360 S S  | MO   |
|                 | TI PAG  | 2009 St W 200 S   | SCEOW CEOW   |
| de <b>s</b> t   | W4008   |   | S  |
|                 |   | S 1005 W  |  |
|                 | 4E0 S   | 83  | o o  |
|                 |   | W4458   | Setow  |
|                 | 100   |   | 10-0   |
| TIT             | I SI C  |   |  |
| The second      |   | S 105<br>S 105 | 00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00 |
|                 | 0<br>3<br>W500  |   | 5208 2 30  |
| -               | /530 8 8 1/500  |   | 520 S<br>W530<br>South St  |
|                 | Contraction of the second   |   |  |
| HE T            |   | W5508 6   | A Drames   |
| TT.             | CS AF   | 8   | C La c   |
| A CONTRACTOR    | W600 South St   | W6008   | 10 15  |
| 89              |   | Stage   | A REAL   |
| S I I           |   | 1002  |  |
| West            | the Frank   |   | 21 P   |
| 1500            | The Plats   | W680 South  | St -   |
| · · · · ·       |   | Alcon   |  |
|                 | and the ball and the second   | NOW 22  | 1000   |
|                 |   |   | -  |
|                 | a second s | He I  |  |
|                 | 4 4 4 1 1   |   | The  |
|                 |   |   | L Lat  |
|                 |   | Aura States VA  |  |
|                 | TT =  |   |  |
|                 | and the second second   | lisse Dr  | 2158   |
|                 | 1   | 1 and 1   | AL F   |
|                 |   | ire.  | 13.55  |
|                 |   | 2 111111  | 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1                                     |
|                 |   | . Sitt 122  | 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1                                     |
| 1-01            |   | a second as   | 1 2 2 2 2  |
| The second      |   | Constant of the   | AT I STATE   |
| 12:27           |   | - FA Caracter   | 1  |
| 1 HE            |   | and the second  | Stor Star  |
|                 | 37 E .: 18  |   | F 33 F   |
| NA I            | 1   |   | 1 34   |
|                 | Utah La   | ke Restoration Project  |  |
|                 | Lake R  | estoration Solutions, Inc.<br>Jtah County, Utah   |  |
| 1,350           |   | Desktop Assessme  | ent  |
|                 | Geosy   | mtec <sup>©</sup>   | Grid Map   |
| feature service | con   | sultants  |  |
| ISALAIE SEIVILE | DE0475  | November 2021   | 18   |
|                 |   |   |  |







-Imagery provided by ESRI World Imagery (Clarity) feature service and Nearmaps (date of imagery capture: 3/12/2021) -Imagery feature service accessed on 11/17/2021

D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

DE0475

November 2021

J3



|                          | Utah                  | Lake Restoration Project<br>ke Restoration Solutions, Inc.                          |          |
|--------------------------|-----------------------|---|----------|
|                          | Lal                   | ke Restoration Solutions, Inc.<br>Utah County, Utah                                 |          |
| 1,350                    | Lal                   | A Lake Restoration Project<br>ke Restoration Solutions, Inc.<br>Utah County, Utah   | ent      |
| 1,350                    | Lai<br>Wetland        | ke Restoration Solutions, Inc.<br>Utah County, Utah                                 |          |
|                          | Lai<br>Wetland<br>Geo | ke Restoration Solutions, Inc.<br>Utah County, Utah<br>Is Desktop Assessm<br>Syntec | Grid Map |
| 1,350<br>feature service | Lai<br>Wetland<br>Geo | ke Restoration Solutions, Inc.<br>Utah County, Utah                                 |          |

|                                      | 17                       |   |
|--------------------------------------|--------------------------|---|
|                                      | J7                       |   |
| Legend<br>Grid Map                   | Wetland Type             |   |
| Wetlands Desktop Assessment Boundary |                          |   |
| - CL - Compromise Line Boundary      | Freshwater Shrub Wetland | S2<br>Y2<br>Fee   |
|                                      | Freshwater Pond          | AB2 Datasource  |
|                                      | Lake                     | AG2<br>AK2<br>AM2<br>AM2<br>AM2<br>AM2<br>AM2<br>AM2<br>AM2<br>AM2<br>AM2<br>AM |

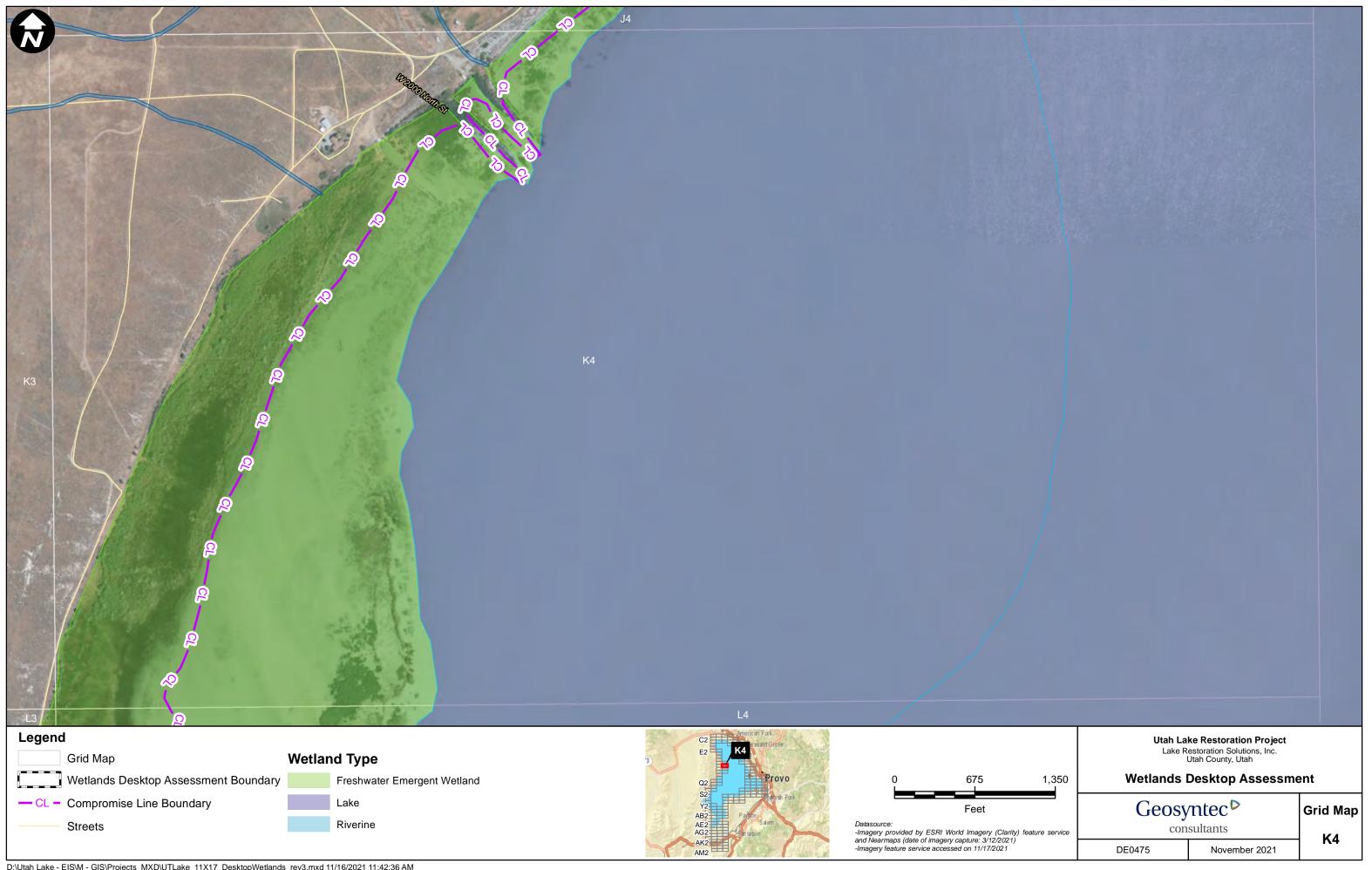


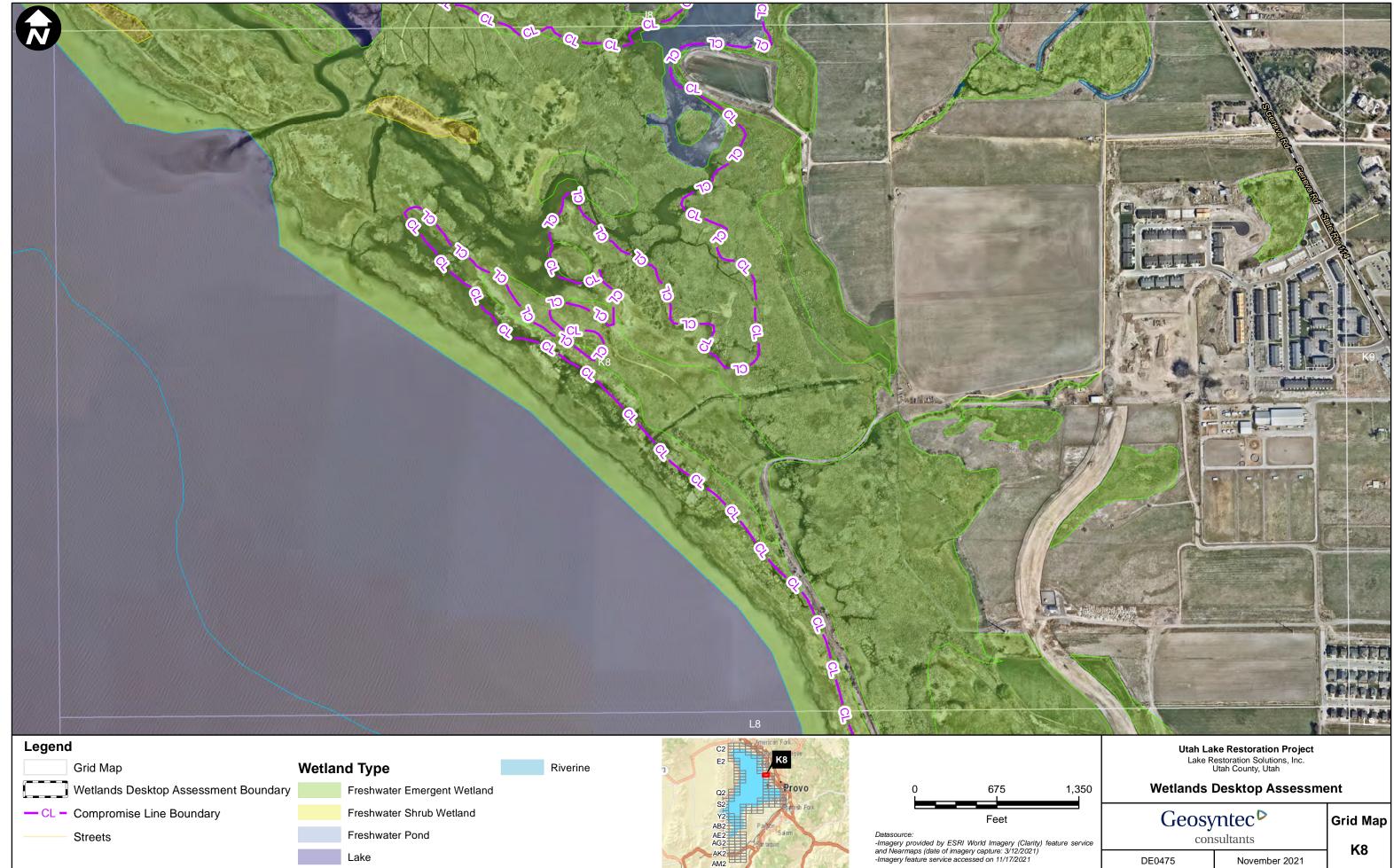




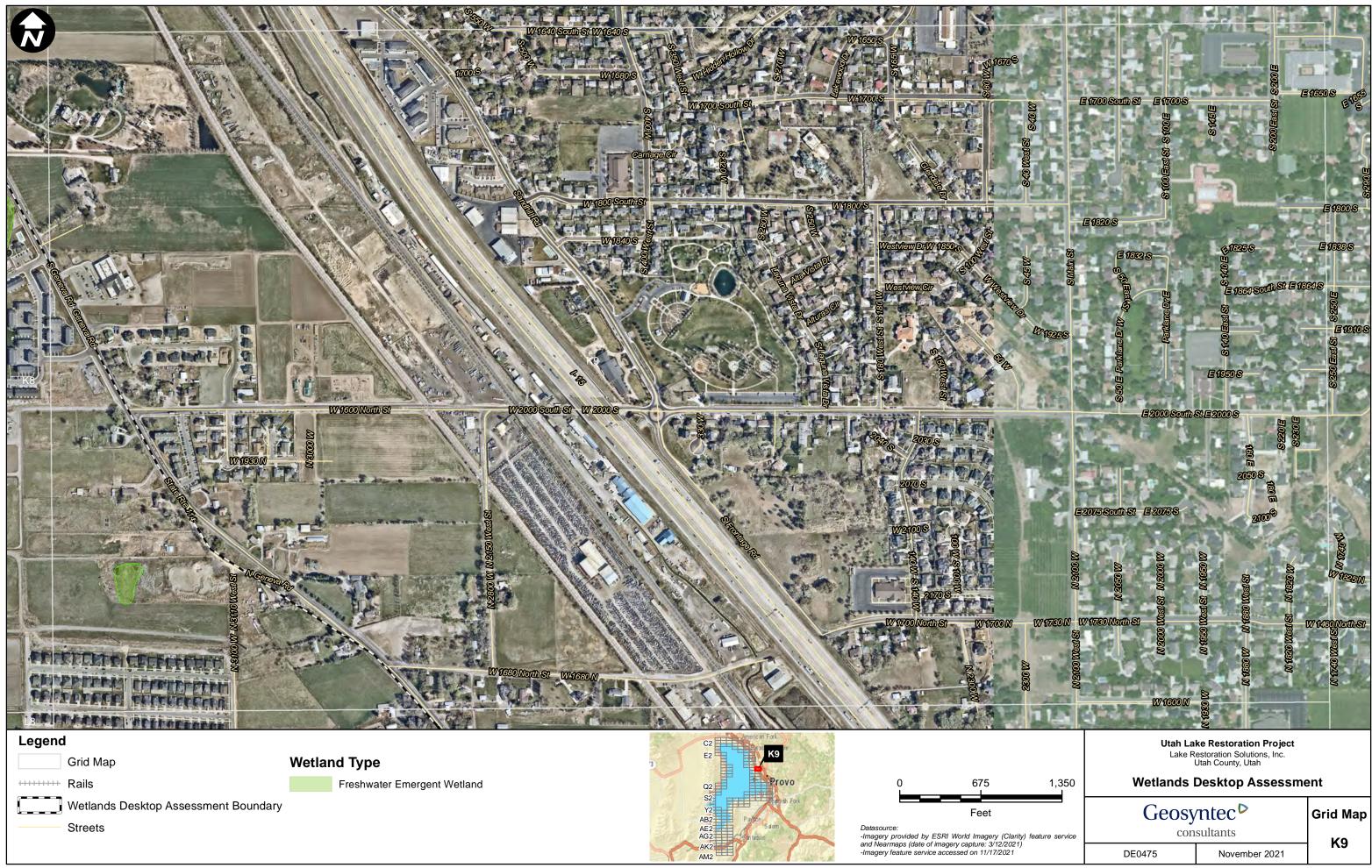
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

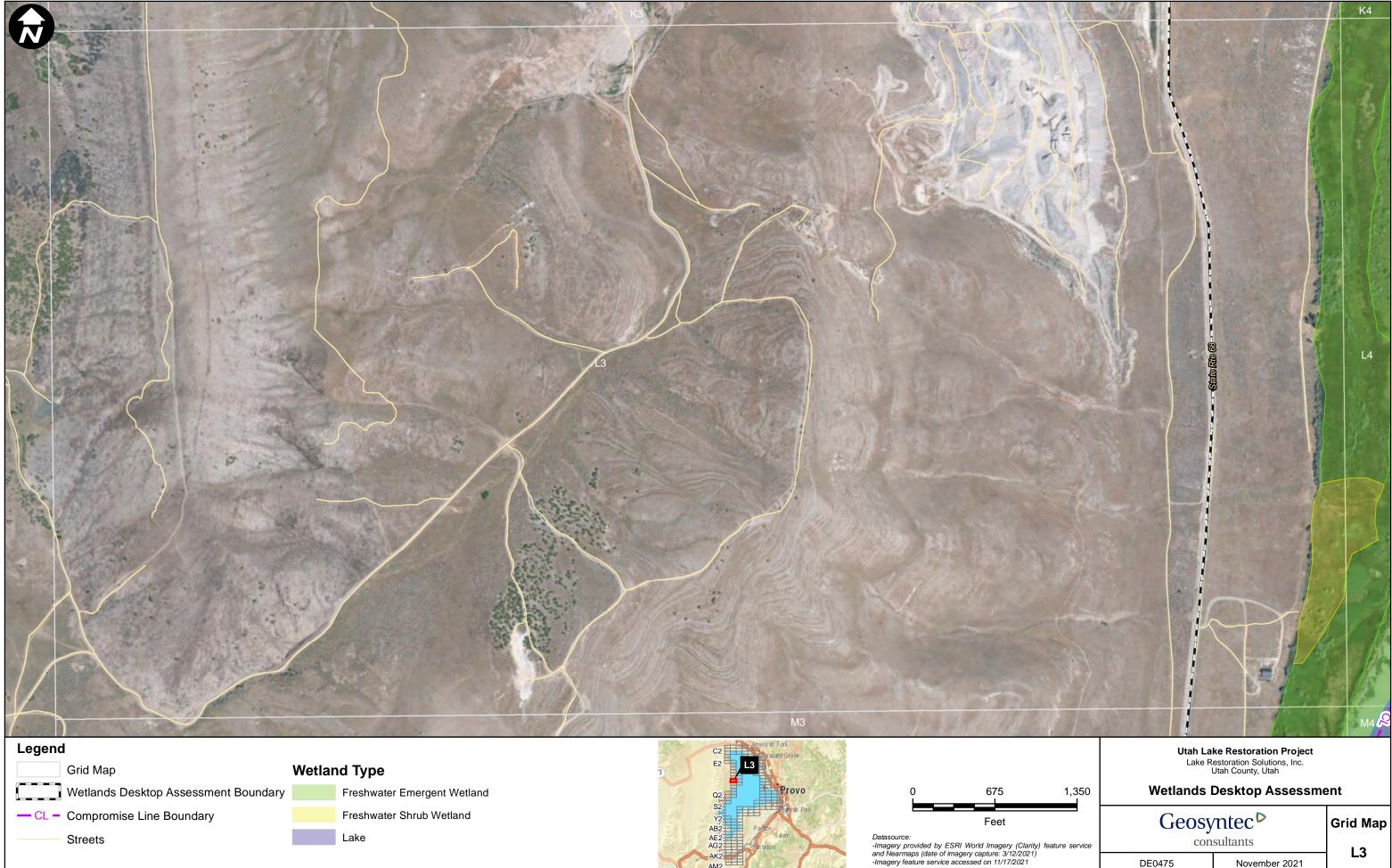
| Geosyntec <sup>▶</sup> |
|------------------------|
| consultants            |
|                        |





| 1,350 |  |
|-------|--|
|       |  |
|       |  |



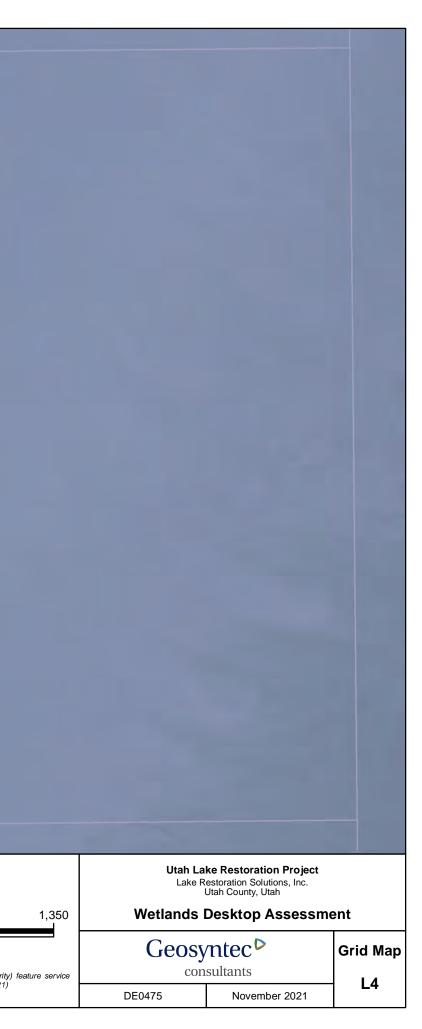


AM2

DE0475

November 2021

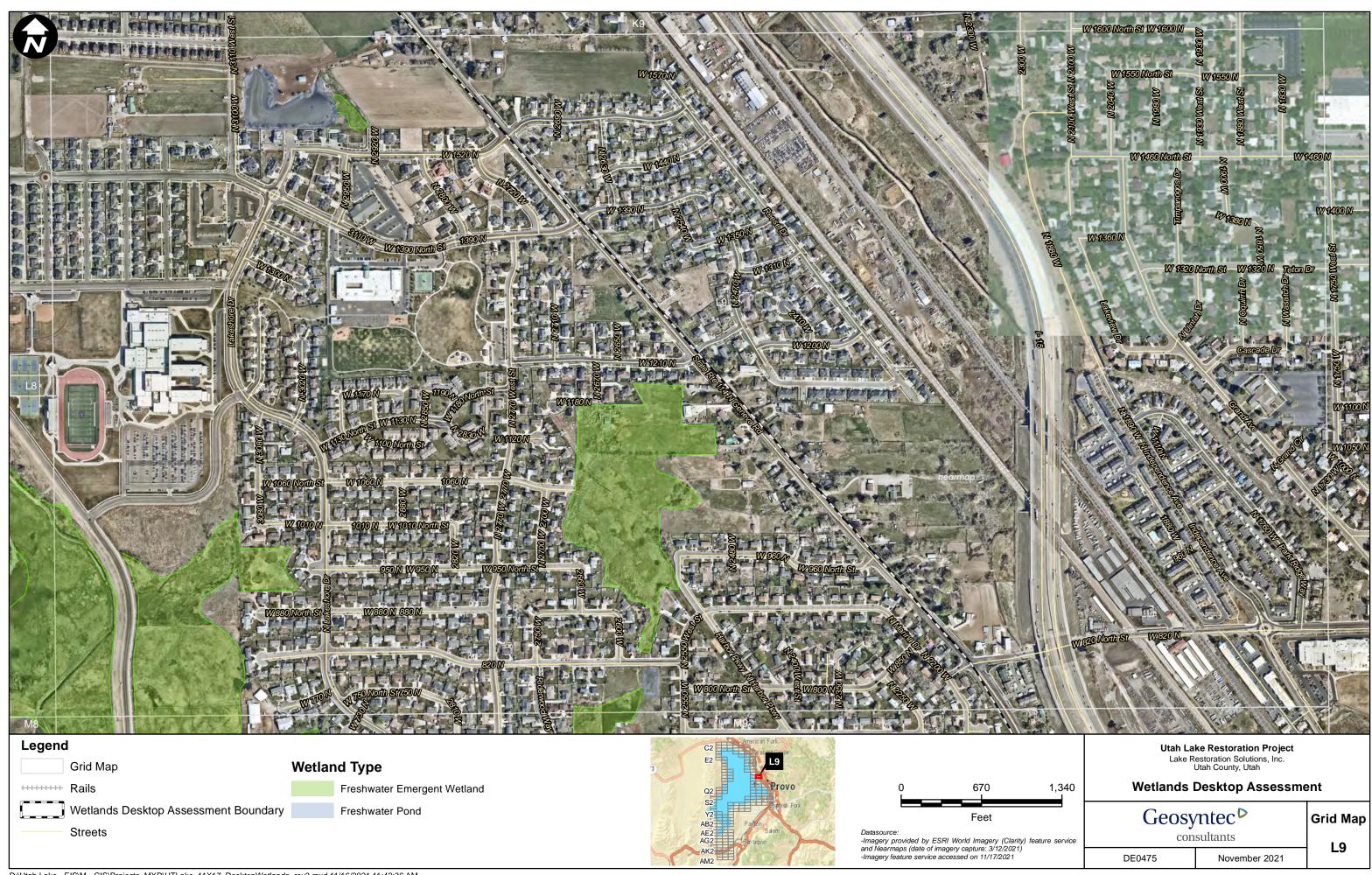
|              |                                      |                          | K4                           |  |
|--------------|--------------------------------------|--------------------------|------------------------------|--|
| $\mathbf{k}$ | 2<br>2                               | Cat in B                 |                              |  |
|              | <b>2</b>                             |                          |                              |  |
|              |                                      |                          |                              |  |
|              | 2 (200)                              | Star Star                |                              |  |
| 1            |                                      |                          |                              |  |
|              |                                      |                          |                              |  |
|              |                                      | 88                       |                              |  |
|              |                                      |                          |                              |  |
|              |                                      | CP 40                    |                              |  |
|              |                                      | 20 D                     |                              |  |
|              |                                      | $\approx$                |                              |  |
| -            |                                      |                          |                              |  |
|              |                                      |                          |                              |  |
|              |                                      |                          |                              |  |
|              |                                      |                          | L4                           |  |
| L3           |                                      |                          |                              |  |
|              |                                      |                          |                              |  |
| 1            |                                      |                          |                              |  |
|              |                                      |                          |                              |  |
| 1            |                                      |                          |                              |  |
|              |                                      |                          |                              |  |
|              |                                      |                          |                              |  |
|              | P P                                  |                          |                              |  |
|              |                                      |                          |                              |  |
| a second     | <b>e</b>                             |                          |                              |  |
| 1            |                                      |                          |                              |  |
|              |                                      |                          |                              |  |
|              | 10 Bread                             |                          |                              |  |
|              |                                      |                          |                              |  |
| 140          |                                      |                          | M4                           |  |
| M3<br>Legen  | d                                    |                          | C2 American Fark.            |  |
|              | Grid Map                             | Wetland Type             | E2 L4                        |  |
|              | Wetlands Desktop Assessment Boundary |                          | and Q2 Provo                 | 0 675  |
|              | Compromise Line Boundary             | Freshwater Shrub Wetland | S2<br>V2                     |  |
|              | - Streets                            | Lake                     | AB2 Parkon Silem             | Feet   |
|              |                                      |                          | AG2 Sin taquin<br>AK2<br>AM2 | <ul> <li>-Imagery provided by ESRI World Imagery (Clar<br/>and Nearmaps (date of imagery capture: 3/12/202</li> <li>-Imagery feature service accessed on 11/17/2021</li> </ul> |

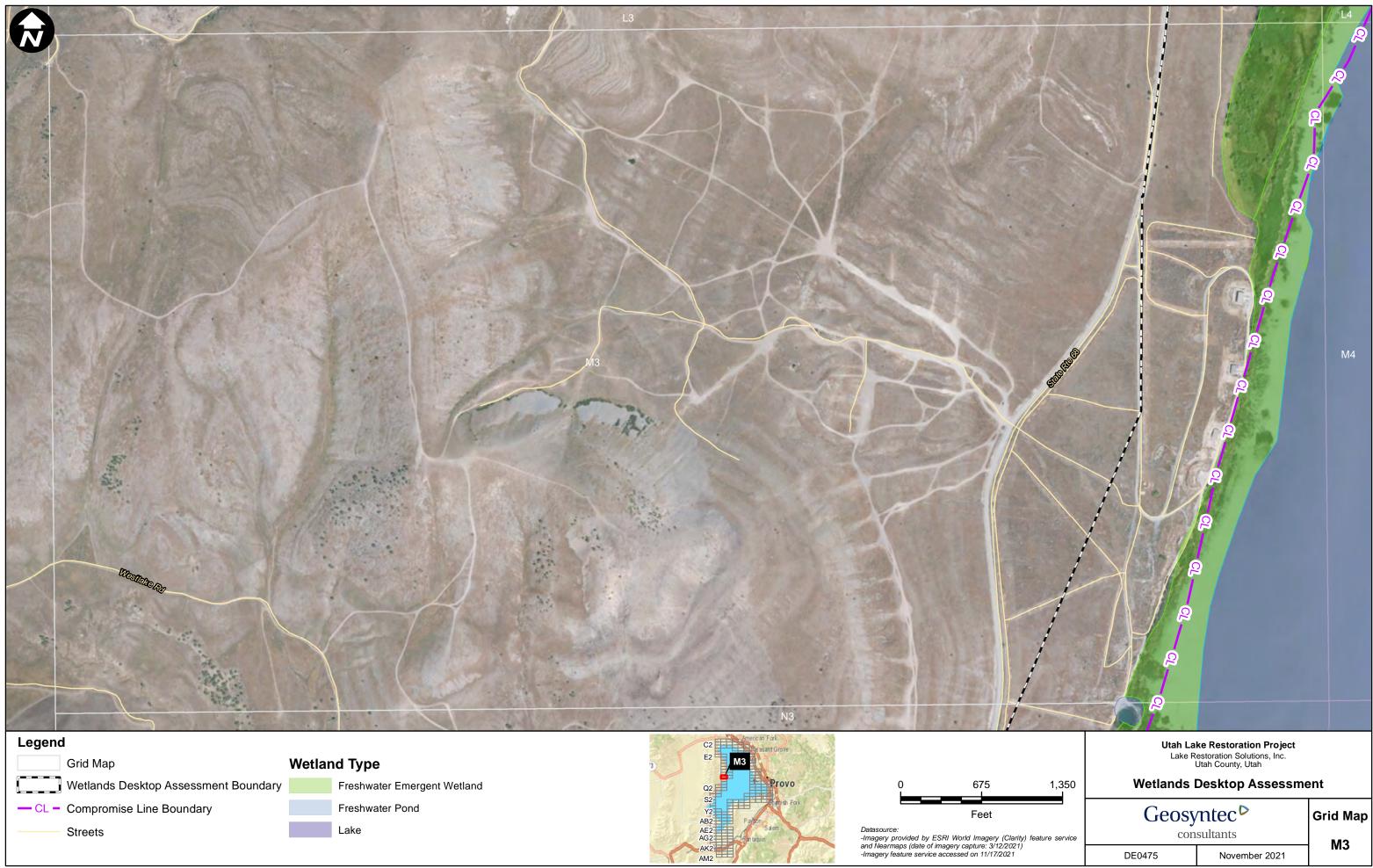




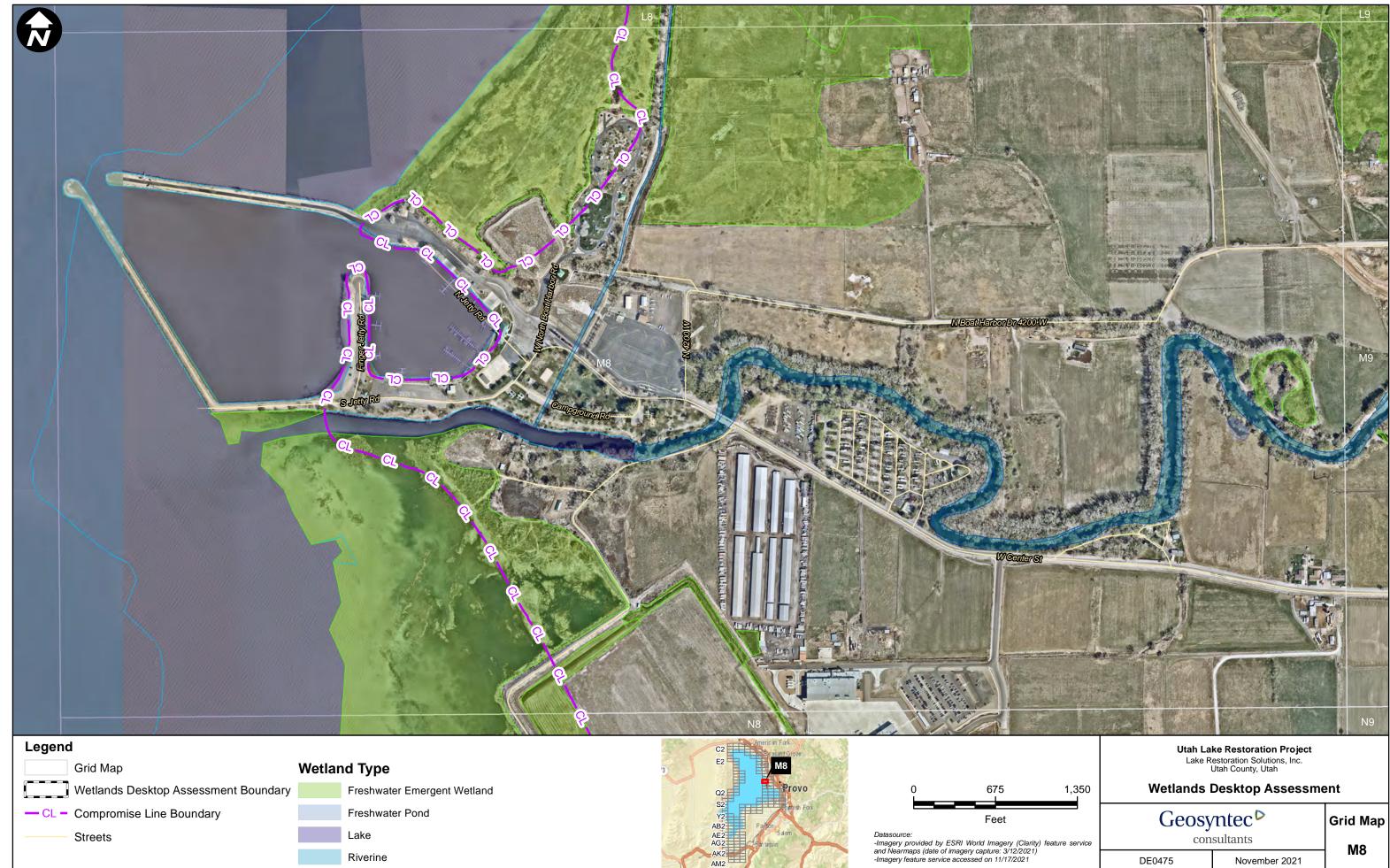
| 1,350 |
|-------|
|       |

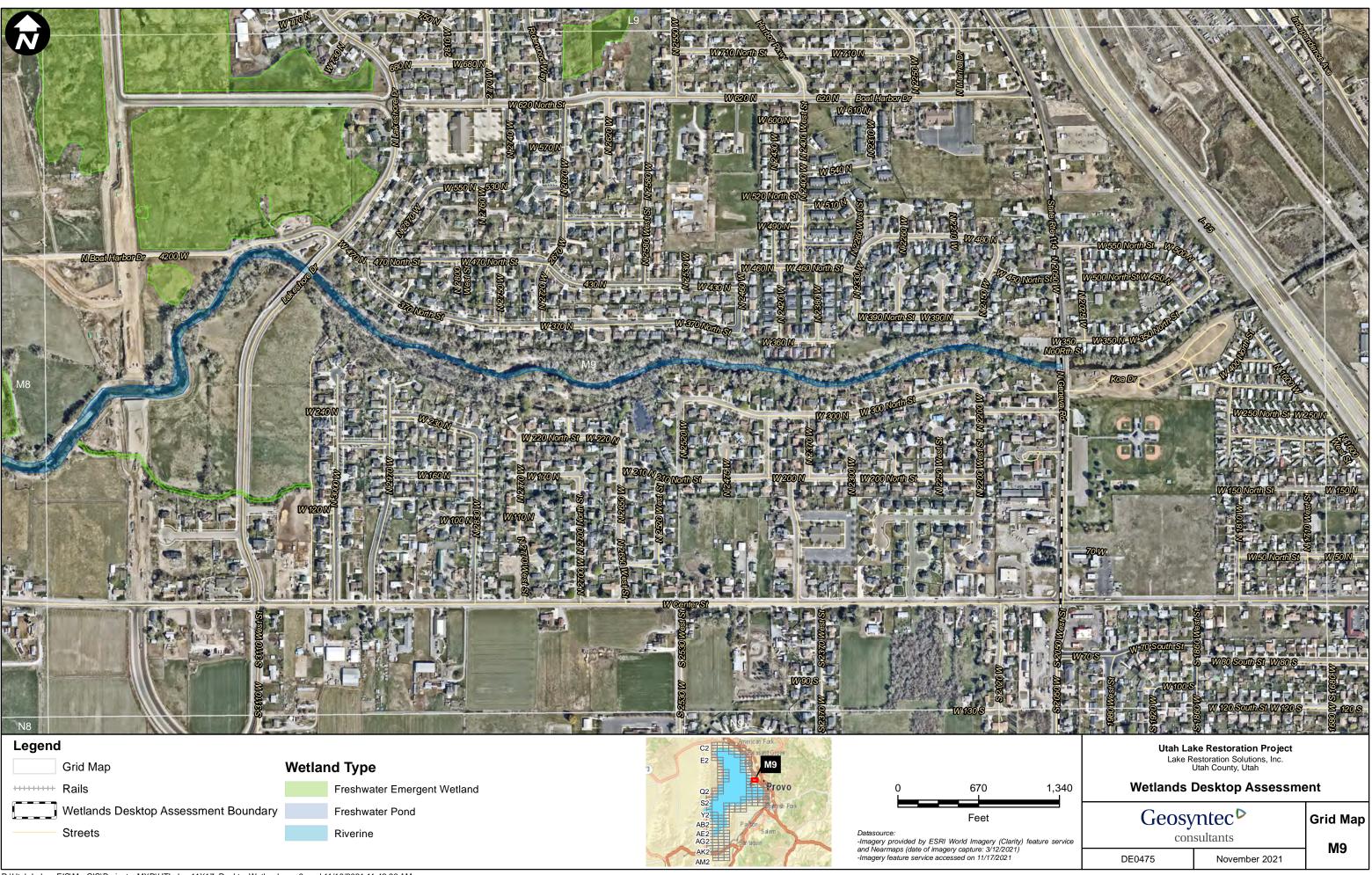
| Geosy |
|-------|
| cons  |
|       |

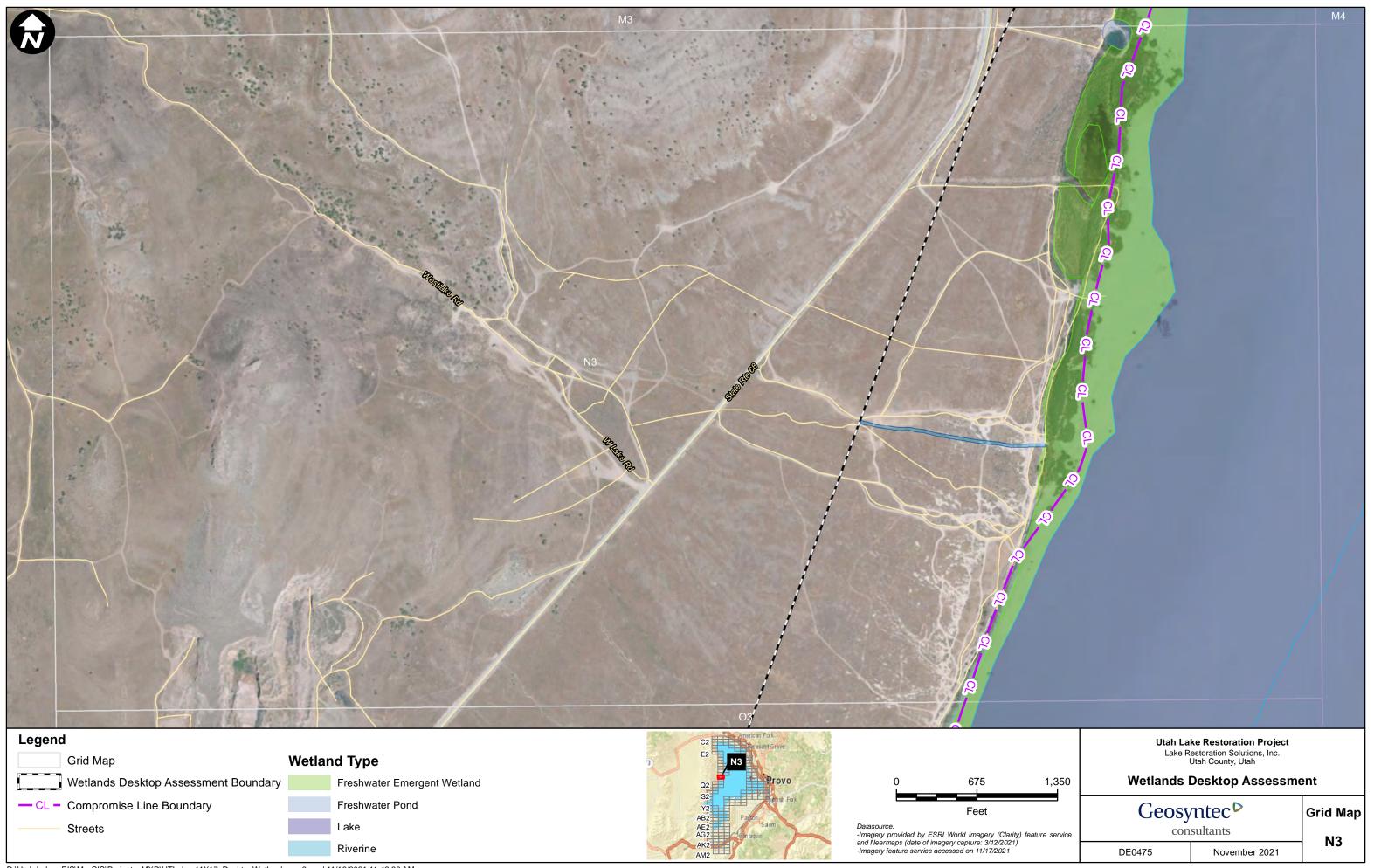




| МЗ   | Μ4  |
|--|---|
|  |   |
| N3         Legend       Wetland Type         Image: State of the stat | Image: provide to former of the former of |











Freshwater Emergent Wetland



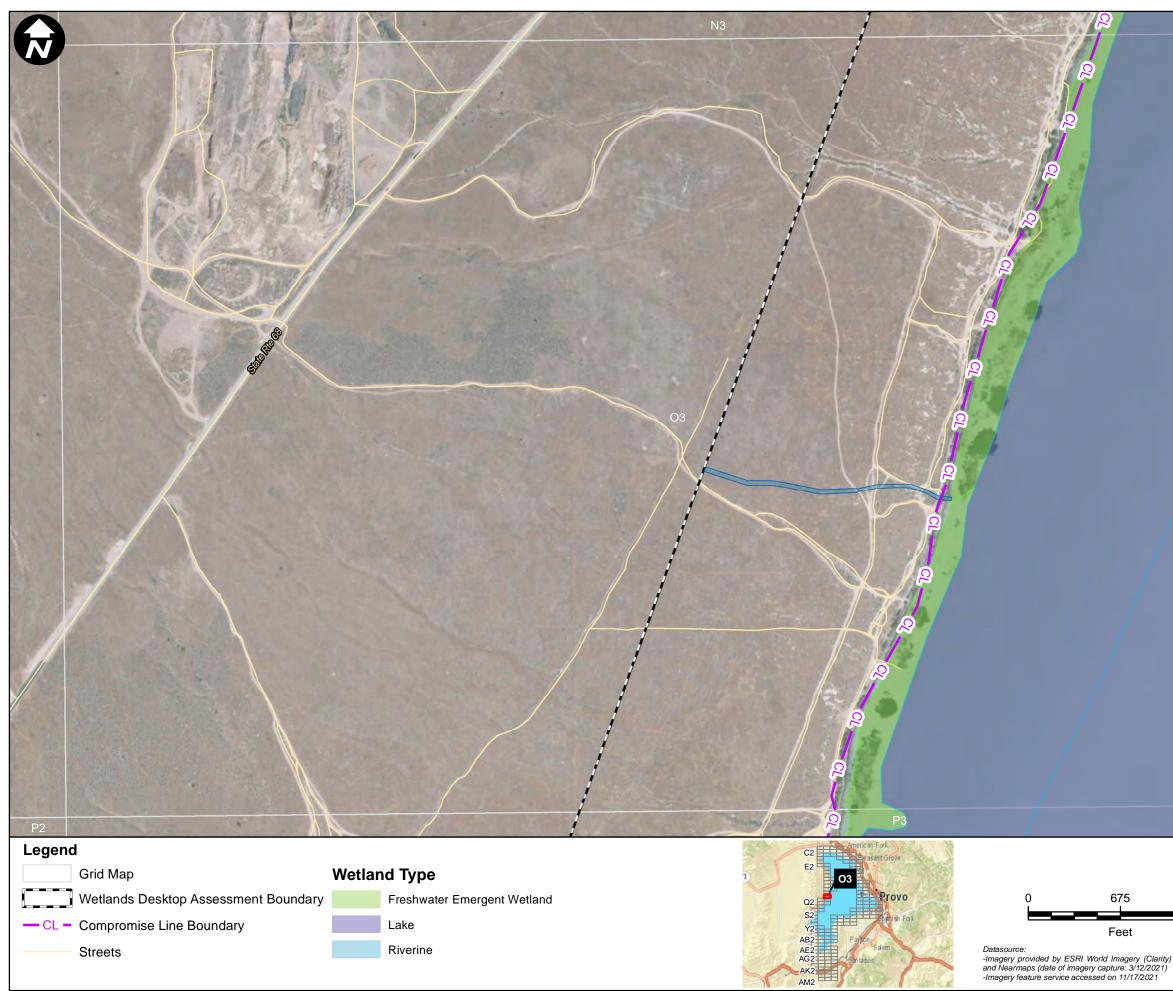


Geosyntec<sup>▷</sup> consultants

DE0475

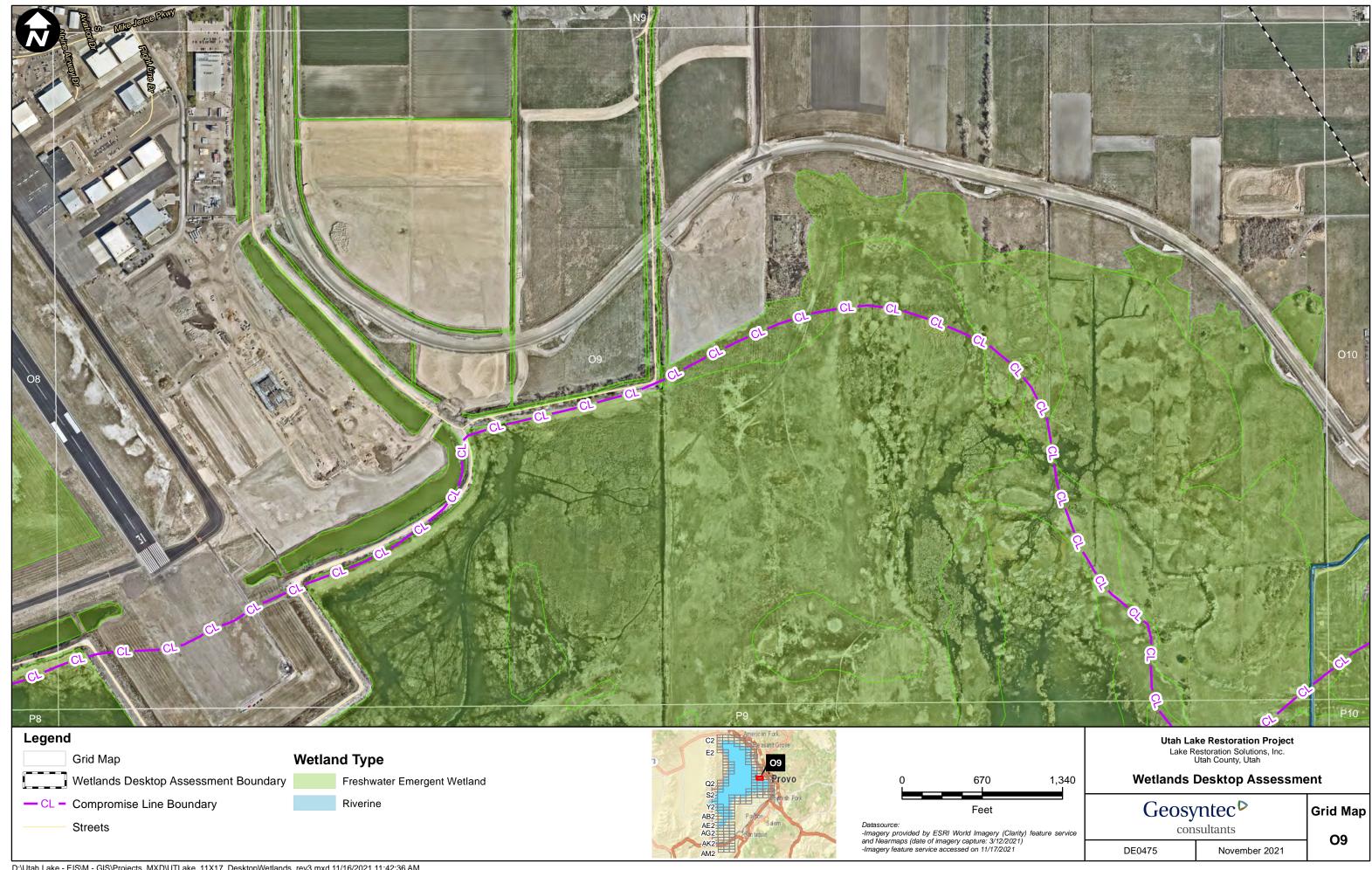
November 2021

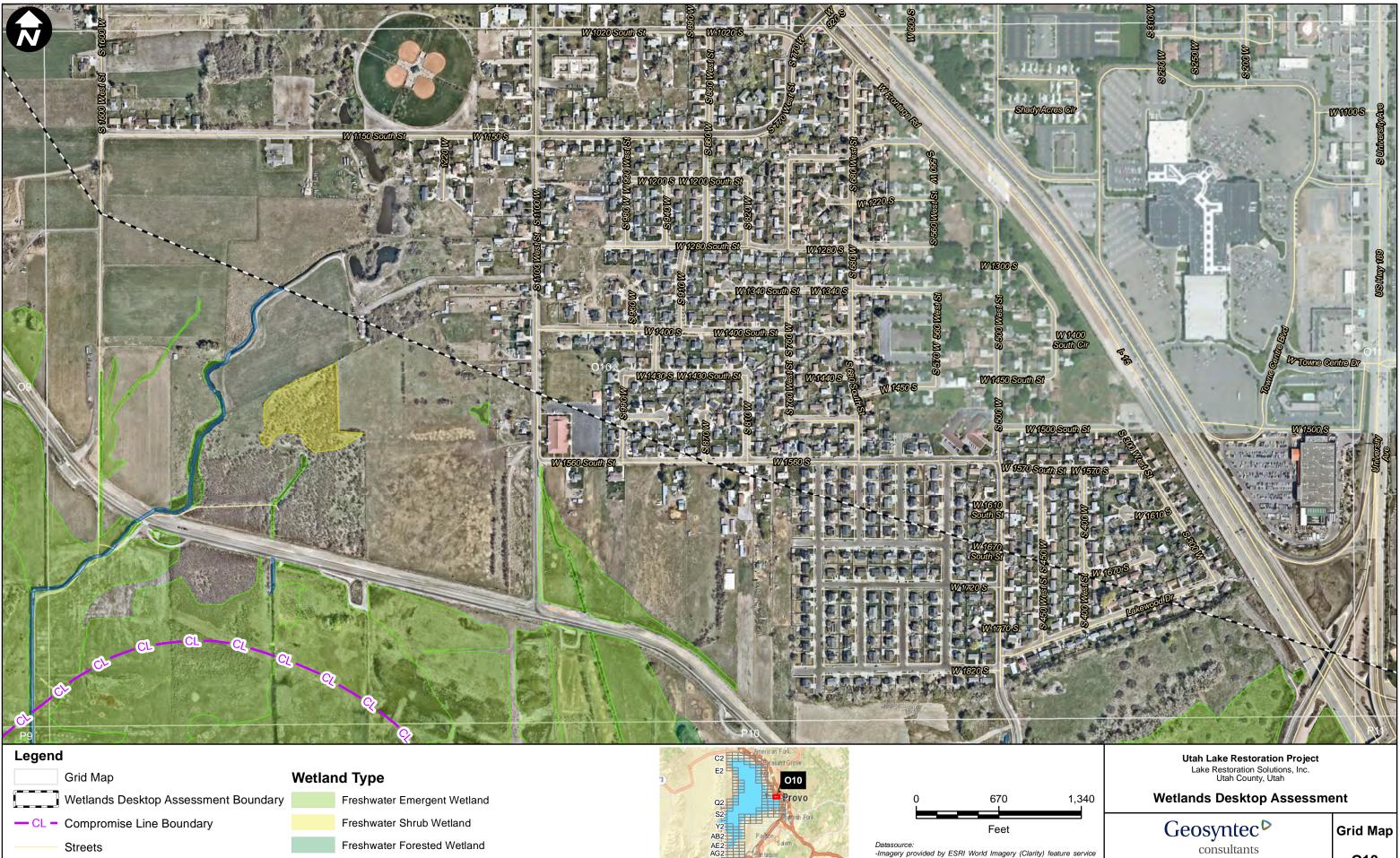
N9



|                   | <b>Utah La</b><br>Lake R | ke Restoration Project<br>Restoration Solutions, Inc.<br>Utah County, Utah |          |
|-------------------|--------------------------|--|----------|
| 1,350             | Wetlands                 | Desktop Assessme   | ent      |
|                   | Geosy                    | /ntec <sup>▷</sup>   | Grid Map |
| ) feature service | con                      | isultants  | O3       |
|                   | DE0475                   | November 2021  |          |







AK2

AM2

D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

Riverine

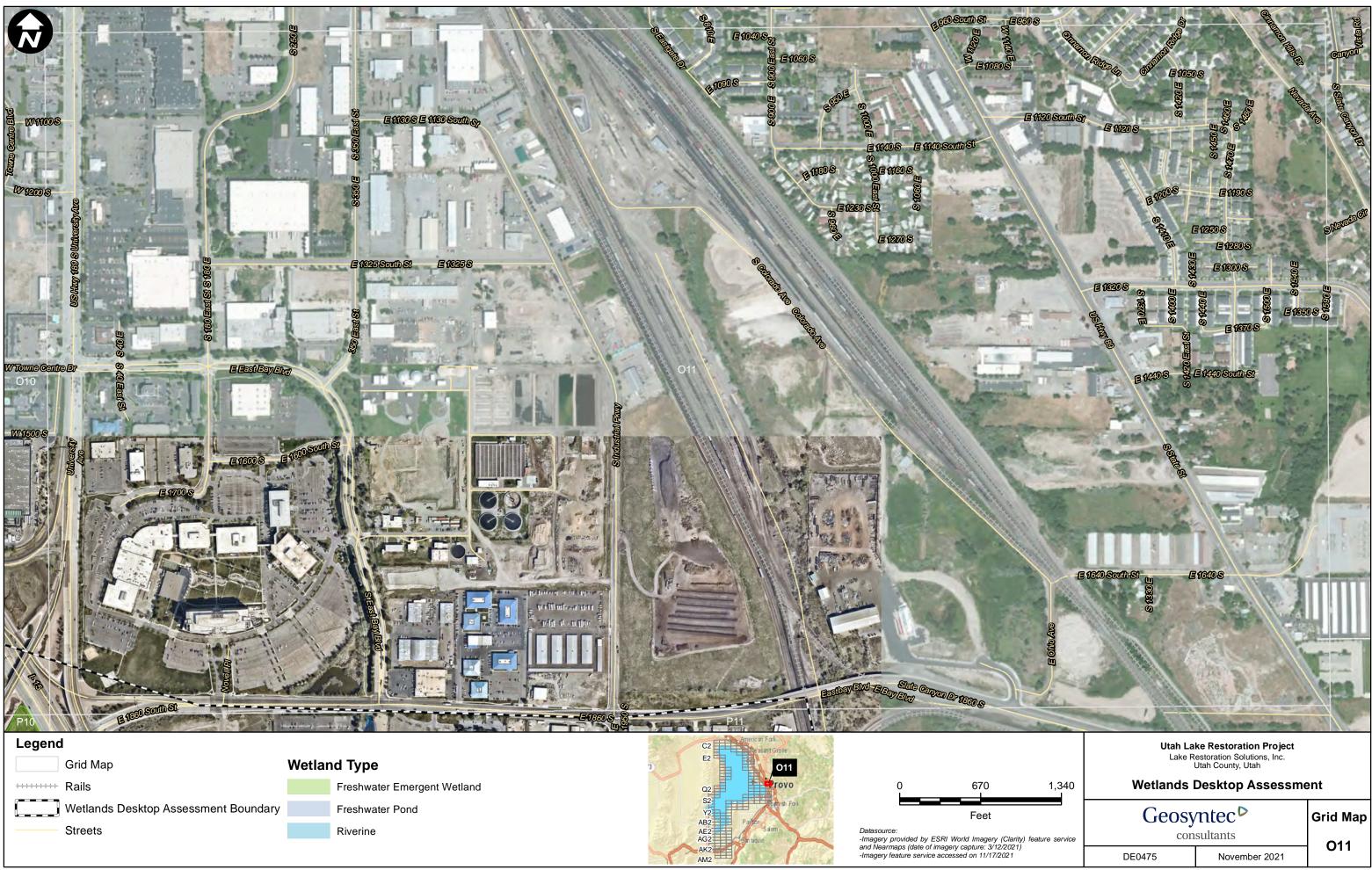
-Imagery provided by ESRI World Imagery (Clarity) feature service and Nearmaps (date of imagery capture: 3/12/2021) -Imagery feature service accessed on 11/17/2021

Geosyntec<sup>▷</sup> consultants

**O10** 

DE0475

November 2021



|  | and the set of the set of the |                                       | 1 To a start of the  |
|--|-------------------------------|---------------------------------------|--|
|  |                               | A A A A A A A A A A A A A A A A A A A |  |
|  |                               | · · · · · · · · · · · · · · · · · · · |  |
|  |                               |                                       | A  |
|  |                               |                                       |  |
|  |                               |                                       | The  |
|  |                               |                                       |  |
|  | 1                             |                                       |  |
|  |                               |                                       |  |
|  |                               |                                       |  |
|  |                               |                                       |  |
| NAME OF ALL AND A DESCRIPTION OF A DESCR | A RANGE STATE                 |                                       |  |
|  | and the second second         |                                       |  |
|  |                               |                                       |  |
|  | P2                            |                                       | STORE OF   |
|  |                               |                                       |  |
|  | San direction of the          |                                       |  |
| State of the state |                               |                                       | 1  |
|  |                               |                                       |  |
|  |                               |                                       | 4  |
|  |                               |                                       |  |
|  |                               |                                       |  |
|  |                               |                                       |  |
|  |                               |                                       |  |
|  |                               |                                       |  |
|  |                               | -                                     |  |
|  | A                             |                                       |  |
|  |                               | Q2                                    |  |
| Legend   |                               | C2 American Fork                      | A A  |
| Grid Map   |                               | Be Baant Grove                        |  |
| Wetlands Desktop Assessment Boundary   |                               | Q2 Provo                              | 0 675  |
| Streets  |                               | Y2<br>AB2<br>Parcon                   | Feet   |
| Wetland Type   |                               | AB2<br>AE2<br>AG2<br>AK2<br>AM2       | atasource:<br>magery provided by ESRI World Imagery (Clarit<br>nd Nearmaps (date of imagery capture: 3/12/2021)<br>magery feature service accessed on 11/17/2021 |
| Riverine   |                               | AM2                                   | nagery feature service accessed on 11/17/2021  |

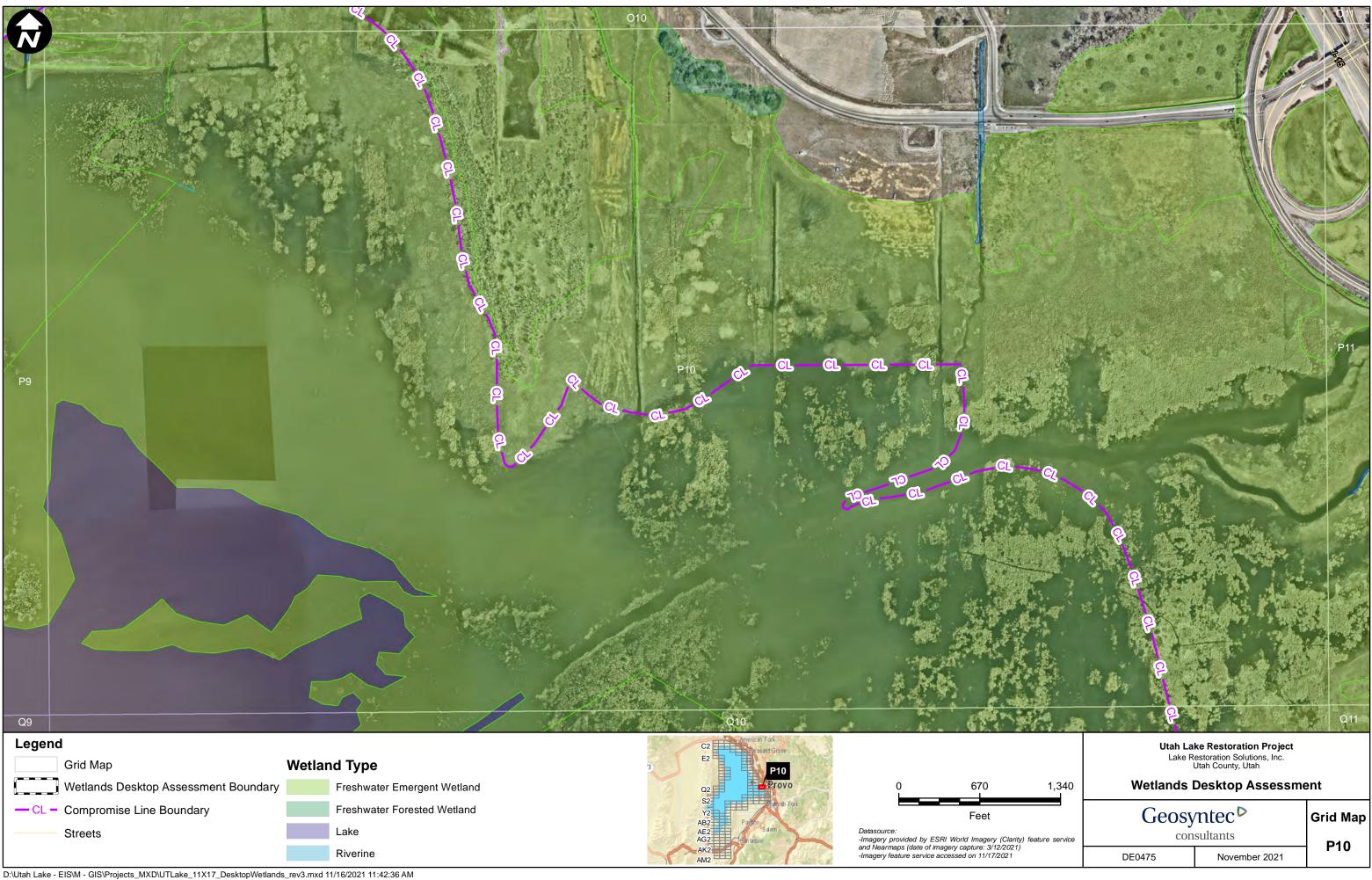
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

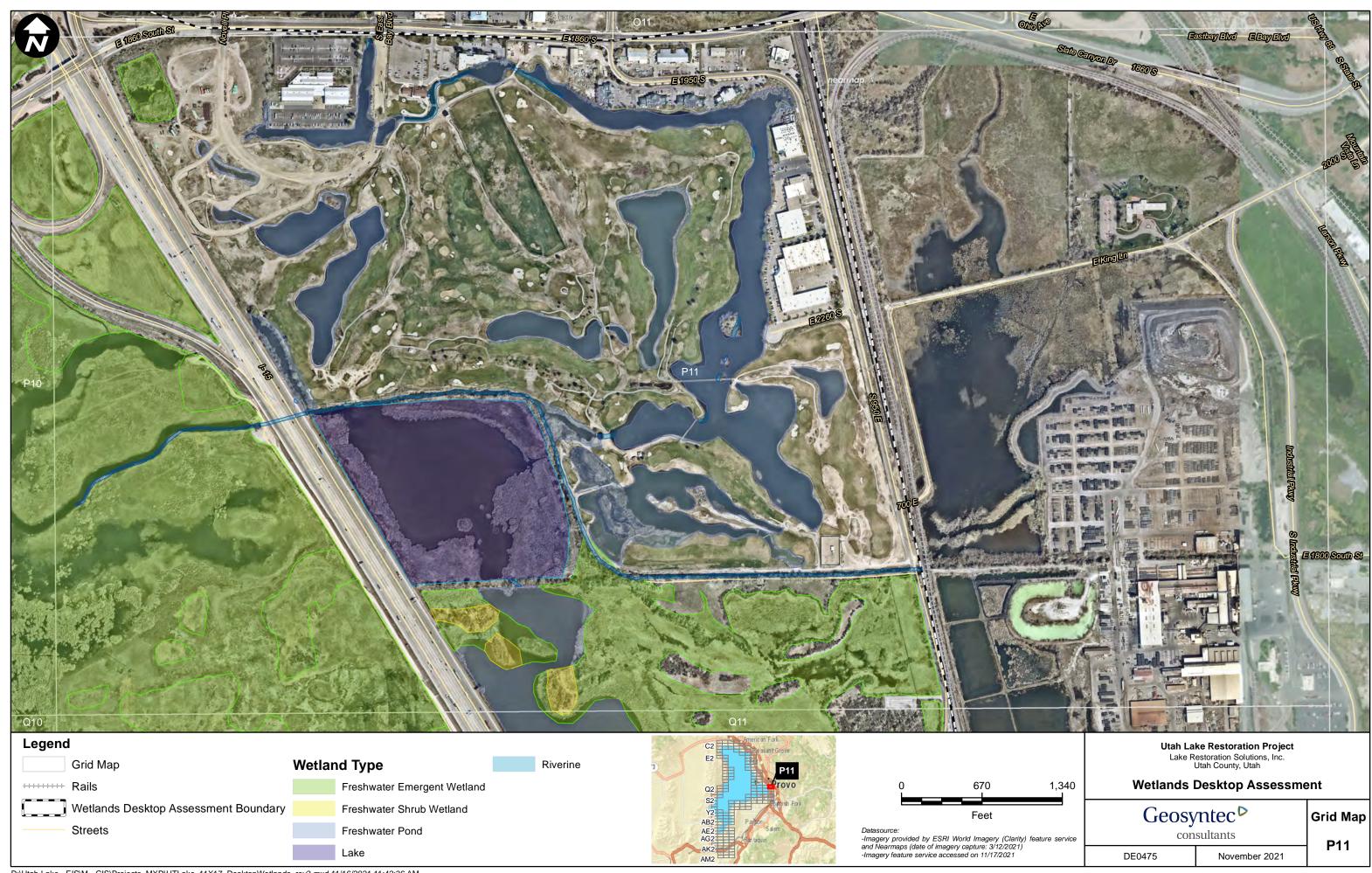


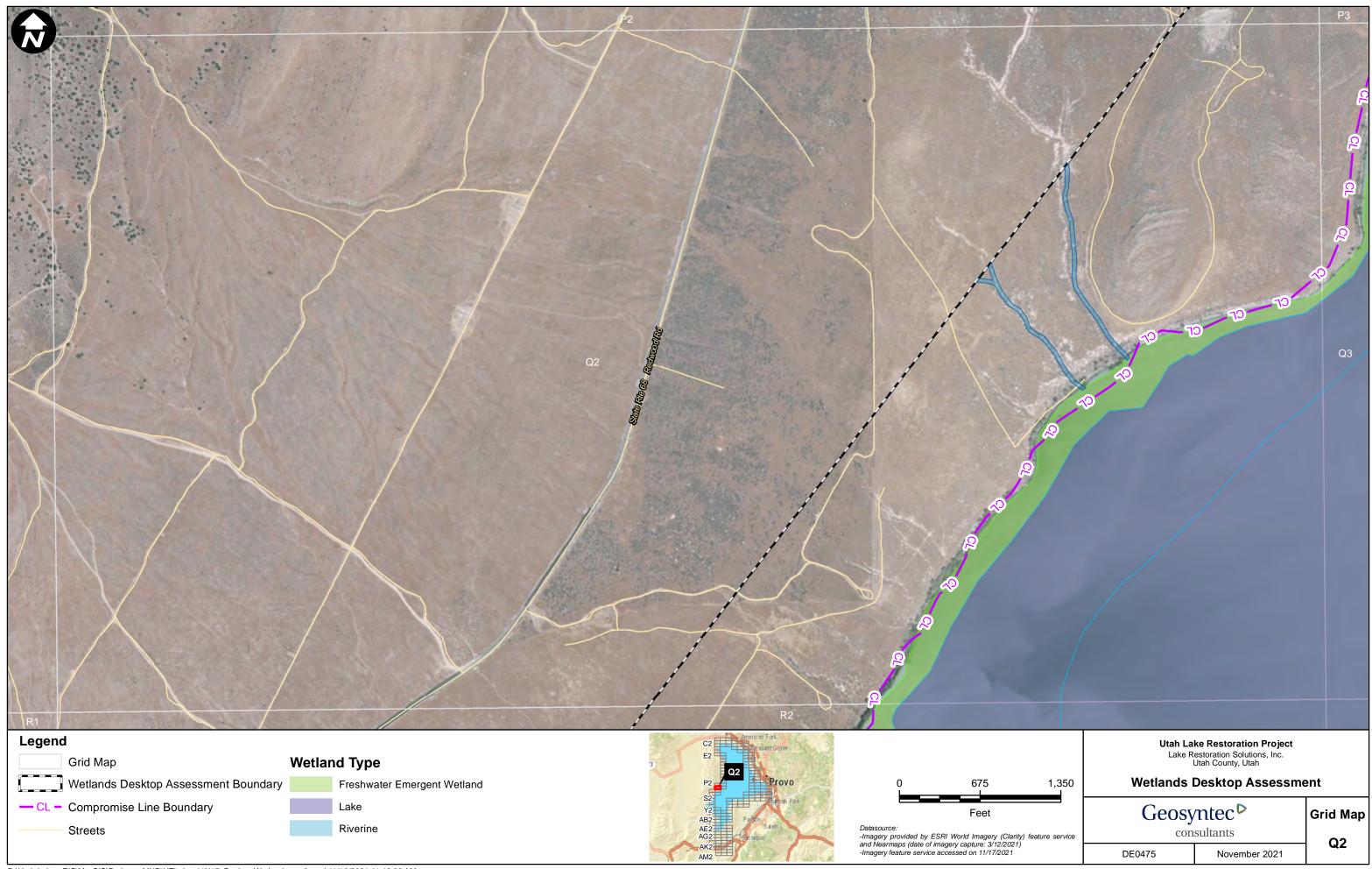




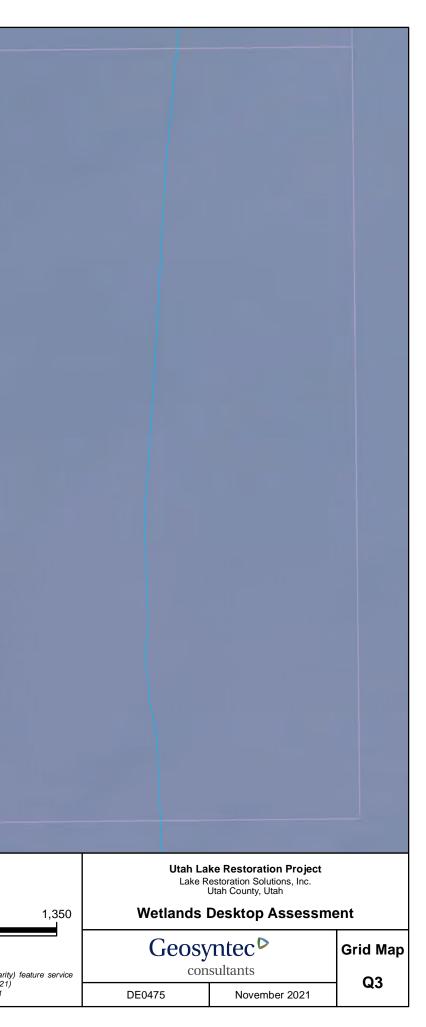


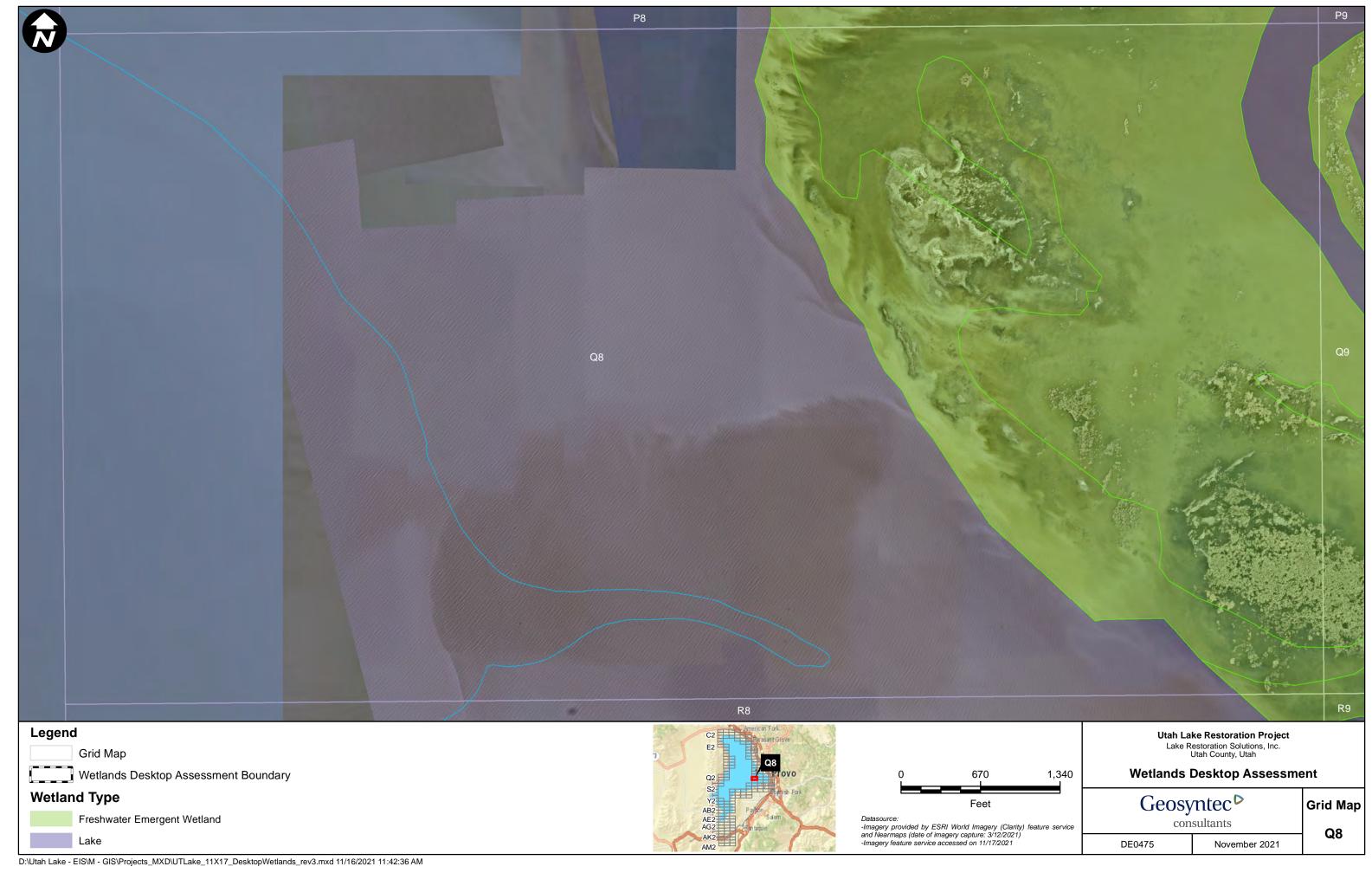


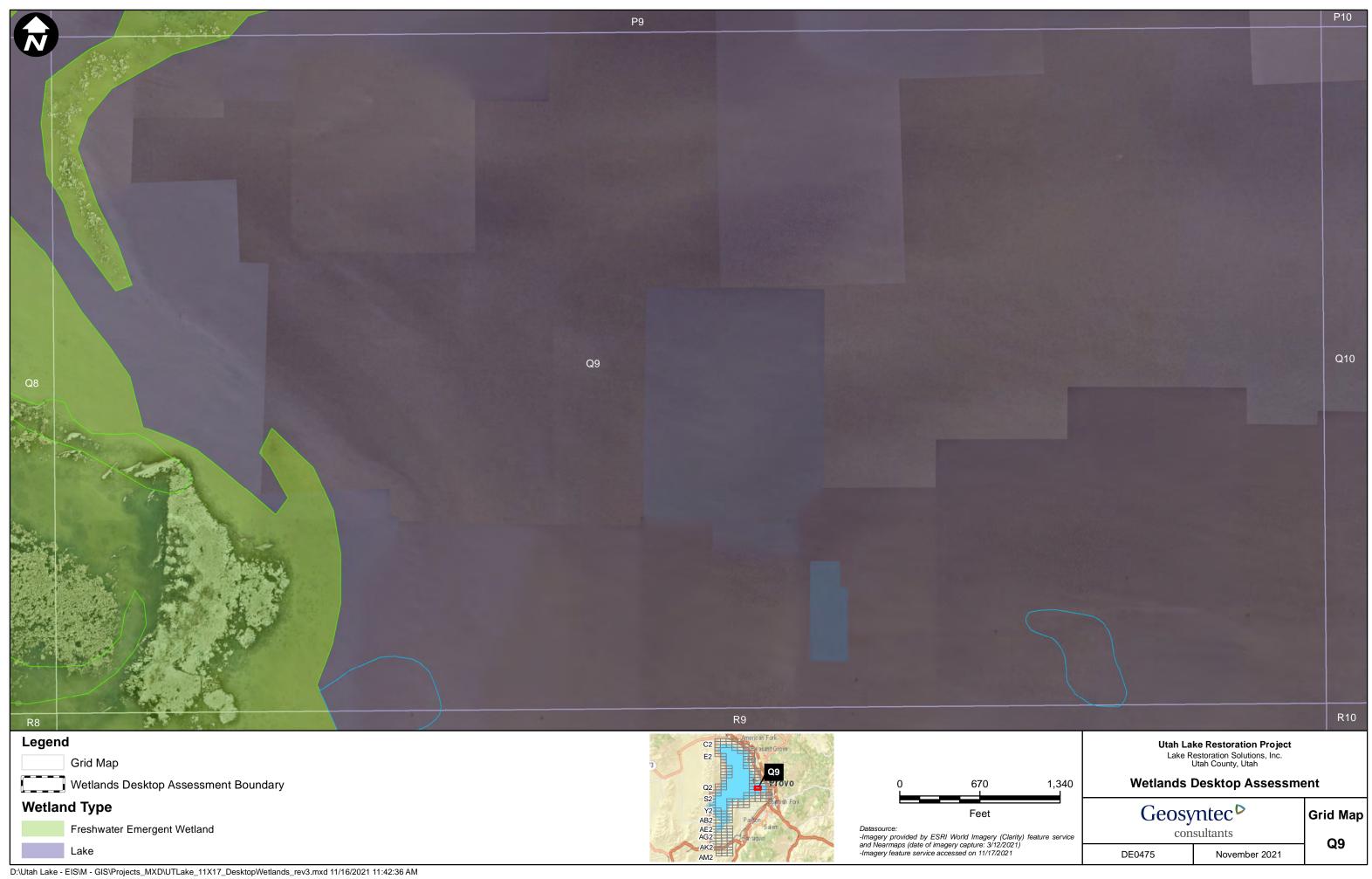


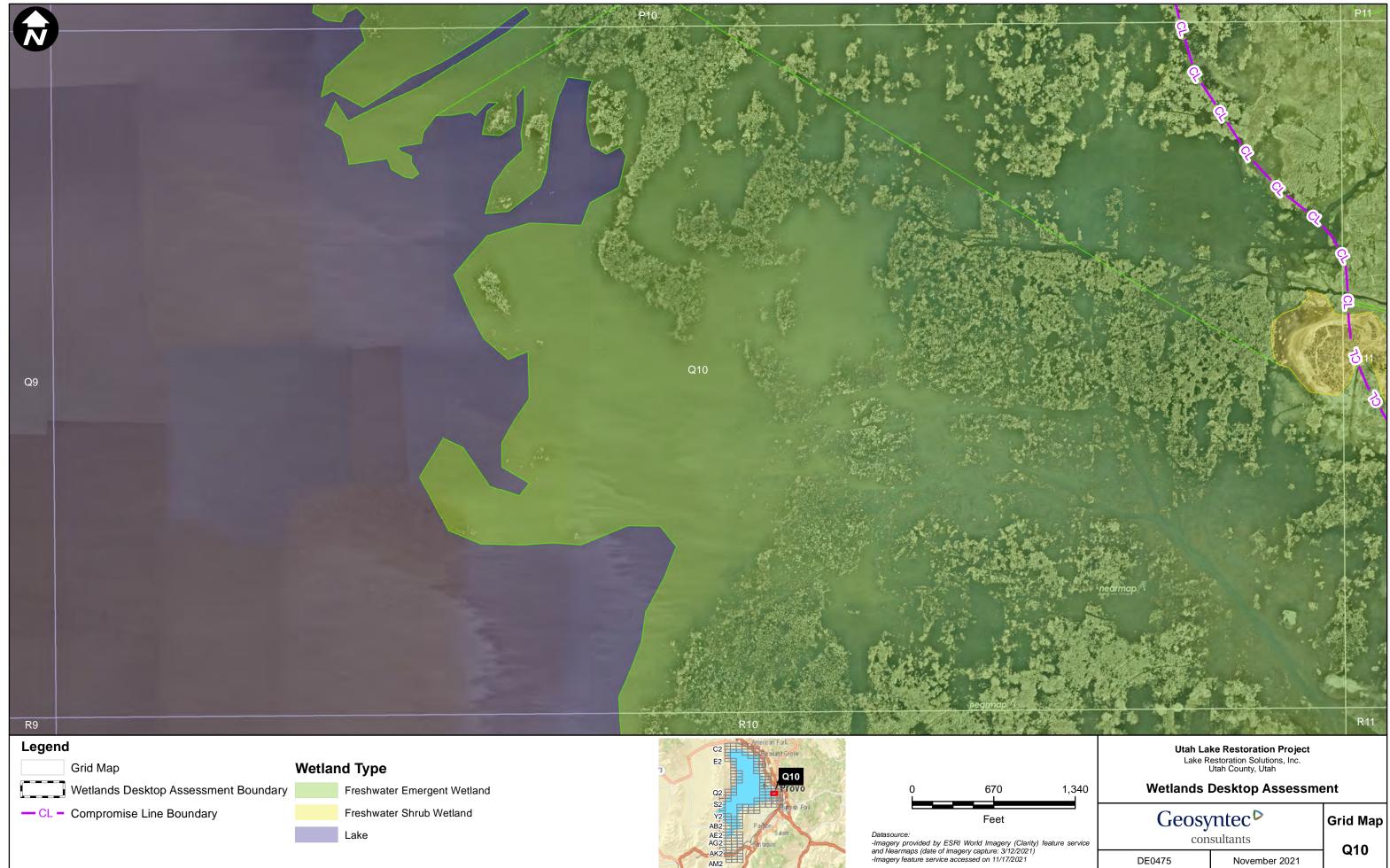


|       |  | P3                                  |   |   |
|-------|--|-------------------------------------|---|---|
|       |  |                                     |   |   |
| R2    |  |                                     |   |   |
| Leger |  | C2 American Fork                    |   |   |
|       | Grid Map                                     |                                     | 2   | 075   |
|       | Wetlands Desktop Assessment Boundary         | Freshwater Emergent Wetland         | 0<br>   | 675   |
|       | <ul> <li>Compromise Line Boundary</li> </ul> | Lake Y2<br>AB2 Parton               |   | Feet  |
|       | - Streets                                    | Freshwater Emergent Wetland<br>Lake | Datasource:<br>-Imagery provided by ESRI Wor<br>and Nearmaps (date of imagery c<br>-Imagery feature service accesse | ld Imagery (Clari<br>apture: 3/12/2021<br>d on 11/17/2021 |









| ľ |
|---|
|   |

DE0475

November 2021

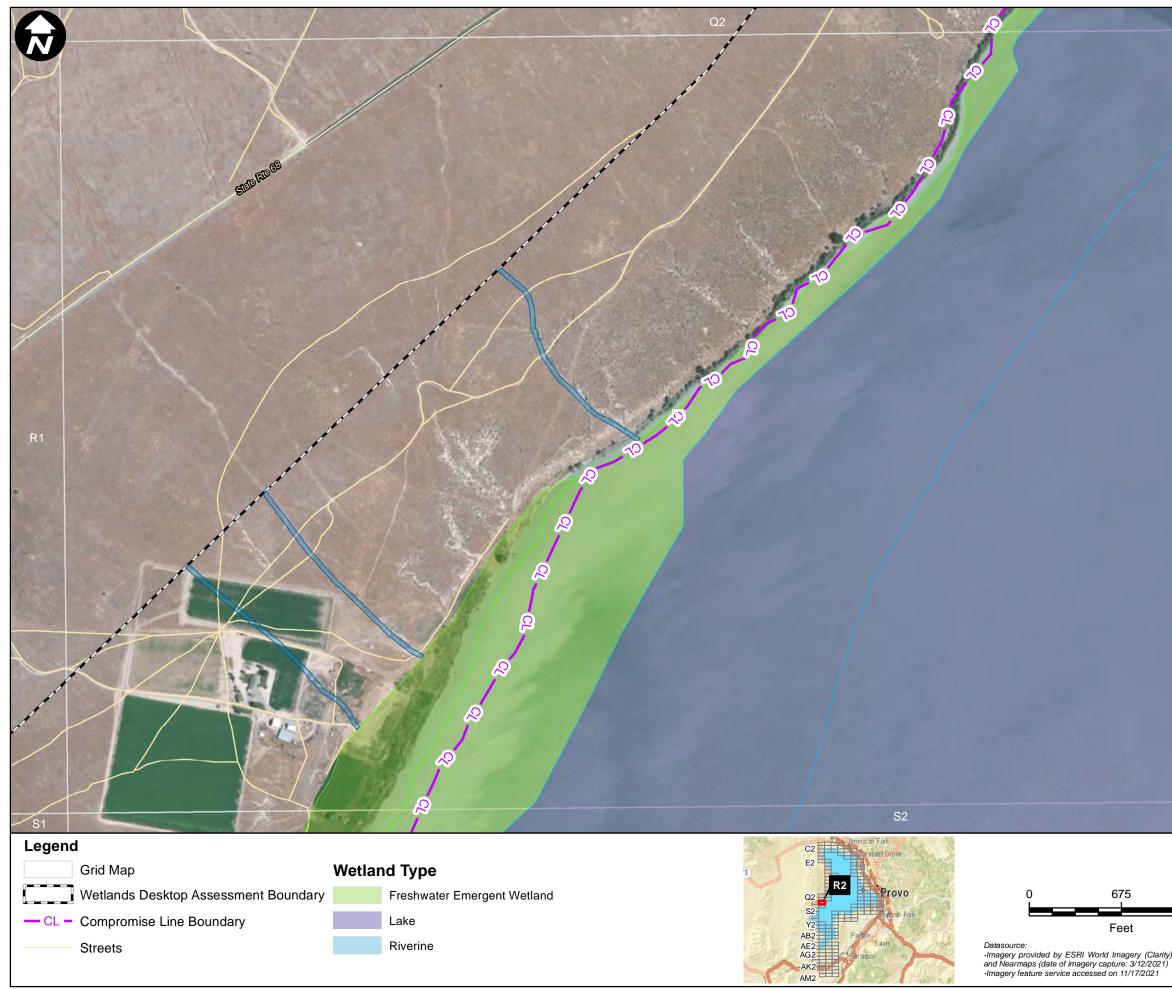


DE0475

November 2021

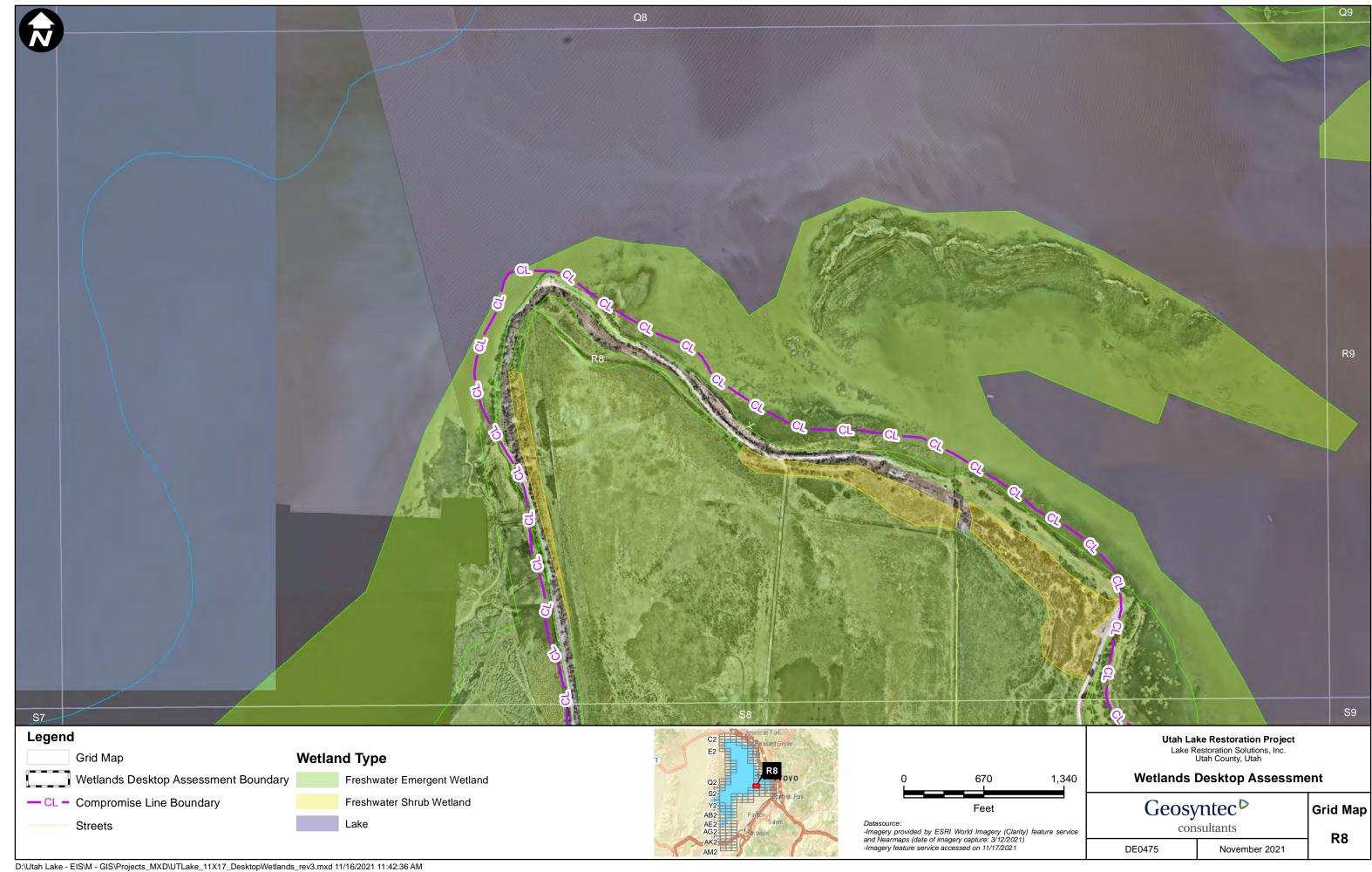
| $\mathbf{\Omega}$  |   |   |  |
|--|---|---|--|
|  |   |   |  |
|  | R1  |   |  |
| And a second sec |   |   | S  |
|  | The second second second  | S1  |  |
| Legend<br>Grid Map<br>Wetlands Desktop Assessment Boundary<br>Streets  | C2<br>E2<br>Q2<br>S2<br>Y2<br>AB2<br>AE2<br>AG2<br>AG2<br>AG2<br>AG2<br>AG2<br>AG2<br>AG2<br>AG2<br>AG2<br>AG | Partician Fork<br>Person<br>Provo<br>Parton Fork<br>Parton Salem<br>-Image<br>and N<br>-Image | 0 675<br>Feet<br>ource:<br>ery provided by ESRI World Imagery (Clarity<br>earmaps (date of imagery capture: 3/12/2021)<br>ery feature service accessed on 11/17/2021 |

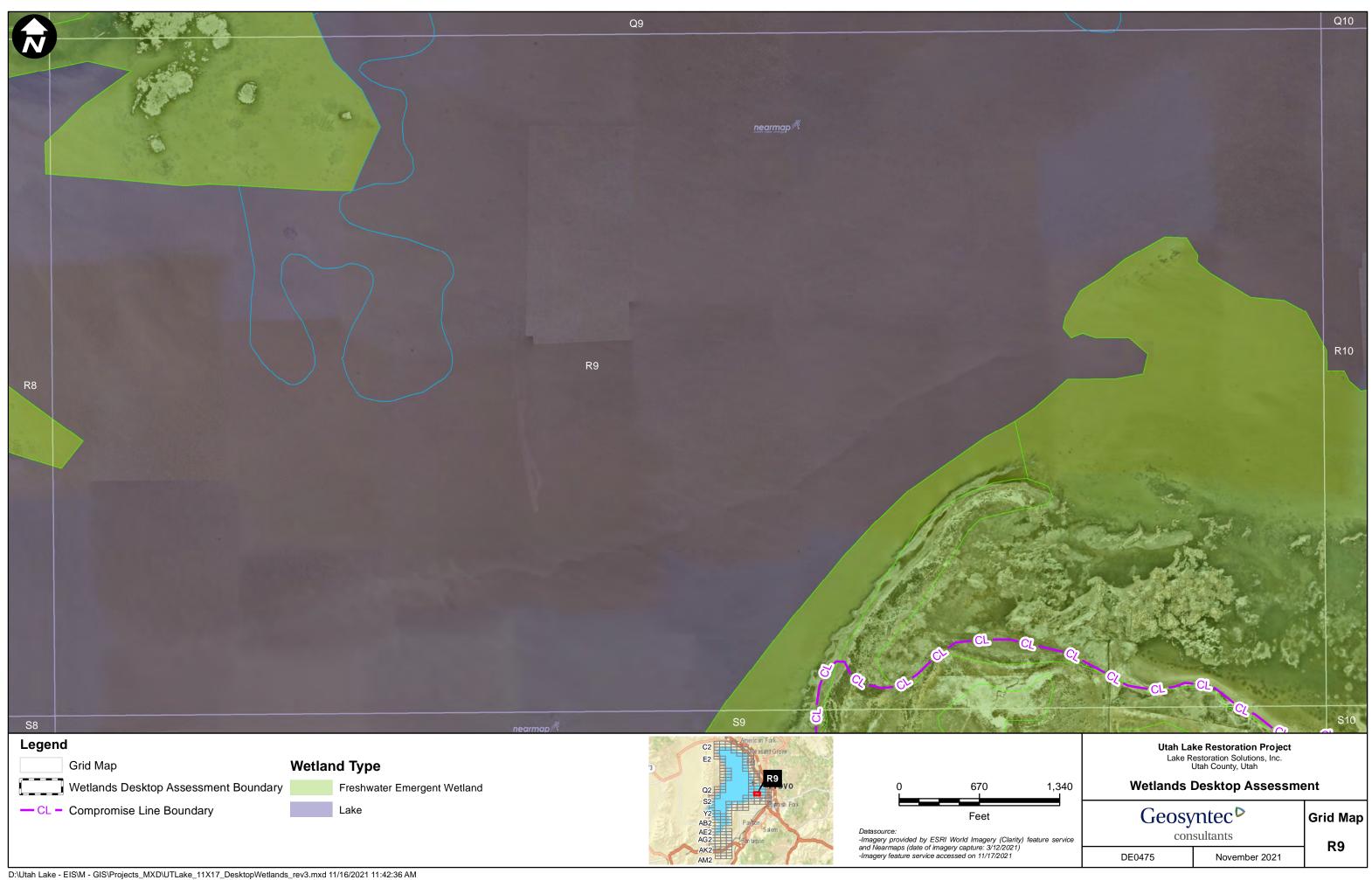


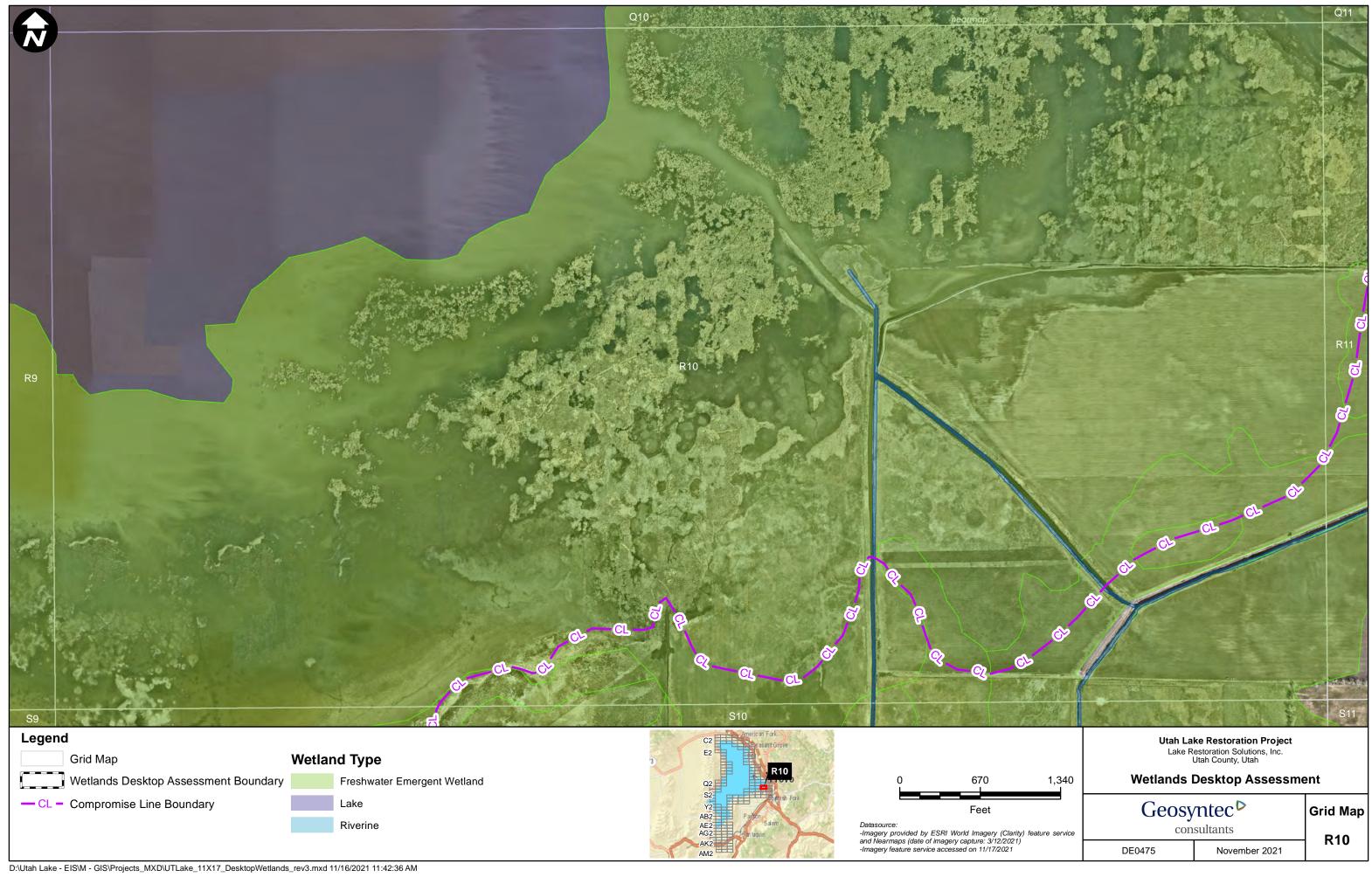


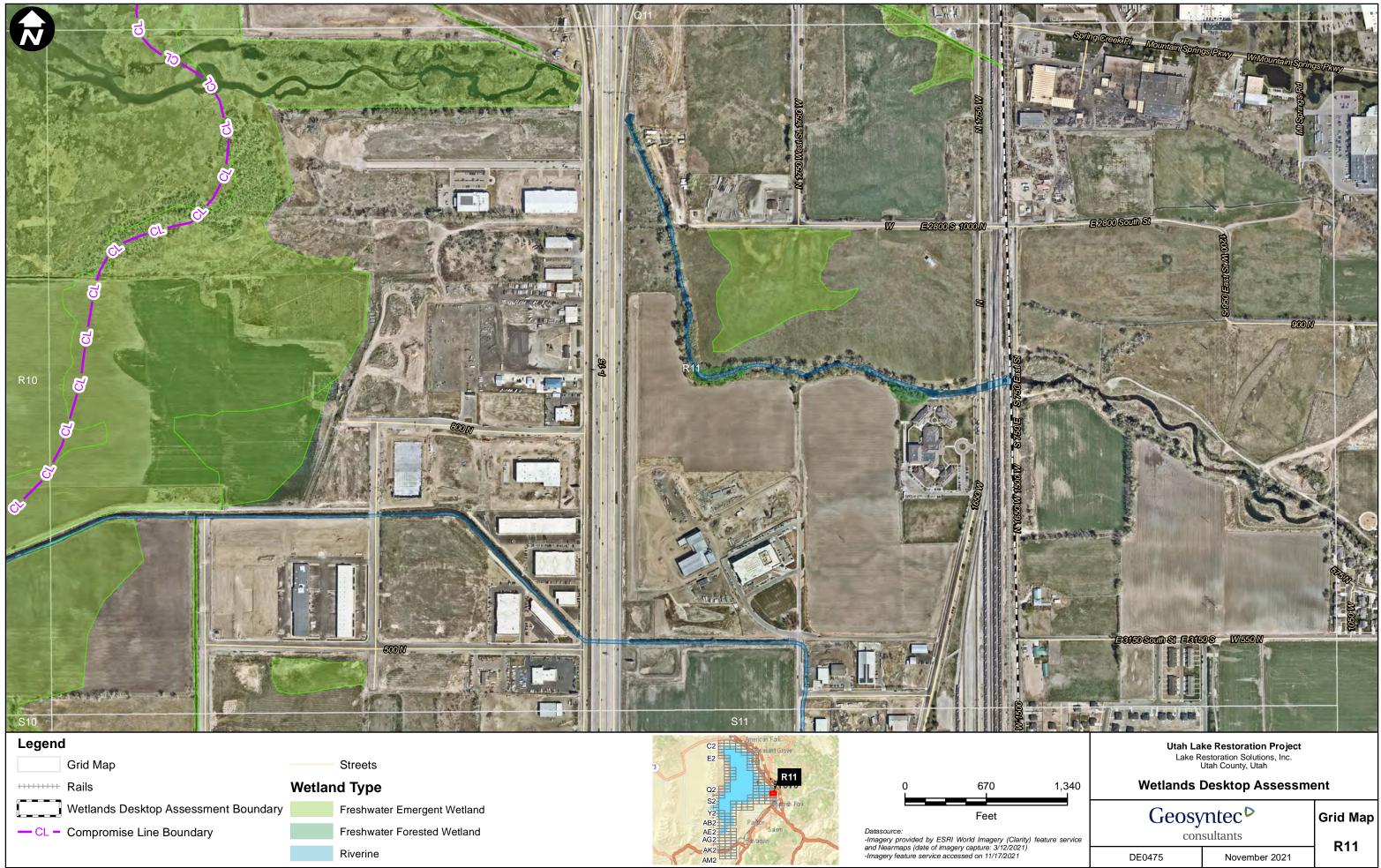
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

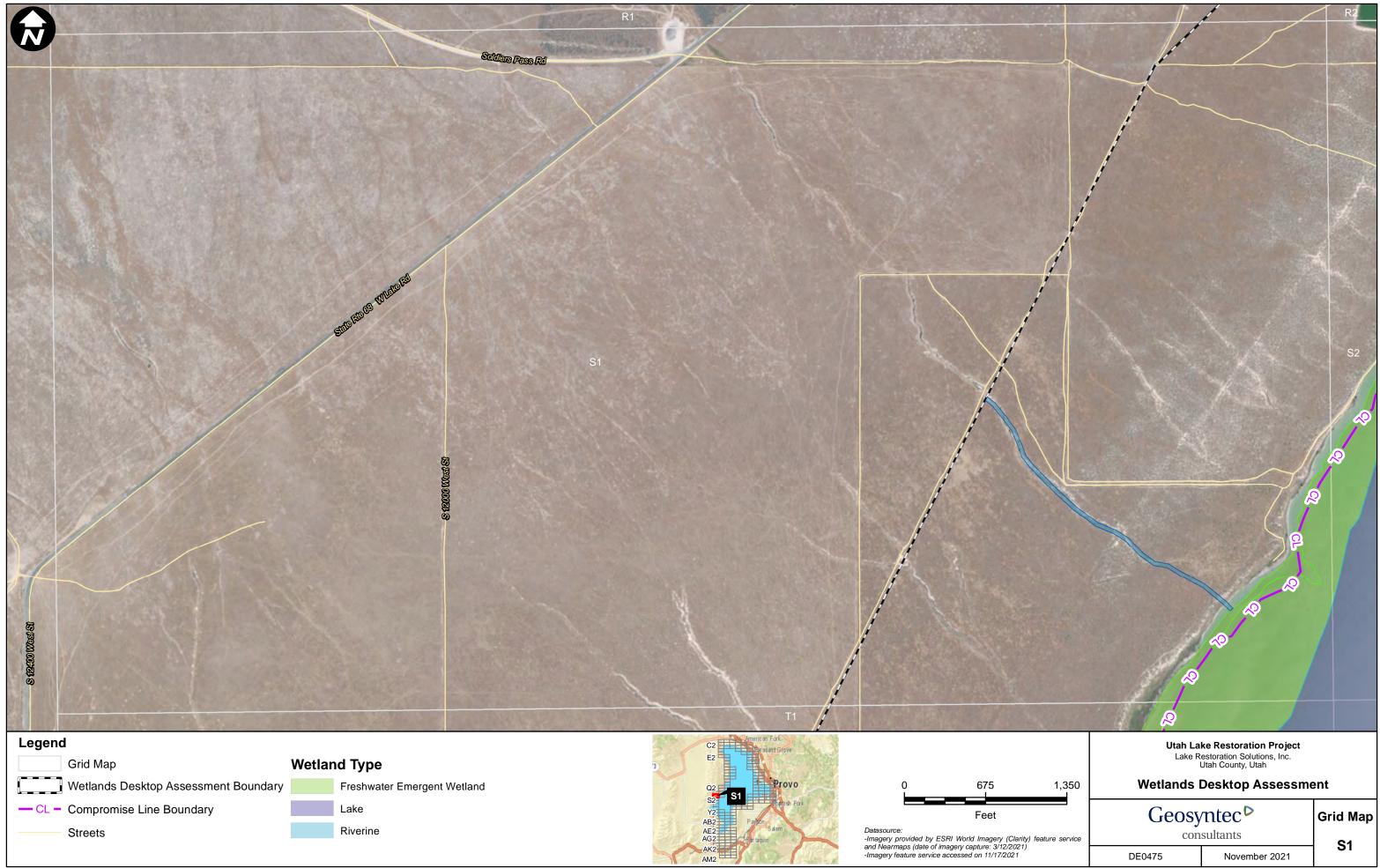
|              |                |   | ~~~               |  |  |  |
|--------------|----------------|---|-------------------|--|--|--|
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              |                | Utah Lake Restoration Proje                           | ct                |  |  |  |
|              |                | Lake Restoration Solutions, Inc.<br>Utah County, Utah |                   |  |  |  |
|              |                |   |                   |  |  |  |
|              | 250            |   | smont             |  |  |  |
| 1            | ,350 <b>We</b> | lands Desktop Asses                                   | sment             |  |  |  |
| 1            |                | lands Desktop Asses                                   |                   |  |  |  |
| 1            |                | ilands Desktop Asses                                  | sment<br>Grid Map |  |  |  |
| 1<br>feature |                | lands Desktop Asses                                   | Grid Map          |  |  |  |
|              |                | ands Desktop Asses                                    |                   |  |  |  |





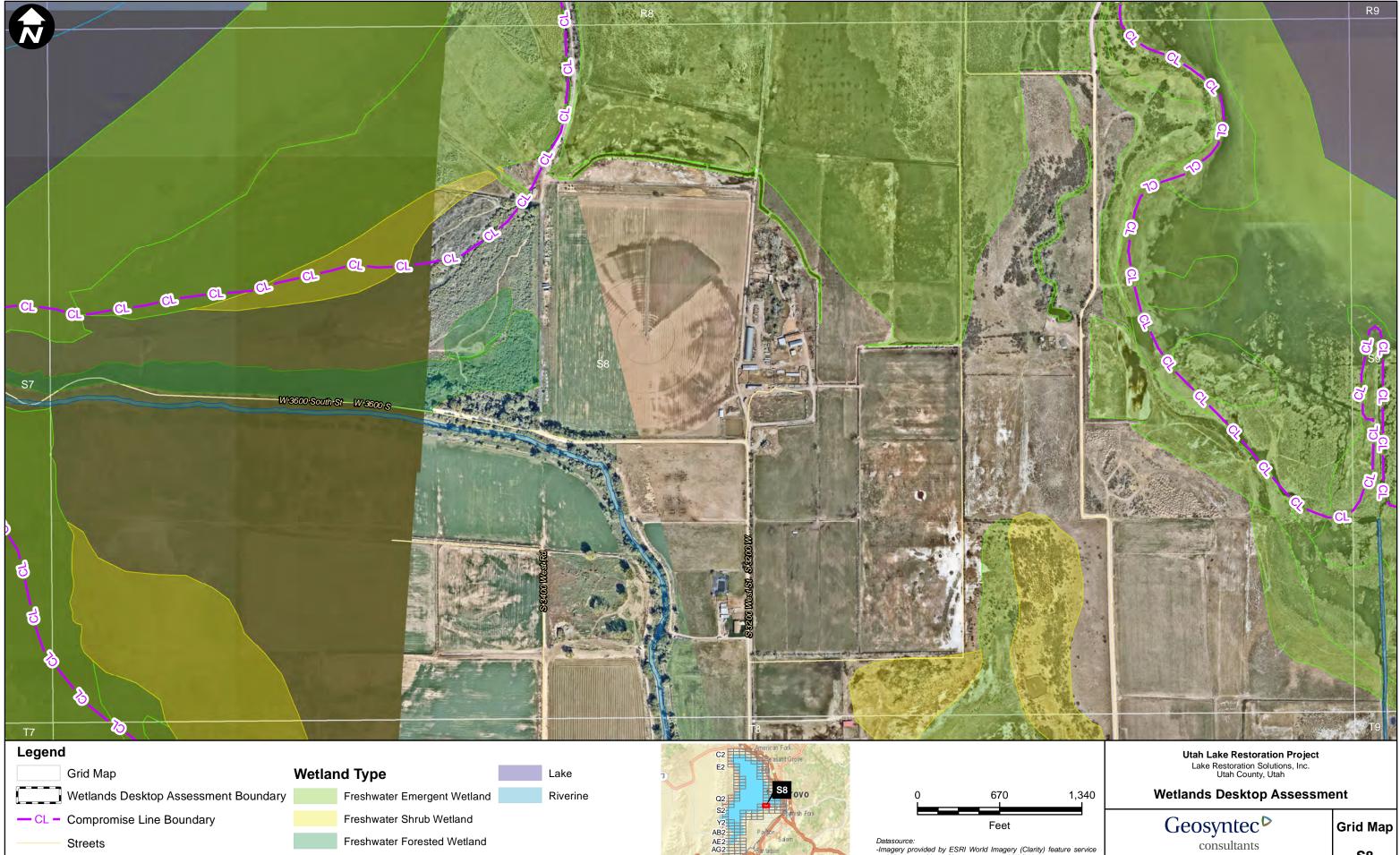






|   |                              |   |   |
|---|--|---|---|
| T1         Legend       Wetland Type         Grid Map       Wetland Type         Wetlands Desktop Assessment Boundary       Freshwater Emergent Wetland         CL = Compromise Line Boundary       Lake         Streets       D:\Utah Lake - EIS\M - GIS\Projects_MXD\UTLake_11X17_DesktopWetlands_rev3.mxd 11/16/2021 11:42:36 AM | C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2 | 0 675 1,350<br>Feet<br>Datasource:<br>-Imagery provided by ESRI World Imagery (Clarity) feature service<br>and Nearmaps (date of imagery capture: 3/12/2021)<br>-Imagery feature service accessed on 11/17/2021 | Utah Lake Restoration Project         Lake Restoration Solutions, Inc.<br>Utah County, Utah         Wetlands Desktop Assessment         Geosyntec         Consultants       Grid Map         DE0475       November 2021 |





AK2

AM2

D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

Freshwater Pond

Streets

Imagery provided by ESRI World Imagery (Clarity) and Nearmaps (date of imagery capture: 3/12/2021)
 Imagery feature service accessed on 11/17/2021

Datasource

| .00y | Ľ  | LU   | $\mathbf{\tilde{c}}$ |   |
|------|----|------|----------------------|---|
| con  | sυ | ılta | an                   | t |

| ) | feature | service |  |
|---|---------|---------|--|
| ) | feature | service |  |

DE0475

November 2021

**S**8



AK2

AM2

Datasource

-Imagery provided by ESRI World Imagery (Clarity) feature service and Nearmaps (date of imagery capture: 3/12/2021) -Imagery feature service accessed on 11/17/2021

D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

Streets

Lake

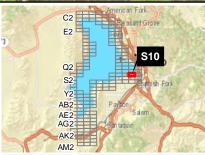
Riverine

## Geosyntec<sup>▷</sup> consultants Grid Map **S**9 DE0475 November 2021



Streets

Riverine





Datasource: -Imagery provided by ESRI World Imagery (Clarity) feature service and Nearmaps (date of imagery capture: 3/12/2021) -Imagery feature service accessed on 11/17/2021

D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

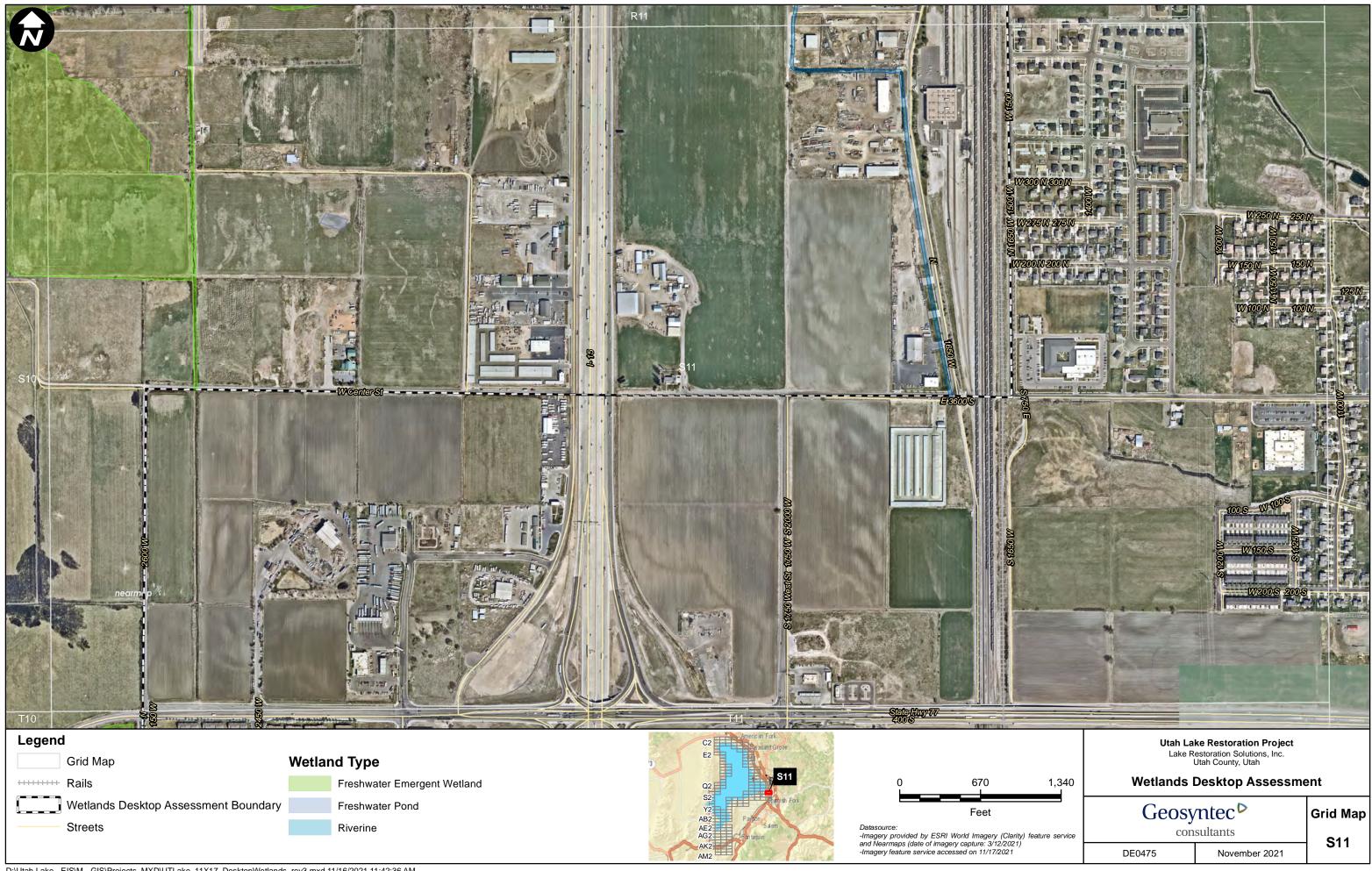
| Metialius Desktop Asses | 3. |
|-------------------------|----|
| Geosyntec⊳              |    |
| consultants             |    |

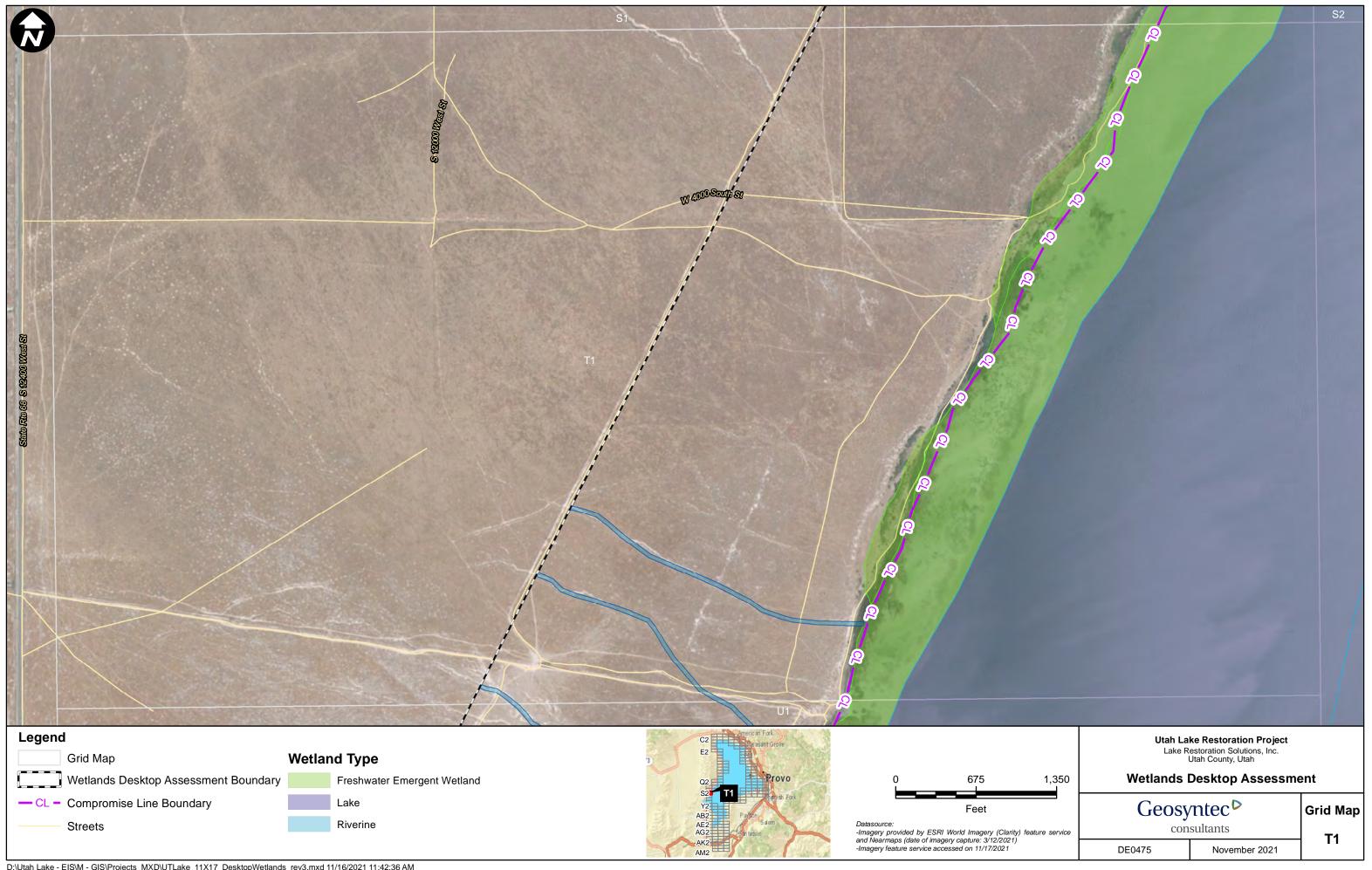


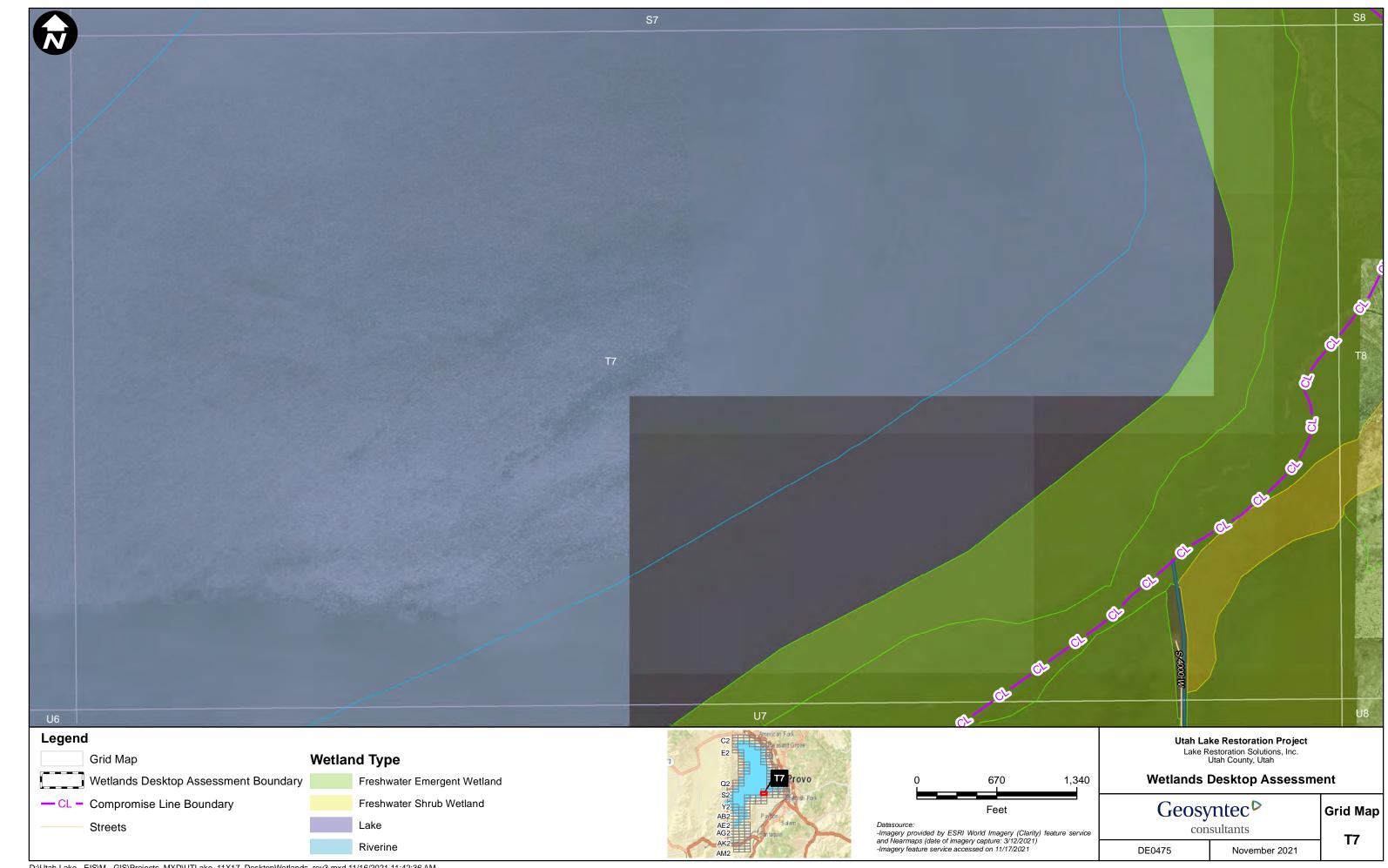
DE0475

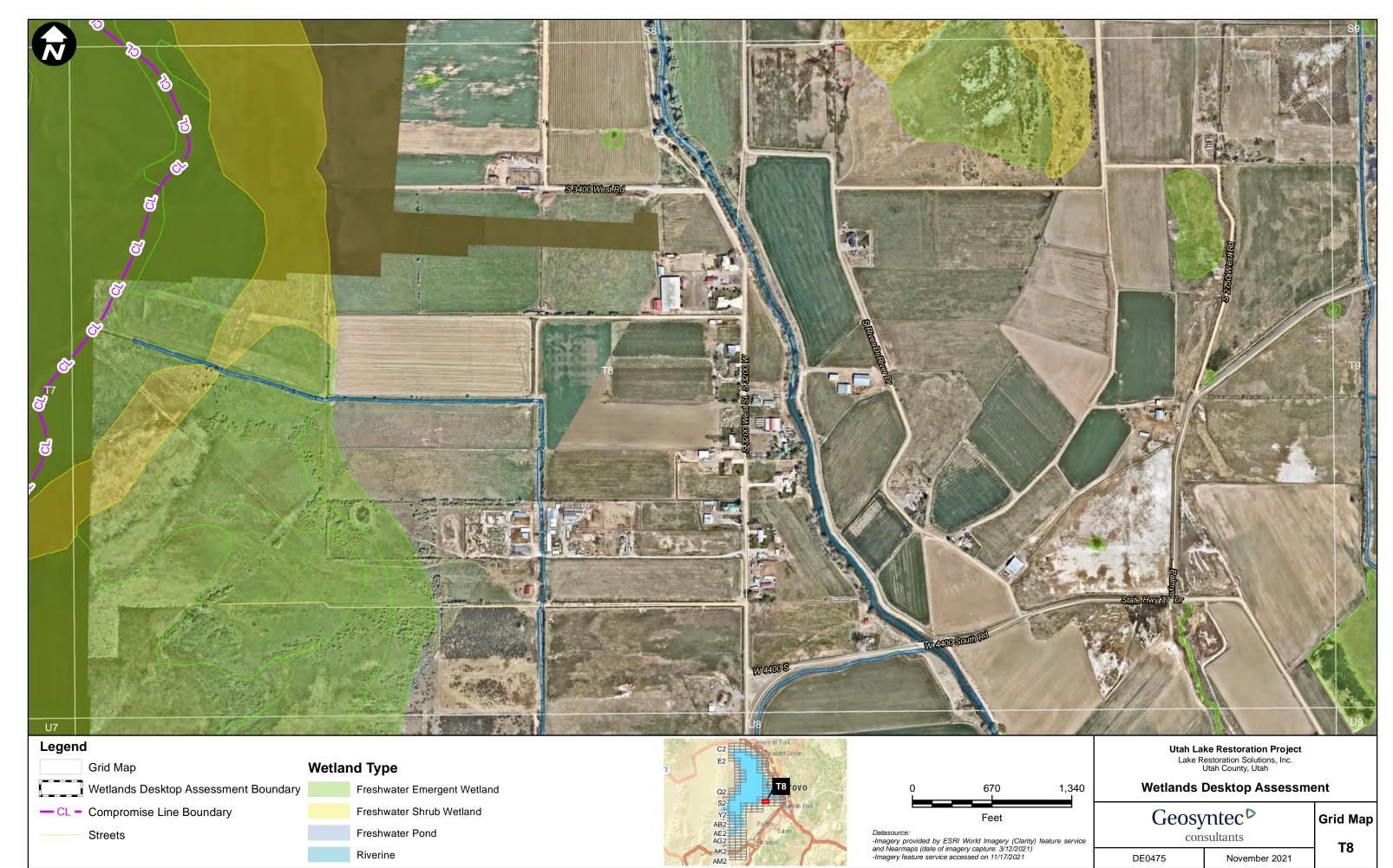
November 2021

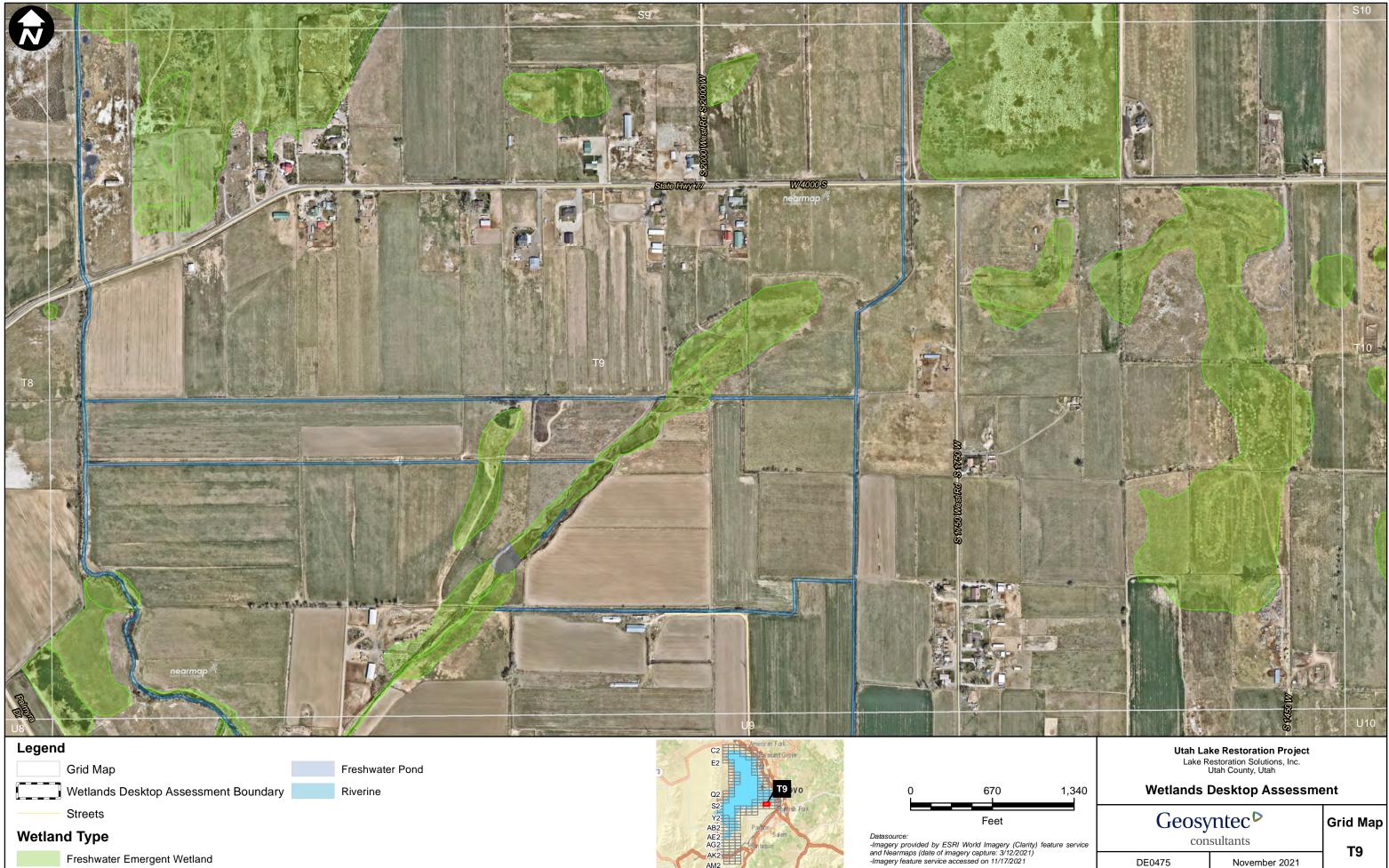
S10











AM2

D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

| 1,340 |  |
|-------|--|
|       |  |

DE0475



AM2

D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

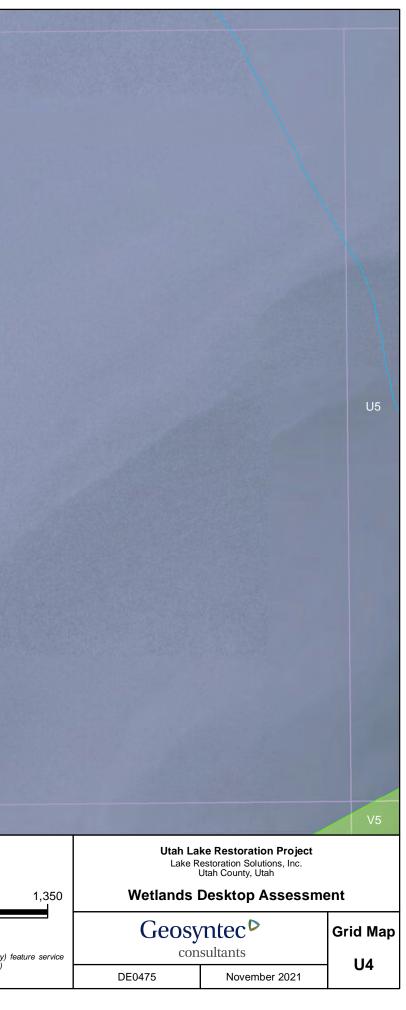
DE0475





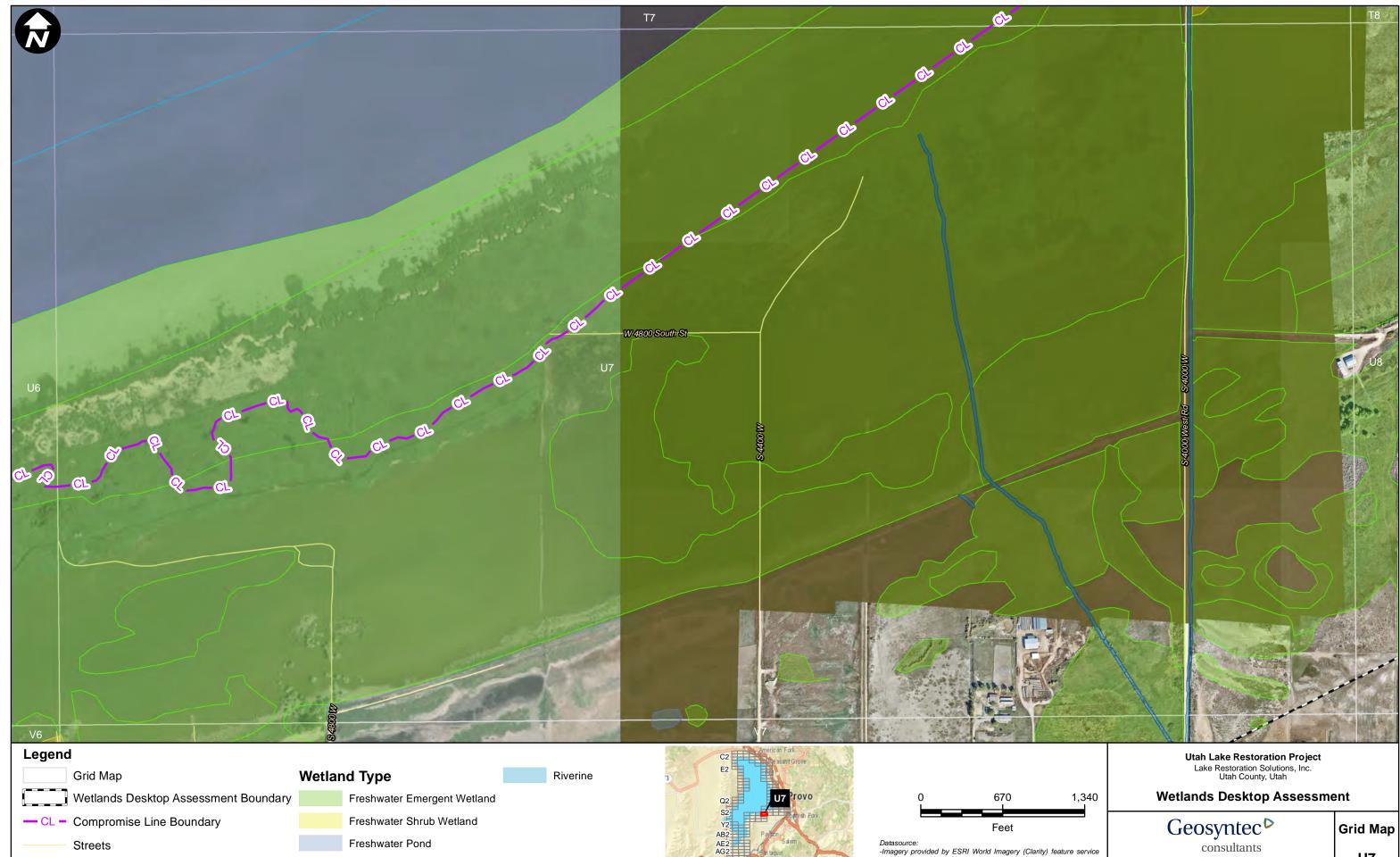
|                 |                          | and the second second   |                    |
|-----------------|--------------------------|---|--------------------|
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   | 1                  |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   | A Date of          |
|                 |                          |   | ma film in         |
|                 |                          |   | and the second     |
|                 |                          |   | Al Warner          |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   | and and the second |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 |                          |   |                    |
|                 | <b>Utah La</b><br>Lake R | ke Restoration Project<br>estoration Solutions, Inc.<br>Utah County, Utah |                    |
| 1,350           |                          | Desktop Assessme  | ent                |
|                 |                          | ∕ntec <sup>⊳</sup>  | Grid Map           |
| feature service | con                      | sultants  |                    |
|                 | DE0475                   | November 2021   | U1                 |
|                 | L                        |   |                    |

|   | U4   |  |   |
|---|------|--|---|
|   |      |  |   |
| Legend  |      | V4   |   |
| Legend         Grid Map         Wetlands Desktop Assessment Boundary         Wetland Type         Freshwater Emergent Wetland         Lake         D:\Utah Lake - EIS\M - GIS\Projects_MXD\UTLake_11X17_DesktopWetlands_rev3.mxd 11/16/2021 11:42:3 | 5 AM | C2<br>E2<br>Q2<br>Q2<br>Q2<br>Q2<br>Q2<br>Q2<br>Q2<br>Q2<br>Q2<br>Q2<br>Q2<br>Q2<br>Q2 | 0 675<br>Feet<br>Datasource:<br>-Imagery provided by ESRI World Imagery (Clarity,<br>and Nearmaps (date of imagery capture: 3/12/2021)<br>-Imagery feature service accessed on 11/17/2021 |









AK2

AM2

D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

Streets

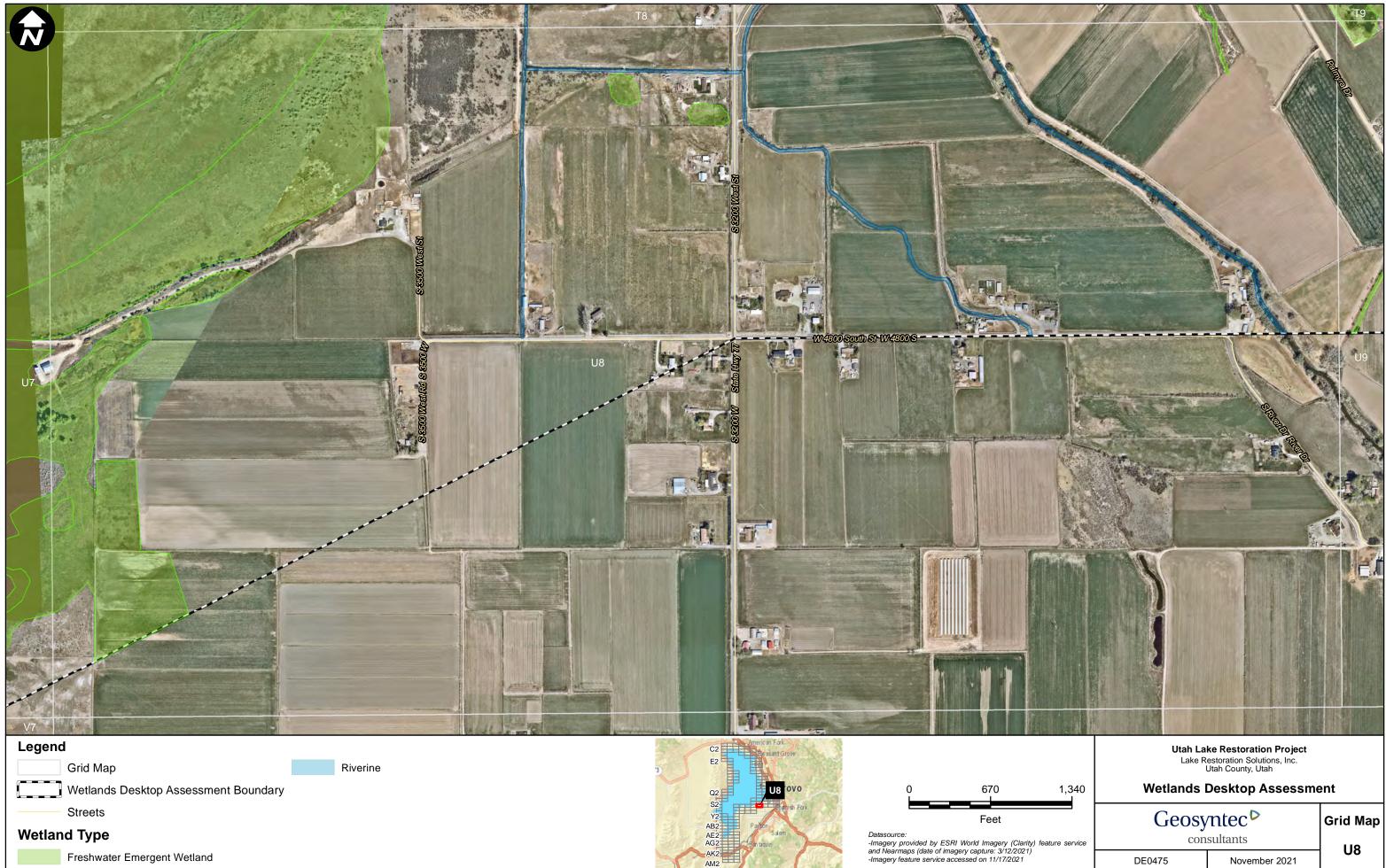
Freshwater Pond

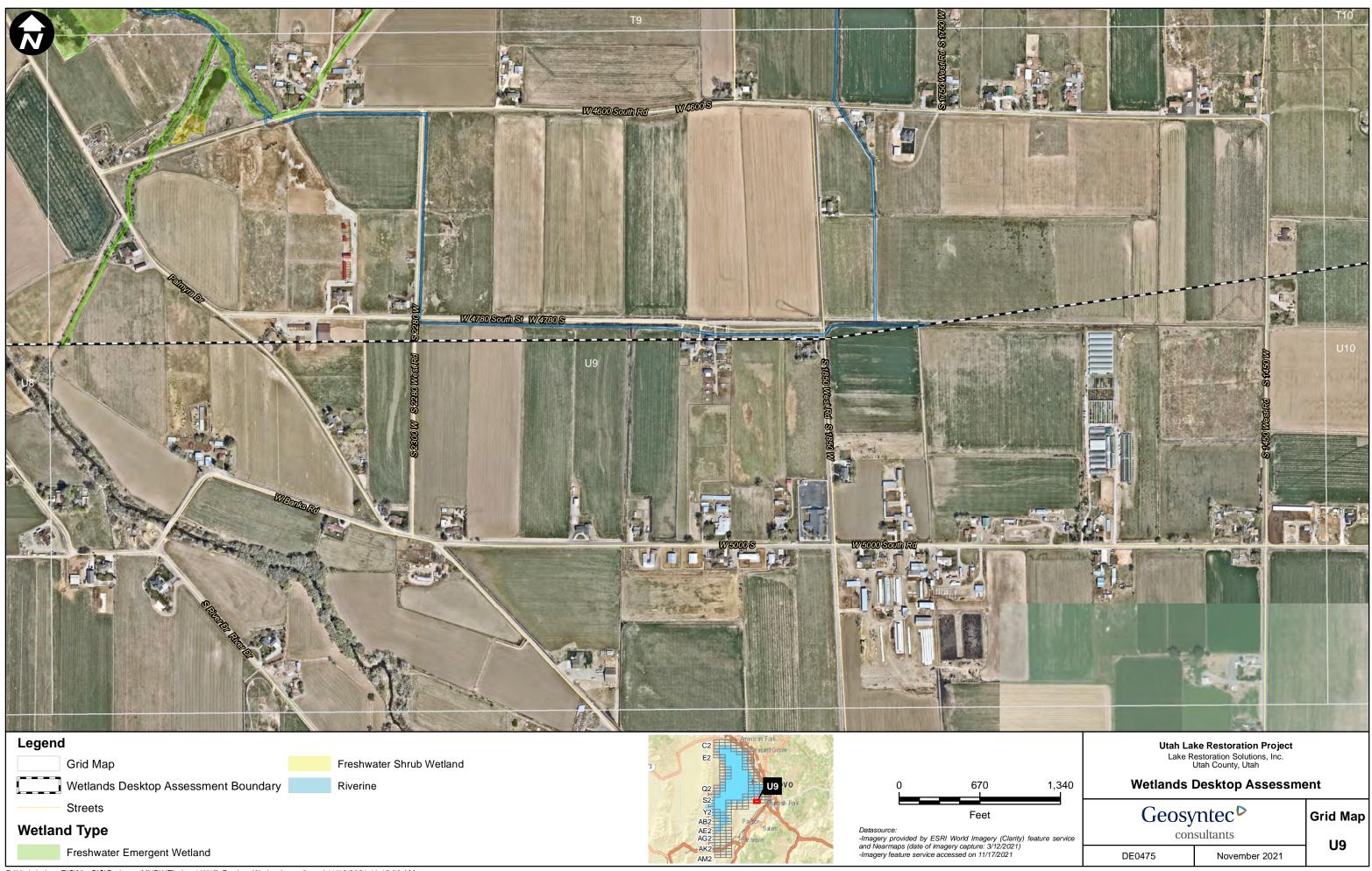
Lake

-Imagery provided by ESRI World Imagery (Clarity) feature service and Nearmaps (date of imagery capture: 3/12/2021) -Imagery feature service accessed on 11/17/2021

Datasource.

Geosyntec<sup>▷</sup> consultants Grid Map U7 DE0475 November 2021

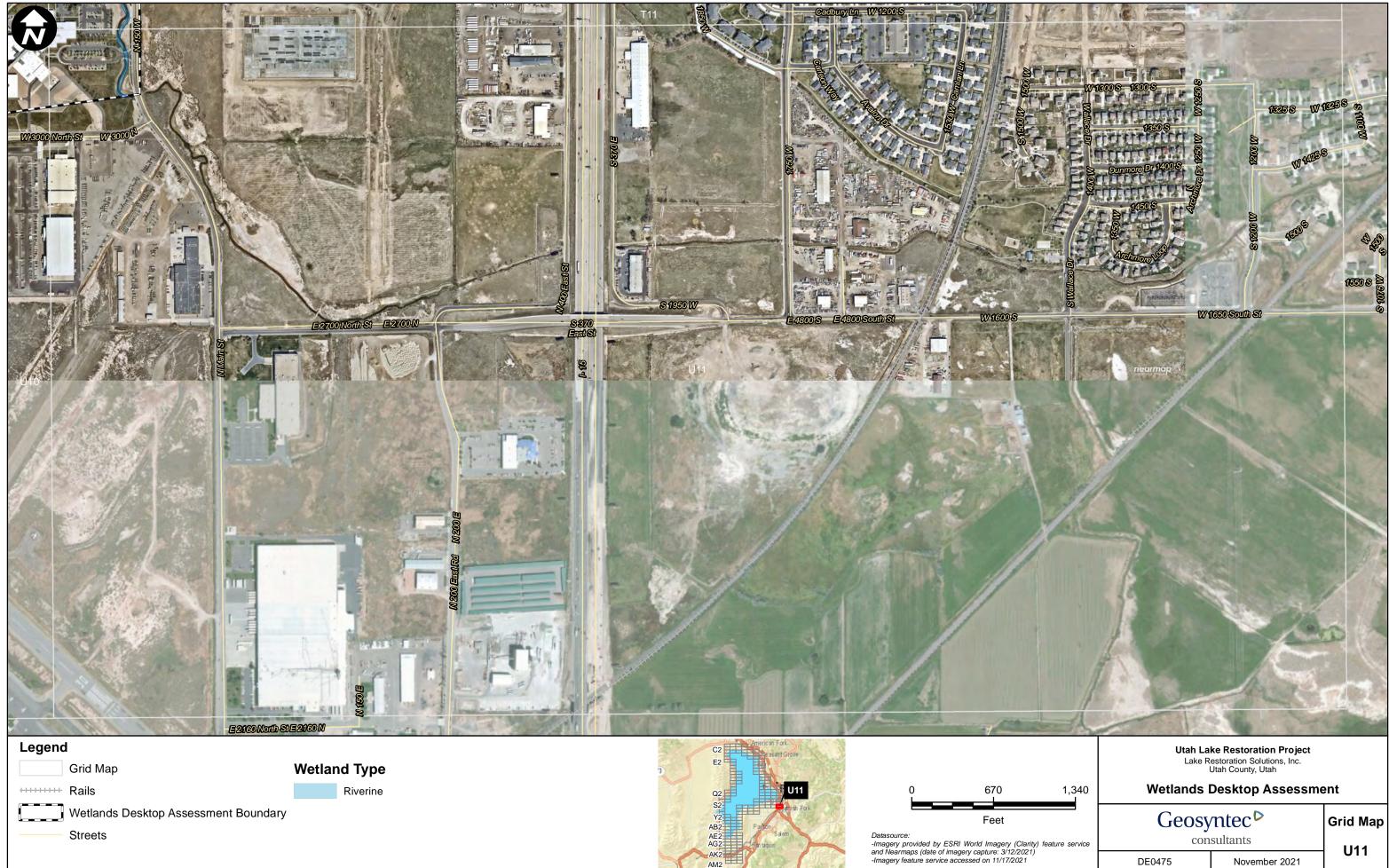




D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

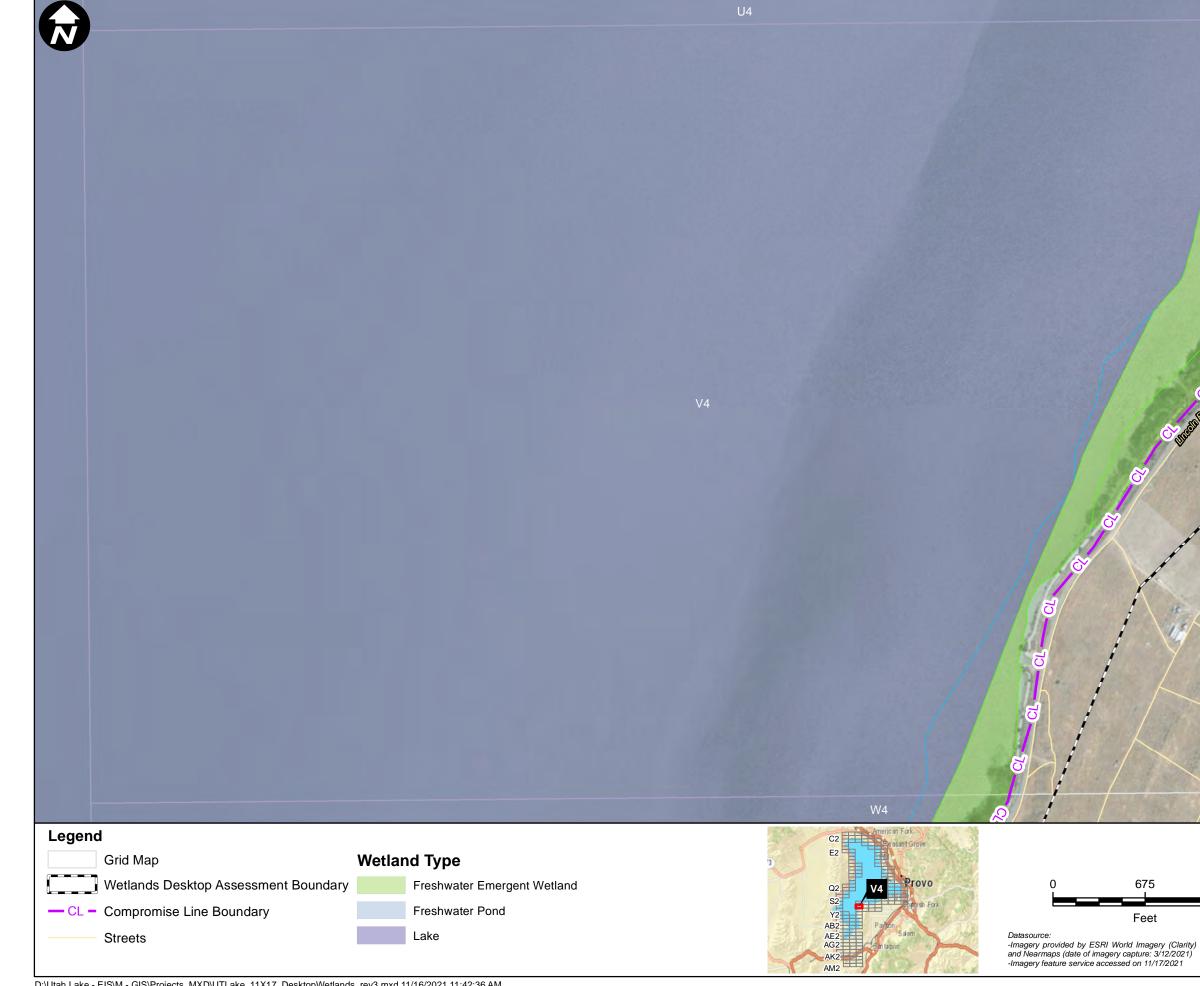
| P CON                                | TIC           |  |  |
|--------------------------------------|---------------|--|--|
|                                      |               | A CONTRACTOR OF  | AL STALL   |
|                                      |               |  |  |
|                                      |               |  |  |
|                                      |               |  | · And the second   |
|                                      |               |  | 1 Comment  |
|                                      |               | These  | a the state and the  |
|                                      |               |  | Valley /   |
|                                      |               |  |  |
|                                      |               |  |  |
|                                      |               |  | 100 100 10   |
|                                      |               |  | MASA VAL   |
|                                      |               |  |  |
|                                      |               |  | 4300 8   |
| U9                                   |               | U10  | e a la companya de la  |
|                                      |               |  |  |
|                                      |               | Second   |  |
|                                      |               |  | A A A A A A A A A A A A A A A A A A A  |
|                                      |               |  |  |
|                                      |               |  |  |
|                                      |               |  |  |
|                                      |               |  | A Martin Martin  |
| W 5000 South Rd W 5000 S             |               |  | at La Carte Carta a Car  |
|                                      |               |  | 000 M  |
| Steel West                           |               |  |  |
|                                      | In the second | 10-1-1-  |  |
|                                      |               | All a second and a second  |  |
|                                      |               |  |  |
| 500 M                                |               | The Statistics   |  |
| Legend                               |               | American Fork  |  |
| Grid Map                             |               | C2<br>E2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2 |  |
| Wetlands Desktop Assessment Boundary |               | Q2   | 0 670  |
| Streets                              |               | C2<br>S2<br>Y2   | Feet   |
| Wetland Type                         |               | AB2<br>AE2<br>AG2<br>AK2<br>AK2<br>AM2   | Datasource:  |
| Freshwater Emergent Wetland          |               | AK2<br>AM2   | <ul> <li>Imagery provided by ESRI World Imagery (Clarit<br/>and Nearmaps (date of imagery capture: 3/12/2021,<br/>-Imagery feature service accessed on 11/17/2021</li> </ul> |



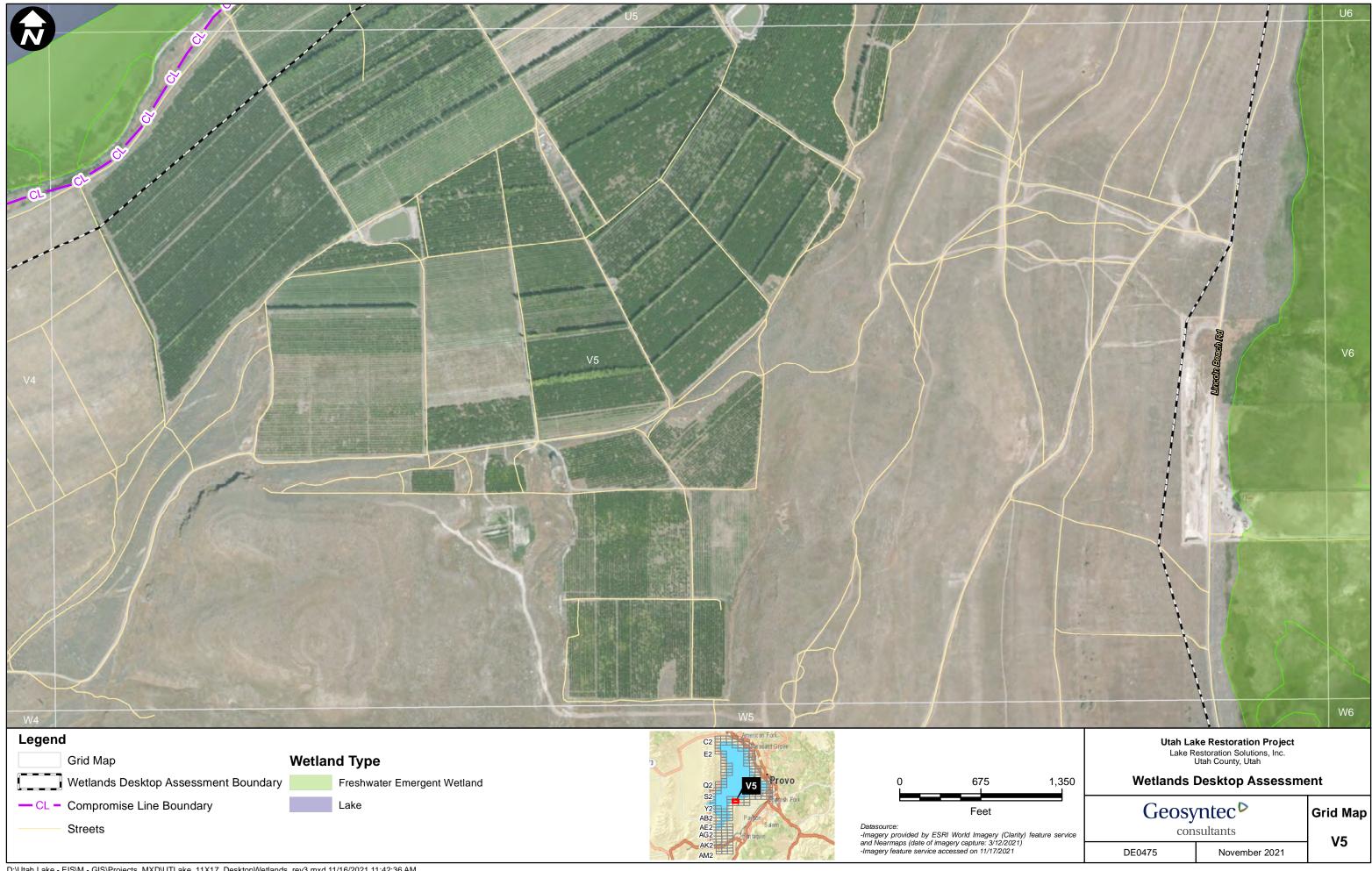


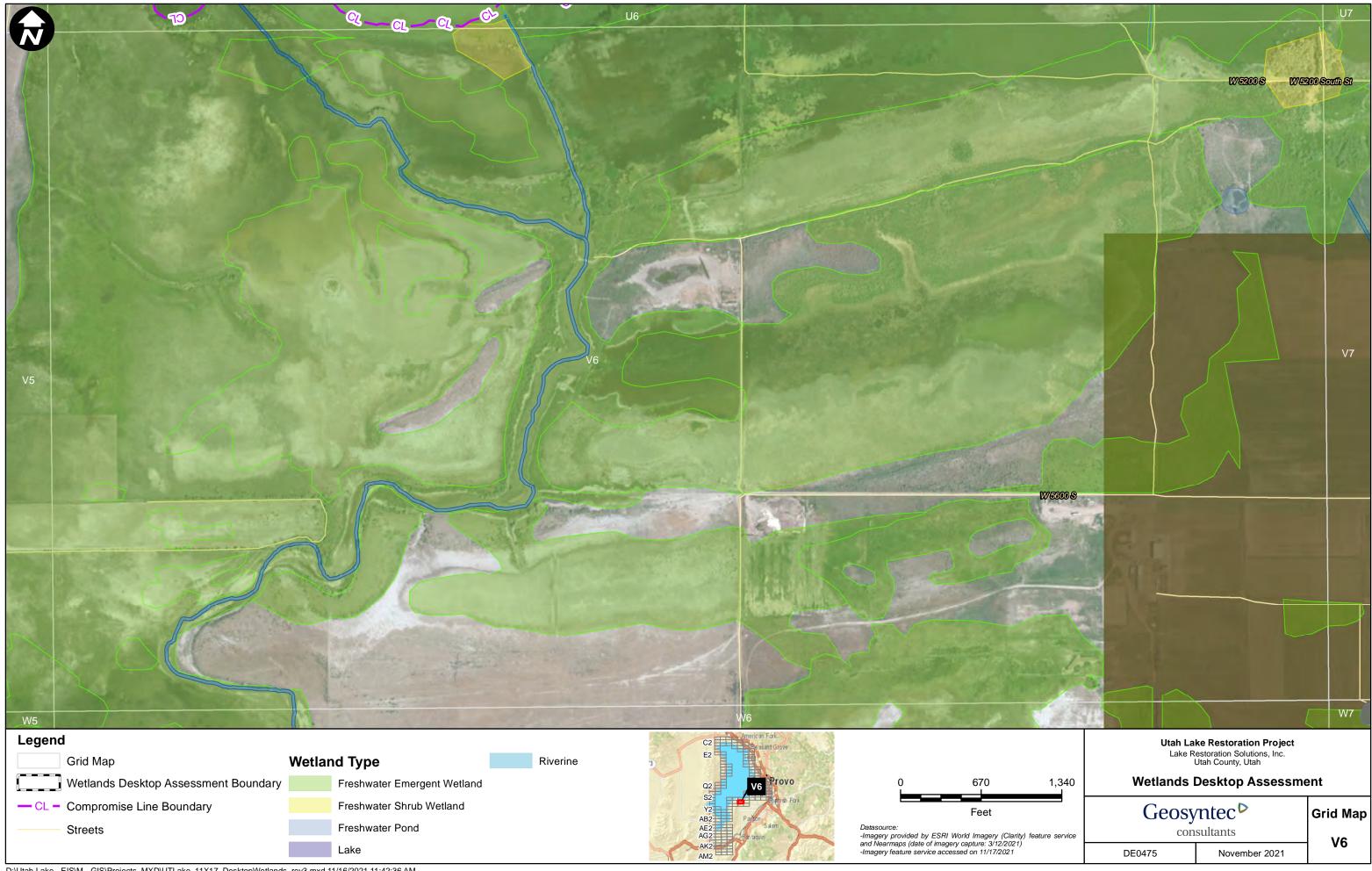
DE0475

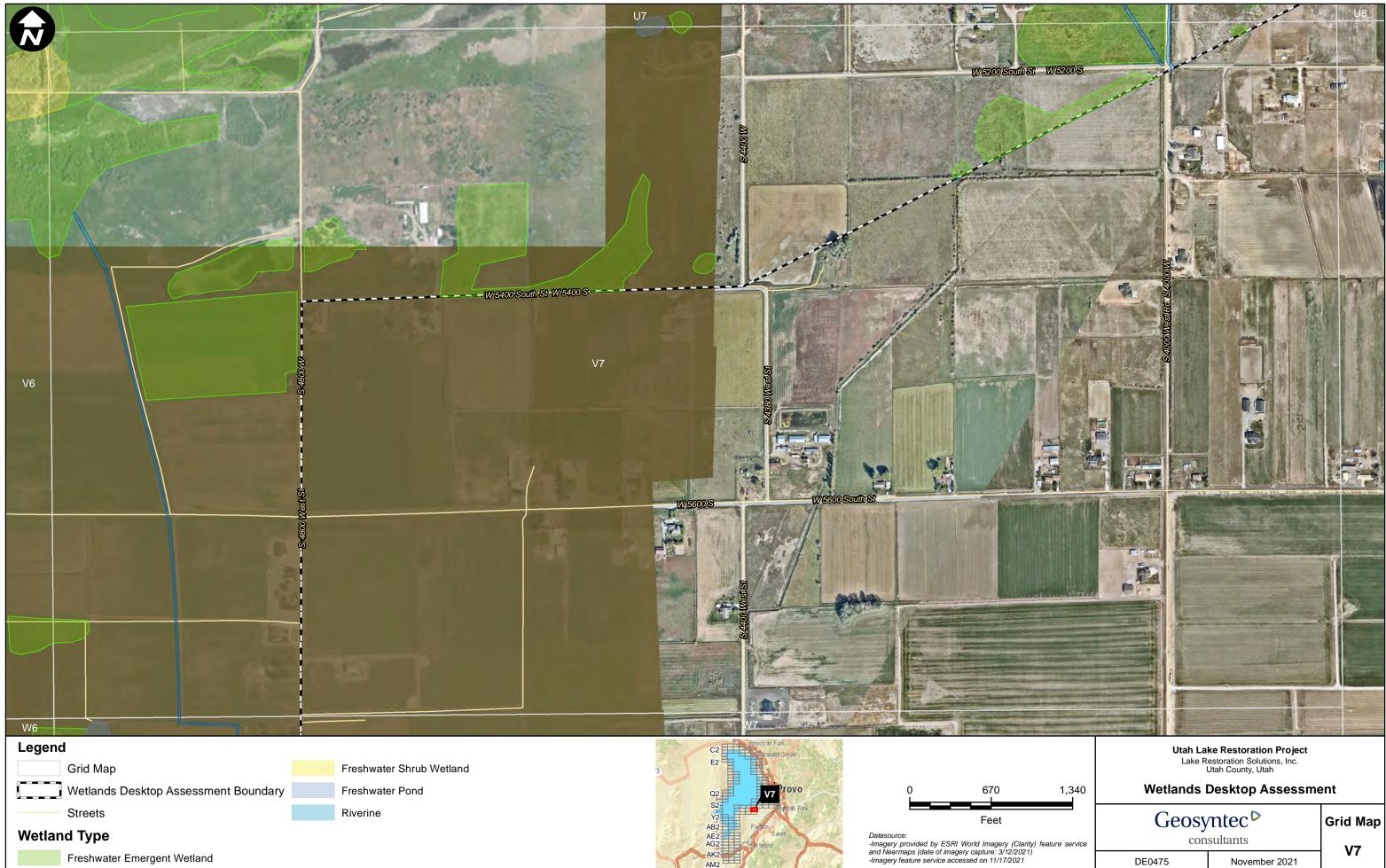




| CD C   |
|--|
| Ch Ch Ch<br>Ch Ch<br>Ch  |
| Ch Ch Ch<br>Ch Ch<br>Ch  |
| Ch Ch Ch<br>Ch Ch<br>Ch  |
| Ch Ch Ch Ch  |
| Ch Ch Ch<br>Ch Ch<br>Ch  |
| Ch Ch Ch<br>Ch Ch<br>Ch  |
| CD CD CD   |
| CD CD CD   |
| Ch Ch mana   |
| Ch Ch  |
| 6  |
|  |
| US BOOM DE LA COMPANY DE LA CO |
| Destand and a second se |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
| W5   |
| Wb   |
| Utah Lake Restoration Project  |
| Lake Restoration Solutions, Inc.<br>Utah County, Utah  |
| 1,350 Wetlands Desktop Assessment  |
| Geosyntec <sup>▷</sup> Grid Ma   |
| consultants  |
| DE0475 November 2021   |



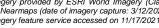




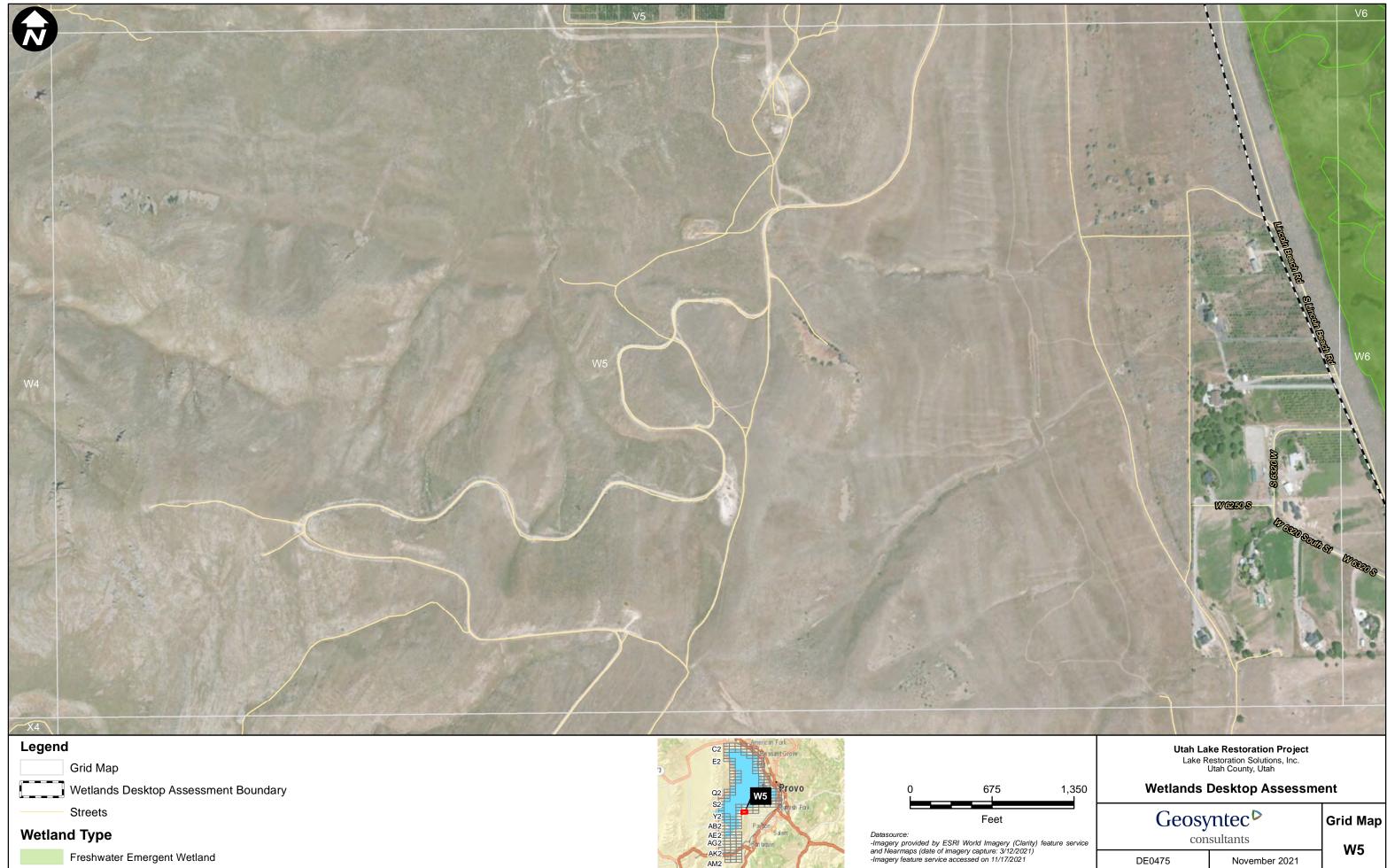
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

DE0475





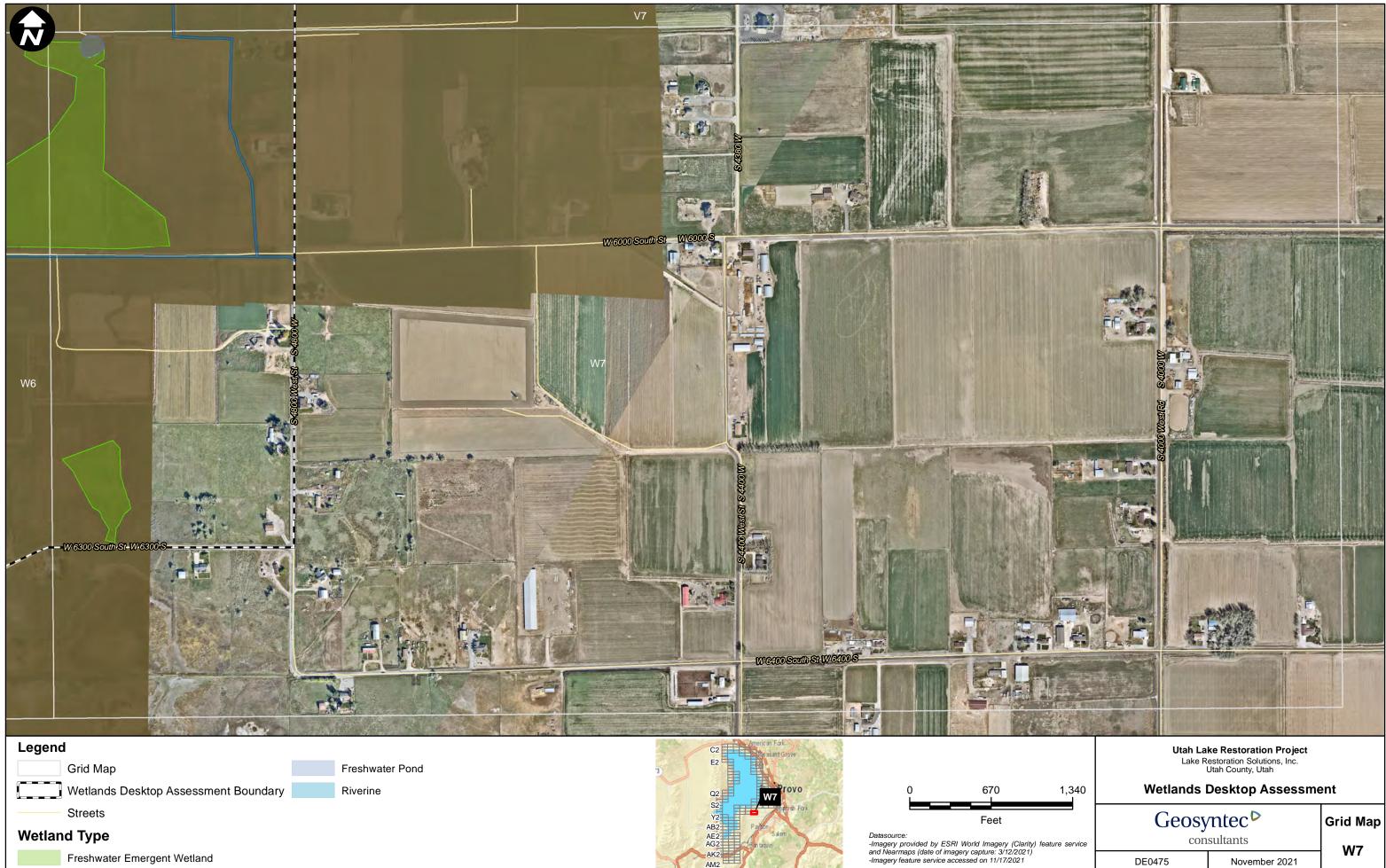




|  | the second second  | V6   | A REAL PROPERTY AND  |
|--|--|--|--|
|  |  | State Transferrer  |  |
|  |  | A CALLER AND   |  |
|  |  | The second   | all marked and a second  |
|  |  | and the second s |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  | And the set of the set |
|  |  |  |  |
|  | A second plant   |  |  |
|  |  | W6   |  |
| W5   |  |  |  |
|  |  |  |  |
|  |  | and the second of the second   |  |
|  |  |  |  |
| Market Barresson and Andrewson |  | and the second second  |  |
| Man Bin A  |  | 2 Martin Martin  |  |
| WGERD SETTI ST W GERD S  |  | Contraction and the second   |  |
|  |  |  |  |
| 6 9 1 · · · · ·  |  |  |  |
| eque a   | A CONTRACTOR OF A CONTRACTOR O | W6400 South St W6400 S   |  |
|  | 8000 14  |  | SIG A STR  |
| Legend   | Contraction of the second  | American Fork  |  |
| Grid Map   | Freshwater Pond  | C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C  |  |
| Wetlands Desktop Assessment Boundary   | Riverine   |  | 0 670  |
| Streets  |  | S2<br>Y2   | Fak Feet   |
| Wetland Type   |  | AB2 Parizin<br>AE2<br>AE2  | Datasource:  |
| Freshwater Emergent Wetland  |  | AB2<br>AE2<br>AG2<br>AG2<br>AK2<br>AM2   | -Imagery provided by ESRI World Imagery (Clarity<br>and Nearmaps (date of imagery capture: 3/12/2021)<br>-Imagery feature service accessed on 11/17/2021   |

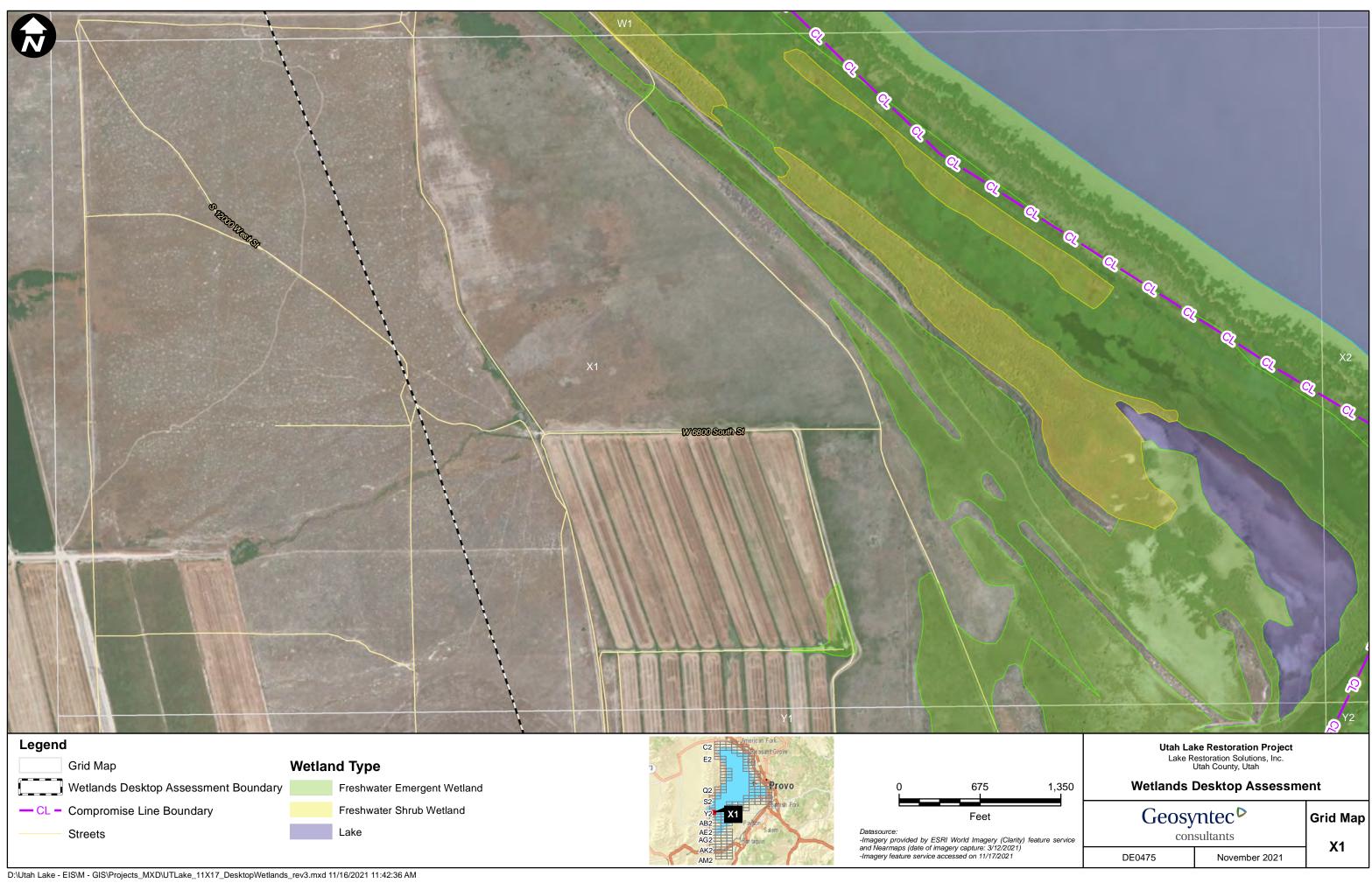
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

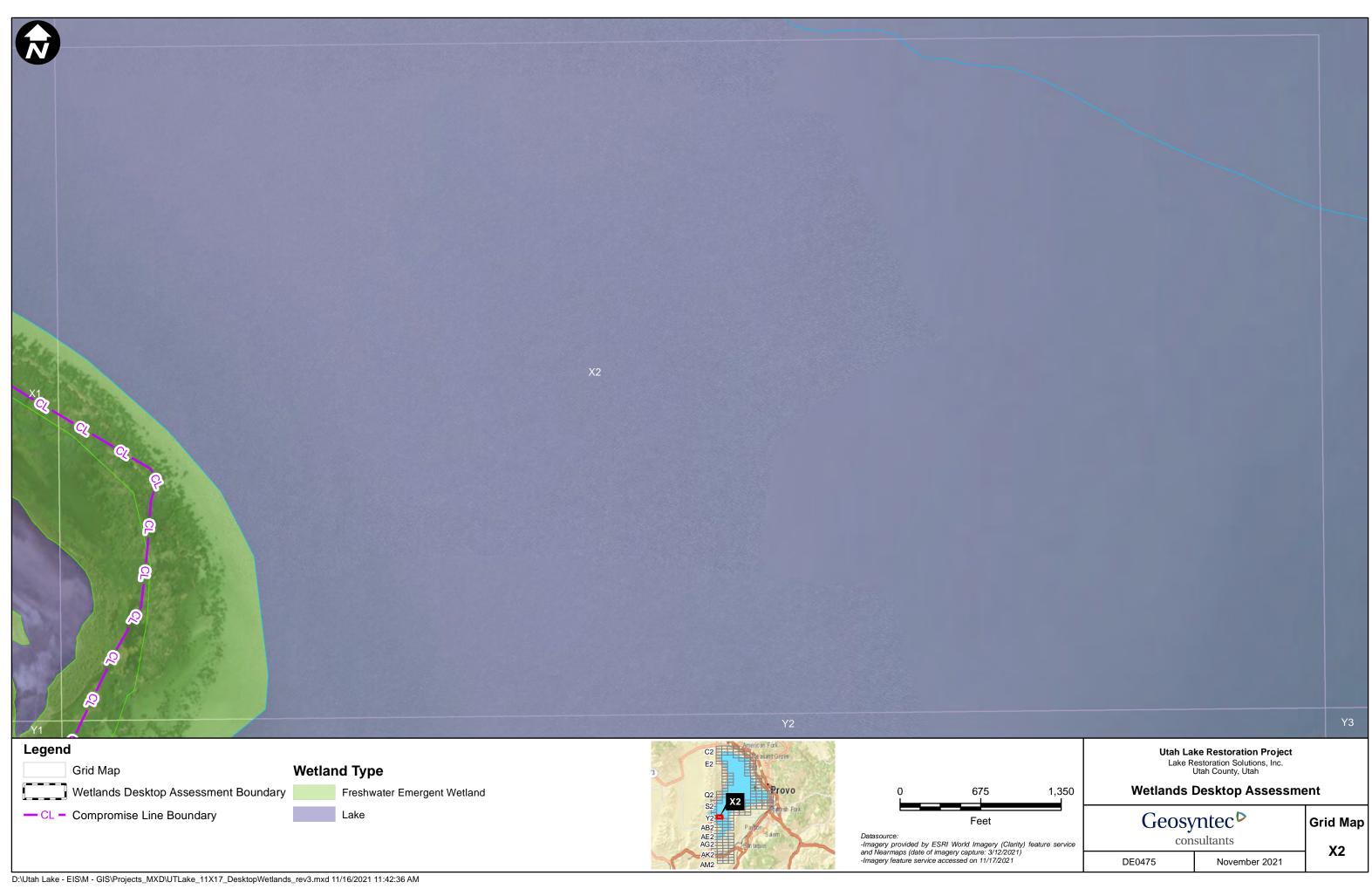


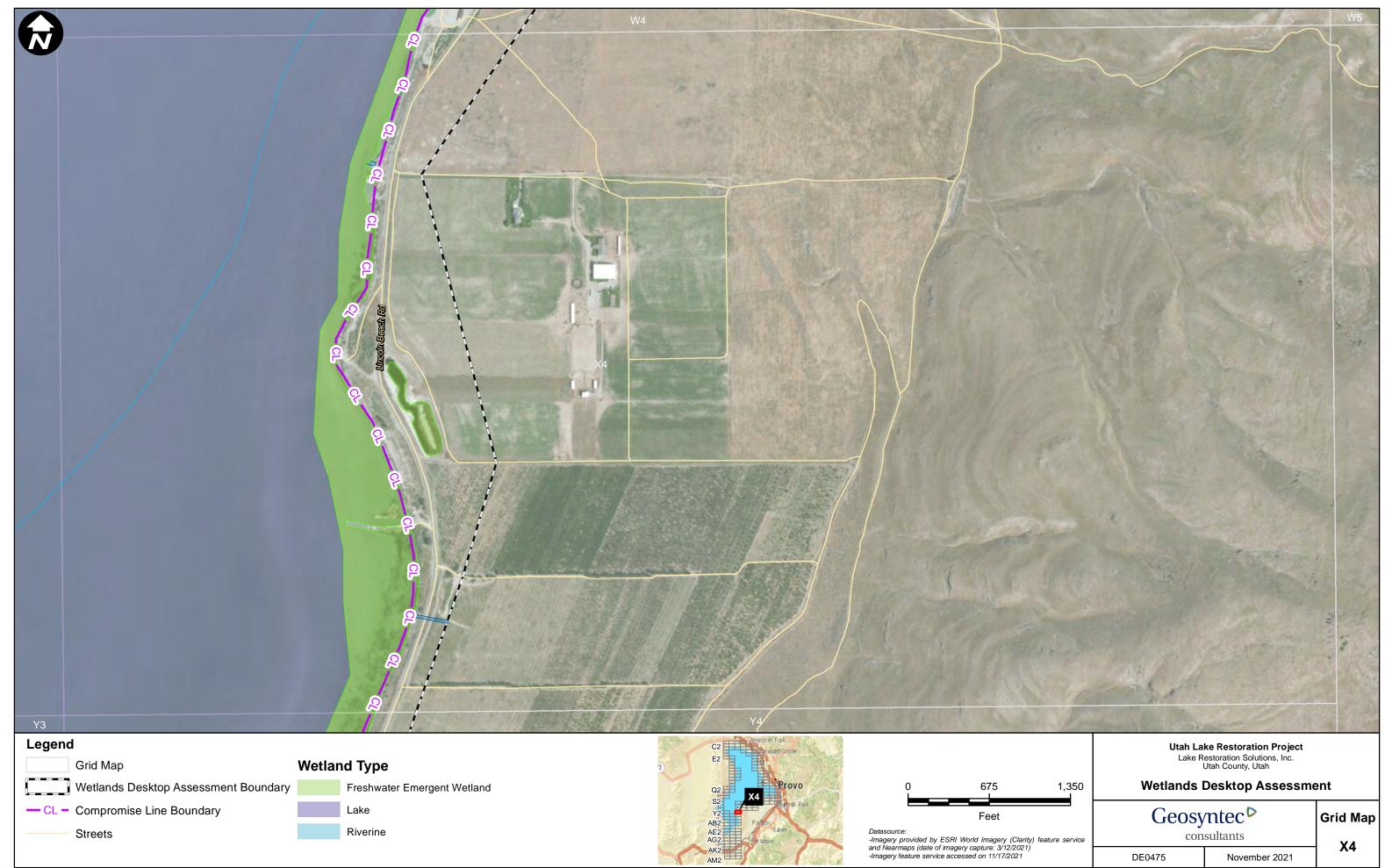


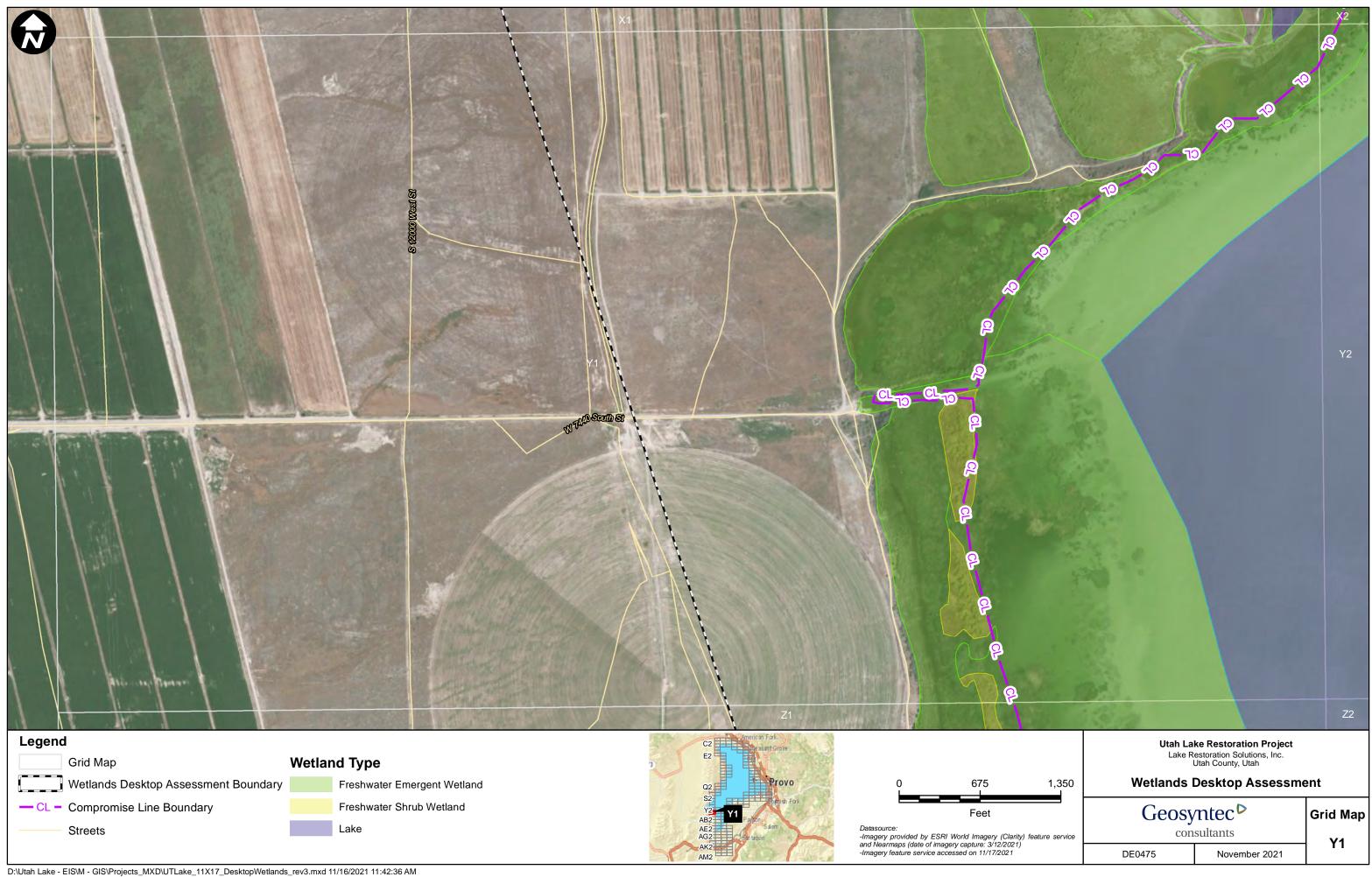
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

DE0475





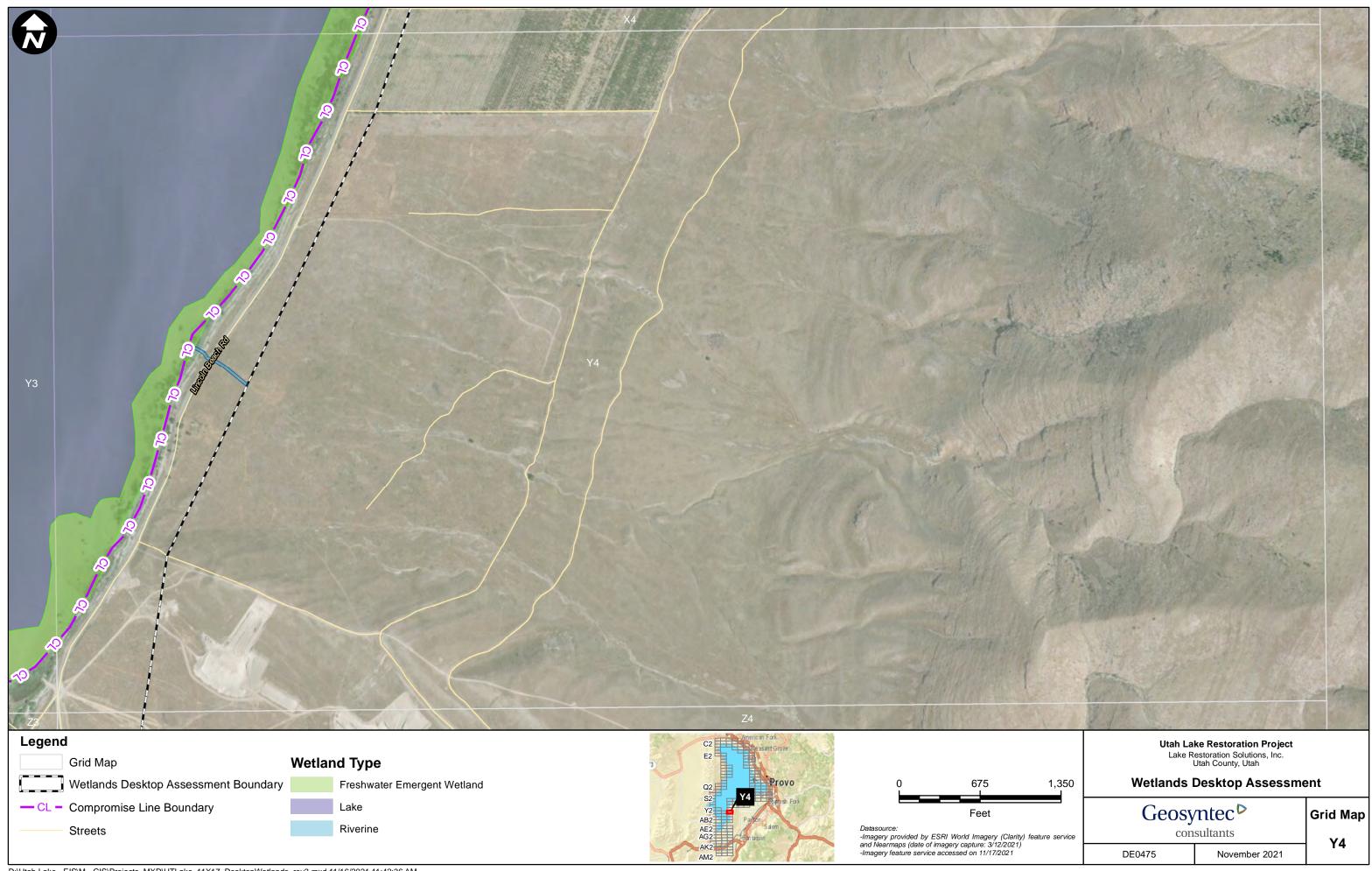




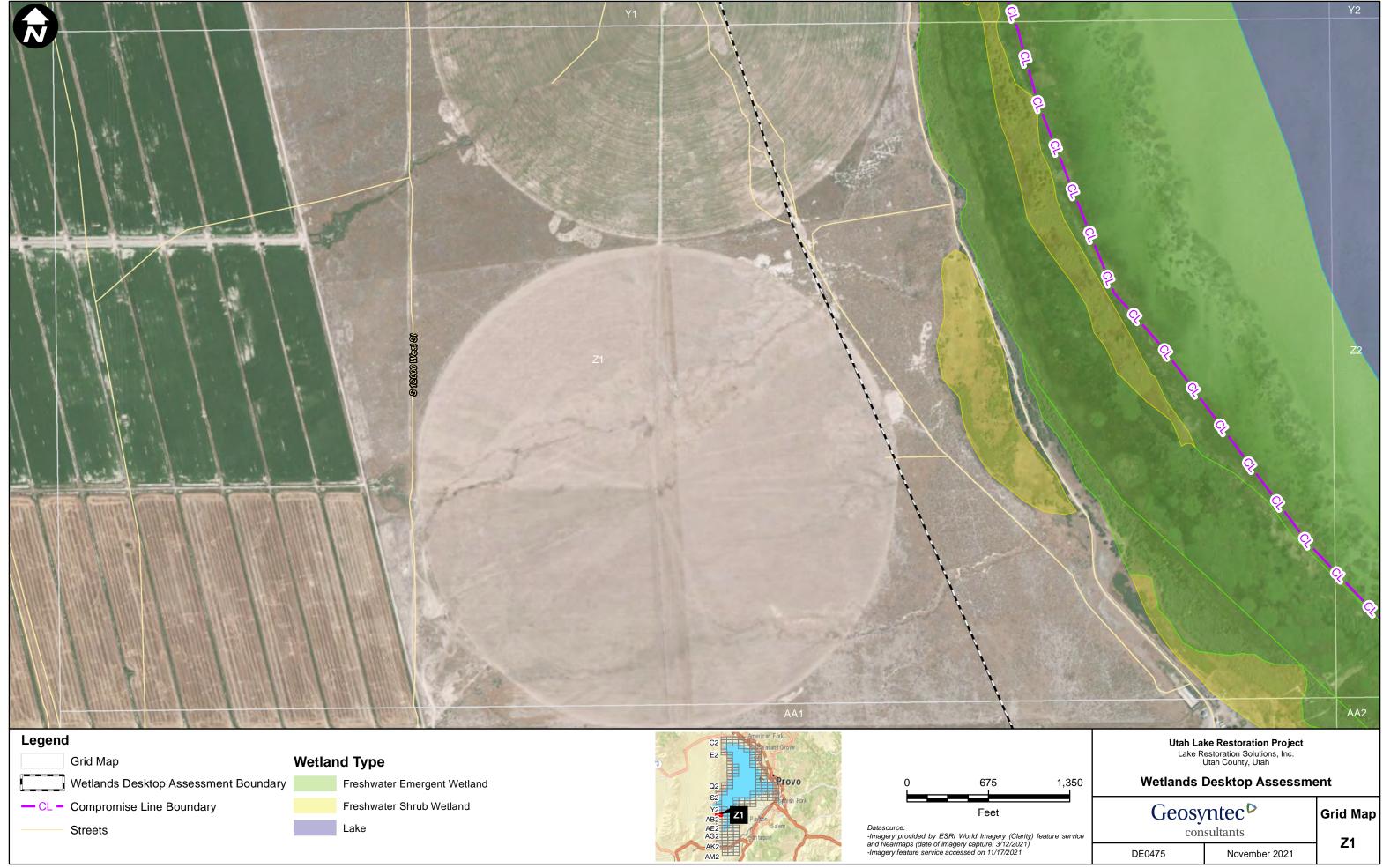


| Y2          |  | Y3   |   |
|-------------|--|--|---|
|             |  |  |   |
| Z2<br>Leger |  | Z3<br>C2 American Fork<br>E2 E2  |   |
|             | Grid Map       Wetland Type         Wetlands Desktop Assessment Boundary       Freshwater Emergent Wetland         Compromise Line Boundary       Lake         Streets       -         - EIS\M - GIS\Projects_MXD\UTLake_11X17_DesktopWetlands_rev3.mxd 11/16/2021 11:42:36 AM | C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>E2<br>C2<br>C2<br>E2<br>C2<br>C2<br>E2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2<br>C2 | 0 675<br>Feet<br>Datasource:<br>-Imagery provided by ESRI World Imagery (Clari<br>and Nearmaps (date of imagery capture: 3/12/2021<br>-Imagery feature service accessed on 11/17/2021 |

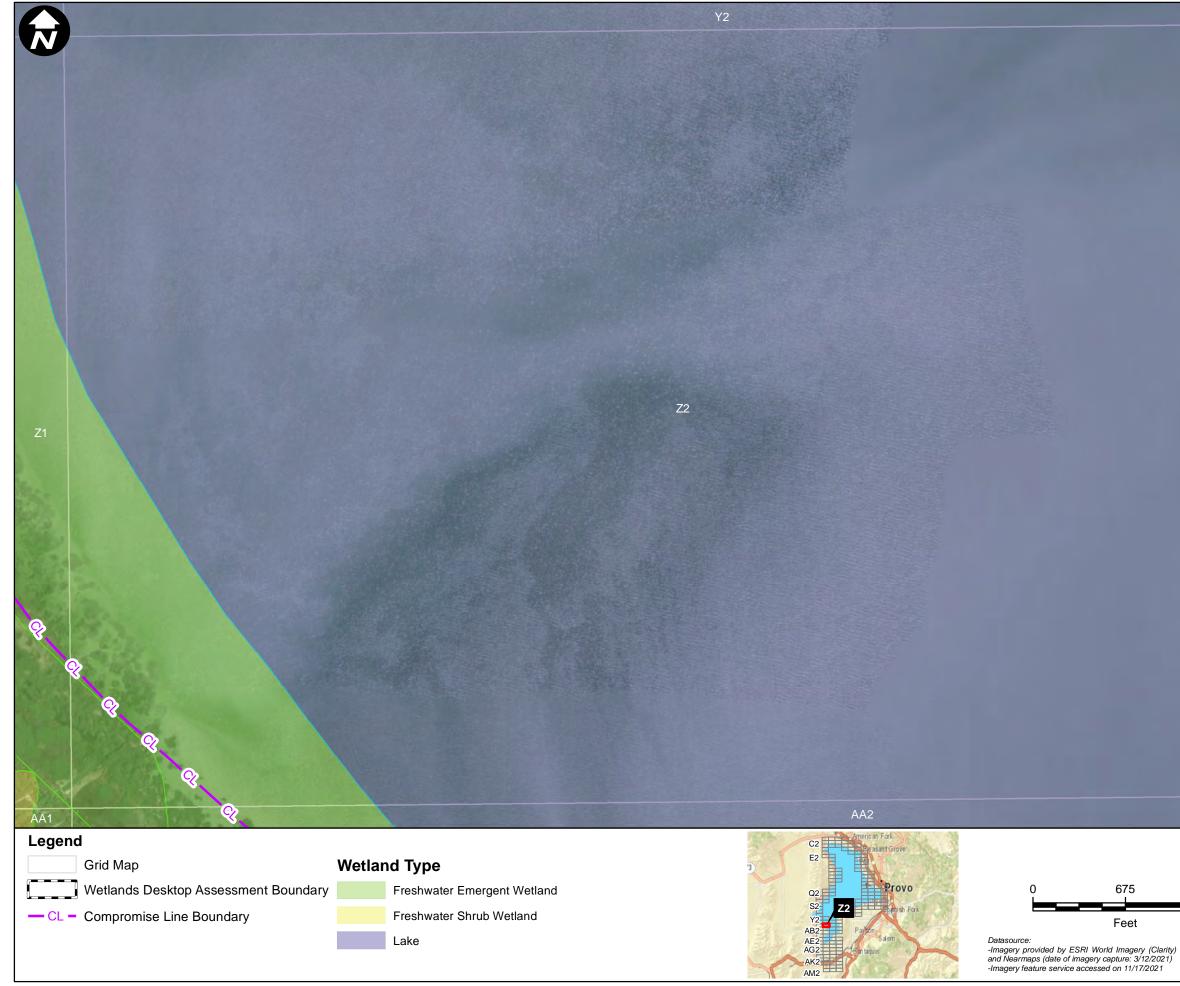




D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

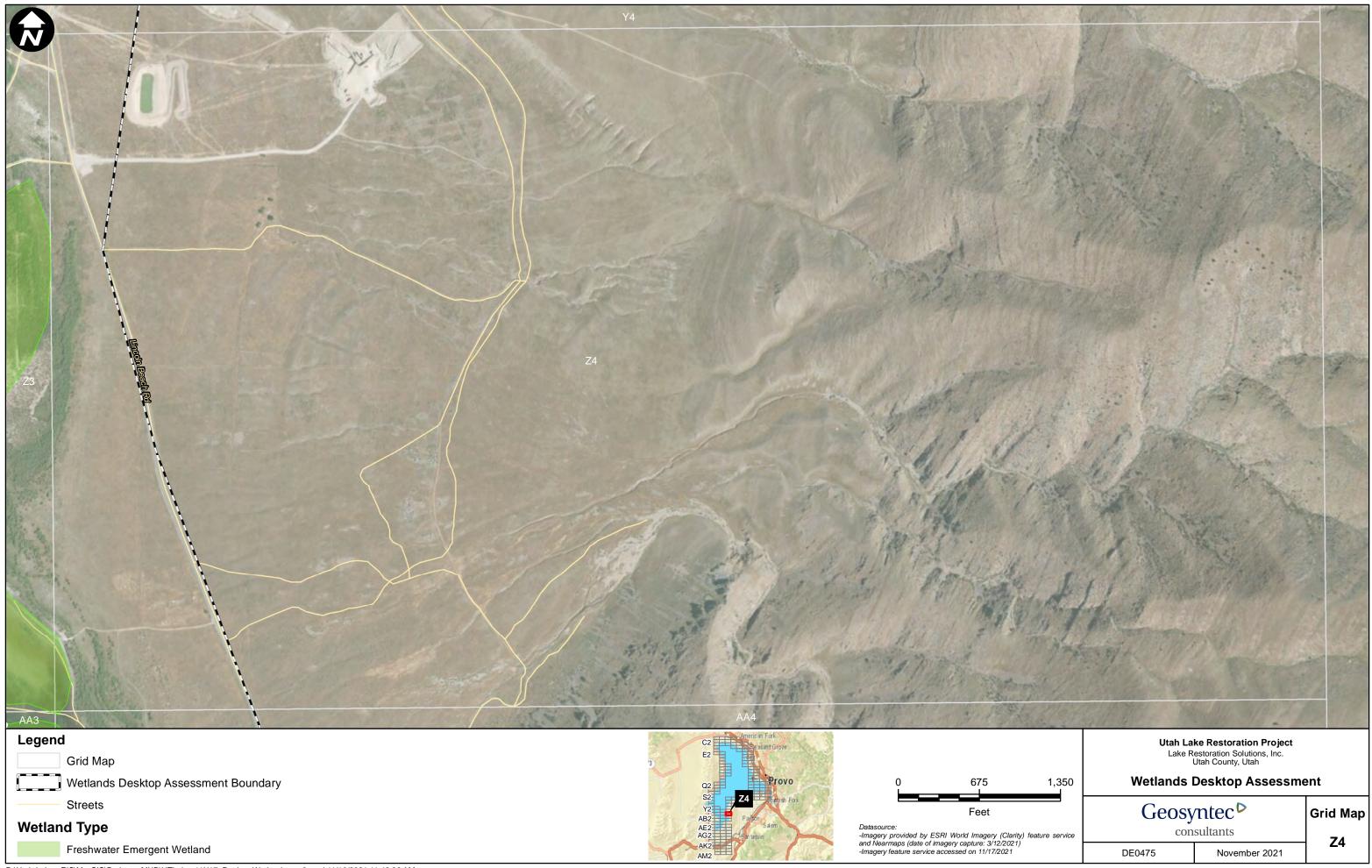


D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

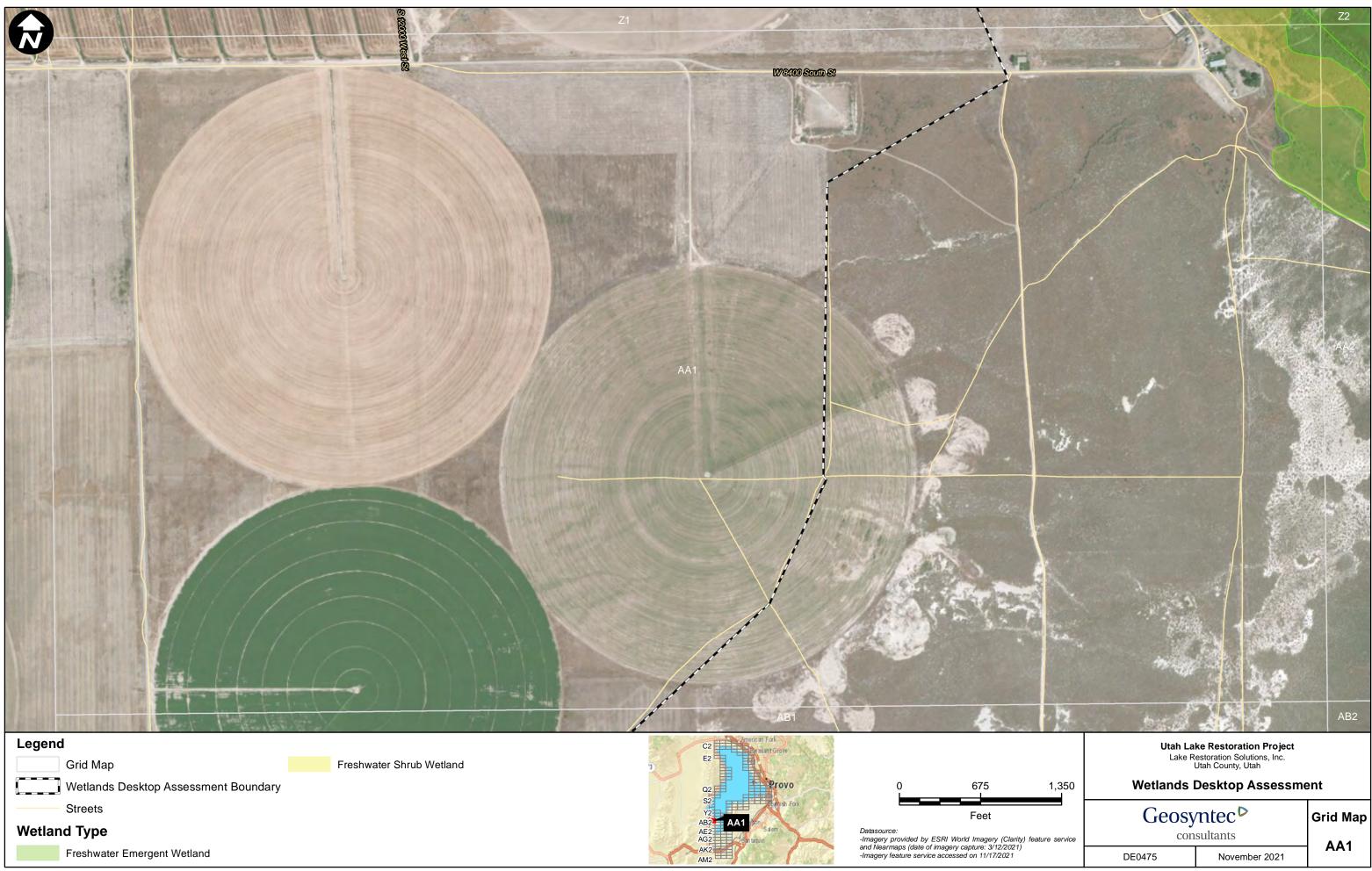


|                 |                          |  | Y3       |
|-----------------|--------------------------|--|----------|
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  | 1        |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  | Z3       |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  | 100      |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          |  |          |
|                 |                          | and the second s | AA3      |
|                 | <b>Utah La</b><br>Lake R | ke Restoration Project<br>estoration Solutions, Inc.<br>Jtah County, Utah  |          |
| 1,350           | Wetlands I               | Desktop Assessme   | ent      |
|                 | Geosy                    | ntec⊳  | Grid Map |
| feature service | con                      | sultants   | Z2       |
|                 | DE0475                   | November 2021  |          |

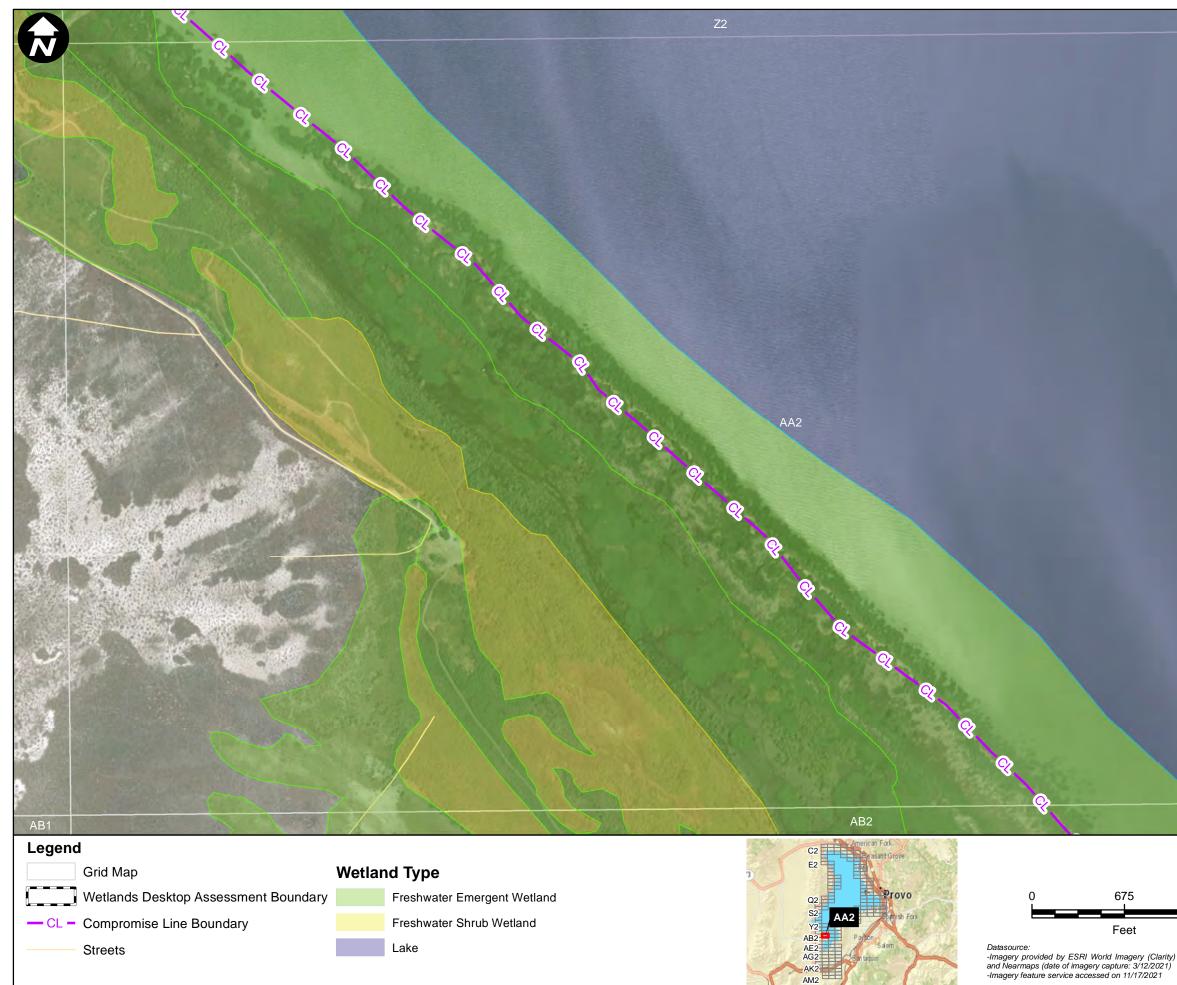




D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

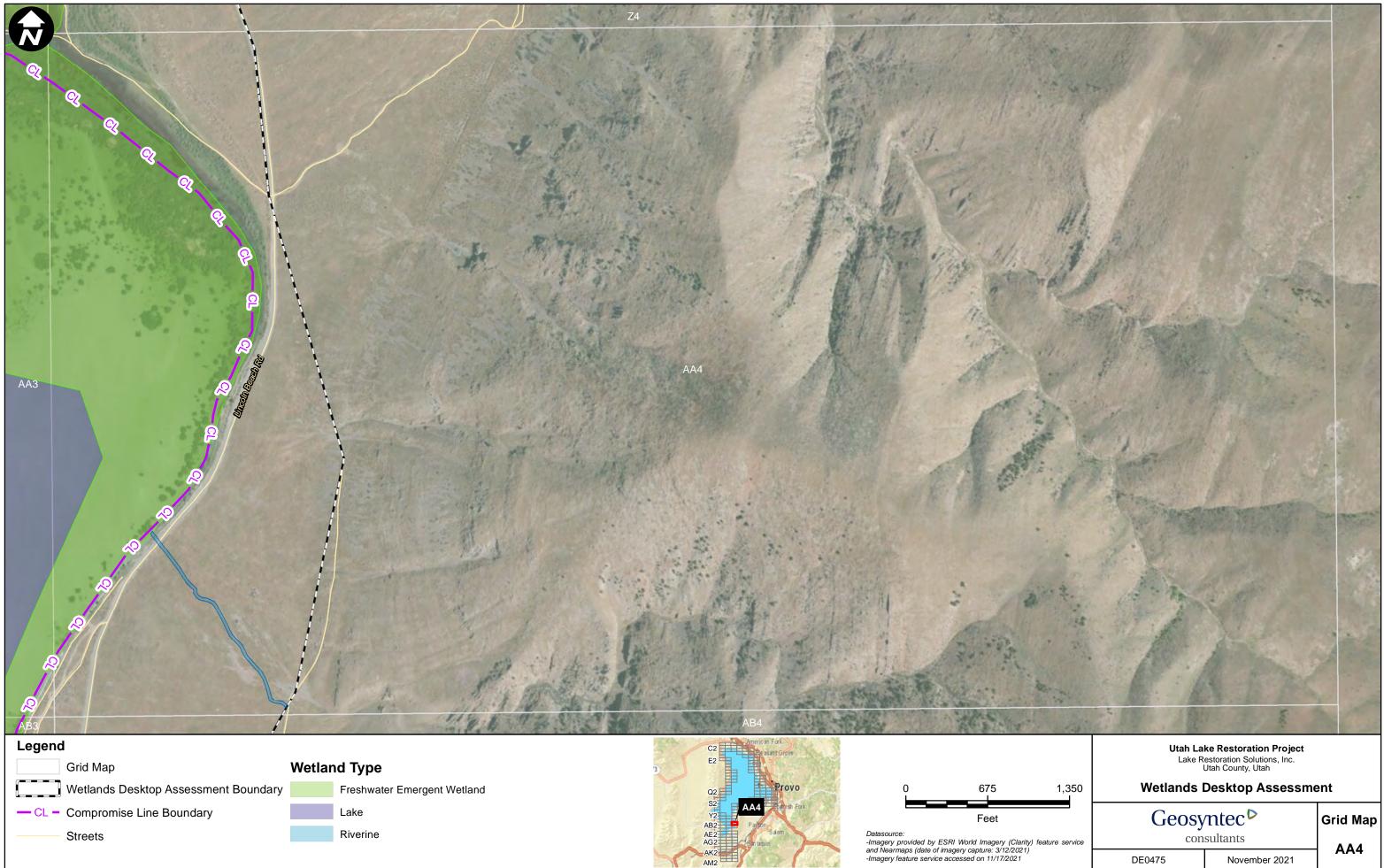


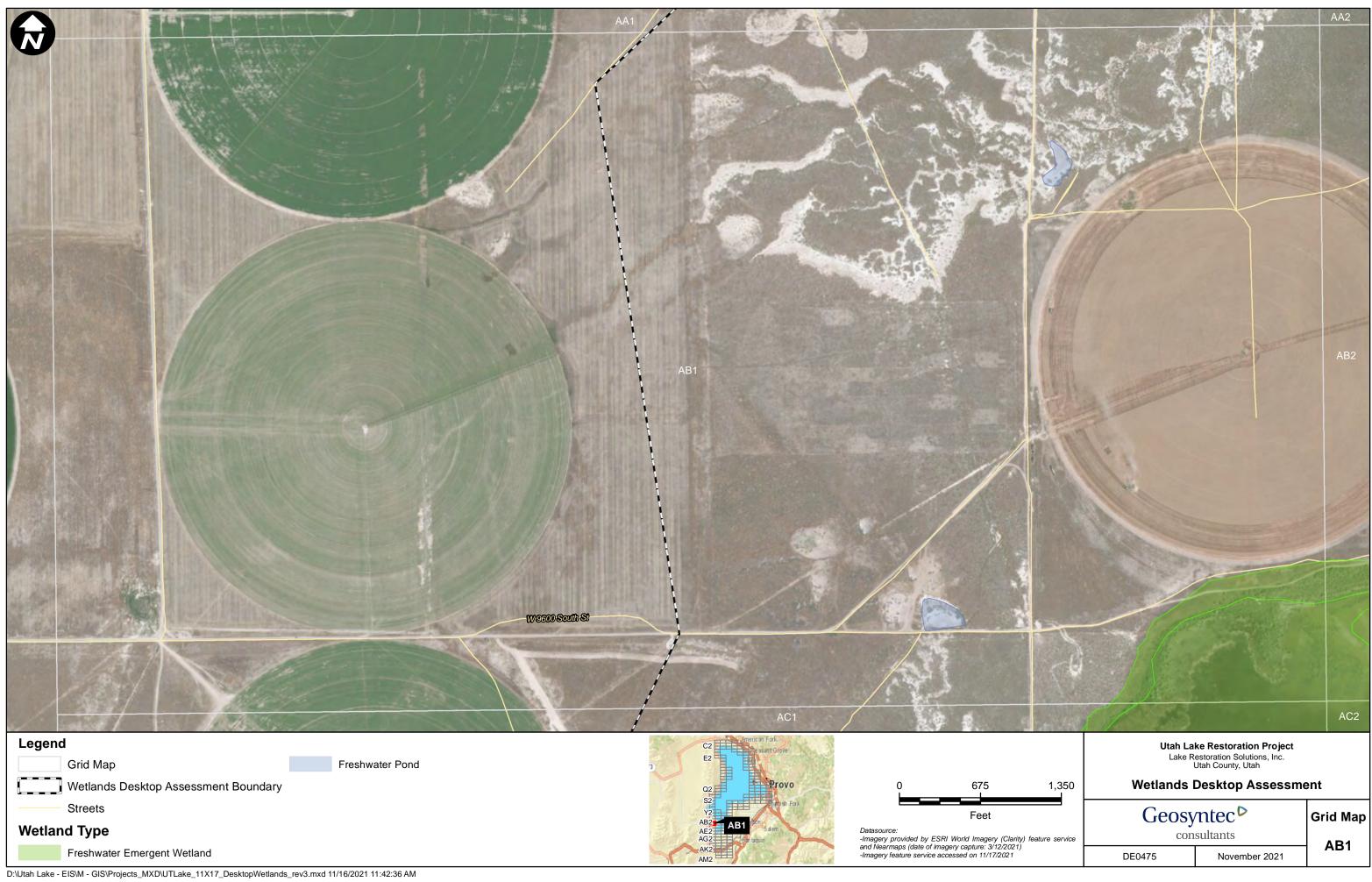
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM



|                 |        |                          |   |                           |     | Z3    |
|-----------------|--------|--------------------------|---|---------------------------|-----|-------|
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     | AA3   |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     |       |
|                 |        |                          |   |                           |     | AB3   |
|                 |        | <b>Utah La</b><br>Lake R | <b>ke Restoration</b> I<br>estoration Solution<br>Utah County, Utah | <b>Project</b><br>s, Inc. |     |       |
| 1,350           | Wet    |                          | Desktop As  |                           | ent |       |
|                 | G      | eosv                     | ∕ntec⊳  |                           | Gri | d Map |
| feature service |        | con                      | sultants  |                           |     | A2    |
|                 | DE0475 | 5                        | November  | 2021                      | F   | NA2   |
|                 |        |                          |   |                           |     |       |





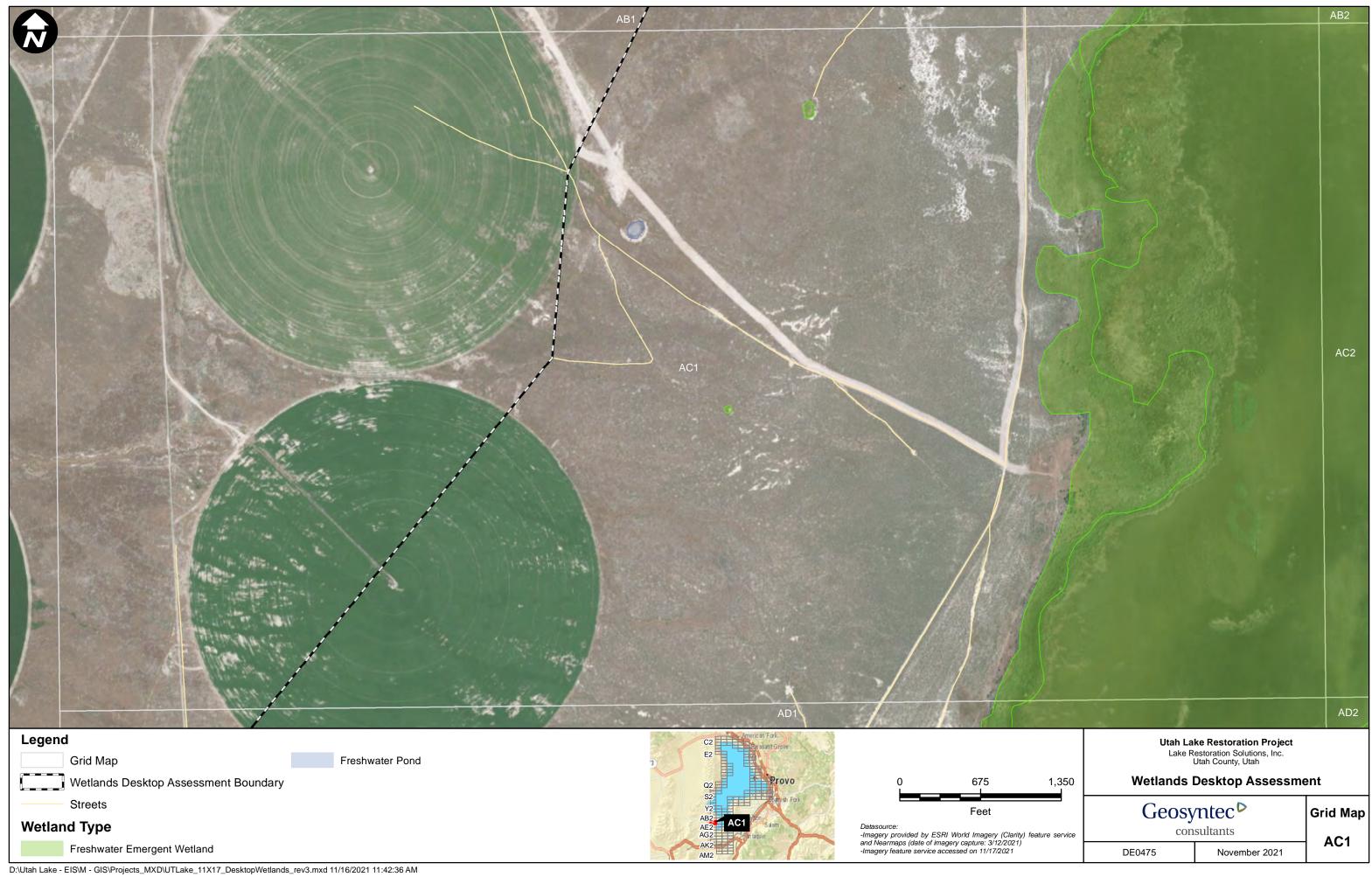


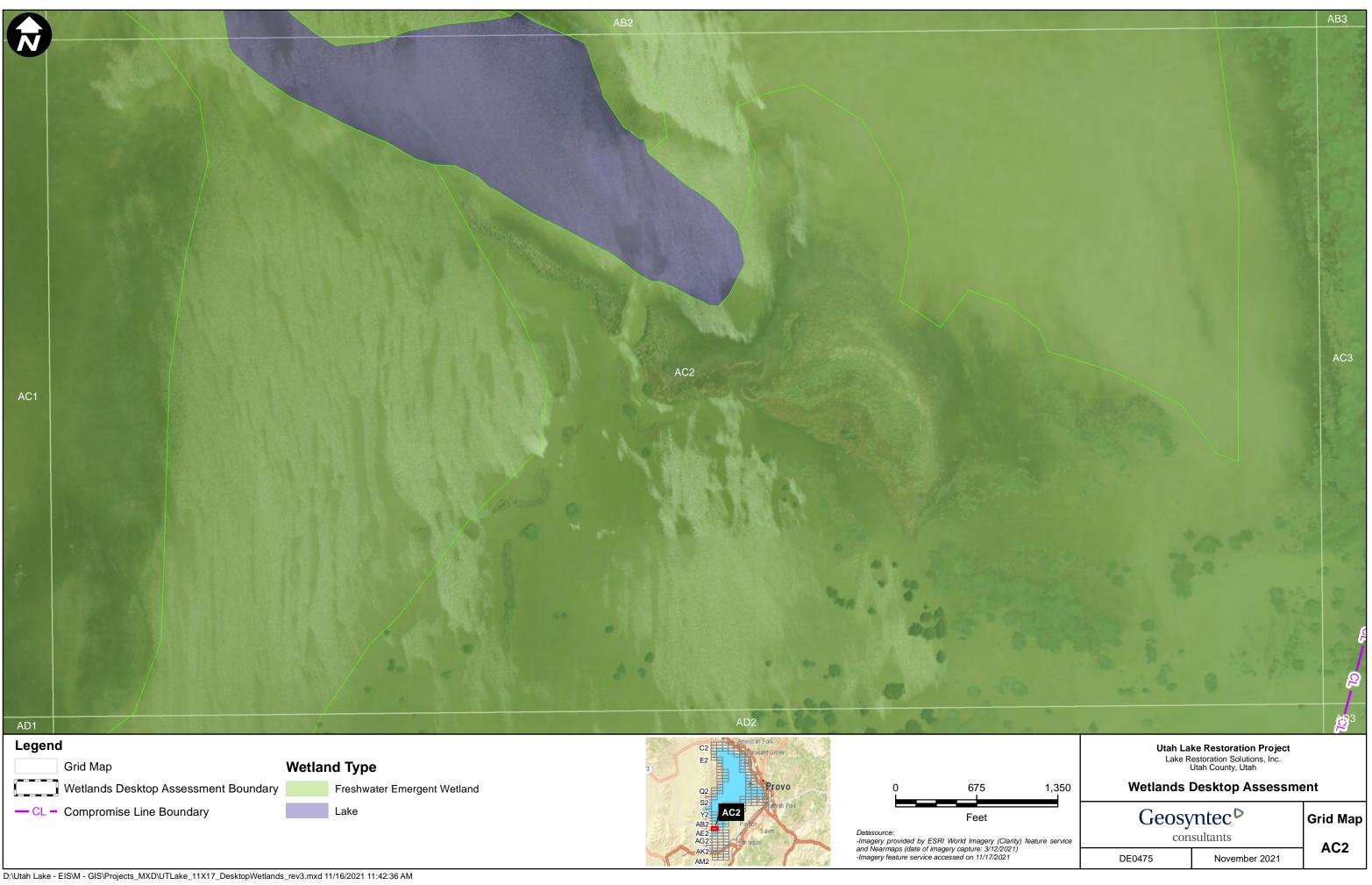




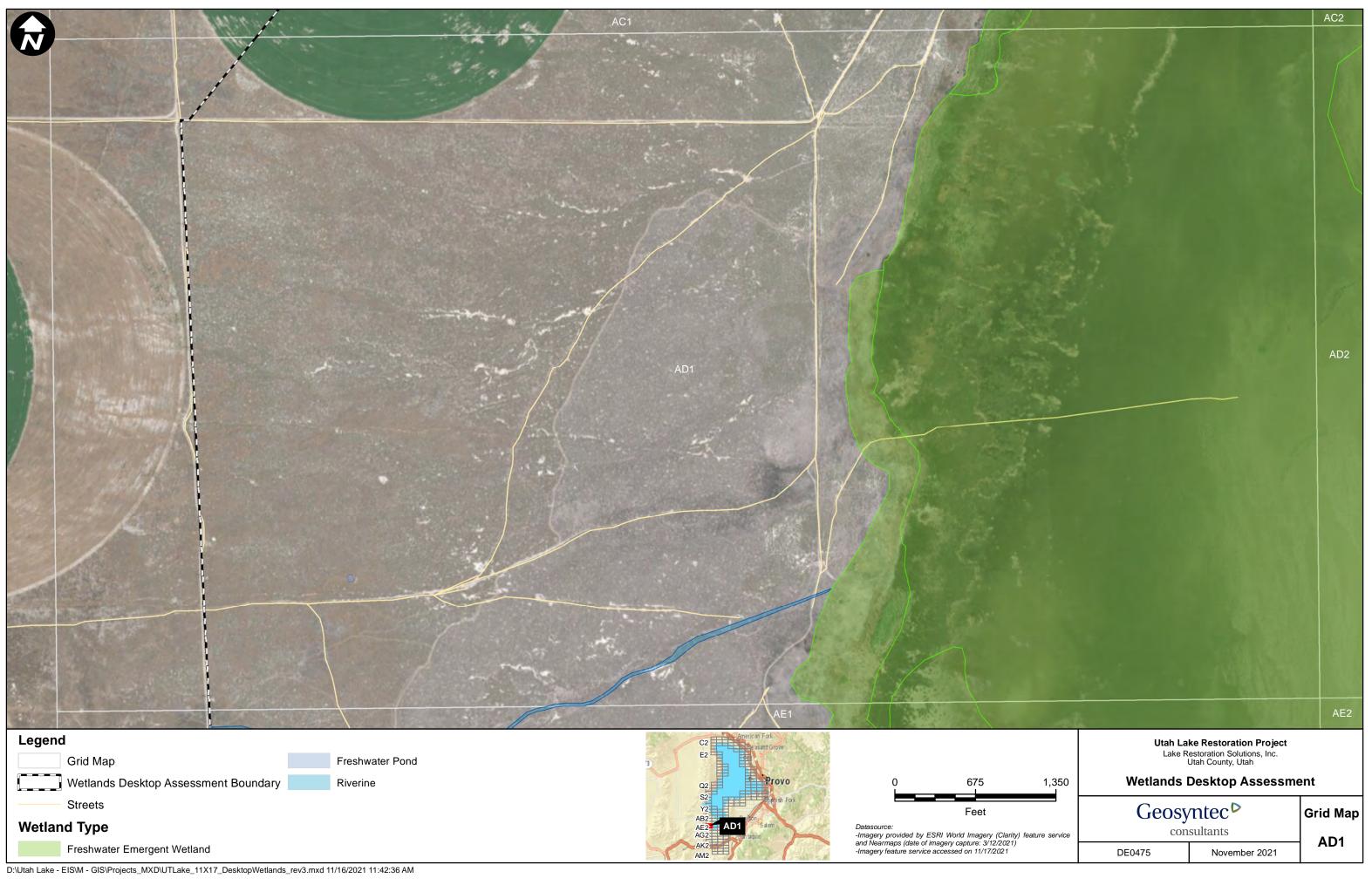
|   |  | 1.1.1. 1.1.1.         | AA4                                    |  |
|---|--|-----------------------|--|--|
|   | 1  |                       |  | A THE WAY  |
|   | K  | The second            | が、ションには、                               | THE AT BRIDE ST  |
|   |  | C Then AR             |  |  |
|   | Ton Ton  | All Martines          |  |  |
|   | 1 and the  |                       | Print Palacher (191                    | File A Contractor  |
|   | 1-   | pit all the set       | and share a first and a                | the second second  |
|   | 1  |                       | PRESERVE CON                           | H H H  |
|   | and the second second  | S. 211                | 1 1 1 1 1 1 1 1 1                      |  |
|   | A start and  | Land the state        | and the second                         | 100  |
|   |  | BAR STATE             |  | Cit links  |
|   | in the second se | " Sector & Palan      |  |  |
|   | 11/2   |                       | A State                                | and the second second second   |
| AB3                                       | and the second   |                       | AB4                                    |  |
| AB3                                       | 1 54   |                       | <b>这些学生</b>                            |  |
|   | 1  | as a constant         |  | CARGINAL CONTRACTOR  |
|   | The second   | A Dealer of Station   |  |  |
| 1 6                                       | - And - A T  | and the second second |  |  |
| 1 North                                   |  | Construction la       | and the for                            | and the first  |
|   | Part Hills   |                       |  | "福山"   |
|   | A CONTRACTOR   |                       |  | C. S. Bana   |
|   |  |                       | X and a second                         | A REAL STREET  |
|   | The second se  |                       |  | A STATION AND A STATION  |
|   |  | a long t              | and share the                          |  |
|   |  | 10 - A marker 14      |  | the second second  |
| AC3                                       |  | Entre I and           | 10                                     | A CARE AND A CARE AND A CARE   |
| Legend                                    |  |                       | C2 American Fork                       | 16   |
| Grid Map                                  | Wetland Type   |                       | 3 E2                                   |  |
| Wetlands Desktop Assessment Bo            |  | nt Wetland            | C2<br>S2<br>Y2<br>AB4                  | h Fork   |
| CL - Compromise Line Boundary     Streets | Riverine   |                       | AB2 Patron<br>AE2 Siem                 | Feet<br>Datasource:  |
|   |  |                       | AB2 Parkon<br>AE2<br>AG2<br>AK2<br>AM2 | -Imagery provided by ESRI World Imagery (Clarity<br>and Nearmaps (date of imagery capture: 3/12/2021)<br>-Imagery feature service accessed on 11/17/2021 |

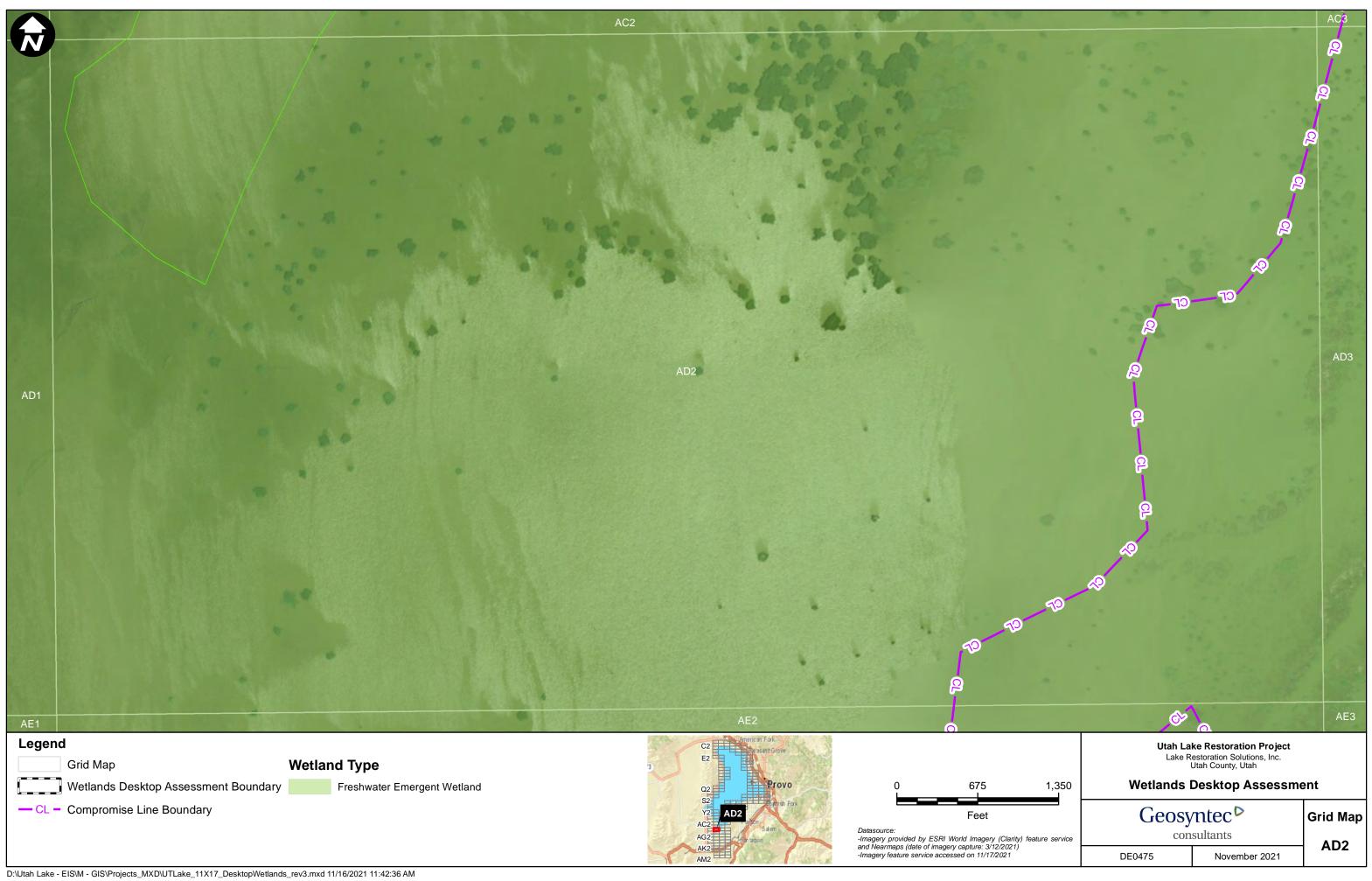


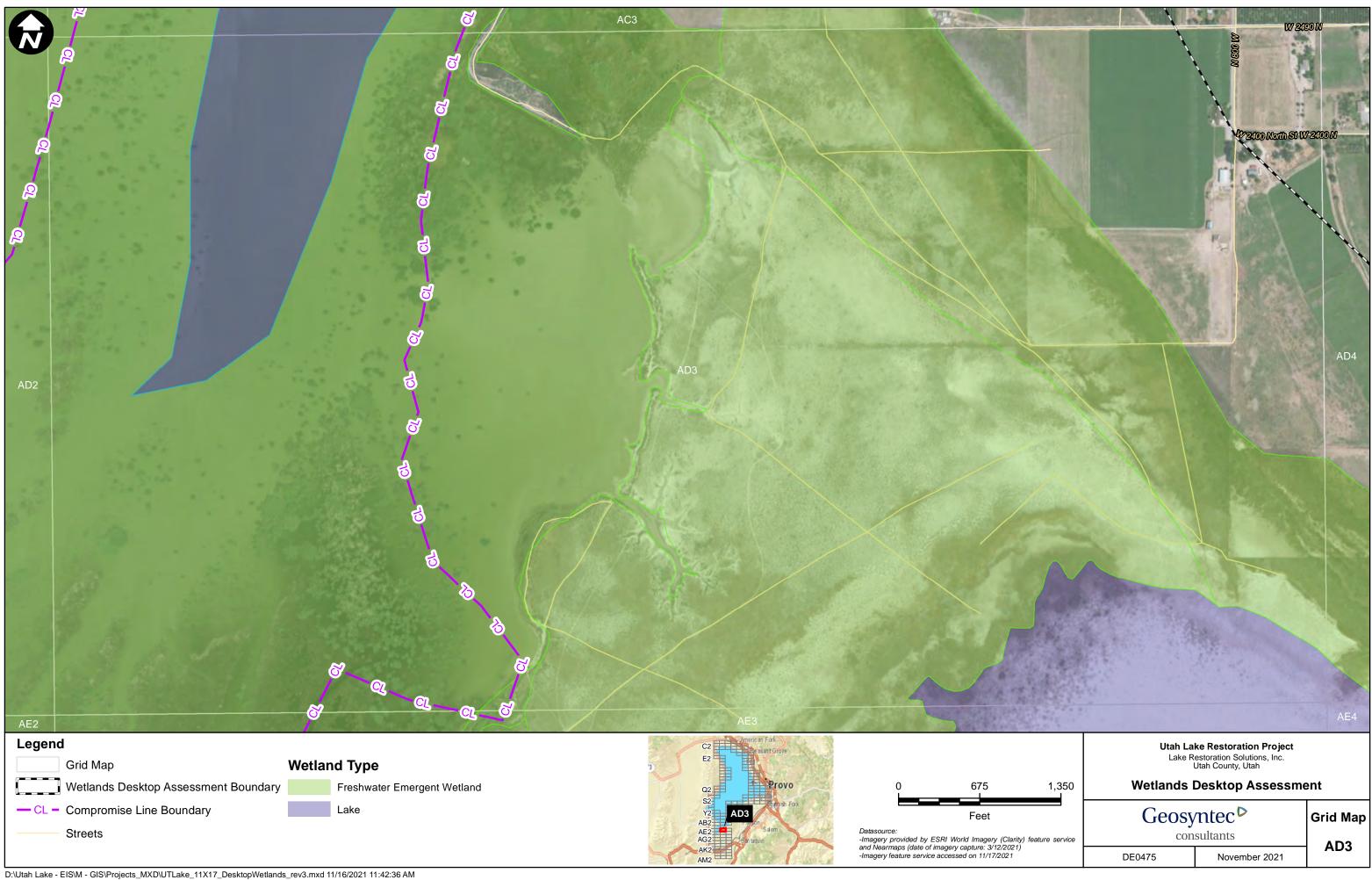


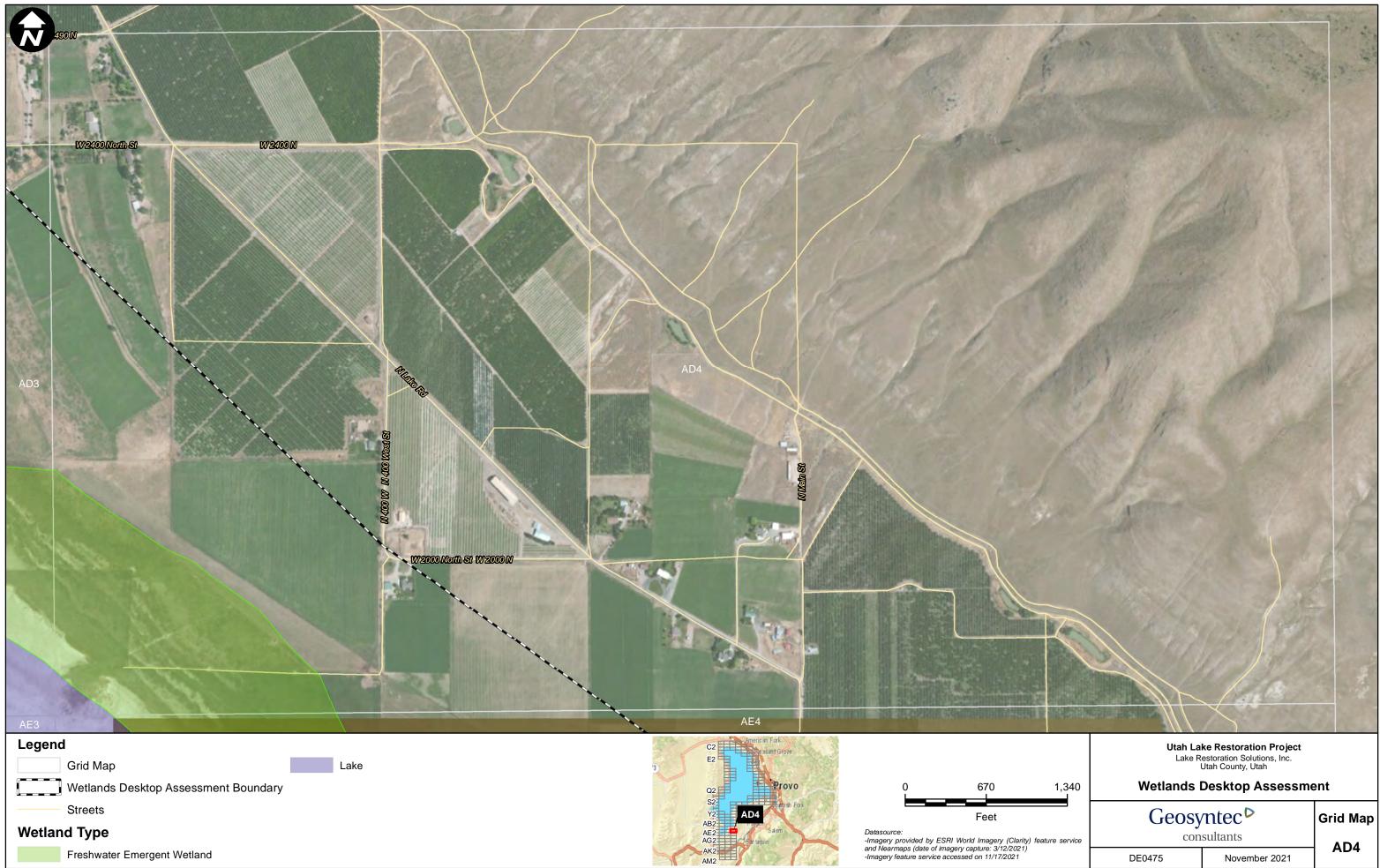




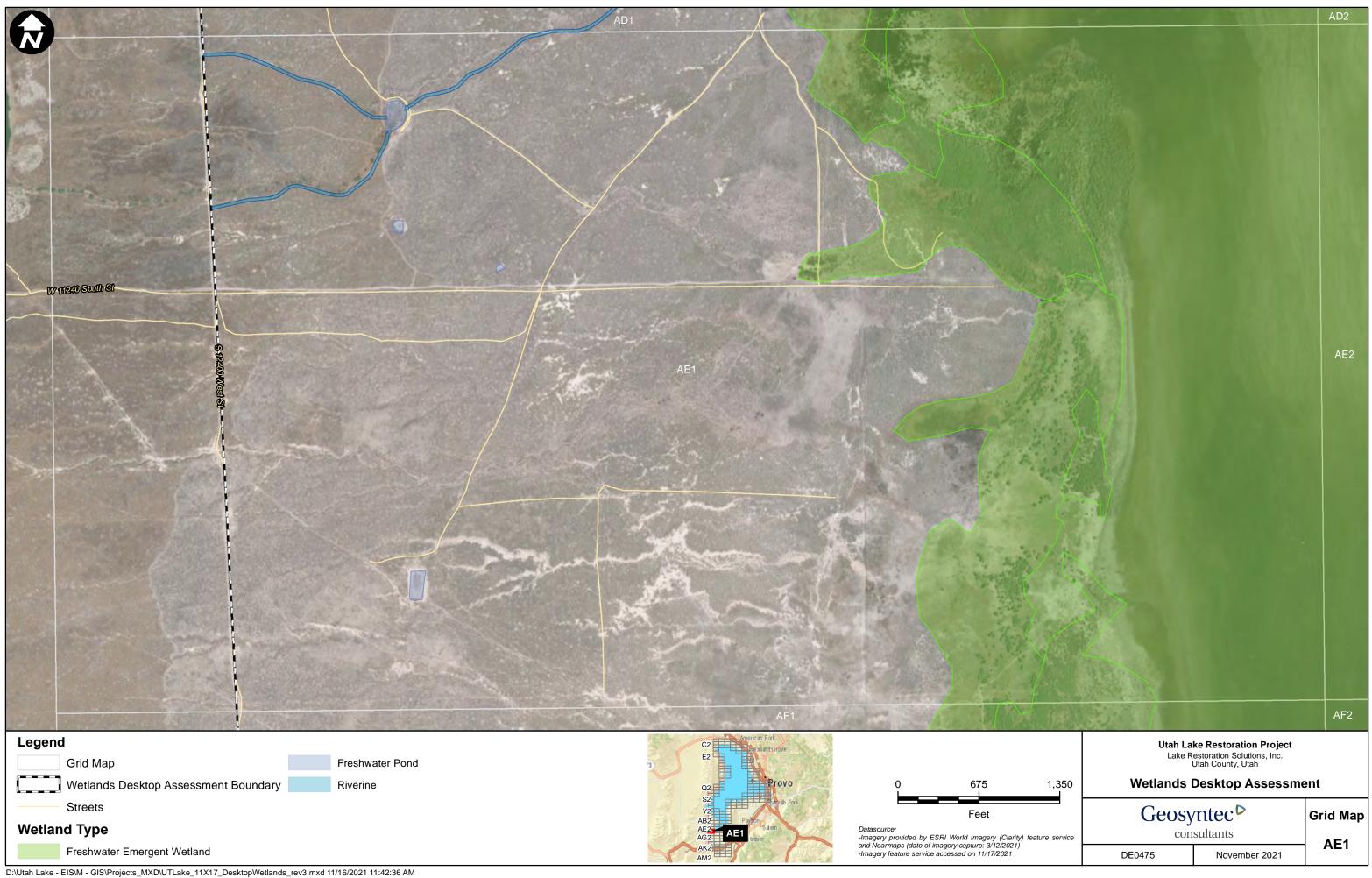


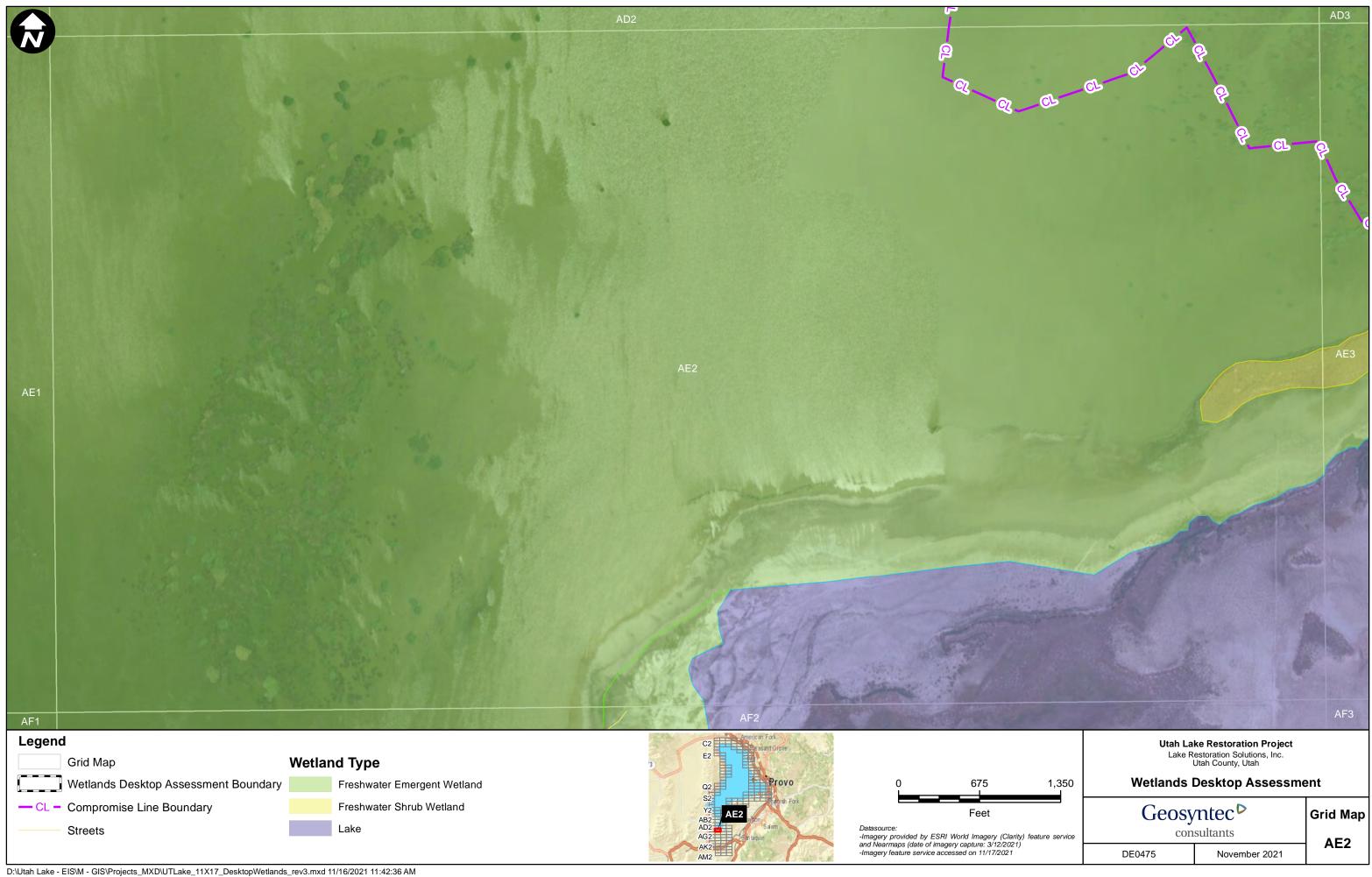


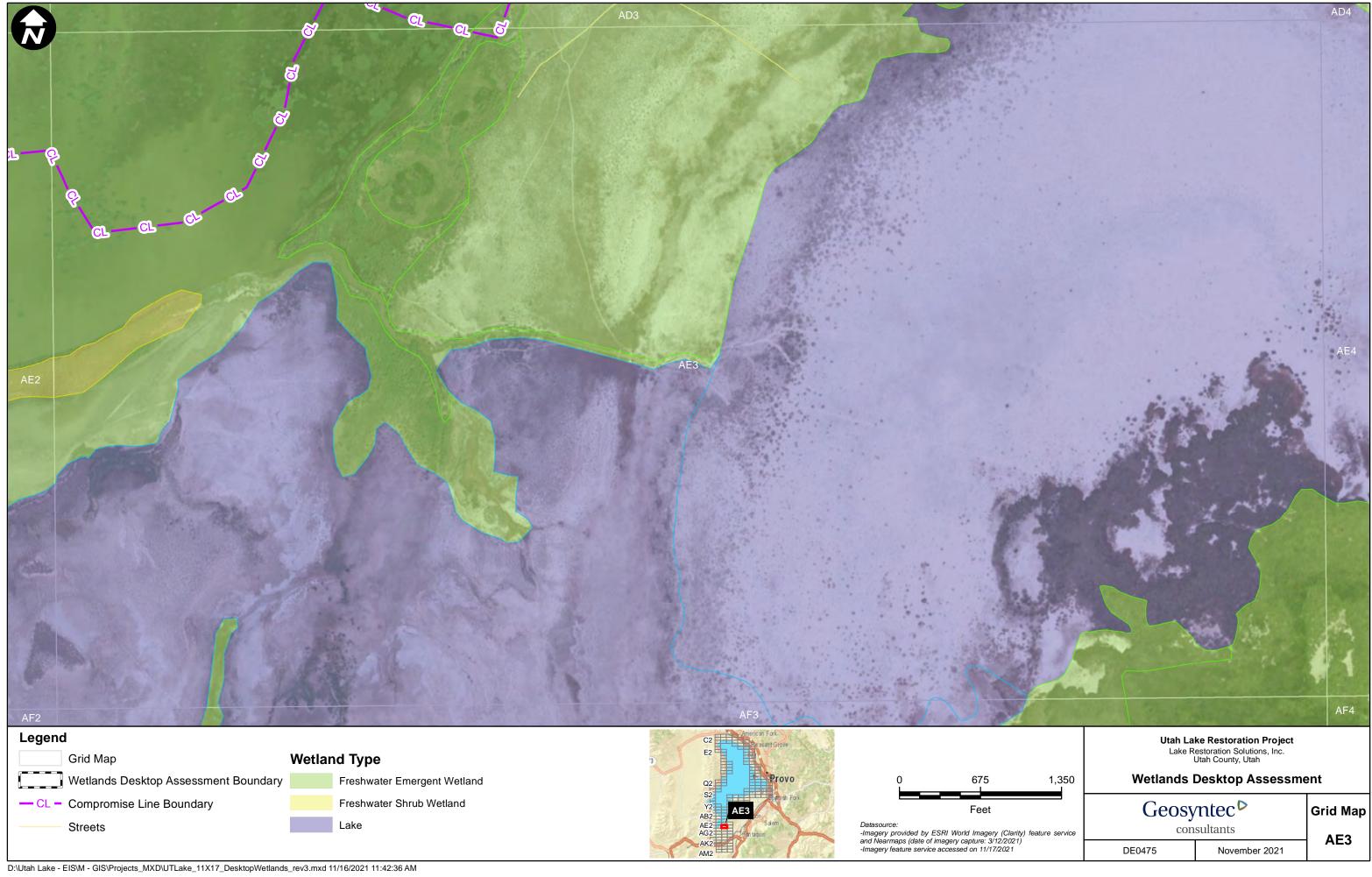


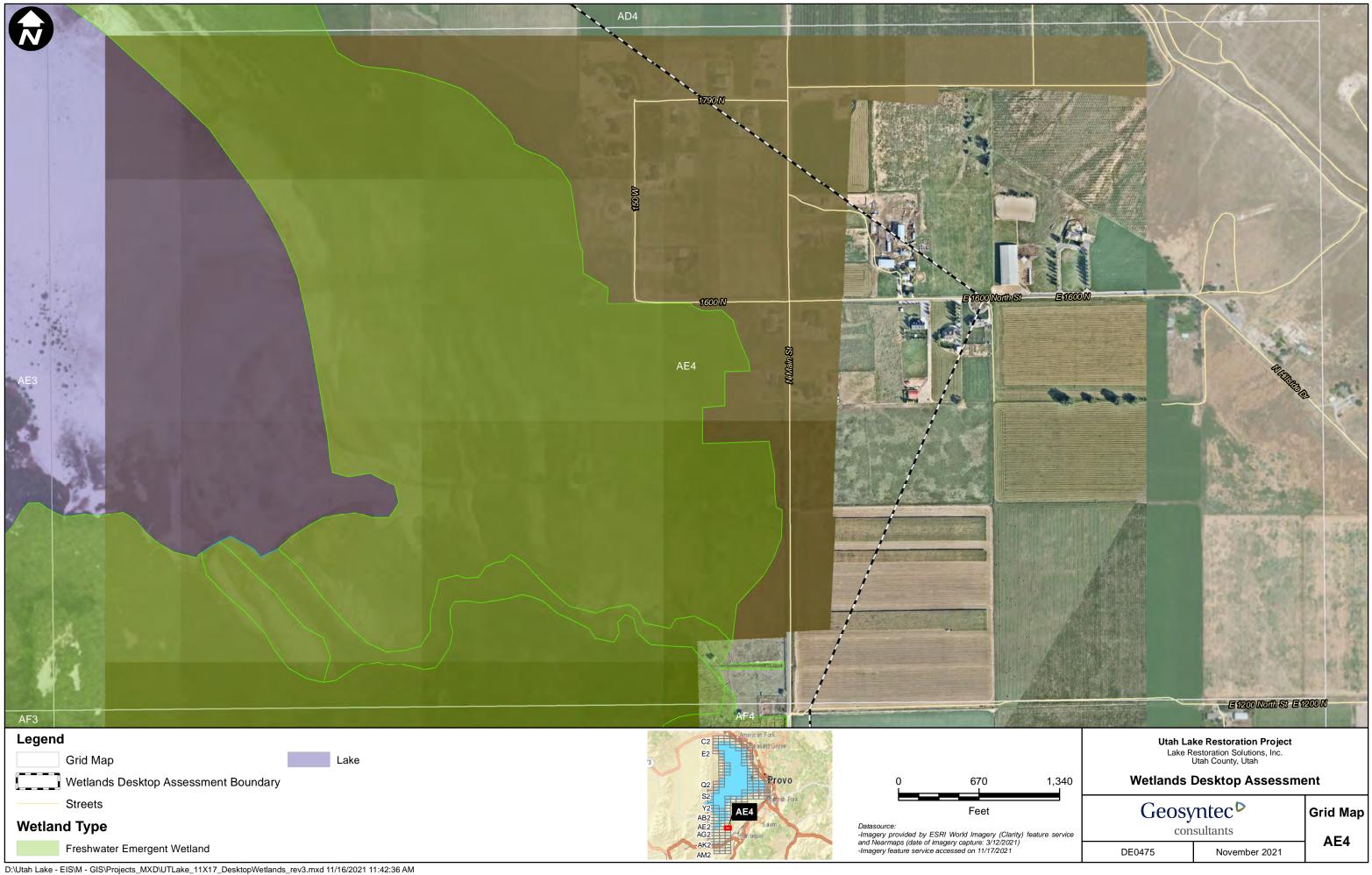


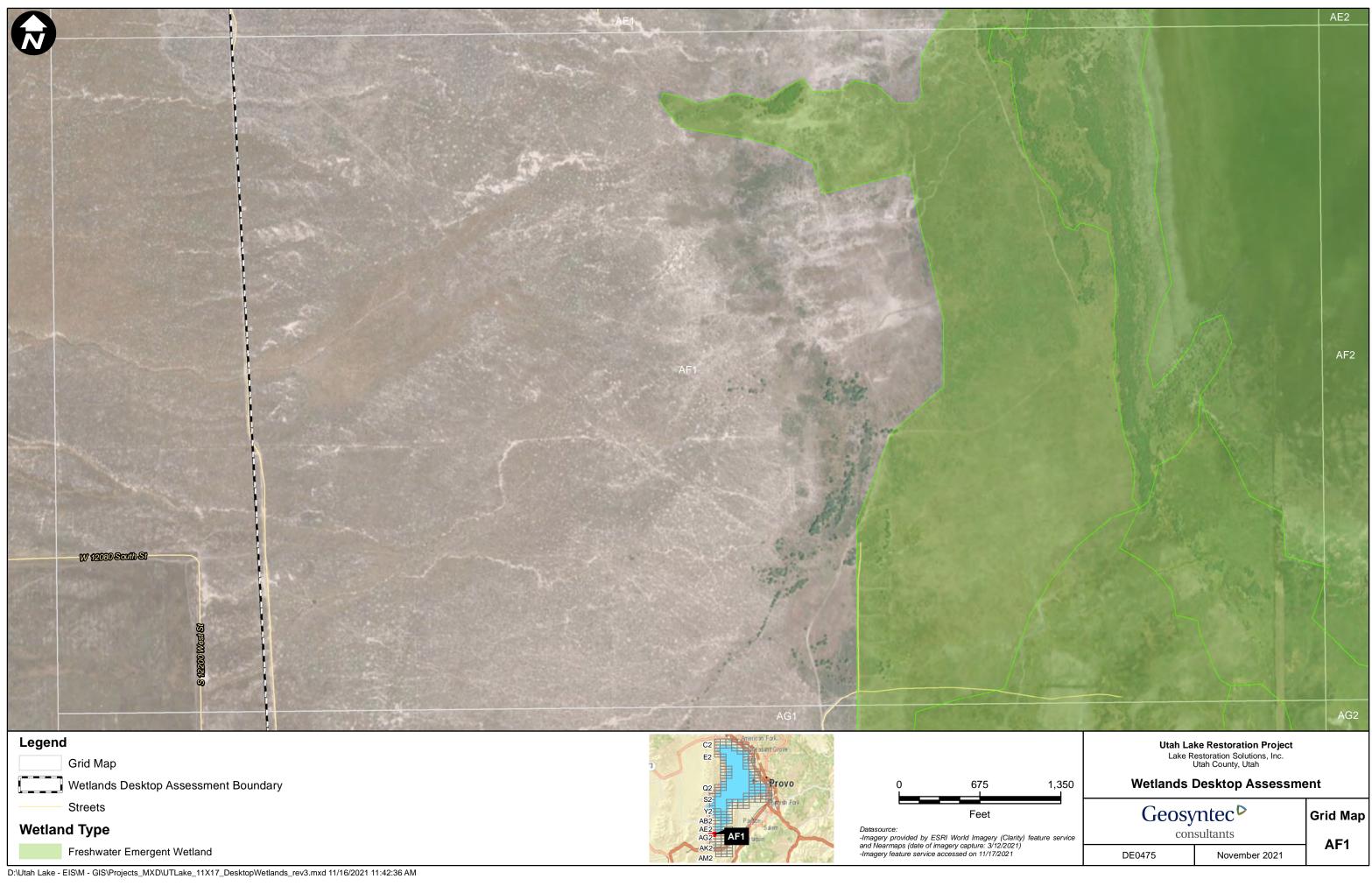
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

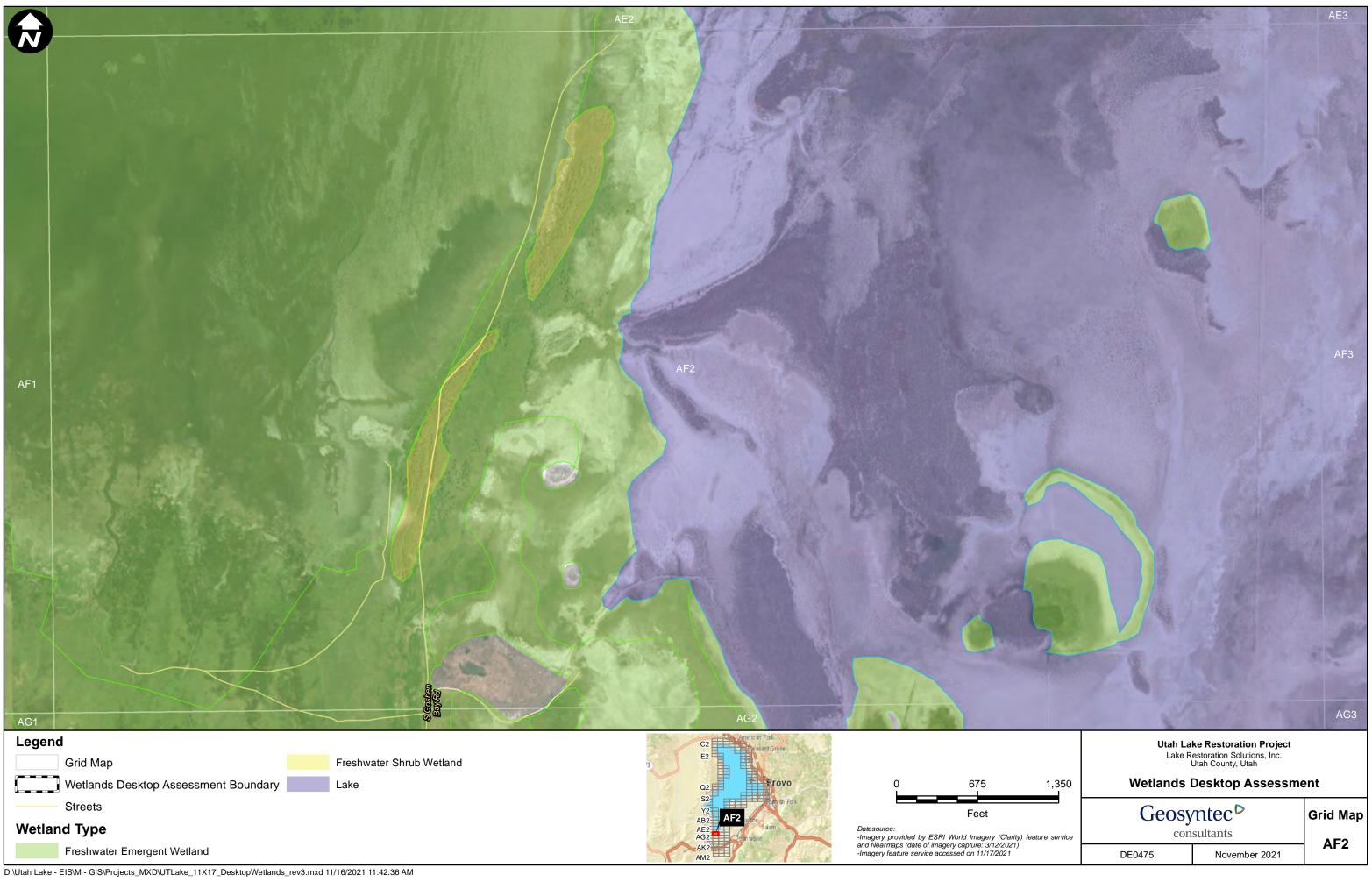


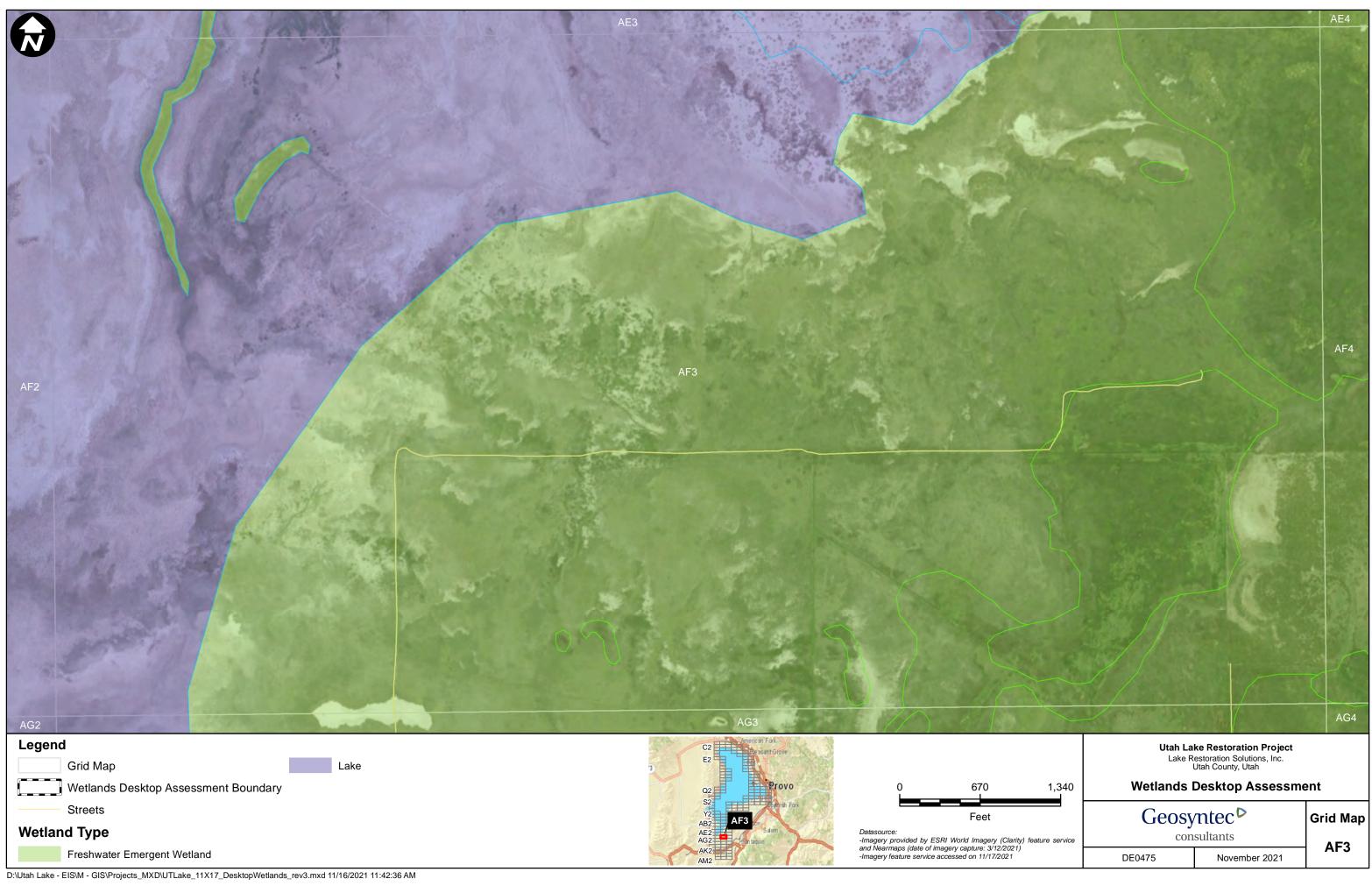


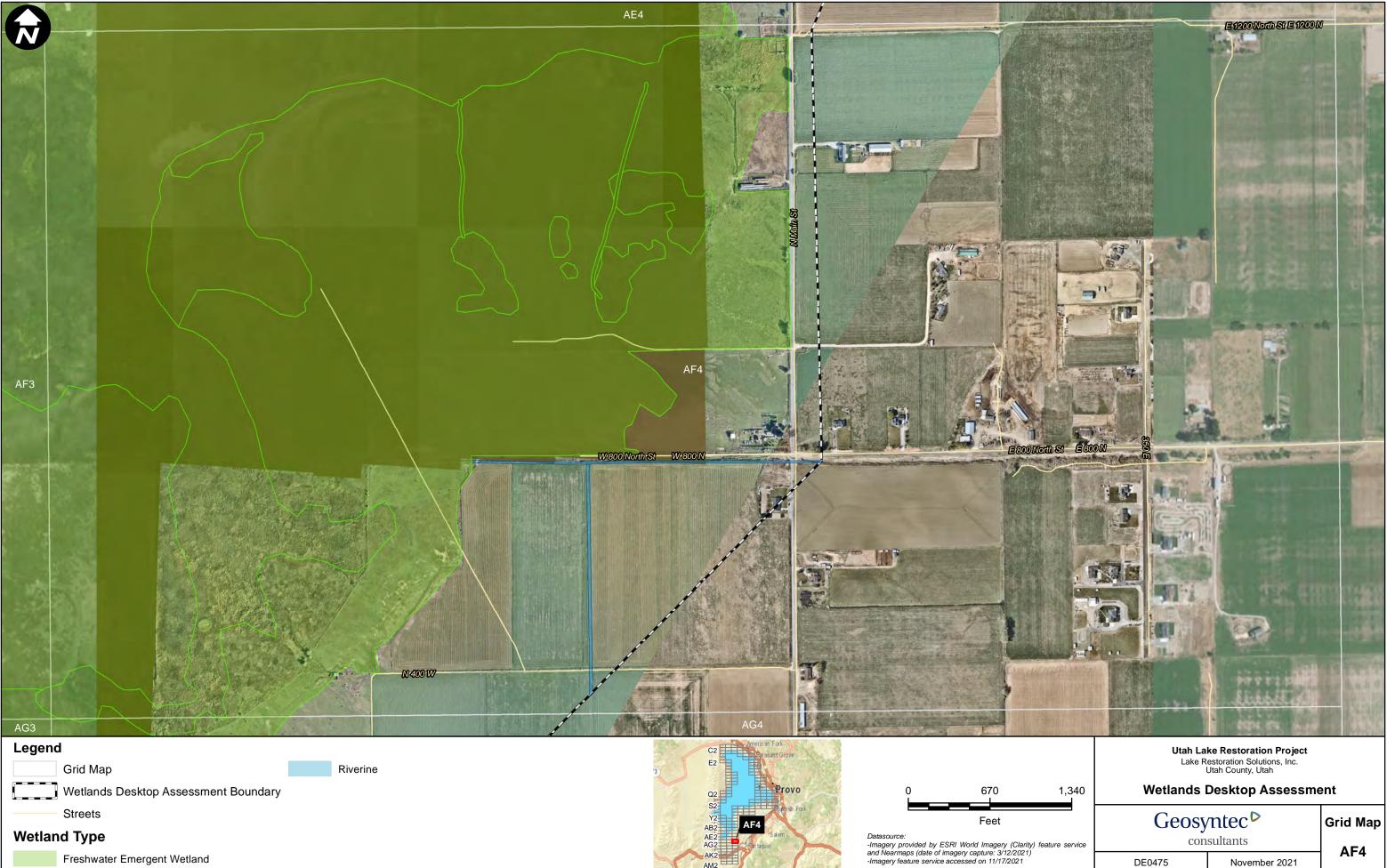












AM2

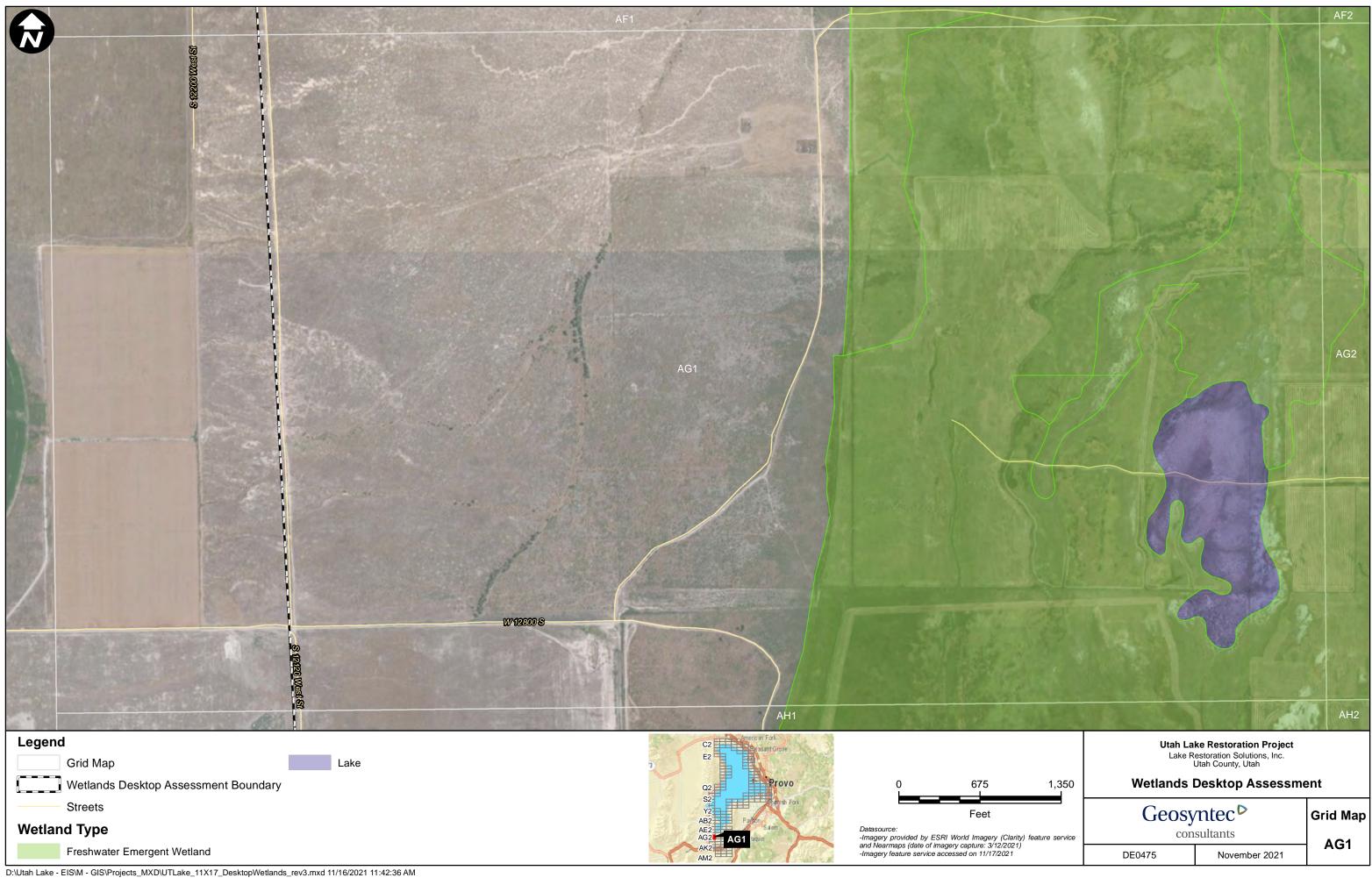
| Geosyntec <sup>▷</sup> |
|------------------------|
| consultants            |

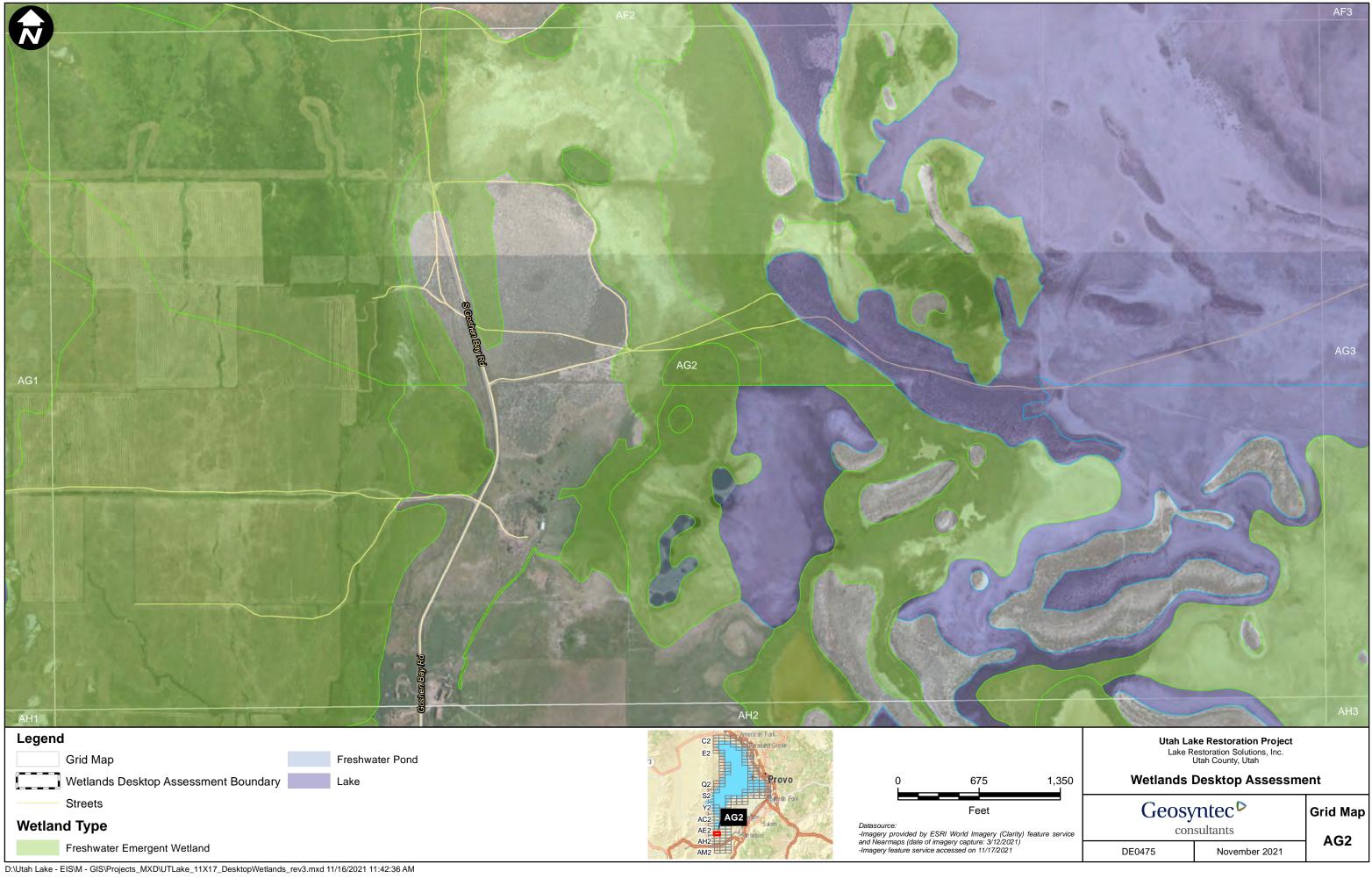
| ) feature service | Э |
|-------------------|---|
|-------------------|---|

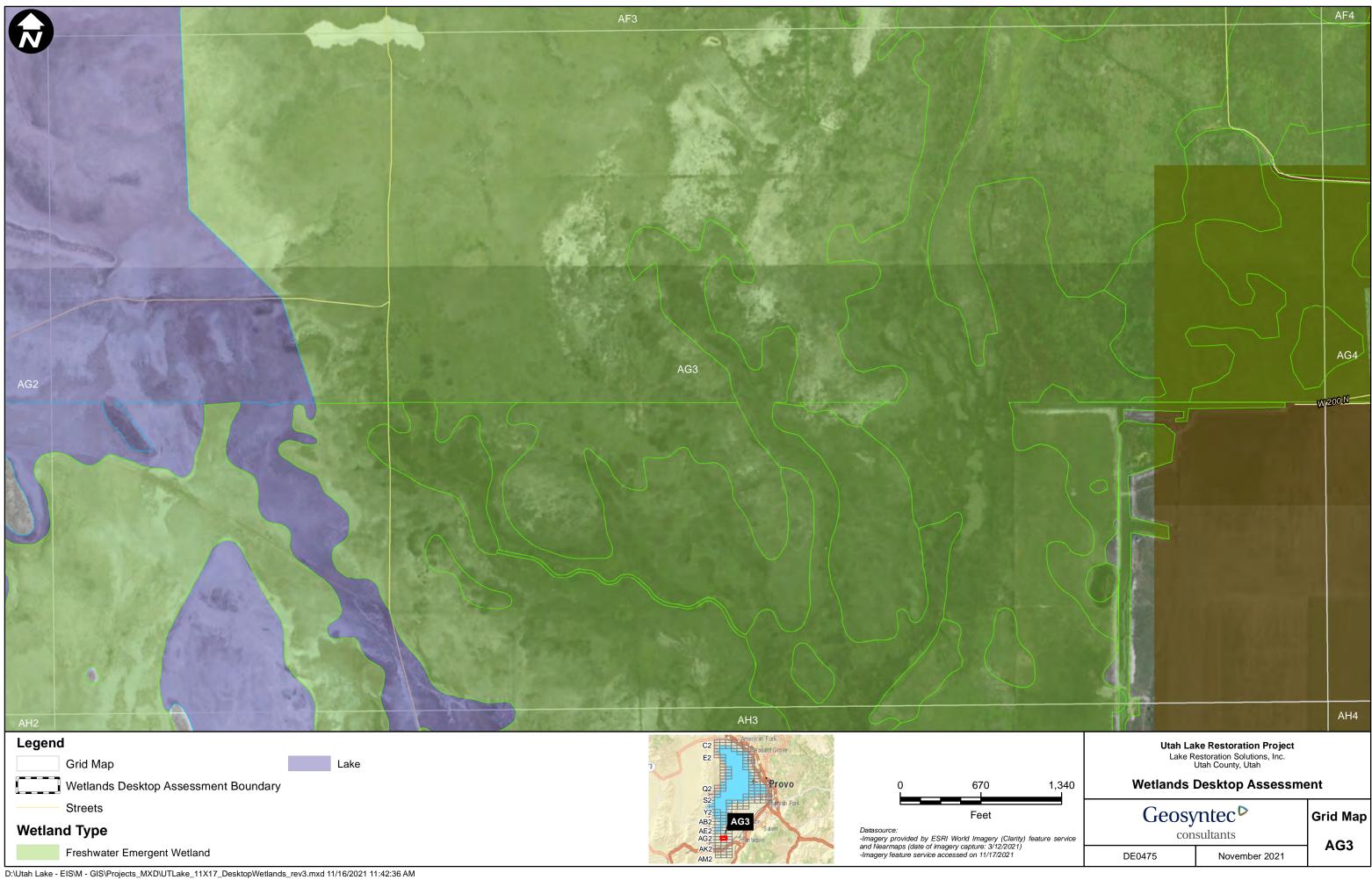
DE0475

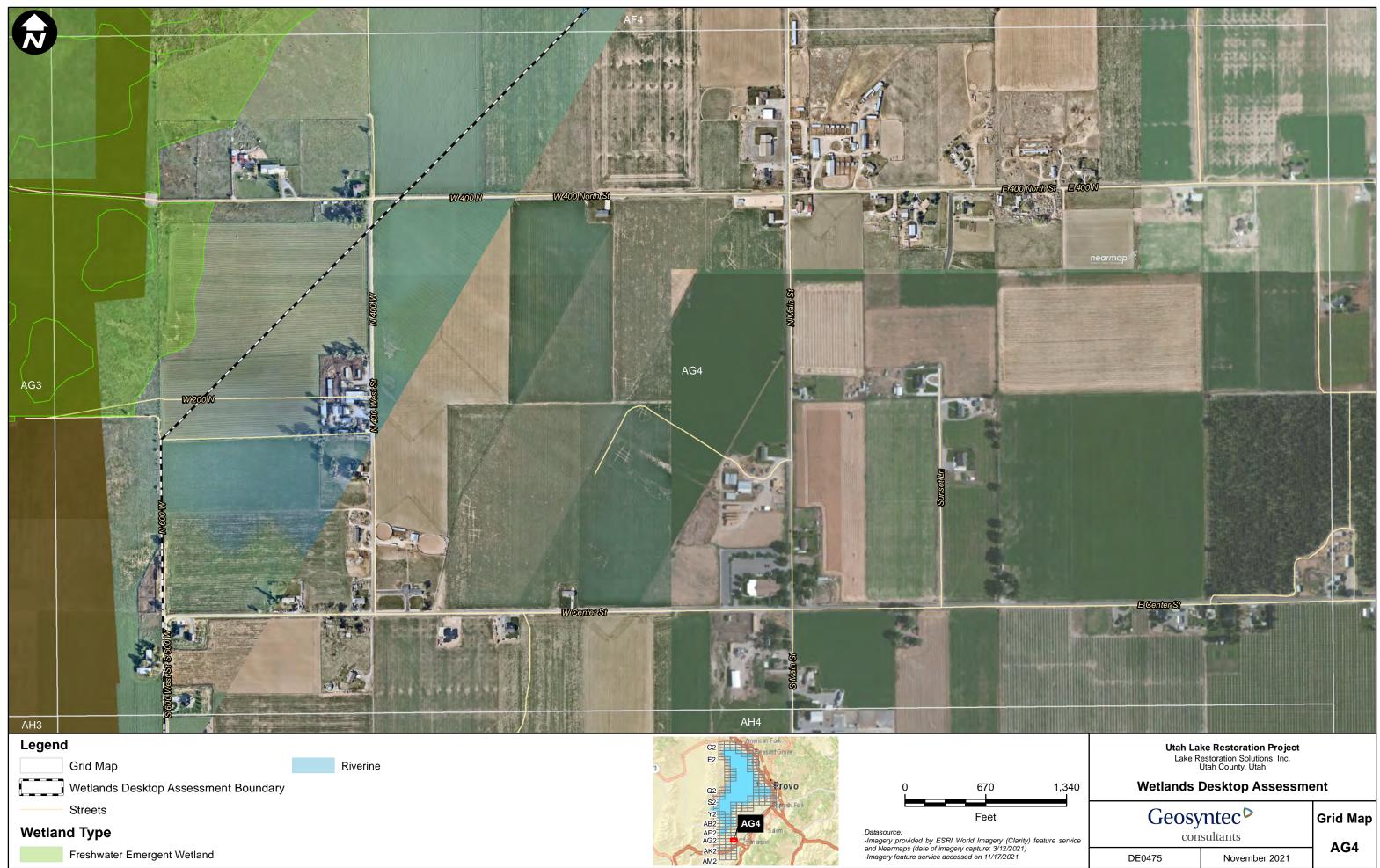
November 2021

D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM





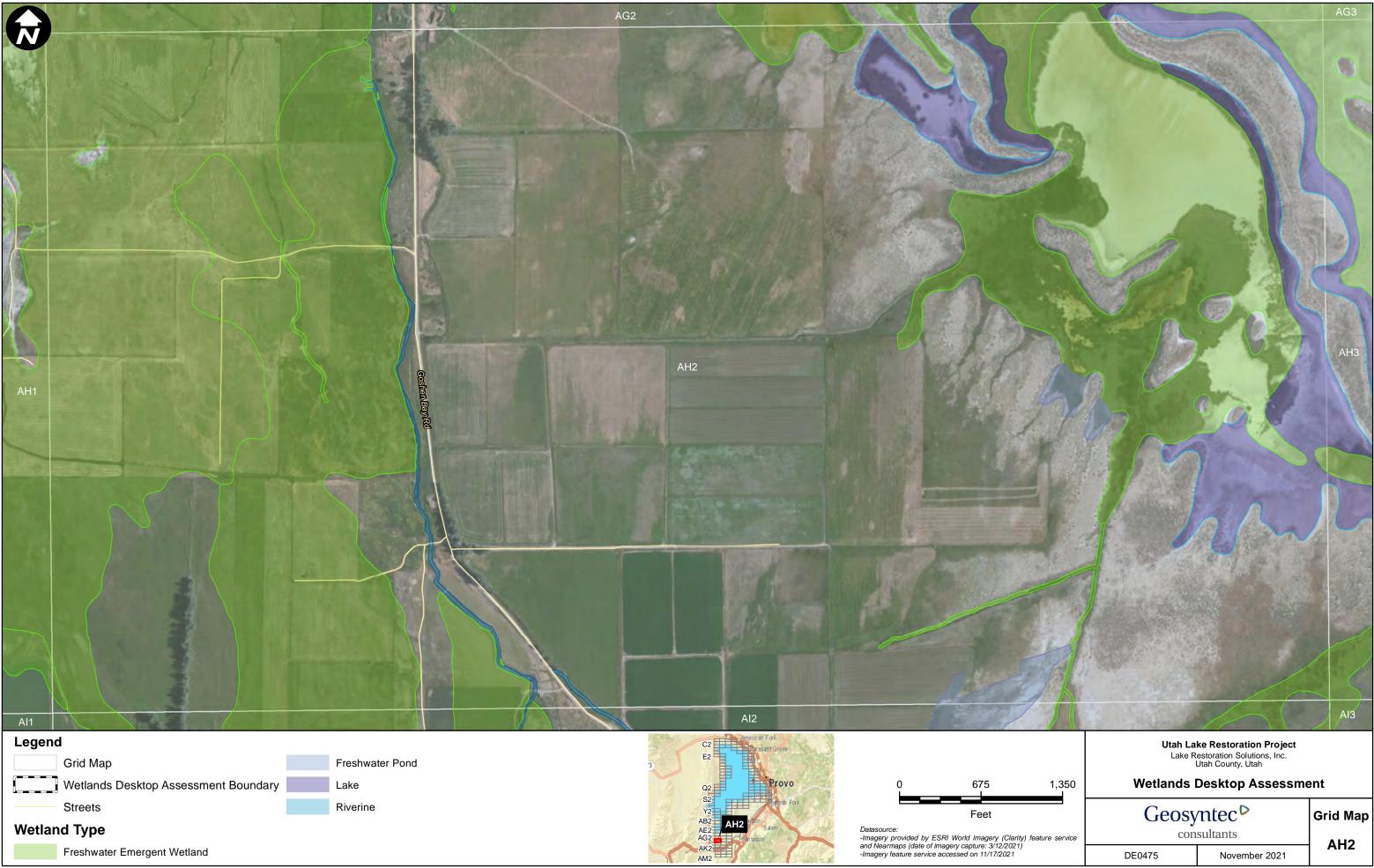




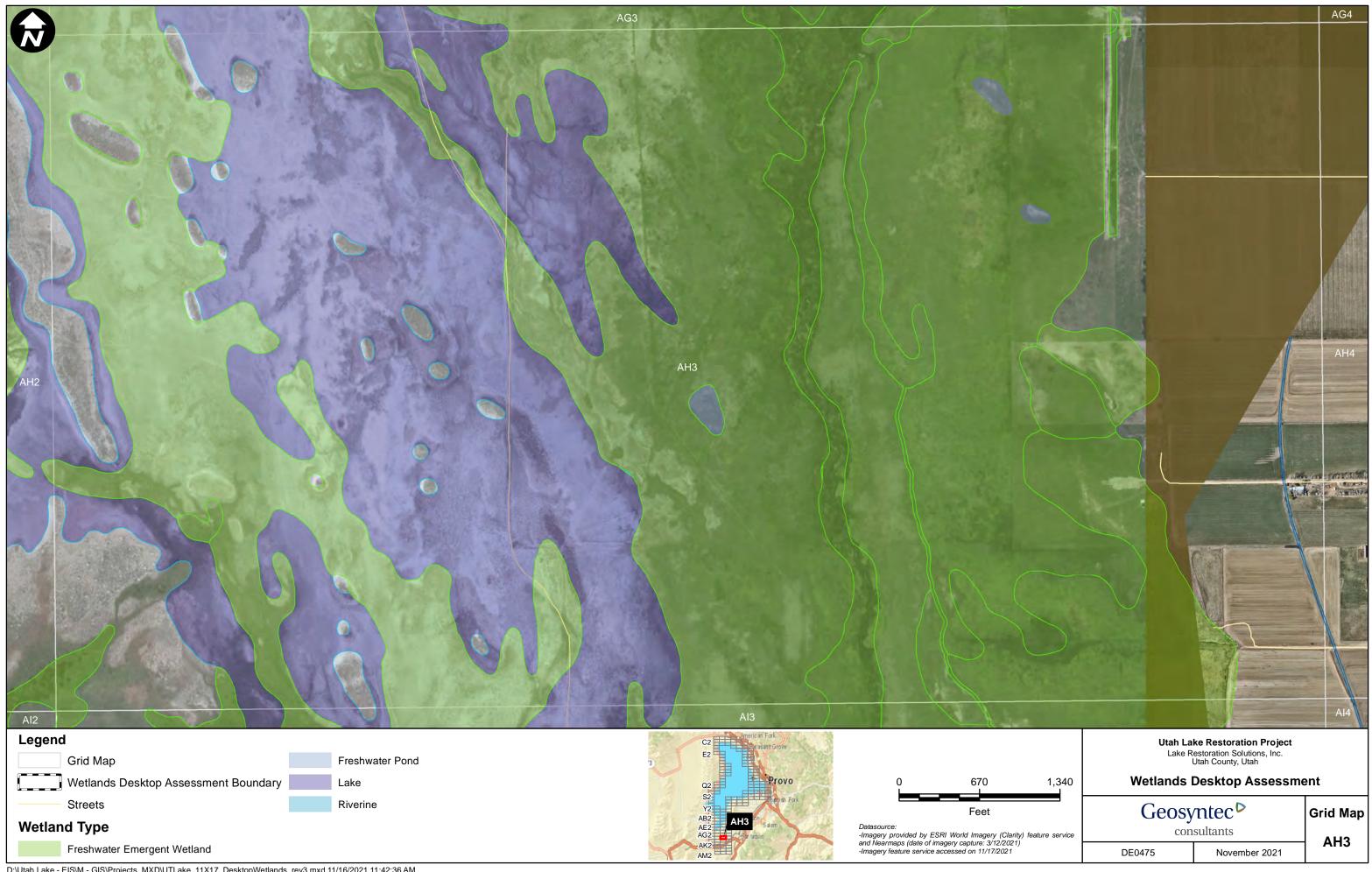
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

|  | AG1                                     | Rook and the set of second  |
|--|---|---|
|  |   |   |
|  |   |   |
|  |   |   |
|  |   |   |
|  |   |   |
| S 1220 Wood St.  |   |   |
|  |   |   |
|  |   |   |
|  |   |   |
|  |   |   |
|  |   |   |
|  |   | A A A A A A A   |
|  |   |   |
|  | AH1                                     |   |
| and the second sec |   |   |
|  | X                                       |   |
|  |   |   |
|  |   |   |
|  |   |   |
|  |   |   |
|  |   |   |
| S 12500 Meet S   |   |   |
|  |   |   |
|  |   |   |
|  |   |   |
|  |   |   |
|  |   |   |
|  | Al1                                     |   |
| Legend   |   |   |
| Grid Map Freshwater Pond   | C2 American Fox                         | ve  |
| Wetlands Desktop Assessment Boundary Riverine  | Q2                                      | ovo 0 675   |
| Streets  | Q2<br>S2<br>Y2                          | for Fork  |
| Wetland Type   | AB2 Parton<br>AE2 Siem<br>AG2 ALL tagun |   |
| Freshwater Emergent Wetland  | AK2 AH1 additi<br>AK2 AH1               | Datasource:<br>-Imagery provided by ESRI World Imagery (Clarity<br>and Nearmaps (date of imagery capture: 3/12/2021)<br>-Imagery feature service accessed on 11/17/2021 |



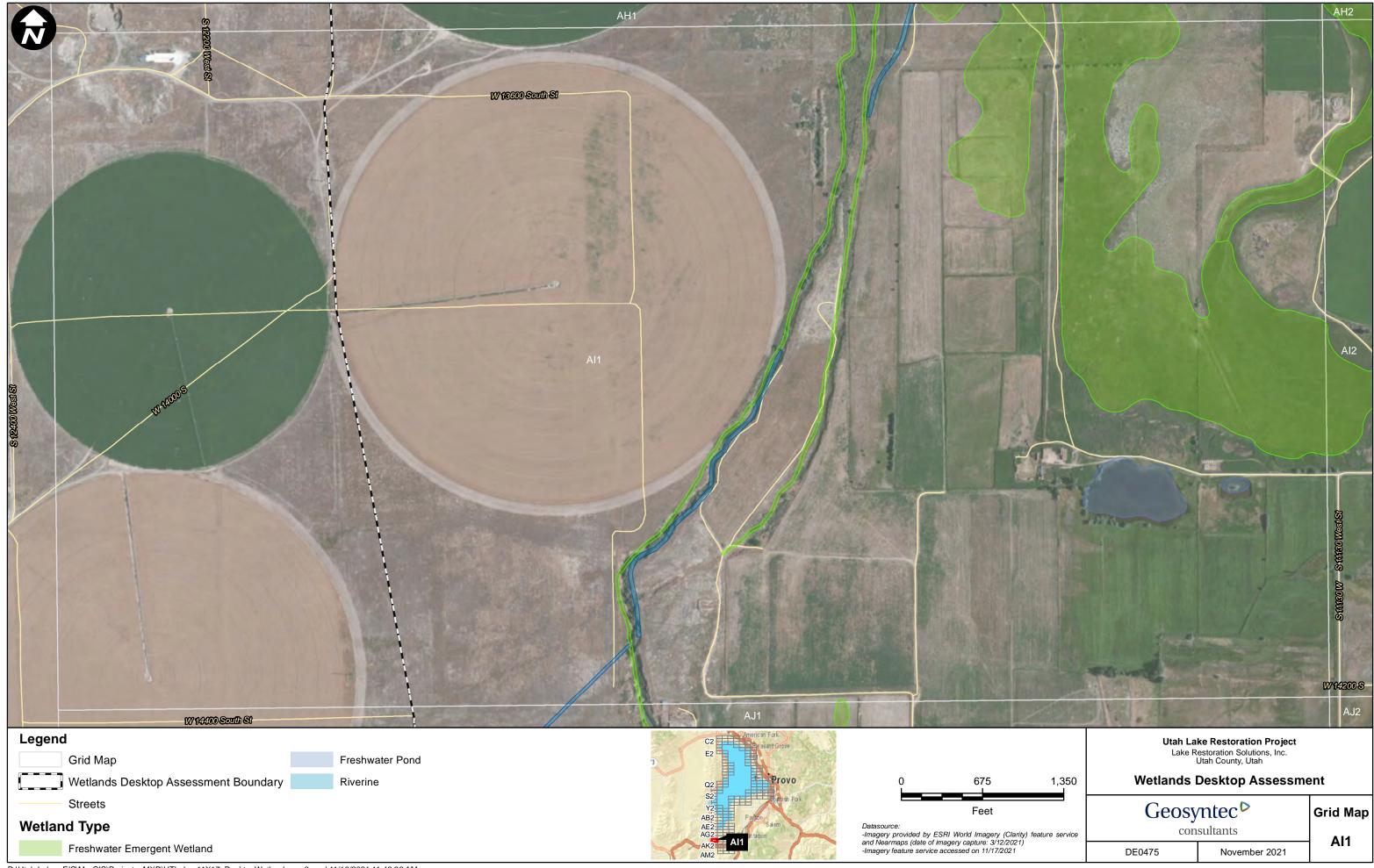


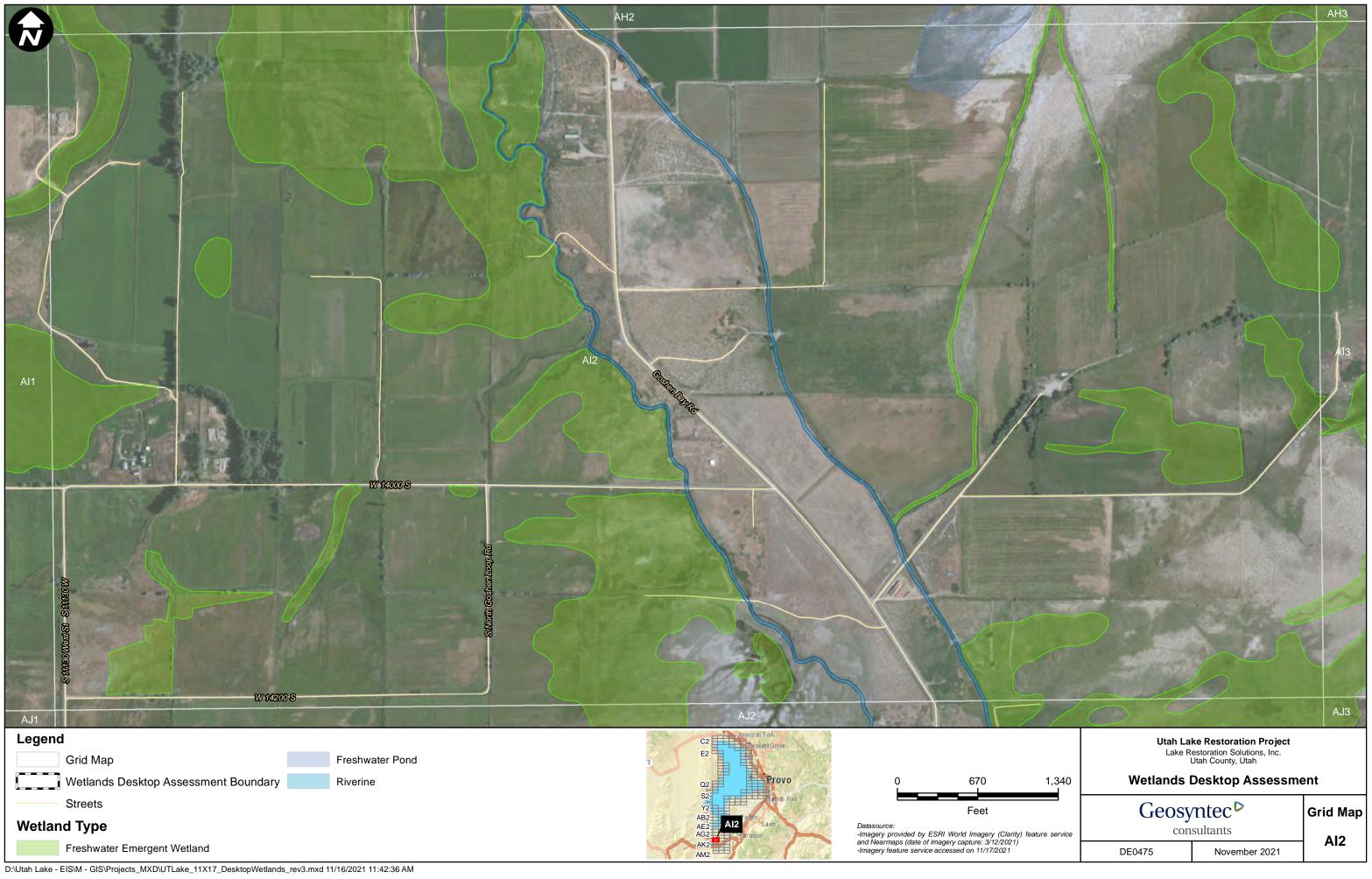
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

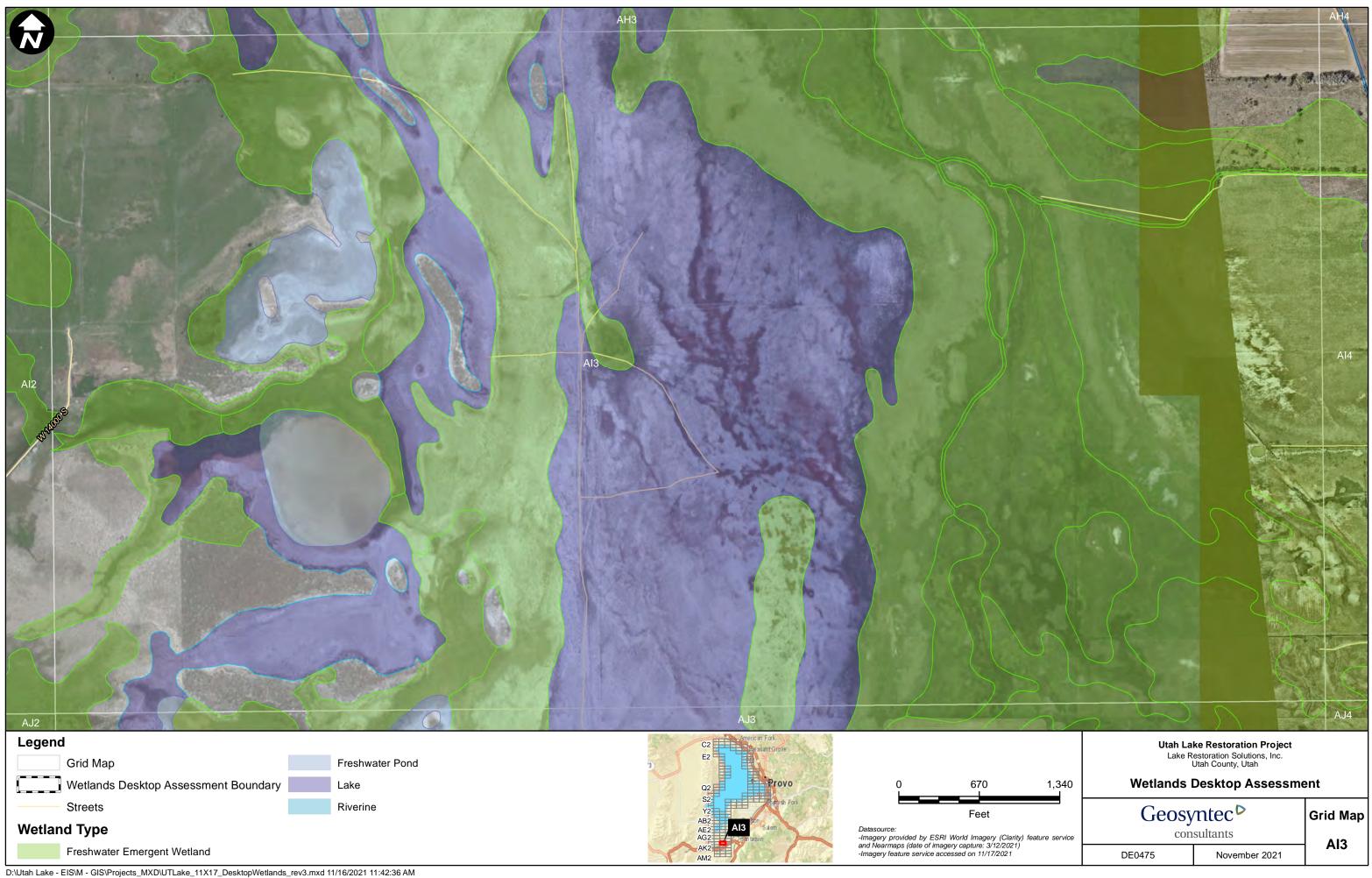


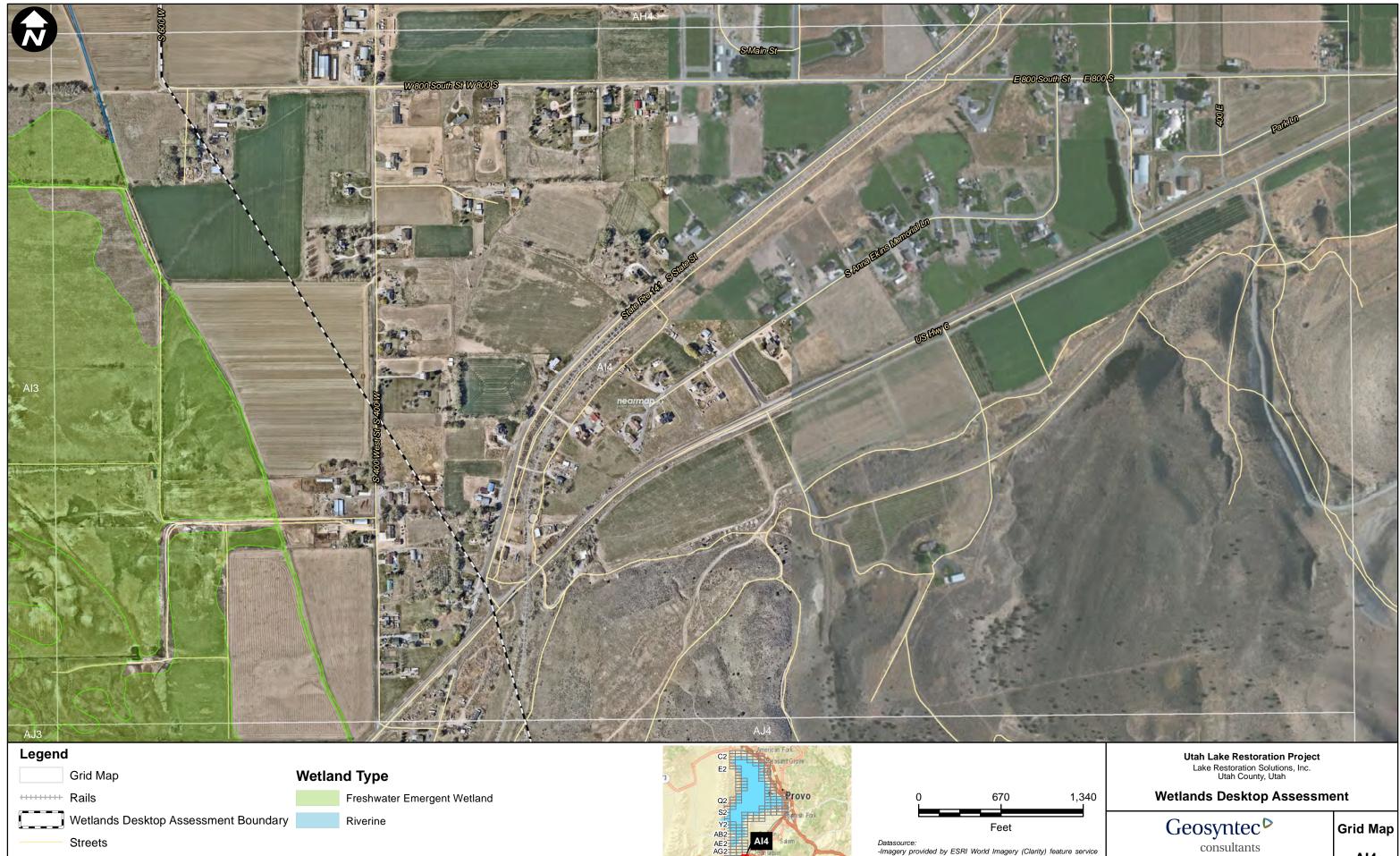
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM











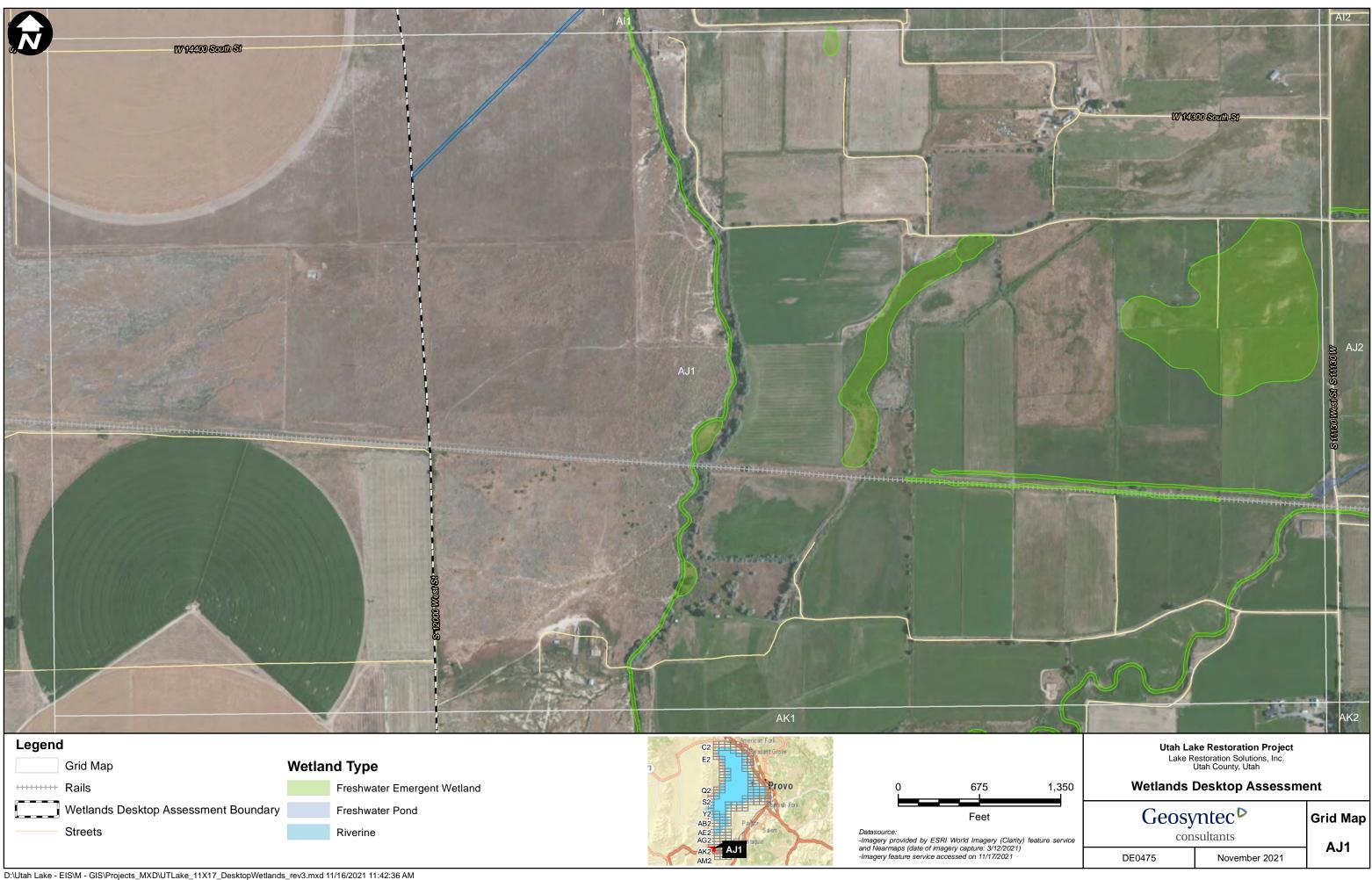
AK2

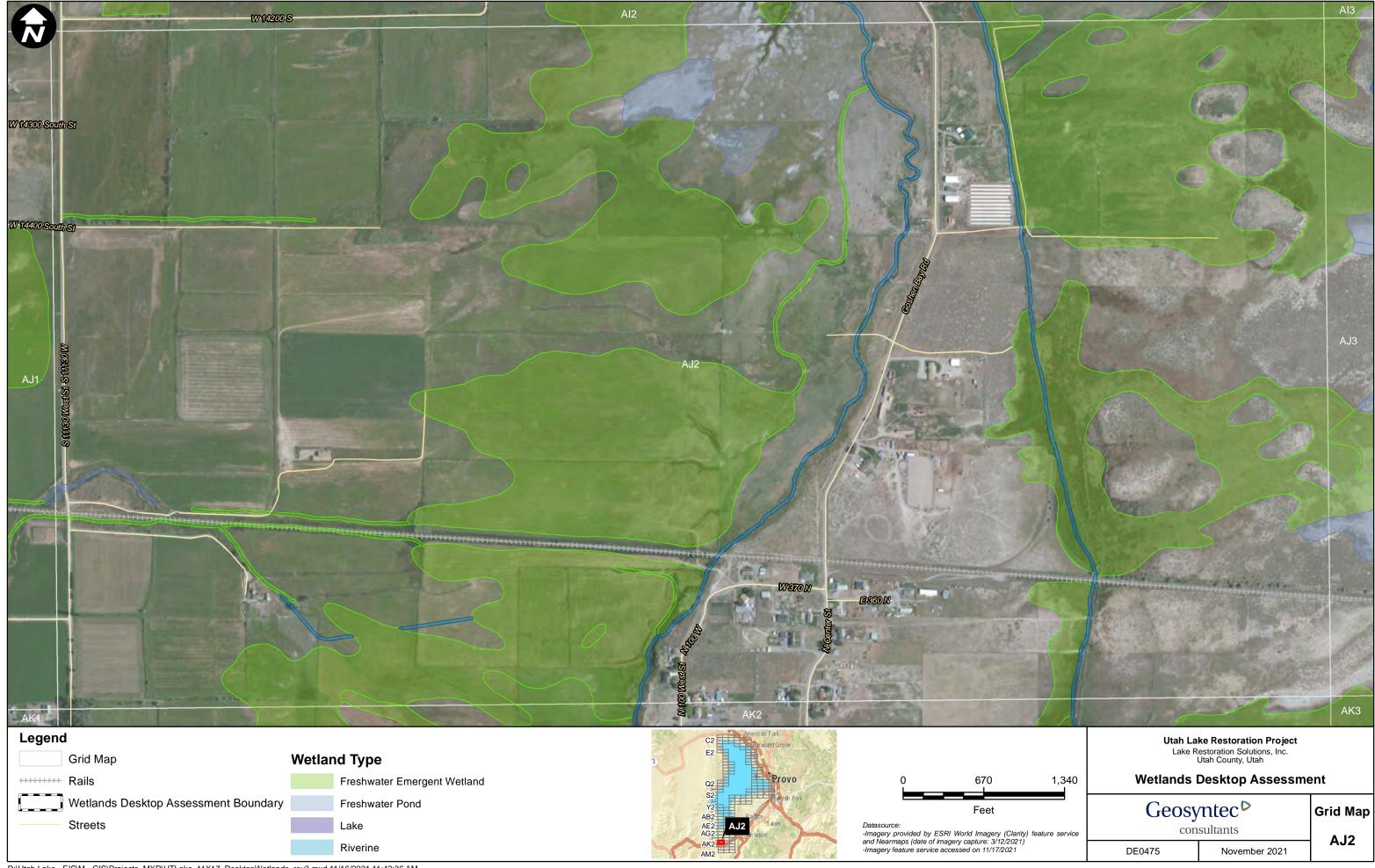
AM2

| DE0475 |
|--------|
|--------|

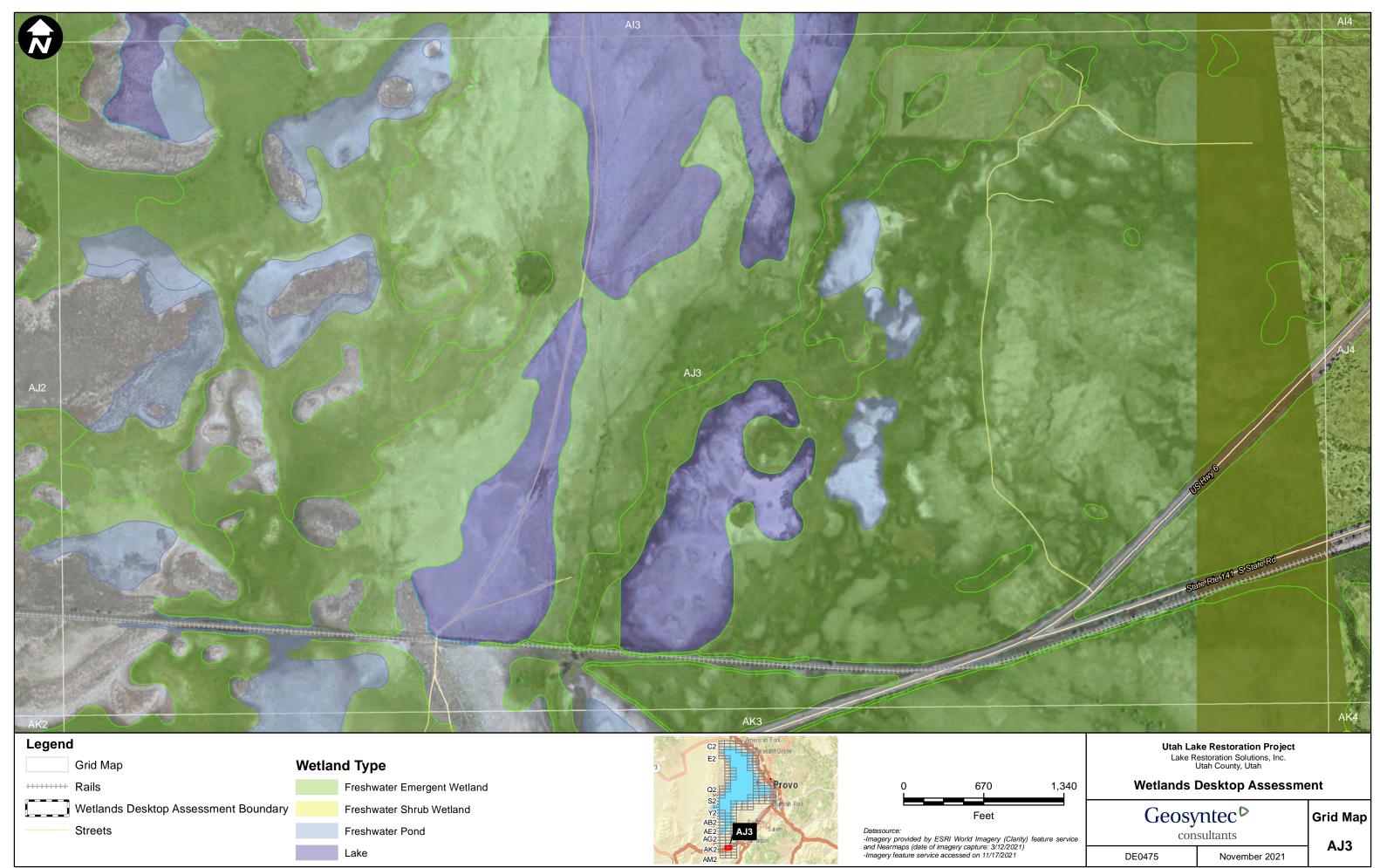
November 2021

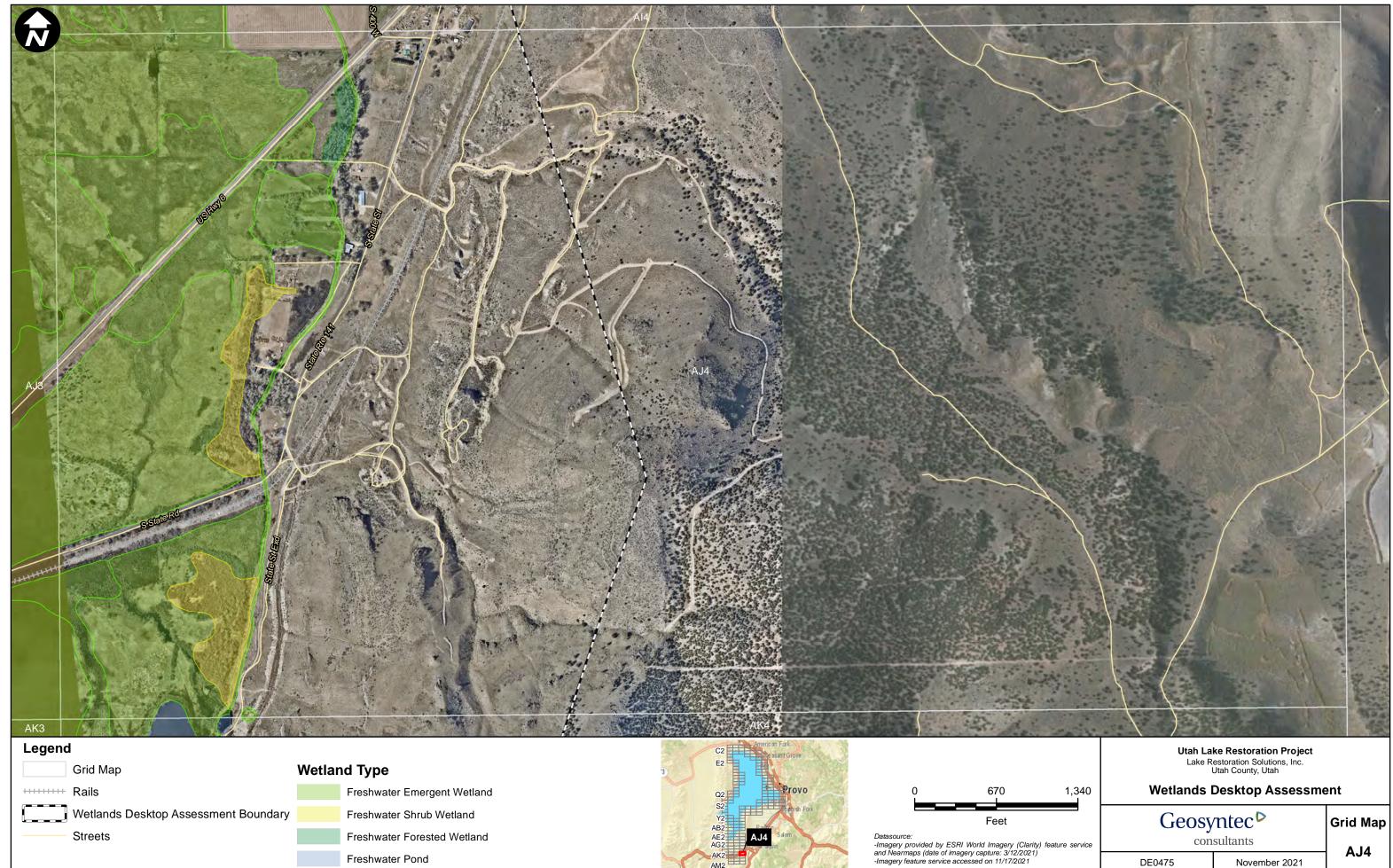
Al4

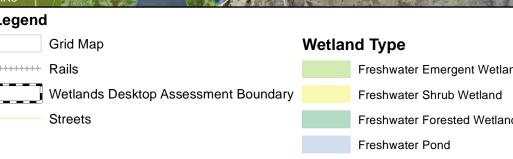




D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM







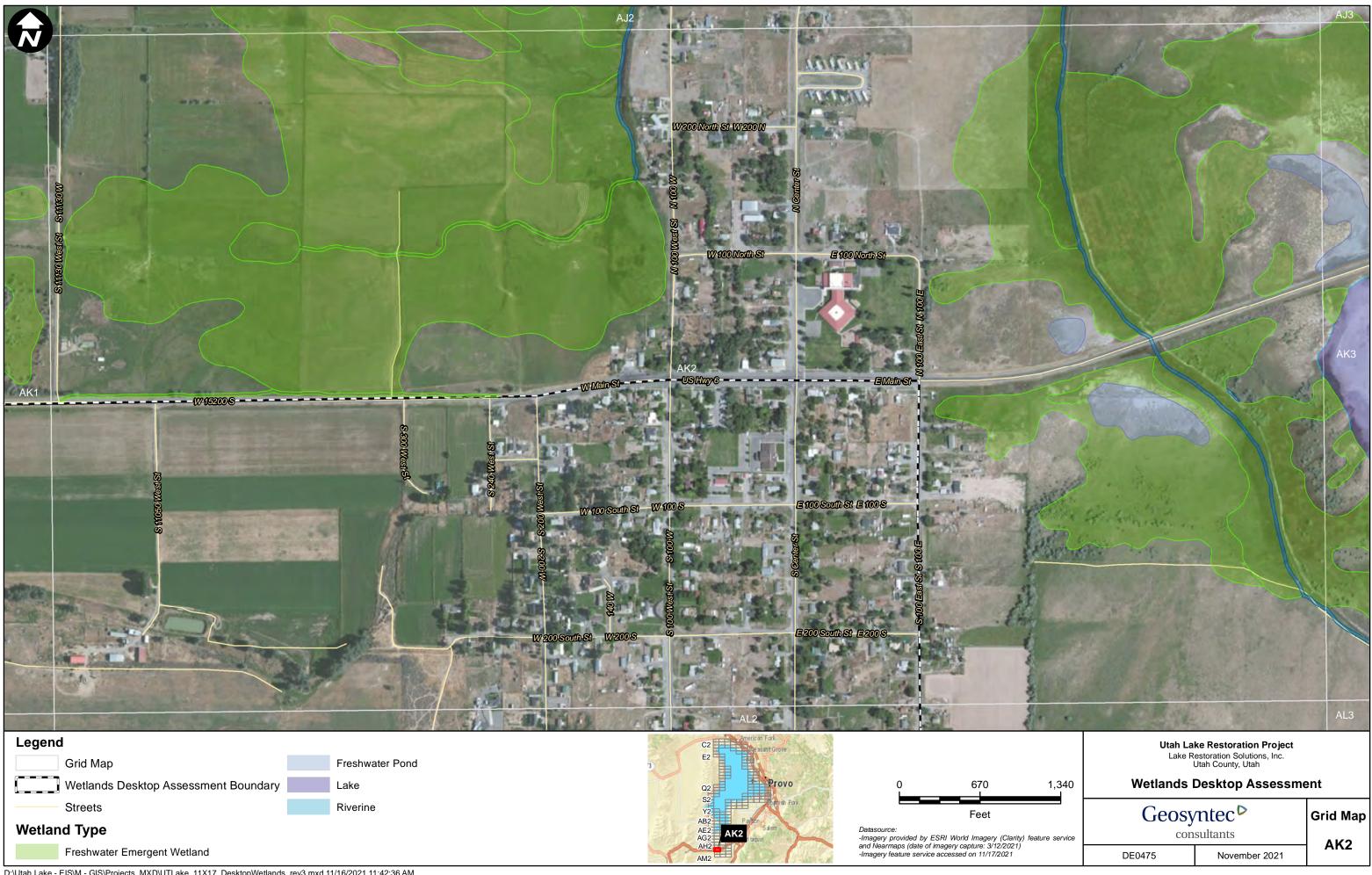




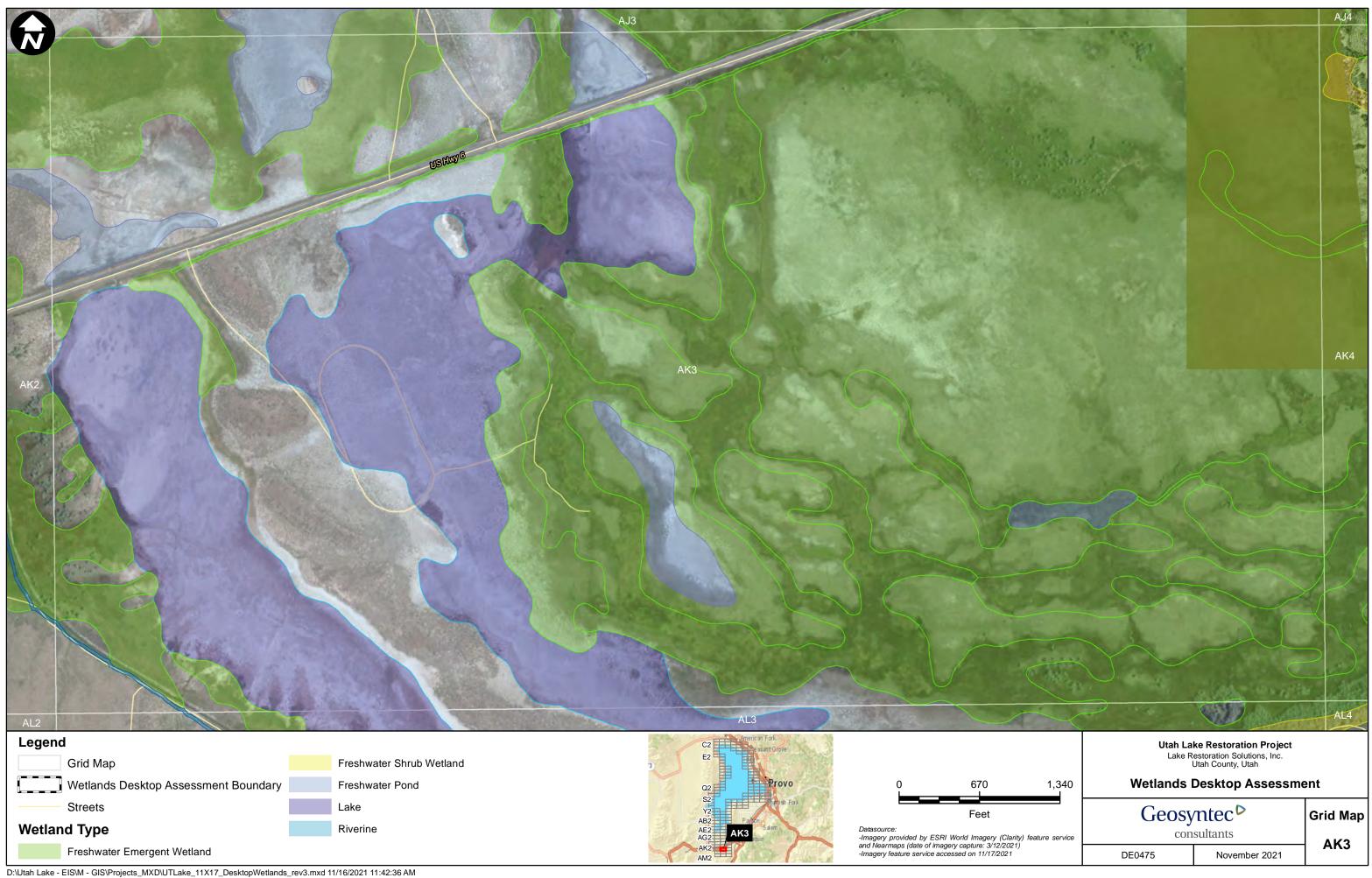
| Δ                     | The second second           |                 | A | 11   |   |
|-----------------------|-----------------------------|-----------------|---|--|---|
|                       |                             |                 |   |  |   |
|                       |                             |                 |   |  |   |
| 2                     | Mayo                        |                 |   | AK1<br>SKMW76W145200-S   |   |
|                       |                             |                 |   |  |   |
|                       |                             |                 |   |  |   |
| Legend<br>Grid Map    |                             | Freshwater Pond |   | C2 American Fork<br>E2 De asant Grove  |   |
| Wetlands I<br>Streets | Desktop Assessment Boundary | Riverine        |   | Q2<br>S2<br>S2<br>S2<br>S2<br>S2<br>S2<br>S2<br>S2<br>S2<br>S2<br>S2<br>S2<br>S2 | 0 675   |
| Wetland Type          |                             |                 |   | Y2<br>AB2 Paron<br>AE2<br>AG2 area<br>taqua                                      | Feet Datasource: -Imagery provided by ESRI World Imagery (Clarity   |
| Freshwater            | Emergent Wetland            |                 |   |  | <ul> <li>Imagery provided by ESRI World Imagery (Clarity<br/>and Nearmaps (date of imagery capture: 3/12/2021)</li> <li>Imagery feature service accessed on 11/17/2021</li> </ul> |

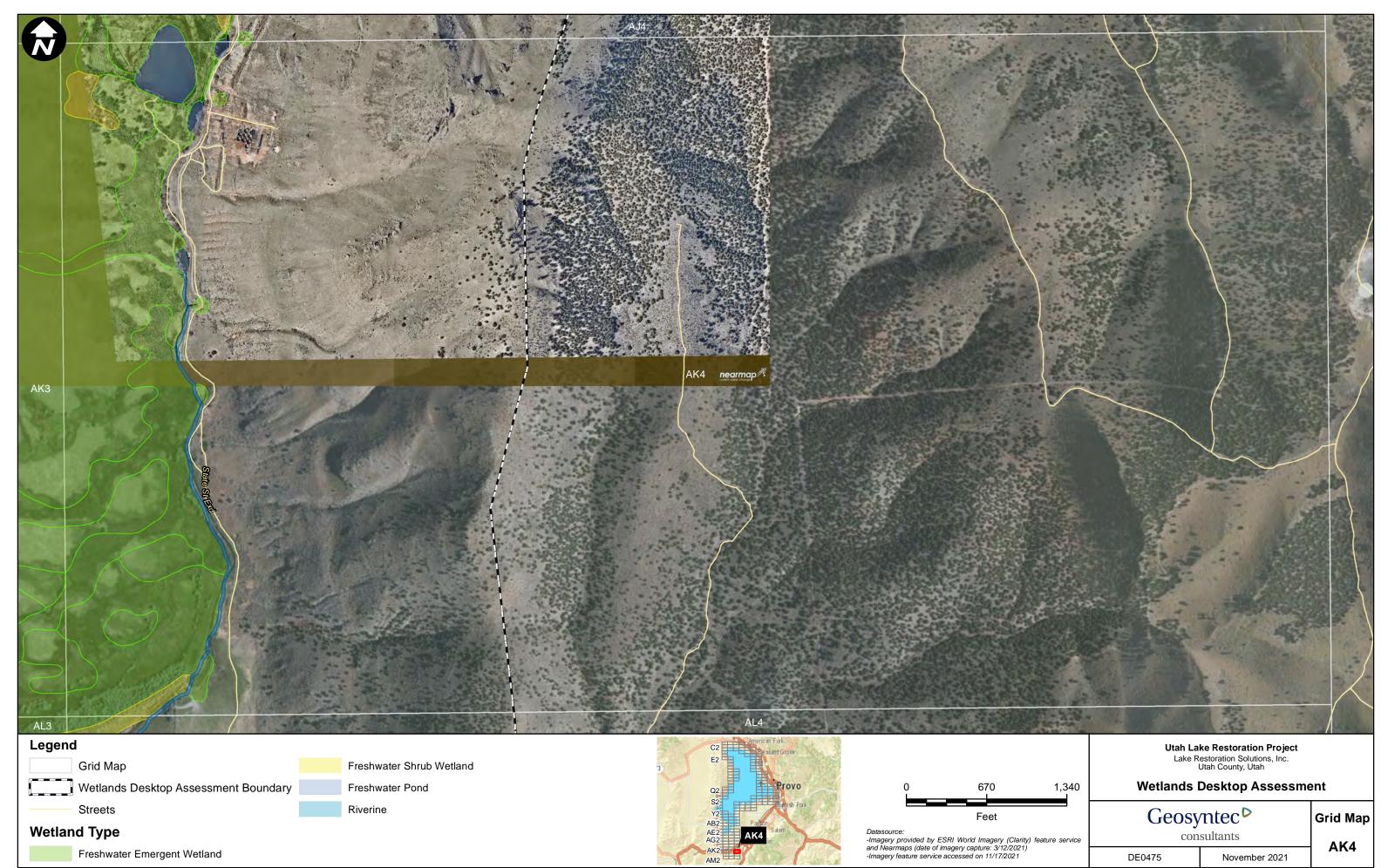
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM





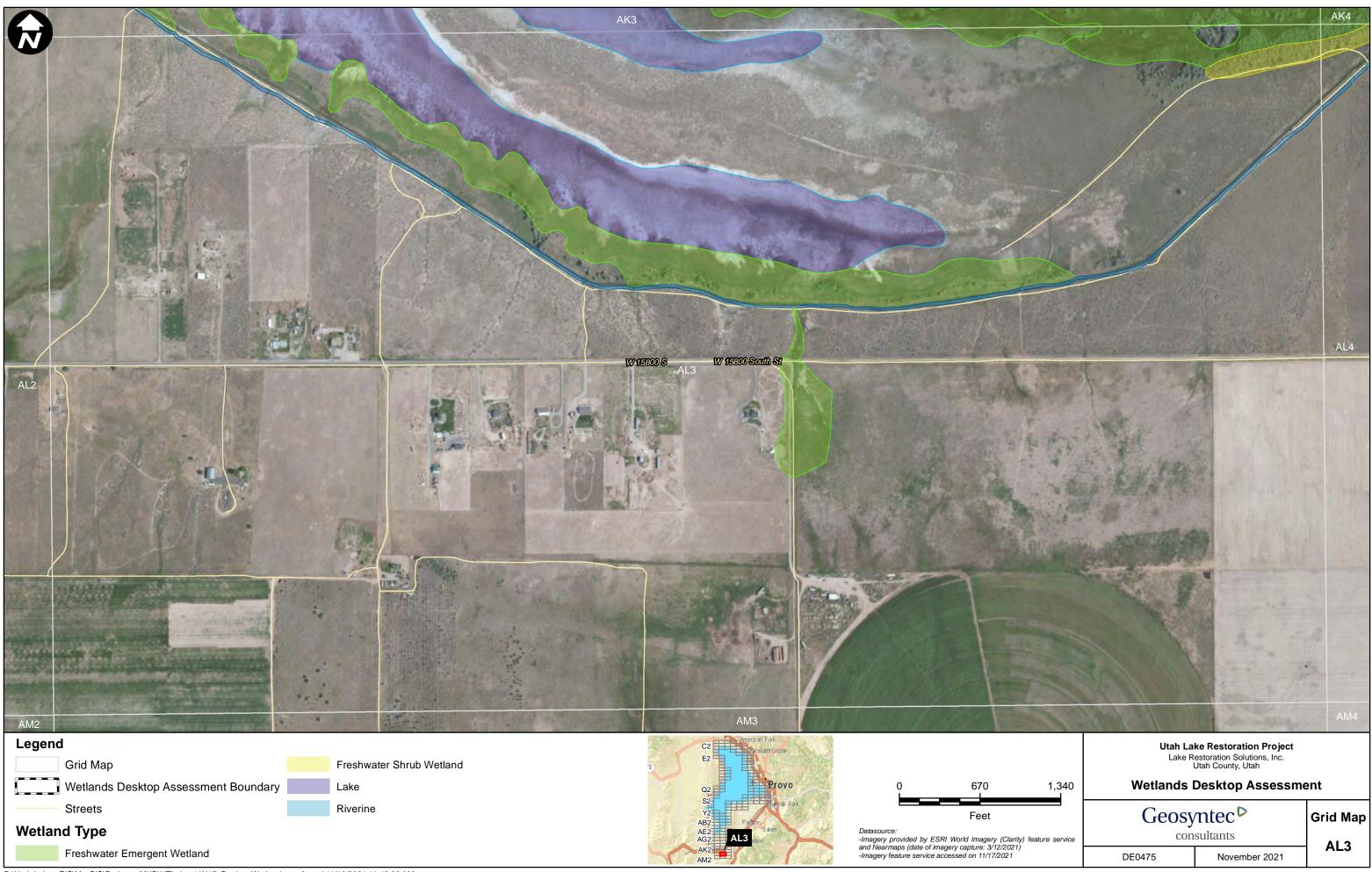
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM



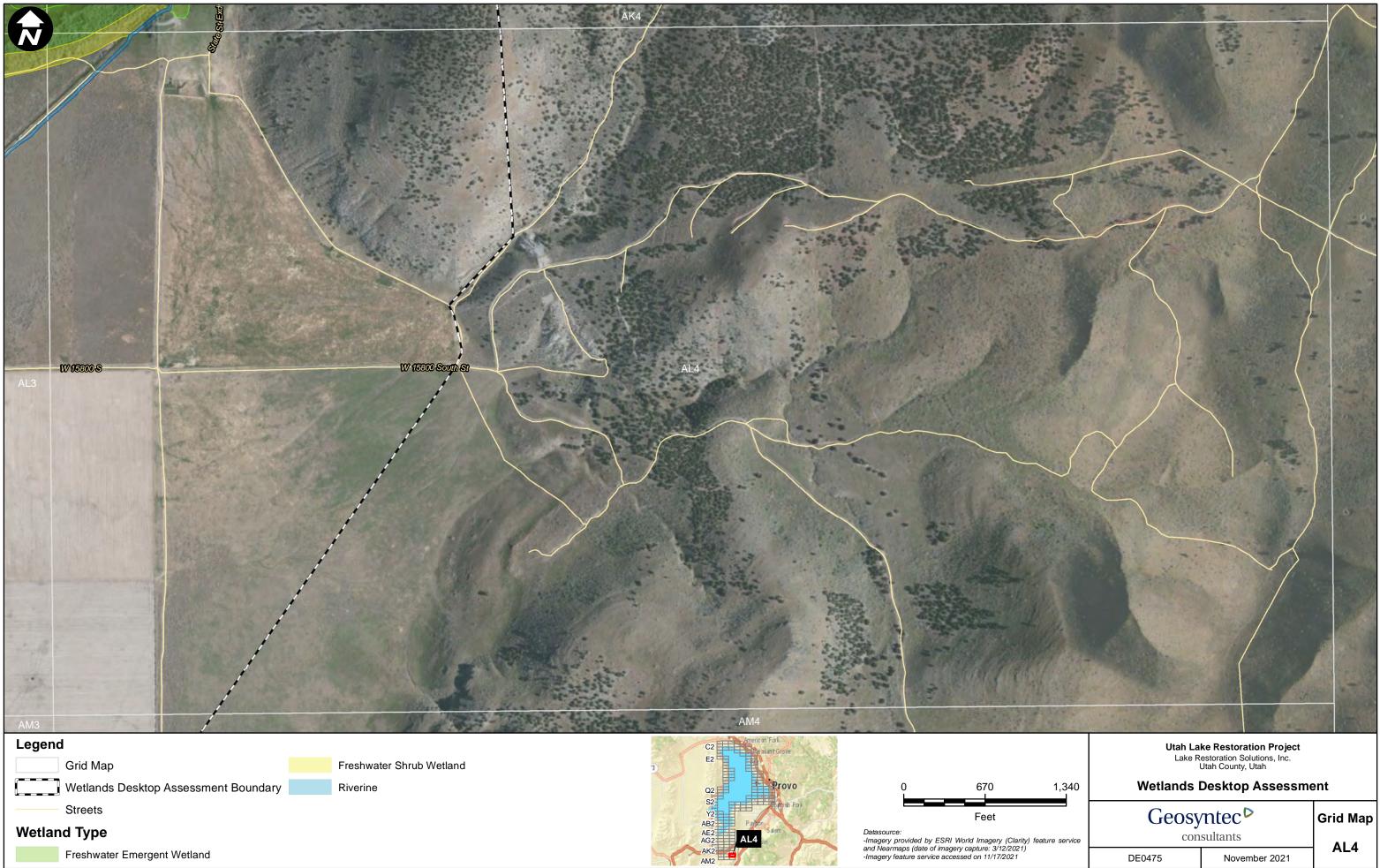


D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM

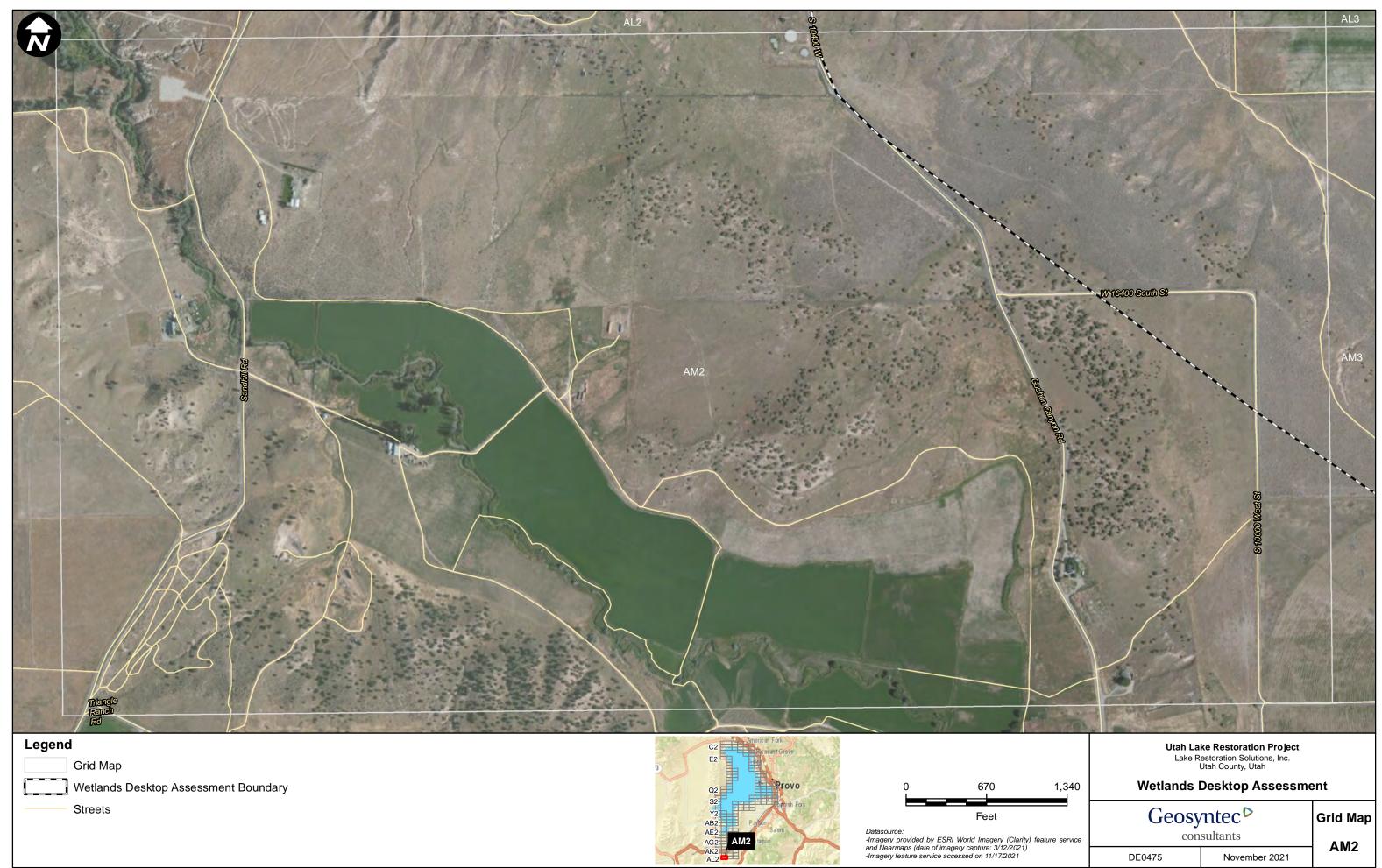


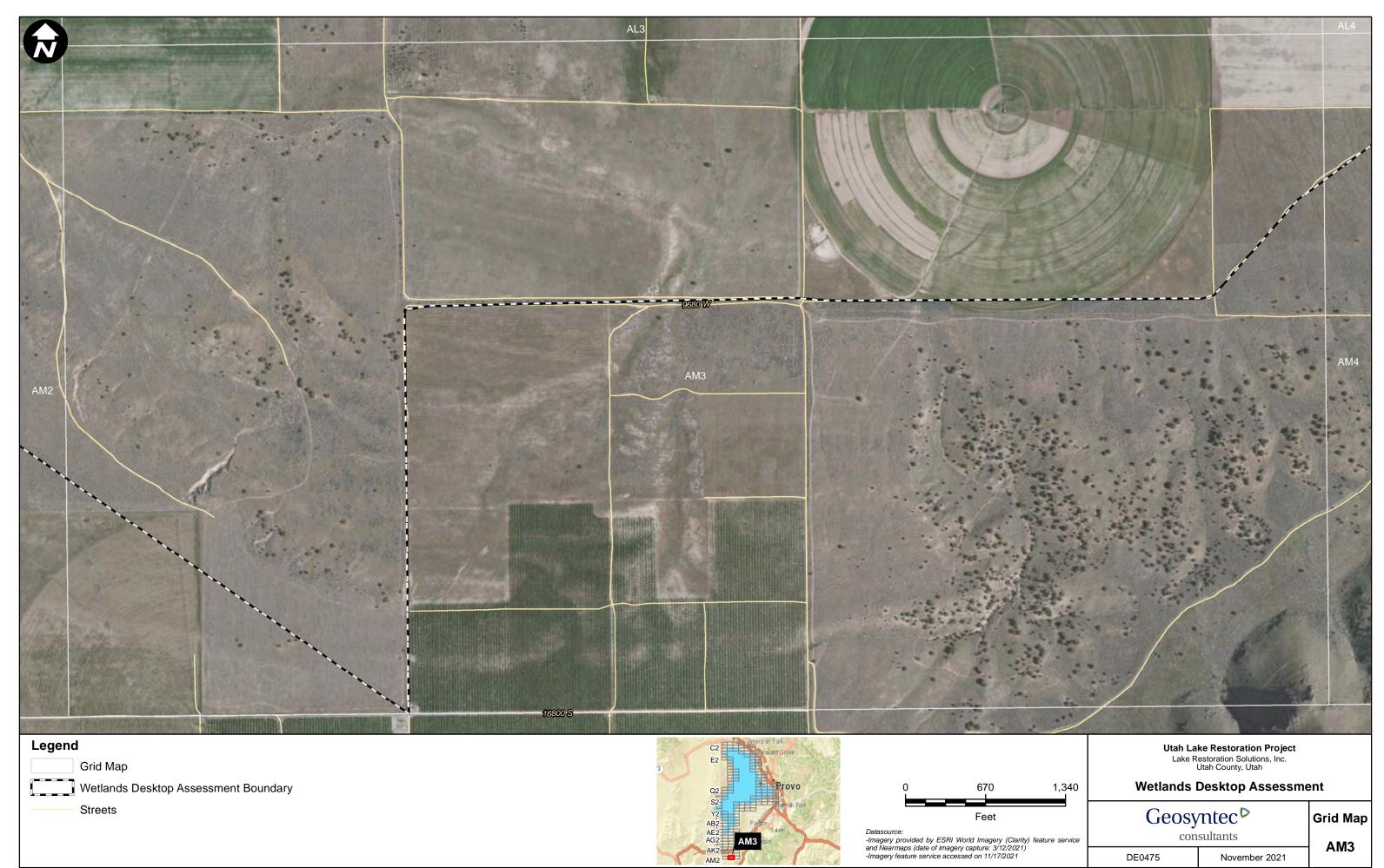


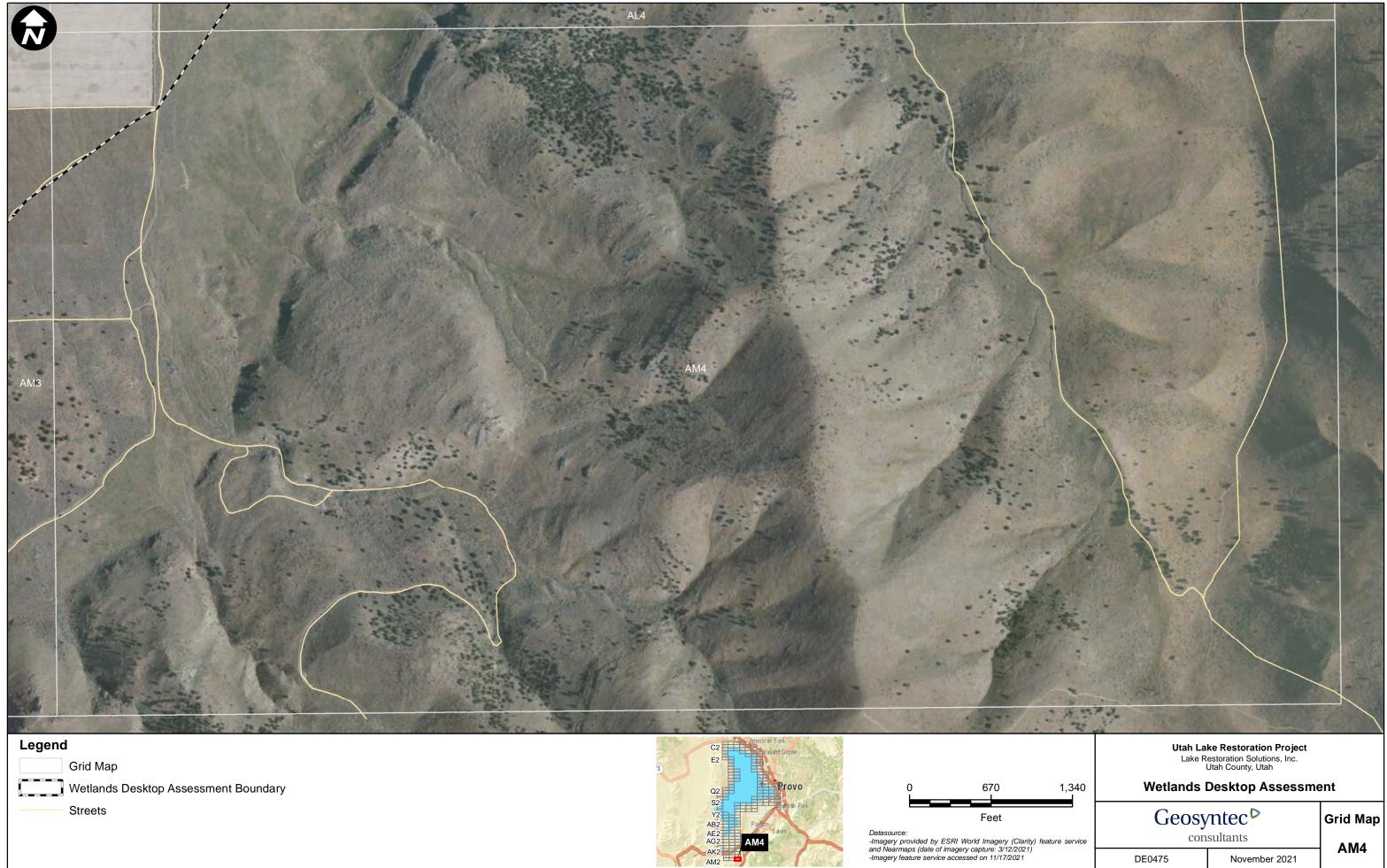
D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM



D:\Utah Lake - EIS\M - GIS\Projects\_MXD\UTLake\_11X17\_DesktopWetlands\_rev3.mxd 11/16/2021 11:42:36 AM







# **APPENDIX B** Wetland Determination Data Forms

| Project/Site:        | Utah Lake                         |                | City/County:     | Utah Co.               | Sampling Date: 7/6/2021  |
|----------------------|-----------------------------------|----------------|------------------|------------------------|--|
| Applicant/Owner:     | LRS                               |                |                  |                        | State: Utah Sampling Point: A-DP01   |
| Investigator(s):     | A. Mathes T. Taylor               |                |                  | Section, Township, I   |  |
| Landform: (hillslope | e, terrace, etc.):                | Other          |                  |                        | convex, none): None Slope (%): <u>0-2%</u>   |
| Subregion (LRR):     | MLRA 28                           | A; LRR D       | Lat.             | 40.245353              | Long111.735239 Datum: WGS84  |
| Soil Map Unit Name   | e:                                |                | Water            |                        | NWI Classification: L2ABF  |
| Are climatic/hydrolo | gic conditions on the site        | typical for ti | ime of year?     | Yes                    | No X (If no, explain in the Remarks)   |
| Are Vegetation       | X ,Soil                           | or Hy,         | /drology         | significantly disturbe | d?   |
| Are Vegetation       | ,Soil                             | or Hy,         | /drology         | naturally problemation | ?  |
| Are Normal Circums   | stances Present?                  | Yes X          | No               | (If needed, explain a  | ny answers in Remarks)   |
| SUMMARY OF           | FINDINGS - Attach                 | site map :     | showing sa       | mpling point loca      | tions, transects, important features, etc.   |
|                      | nytic Vegetation Present?         |                |                  |                        | pled Area within a Wetland?  |
|                      | Hydric Soil Present?              | Yes X          |                  |                        | X No   |
| Wet                  | land Hydrology Present?           |                |                  |                        |  |
|                      |                                   |                |                  |                        |  |
| Remarks:             |                                   |                |                  |                        |  |
| Data point located a | along PEM L2 boundary [           | Drought con    | ditions Some r   | nanagement of invasive | es has occurred  |
|                      |                                   |                |                  |                        |  |
| VEGETATION -         | Use scientific name               | es of plar     | nts              |                        |  |
|                      |                                   | Absolute       | Dominant         |                        |  |
| Tree Stratum         | Plot size: r= 30'                 | % Cover        | Species?         | Indicator Status       | Dominance Test Worksheet   |
| 1                    |                                   |                |                  |                        | 4  |
| 2.                   |                                   |                |                  |                        | Number of dominant species that are  |
| 3.                   |                                   |                |                  |                        | OBL, FACW, or FAC:(A)  |
| 4.                   |                                   |                |                  |                        | Total number of dominant species   |
|                      |                                   | 0              | = Total Cover    |                        | across all strata: <u>1</u> (B)  |
|                      |                                   |                |                  |                        | Percent of dominant species that are   |
| Sapling/Shrub Strat  | um Plot size: r= 30'              |                |                  |                        | OBL, FACW, or FAC: 100% (A/B)  |
| 1.                   |                                   |                |                  |                        | Prevalence Index Worksheet   |
| 2.                   |                                   |                |                  |                        | Total % cover of: Multiply by:   |
| 3.                   |                                   |                |                  |                        | OBL species <u>95</u> x 1 <u>95</u>  |
| 4.                   |                                   |                |                  |                        | FACW species <u>5</u> x 2 <u>10</u>  |
| 5.                   |                                   |                |                  |                        | FAC species 0 x 3 0  |
|                      |                                   | 0              | = Total Cover    |                        | FACU species 0 x 4 0   |
|                      |                                   |                |                  |                        | UPL species <u>0</u> x 5 <u>0</u>  |
| Herb Stratum         | Plot size: r= 5'                  |                |                  |                        | Column Total <u>100</u> (A) <u>105</u> (B)   |
| 1. Schoenop          | lectus acutus                     | 95             | Y                | OBL                    | Prevalence Index: 1.1 (B/A)  |
| 2. Phragmite         | es australis                      | 5              | N                | FACW                   | Hydrophytic Vegetation Indicators:   |
| 3.                   |                                   |                |                  |                        | X 1 - Rapid Test for Hydrophytic Vegetation  |
| 4.                   |                                   |                |                  |                        | X 2 - Dominance Test is >50%   |
| 5.                   |                                   |                |                  |                        | X 3 - Prevalence Index is $\leq 3.0^*$   |
| 6.                   |                                   |                |                  |                        | Problematic Hydrophytic Vegetation* (Explain)  |
| 7.                   |                                   |                |                  |                        | *Indicators of hydric soil and wetland hydrology must be preser<br>unless disturbed or problematic |
| 8.                   |                                   |                |                  |                        |  |
|                      |                                   | 100            | = Total Cover    |                        | Hydrophytic Vegetation Present?  |
|                      |                                   |                |                  |                        |  |
| Woody Vine Stratur   | <u>m</u> Plot size: <u>r= 30'</u> |                |                  |                        | Yes <u>X</u> No  |
| 1                    |                                   |                |                  |                        |  |
| 2.                   |                                   |                |                  | ·                      |  |
|                      |                                   | 0              | = Total Cover    |                        |  |
| % Bare Ground        | in Herb Stratum                   | % Cove         | er of Biotic Cru | st                     |  |
| Remarks: (if observ  | ved, list morphological ad        | aptations be   | elow).           |                        | 1  |
| `                    |                                   |                |                  |                        |  |
|                      |                                   |                |                  |                        |  |

| Depth                | Mat                                   | rix         |            | Redox F   | eatures  | ;          |                   |          |  |
|----------------------|---------------------------------------|-------------|------------|-----------|----------|------------|-------------------|----------|--|
| (inches)             | Color                                 | %           | Color      | %         |          | Loc**      | Texture           |          | Remarks  |
| 0-                   |                                       |             | -          |           |          |            |                   |          |  |
|                      |                                       |             |            |           |          |            |                   |          |  |
|                      |                                       |             |            |           |          |            |                   |          |  |
|                      |                                       |             |            |           |          |            |                   |          |  |
|                      |                                       |             |            |           |          |            |                   |          |  |
| -                    |                                       |             |            |           |          |            |                   |          |  |
| -                    |                                       |             |            |           |          |            |                   |          |  |
|                      |                                       |             |            |           |          |            |                   |          |  |
| Type: C=Concentra    | tion, D=Deplet                        | ion, RM=    | Reduced N  | latrix, M | S=Mask   | ed Sand g  | grains **Location | : PL=Por | e Lining, M=Matrix                                     |
| lydric Soil Indicate | rs: (Applicab                         | le to all I | .RRs. unle | ss othe   | wise n   | oted)      | -                 |          | Indicators for Problematic Hydric Soils ***            |
| Histosol (A          |                                       |             |            |           | Redox (  |            |                   |          | 1 cm Muck (A9) (LRR C)                                 |
| ```                  | Histosol (A1)<br>Histic Epipedon (A2) |             |            |           | d Matrix |            |                   |          | 2 cm Muck (A10) <b>(LRR B)</b>                         |
| Black Histic         |                                       |             |            |           |          | Mineral (F | 1)                |          | Reduced Vertic (F18)                                   |
| Hydrogen S           | . ,                                   |             |            | 1         |          | Matirx (F2 | 1                 |          | Red Parent Material (TF2)                              |
|                      | ayers (A5) (LR                        | RC)         |            | -         | ed Matri | ,          | ,                 |          | Other (Explain in Remarks)                             |
| 1 cm Muck            | (A9) (LRR D)                          | ,           |            | Redox     | Dark Su  | Inface (F6 | )                 |          |  |
| Depleted Be          | low Dark Surfac                       | e (A11)     |            | Deplete   | ed Dark  | Surface (I | F7)               |          |  |
| Thick Dark           | Surface (A12)                         |             |            | Redox     | Depres   | sions (F8) |                   |          |  |
| Sandy Muc            | ky Mineral (S1                        | )           |            | Vernal    | Pools (F | -9)        |                   |          | *** Indicators of hydrophytic vegetation and wetland   |
| Sandy Gley           | ed Matrix (S4)                        |             |            |           |          |            |                   | hyd      | lrology must be present, unless disturbed or problemat |
| Restrictive Layer (i | observed)                             |             |            |           |          |            |                   |          |  |
| Type:                |                                       |             |            |           |          |            |                   |          |  |
| Depth (inches):      |                                       |             |            |           | -        | Hydric So  | oil Present?      | Yes      | <u>     X                               </u>           |
|                      |                                       |             |            |           | -        |            |                   |          |  |
| Remarks:             |                                       |             |            |           |          |            |                   |          |  |
| ssumed hydric, inu   | ndated soils to                       | at least 8  | 3"         |           |          |            |                   |          |  |
|                      |                                       |             |            |           |          |            |                   |          |  |
|                      |                                       |             |            |           |          |            |                   |          |  |
| IYDROLOGY            |                                       |             |            |           |          |            |                   |          |  |
|                      |                                       |             |            |           |          |            |                   |          |  |

| vvenanu   | Hydrology indicators.          |             |       |             |                            |          |   |   |
|-----------|--------------------------------|-------------|-------|-------------|----------------------------|----------|---|---|
|           | Primary Indicators (           | minimum o   | f one | is require; | check all that apply)      |          |   | Secondary Indicators (2 or more required) |
| Х         | Surface Water (A1)             |             |       | Salt Crust  | t (B11)                    |          |   | Water Marks (B1) (Riverine)               |
| х         | High Water Table (A2)          |             |       | Biotic Cru  | st (B12)                   |          |   | Sediment Deposits (B2) (Riverine)         |
| х         | Saturation (A3)                |             |       | Aquatic Fa  | auna (B13)                 |          |   | Drift Deposits (B3) (Riverine)            |
| х         | Water Marks (B1) (Nonri        | iverine)    |       | Hydrogen    | Sulfide Odor (C1)          |          | Х | Drainage Patterns (B10)                   |
|           | Sediment Deposits (B2) (No     | nriverine)  |       | Oxidized R  | Rhizospheres on Living Ro  | ots (C3) | Х | Dry-Season Water Table (C2)               |
|           | Drift Deposits (B3) (Noni      | riverine)   |       | Presence    | of Reduced Iron (C4)       |          |   | Crayfish Burrows (C8)                     |
|           | Surface Soil Cracks (B6)       | )           |       | Recent Iro  | on Reduction in Tilled Soi | l (C6)   | Х | Saturation Visible on Aerial Imagery (C9) |
| х         | Inundation Visible on Aerial I | magery (B7) |       | Thin Mucl   | k Surface (C7)             |          |   | Shallow Aquitard (D3)                     |
|           | Water Stained Leaves (E        | 39)         |       | Other (Ex   | plain in Remarks)          |          | Х | FAC-Neutral Test (D5)                     |
| Field Ob  | servations:                    |             |       |             |                            |          |   |   |
| Surface   | Water Present?                 | Yes         | Х     | No          | Depth (inches):            | 5        |   | Wetland Hydrology Present?                |
| Water Ta  | able Present?                  | Yes         | х     | No          | Depth (inches):            | 0        | _ | Yes X No                                  |
| Saturatio | on Present?                    | Yes         | Х     | No          | Depth (inches):            | 0        | - |   |
| (includes | s capillary fringe)            |             |       |             |                            |          | - |   |

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

--See Climatic Summary Below--

| Project/Site:           | Utah Lake                 |                | City/County:      | Utah Co.                | Sampling Date:  | 7/6/2021           |
|-------------------------|---------------------------|----------------|-------------------|-------------------------|---|--------------------|
| Applicant/Owner:        | LRS                       |                |                   |                         | State: <u>Utah</u> Sampling Point:  | A-DP03             |
| Investigator(s):        | A. Mathes T. Taylor       | S. Fuller      |                   | Section, Township,      | Range: 0  |                    |
| Landform: (hillslope, t | errace, etc.):            | Other          |                   | Local relief (concave,  | convex, none): None Slope   | e (%): <u>0-2%</u> |
| Subregion (LRR):        | MLRA 28                   | BA; LRR D      | Lat.              | 40.257397               | Long111.731749 Datum: WGS84   |                    |
| Soil Map Unit Name:     |                           |                | Beaches           |                         | NWI Classification: PEM1F   |                    |
| Are climatic/hydrologi  | c conditions on the site  | typical for ti | ime of year?      | Yes                     | No X (If no, explain in the Remarks)  |                    |
| Are Vegetation          | X,Soil                    | ,or Hy         | /drology          | significantly disturbe  | d?  |                    |
| Are Vegetation          | ,Soil                     | or Hy,         | /drology          | _naturally problemation | ??  |                    |
| Are Normal Circumsta    | ances Present?            | Yes <u>X</u>   | No                | _(If needed, explain a  | ny answers in Remarks)  |                    |
| SUMMARY OF FI           | NDINGS - Attach           | site map s     | showing sa        | mpling point loca       | tions, transects, important features, e   | tc.                |
|                         | ic Vegetation Present?    | -              |                   |                         | pled Area within a Wetland?   |                    |
| , , ,                   | Hydric Soil Present?      |                |                   | _                       | No  |                    |
| Wetla                   | nd Hydrology Present?     |                |                   | -                       |   |                    |
|                         |                           |                |                   | _                       |   |                    |
| Remarks:                |                           |                |                   |                         |   |                    |
| Data point located alo  | ng PEM L2 boundary [      | Drought cond   | ditions Some m    | anagement of invasive   | es has occurred   |                    |
|                         |                           |                |                   |                         |   |                    |
| VEGETATION - U          | se scientific nam         | es of plan     | nts               |                         |   |                    |
|                         |                           | Absolute       | Dominant          |                         |   |                    |
| Tree Stratum            | Plot size: r= 30'         | % Cover        | Species?          | Indicator Status        | Dominance Test Worksheet  |                    |
| 1                       |                           | <u> </u>       |                   |                         | -   |                    |
| 2.                      |                           | <u> </u>       |                   |                         | Number of dominant species that are   |                    |
| 3.                      |                           | <u> </u>       |                   |                         | OBL, FACW, or FAC: 2  | (A)                |
| 4.                      |                           |                |                   |                         | Total number of dominant species  |                    |
|                         |                           | 0              | = Total Cover     |                         | across all strata: 2  | (B)                |
|                         |                           |                |                   |                         | Percent of dominant species that are  |                    |
| Sapling/Shrub Stratur   | n Plot size: r= 30'       |                |                   |                         | OBL, FACW, or FAC: 100  | % (A/B)            |
| 1.                      |                           |                |                   |                         | Prevalence Index Worksheet  |                    |
| 2.                      |                           |                |                   |                         | Total % cover of: Multiply by:  |                    |
| 3.                      |                           |                |                   |                         | OBL species <u>40</u> x 1 <u>40</u>   | )                  |
| 4.                      |                           |                |                   |                         | FACW species <u>60</u> x 2 <u>12</u>  | 0                  |
| 5.                      |                           |                |                   |                         | FAC species 0 x 3 0   |                    |
|                         |                           | 0              | = Total Cover     |                         | FACU species 0 x 4 0  |                    |
|                         |                           |                |                   |                         | UPL species 0 x 5 0   |                    |
| Herb Stratum            | Plot size: r= 5'          |                |                   |                         | Column Total <u>100</u> (A) <u>160</u>  | <u>0 (B)</u>       |
| 1. Rumex fueg           | inus                      | 50             | Y                 | FACW                    | Prevalence Index: 1.6   | 6 (B/A)            |
| 2. Schoenople           | ctus acutus               | 40             | Y                 | OBL                     | Hydrophytic Vegetation Indicators:  |                    |
| 3. Phragmites           | australis                 | 10             | Ν                 | FACW                    | X 1 - Rapid Test for Hydrophytic Vegetati   | on                 |
| 4.                      |                           |                |                   |                         | X 2 - Dominance Test is >50%  |                    |
| 5.                      |                           |                |                   |                         | X 3 - Prevalence Index is <3.0*   |                    |
| 6.                      |                           |                |                   |                         | Problematic Hydrophytic Vegetation* (E  |                    |
| 7.                      |                           |                |                   |                         | *Indicators of hydric soil and wetland hydrology<br>unless disturbed or problematic | must be present,   |
| 8.                      |                           |                |                   |                         |   |                    |
|                         |                           | 100            | = Total Cover     |                         | Hydrophytic Vegetation Present?   |                    |
|                         |                           |                |                   |                         |   |                    |
| Woody Vine Stratum      | Plot size: <u>r= 30</u> ' |                |                   |                         | Yes X No  |                    |
| 1.                      |                           |                |                   |                         |   |                    |
| 2.                      |                           |                |                   |                         | 7   |                    |
|                         |                           | 0              | = Total Cover     |                         | 1   |                    |
| % Bare Ground in        | Herb Stratum              |                | er of Biotic Crus | t                       |   |                    |
|                         | d, list morphological ad  |                |                   |                         | l   |                    |
|                         | ,                         |                |                   |                         |   |                    |
|                         |                           |                |                   |                         |   |                    |
|                         |                           |                |                   |                         |   |                    |

|                   |   |             |            |              |            |            |            | r confirm absen   |          |  |                           |
|-------------------|---|-------------|------------|--------------|------------|------------|------------|-------------------|----------|--|---------------------------|
| Dep               |   | Matr        | 1          |              | Redox F    |            | 1          |                   |          |  |                           |
| (inch             | ,   | Color       | %          | Color        | %          | Type*      | * Loc**    | Texture           |          | Remark                                   | (S                        |
| 0-                |   |             |            |              |            |            |            |                   |          |  |                           |
|                   |   |             |            |              |            |            |            |                   |          |  |                           |
|                   |   |             |            |              |            |            |            |                   |          |  |                           |
|                   |   |             |            |              |            |            |            |                   |          |  |                           |
|                   |   |             |            |              |            |            |            |                   |          |  |                           |
|                   |   |             |            |              |            |            |            |                   |          |  |                           |
|                   |   |             |            |              |            |            |            |                   |          |  |                           |
| Type: C=Concer    | tration.                                  | D=Depleti   | on. RM=    | Reduced N    | Jatrix, MS | S=Mask     | ed Sand o  | arains **Location | : PL=Por | re Lining, M=Matrix                      |                           |
| lydric Soil Indic |   |             |            |              | · · · ·    |            |            | , <u></u>         |          | Indicators for Problema                  | tic Hydric Soils ***      |
|                   |   | ppnoubl     | 0 10 411 1 |              |            | Redox (    |            |                   |          | 1 cm Muck (A9) (LRR C)                   |                           |
|                   | Histosol (A1)<br>Histic Epipedon (A2)     |             |            |              |            | d Matrix   |            |                   |          | 2 cm Muck (A10) (LRR B)                  |                           |
|                   | Histic Epipedon (A2)<br>Black Histic (A3) |             |            |              |            |            | Mineral (F | 1)                |          | Reduced Vertic (F18)                     |                           |
|                   | n Sulfide                                 |             |            |              |            |            | Matirx (F  | ,                 |          | Red Parent Material (TF2)                |                           |
|                   |   | (A5) (LRF   | RC)        |              |            | ed Matri   |            | ,                 |          | Other (Explain in Remarks)               |                           |
|                   | ick (A9) (                                |             | /          |              |            |            | urface (F6 | )                 |          |  |                           |
| Depleted          | Below Da                                  | ark Surface | e (A11)    |              | Deplete    | ed Dark    | Surface (  | =7)               |          |  |                           |
| Thick D           | ark Surfa                                 | ce (A12)    |            |              | Redox      | Depres     | sions (F8) | ,                 |          |  |                           |
| Sandy M           | lucky Mi                                  | neral (S1)  | )          |              | Vernal     | Pools (F   | F9)        |                   |          | *** Indicators of hydrophytic            | vegetation and wetland    |
| Sandy C           | Bleyed M                                  | latrix (S4) |            |              |            |            |            |                   | hyc      | drology must be present, unles           | ss disturbed or problemat |
| Restrictive Laye  | r (if obse                                | erved)      |            |              |            |            |            |                   |          |  |                           |
| Туре:             |   |             |            |              |            | _          |            |                   |          |  |                           |
| Depth (inche      | s):                                       |             |            |              |            | _          | Hydric So  | oil Present?      | Yes      | <u>X</u> No                              |                           |
|                   |   |             |            |              |            |            |            |                   |          |  |                           |
| Remarks:          |   |             |            |              |            |            |            |                   |          |  |                           |
| ssumed hydric,    | inundate                                  | d soils to  | at least 8 | 3"           |            |            |            |                   |          |  |                           |
|                   |   |             |            |              |            |            |            |                   |          |  |                           |
|                   |   |             |            |              |            |            |            |                   |          |  |                           |
| IYDROLOGY         |   |             |            |              |            |            |            |                   |          |  |                           |
| lotland Usedra    | - المصالين                                |             |            |              |            |            |            |                   |          |  |                           |
| letland Hydrold   |   |             |            | f            |            |            |            |                   |          | Occurred and the line of the line of the |                           |
| Prir              | iary mar                                  | cators (m   | minum C    | of one is re | quire; che | euk all ti | nat apply) |                   | ~        | Secondary Indicators (2 or r             | nore required)            |

| vveuanu  | i Hyurology mulcators.              |         |       |             |                            |           |   |   |
|----------|-------------------------------------|---------|-------|-------------|----------------------------|-----------|---|---|
|          | Primary Indicators (minin           | num o   | f one | is require; | check all that apply)      |           |   | Secondary Indicators (2 or more required) |
| Х        | Surface Water (A1)                  |         |       | Salt Crust  | t (B11)                    |           | Х | Water Marks (B1) (Riverine)               |
| Х        | High Water Table (A2)               |         |       | Biotic Cru  | st (B12)                   |           |   | Sediment Deposits (B2) (Riverine)         |
| Х        | Saturation (A3)                     |         |       | Aquatic F   | auna (B13)                 |           |   | Drift Deposits (B3) (Riverine)            |
| х        | Water Marks (B1) (Nonriverin        | e)      |       | Hydrogen    | Sulfide Odor (C1)          |           | Х | Drainage Patterns (B10)                   |
|          | Sediment Deposits (B2) (Nonriver    | ine)    |       | Oxidized R  | Rhizospheres on Living Ro  | oots (C3) | Х | Dry-Season Water Table (C2)               |
|          | Drift Deposits (B3) (Nonriverin     | ne)     |       | Presence    | of Reduced Iron (C4)       |           |   | Crayfish Burrows (C8)                     |
|          | Surface Soil Cracks (B6)            |         |       | Recent Iro  | on Reduction in Tilled Soi | I (C6)    | Х | Saturation Visible on Aerial Imagery (C9) |
| Х        | Inundation Visible on Aerial Imager | ry (B7) |       | Thin Mucl   | k Surface (C7)             |           |   | Shallow Aquitard (D3)                     |
|          | Water Stained Leaves (B9)           |         |       | Other (Ex   | plain in Remarks)          |           | Х | FAC-Neutral Test (D5)                     |
| Field O  | oservations:                        |         |       |             |                            |           |   |   |
| Surface  | Water Present?                      | Yes     | Х     | No          | Depth (inches):            | 5         |   | Wetland Hydrology Present?                |
| Water T  | able Present?                       | Yes_    | Х     | No          | Depth (inches):            | 0         |   | Yes X No                                  |
| Saturati | on Present?                         | Yes     | Х     | No          | Depth (inches):            | 0         |   |   |
| (include | s capillary fringe)                 |         |       |             |                            |           |   |   |

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

## --See Climatic Summary Below--

| Project/Site:             | Utah Lake                |                | City/County:     | Utah Co.                | Sampling Date:                                      | 7/6/2021        |
|---------------------------|--------------------------|----------------|------------------|-------------------------|---|-----------------|
| Applicant/Owner:          | LRS                      |                |                  |                         | State: <u>Utah</u> Sampling Point:                  | A-DP04          |
| Investigator(s):          | A. Mathes T. Taylor      | S. Fuller      |                  | Section, Township,      | Range: 0  |                 |
| Landform: (hillslope, ter | race, etc.):             | Other          |                  | Local relief (concave,  | convex, none): None Slope (                         | %): <u>0-2%</u> |
| Subregion (LRR):          | MLRA 28                  | BA; LRR D      | Lat.             | 40.266289               | Long111.746204 Datum: WGS84                         |                 |
| Soil Map Unit Name:       |                          |                | Water            |                         | NWI Classification: PEM1F                           |                 |
| Are climatic/hydrologic   | conditions on the site   | typical for ti | me of year?      | Yes                     | No X (If no, explain in the Remarks)                |                 |
| Are Vegetation            | X,Soil                   | or Hy,         | drology          | _significantly disturbe | d?  |                 |
| Are Vegetation            | ,Soil                    | or Hy,         | drology          | _naturally problemation | ?   |                 |
| Are Normal Circumstan     | ces Present?             | Yes X          | No               | (If needed, explain a   | ny answers in Remarks)                              |                 |
| SUMMARY OF FIN            | DINGS - Attach           | site map s     | showing sa       | mpling point loca       | tions, transects, important features, etc.          |                 |
|                           | Vegetation Present?      |                |                  |                         | pled Area within a Wetland?                         |                 |
|                           | Hydric Soil Present?     |                |                  |                         | No  |                 |
|                           | I Hydrology Present?     |                |                  | -                       |   |                 |
|                           | , ,,                     |                |                  | _                       |   |                 |
| Remarks:                  |                          |                |                  |                         |   |                 |
| Data point located along  | g PEM L2 boundary [      | Drought cond   | ditions Some m   | anagement of invasive   | es has occurred                                     |                 |
|                           |                          |                |                  |                         |   |                 |
| VEGETATION - Us           | e scientific nam         | es of plan     | ts               |                         |   |                 |
|                           |                          | Absolute       | Dominant         |                         |   |                 |
| Tree Stratum              | Plot size: r= 30'        | % Cover        | Species?         | Indicator Status        | Dominance Test Worksheet                            |                 |
| 1                         |                          |                |                  |                         | _   |                 |
| 2.                        |                          |                |                  |                         | Number of dominant species that are                 |                 |
| 3.                        |                          |                |                  |                         | OBL, FACW, or FAC: 1                                | (A)             |
| 4.                        |                          |                |                  |                         | Total number of dominant species                    |                 |
|                           |                          | 0 =            | = Total Cover    |                         | across all strata: 1                                | (B)             |
|                           |                          |                |                  |                         | Percent of dominant species that are                |                 |
| Sapling/Shrub Stratum     | Plot size: r= 30'        |                |                  |                         | OBL, FACW, or FAC: 100%                             | (A/B)           |
| 1.                        |                          |                |                  |                         | Prevalence Index Worksheet                          |                 |
| 2.                        |                          |                |                  |                         | Total % cover of: Multiply by:                      |                 |
| 2                         |                          |                |                  |                         | OBL species 100 x 1 100                             |                 |
| 4.                        |                          |                |                  |                         | FACW species 0 x 2 0                                |                 |
| 5.                        |                          |                |                  |                         | FAC species 0 x 3 0                                 |                 |
|                           |                          | 0 :            | = Total Cover    |                         | FACU species 0 x 4 0                                |                 |
|                           |                          |                |                  |                         | UPL species 0 x 5 0                                 |                 |
| Herb Stratum              | Plot size: r= 5'         |                |                  |                         | Column Total 100 (A) 100                            | (B)             |
| 1. Schoenoplectu          |                          | 100            | Y                | OBL                     | Prevalence Index: 1.0                               | (B/A)           |
| 2.                        |                          |                |                  |                         | Hydrophytic Vegetation Indicators:                  | (2,1,1)         |
|                           |                          |                |                  |                         | X 1 - Rapid Test for Hydrophytic Vegetation         |                 |
| 4.                        |                          |                |                  |                         | X 2 - Dominance Test is >50%                        |                 |
|                           |                          |                |                  |                         | X 3 - Prevalence Index is $\leq 3.0^*$              |                 |
| 6.                        |                          |                |                  |                         | Problematic Hydrophytic Vegetation* (Exp            | olain)          |
| 7                         |                          |                |                  |                         | *Indicators of hydric soil and wetland hydrology mu |                 |
|                           |                          |                |                  |                         | unless disturbed or problematic                     |                 |
| 8.                        |                          | 100            | - Total Carrier  |                         |   |                 |
|                           |                          | 100 =          | = Total Cover    |                         | Hydrophytic Vegetation Present?                     |                 |
|                           |                          |                |                  |                         |   |                 |
| Woody Vine Stratum        | PIOT SIZE: <u>r= 30'</u> |                |                  |                         | Yes <u>X</u> No                                     |                 |
|                           |                          |                |                  |                         | 4   |                 |
| 2.                        |                          |                |                  |                         | 4   |                 |
|                           |                          |                | = Total Cover    |                         |   |                 |
| % Bare Ground in H        | erb Stratum              | % Cove         | r of Biotic Crus | t                       |   |                 |
| Remarks: (if observed,    | list morphological ad    | aptations be   | low).            |                         |   |                 |
|                           |                          |                |                  |                         |   |                 |
|                           |                          |                |                  |                         |   |                 |
|                           |                          |                |                  |                         |   |                 |

|                     | Description: (I   |  |                  |                                       |   |                                      |             |               |          | . mul                            |  |
|---------------------|---|--|------------------|---------------------------------------|---|--------------------------------------|-------------|---------------|----------|----------------------------------|--|
|                     | Depth   | Matri  |                  |                                       | Redox F   |                                      |             | <b>.</b>      |          |                                  | <b></b>  |
|                     | (inches)  | Color  | %                | Color                                 | %   | Type*                                | Loc**       | Texture       |          |                                  | Remarks  |
|                     | 0-  |  |                  |                                       |   |                                      |             |               |          |                                  |  |
|                     |   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
|                     |   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
|                     |   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
|                     |   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
|                     |   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
|                     |   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
|                     |   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
| pe: (               | C=Concentration   | ι, D=Depletio  | on, RM=F         | Reduced N                             | latrix, M   | S=Maske                              | ed Sand g   | grains **Loca | tion: PL | .=Pore                           | e Lining, M=Matrix   |
| dric                | Soil Indicators   | : (Applicable  | e to all L       | RRs, unle                             | ss othei  | wise no                              | ted)        |               |          |                                  | Indicators for Problematic Hydric Soils ***  |
|                     | Histosol (A1)   |  |                  |                                       | Sandy   | Redox (S                             | S5)         |               |          |                                  | 1 cm Muck (A9) <b>(LRR C)</b>  |
|                     | Histic Epipedo  | on (A2)  |                  |                                       | Strippe   | d Matrix                             | (S6)        |               |          |                                  | 2 cm Muck (A10) <b>(LRR B)</b>   |
|                     | Black Histic (A   | <b>\</b> 3)  |                  |                                       | Loamy   | Mucky N                              | /lineral (F | 1)            |          |                                  | Reduced Vertic (F18)   |
|                     | Hydrogen Sulf   | ide (A4)   |                  |                                       | Loamy   | Gleyed I                             | Matirx (F2  | 2)            |          |                                  | Red Parent Material (TF2)  |
|                     | Stratified Laye   | rs (A5) (LRR   | C)               |                                       | Depleted Matrix (F3)  |                                      |             |               |          |                                  | Other (Explain in Remarks)   |
|                     | 1 cm Muck (A  | 9) (LRR D)   |                  | Redox                                 | Dark Su   | rface (F6                            | )           |               |          |                                  |  |
|                     | Depleted Below  | / Dark Surface   |                  | Deplete                               | d Dark S  | Surface (I                           | F7)         |               |          |                                  |  |
|                     | Thick Dark Su   | rface (A12)  |                  |                                       | Redox   | Depress                              | ions (F8)   |               |          |                                  |  |
|                     | Sandy Mucky   | Mineral (S1)   |                  |                                       | Vernal  | Pools (F                             | 9)          |               |          |                                  | *** Indicators of hydrophytic vegetation and wetland   |
|                     | Sandy Gleyed  | Matrix (S4)  |                  |                                       |   |                                      |             |               |          | hyd                              | rology must be present, unless disturbed or problem  |
| stric               | tive Layer (if ol   | oserved)   |                  |                                       |   |                                      |             |               |          |                                  |  |
|                     | Туре:   |  |                  |                                       |   | _                                    |             |               |          |                                  |  |
| Dep                 | oth (inches):   |  |                  |                                       |   | ŀ                                    | lydric So   | oil Present?  |          | Yes                              | X No   |
|                     |   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
| mark                | ks:   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
| sume                | ed hydric, inunda   | ated soils to a  | at least 8       | •                                     |   |                                      |             |               |          |                                  |  |
|                     |   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
|                     |   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
|                     | OLOGY   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
| ′DR                 |   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
|                     |   |  |                  |                                       |   |                                      |             |               |          |                                  |  |
|                     | d Hydrology In  |  |                  |                                       |   |                                      |             |               |          |                                  |  |
| tlan                | <b>d Hydrology In</b><br>Primary Ir   | ndicators (mir   |                  |                                       |   |                                      | at apply)   |               |          | 1                                | Secondary Indicators (2 or more required)  |
| tlan<br>X           | d Hydrology In<br>Primary Ir<br>Surface Water   | ndicators (mir<br>r (A1)   |                  |                                       | quire; che<br>Crust (B                                      |                                      | at apply)   |               |          |                                  | er Marks (B1) (Riverine)   |
| tlan<br>X<br>X      | d Hydrology In<br>Primary Ir<br>Surface Water<br>High Water Ta                                    | ndicators (mir<br>r (A1)<br>able (A2)  |                  | Salt<br>Bioti                         | Crust (B<br>c Crust (                                       | 11)<br>B12)                          | at apply)   |               |          | Sedi                             | er Marks (B1) (Riverine)<br>ment Deposits (B2) (Riverine)  |
| tlan<br>X<br>X<br>X | d Hydrology In<br>Primary Ir<br>Surface Water   | ndicators (mir<br>r (A1)<br>able (A2)  |                  | Salt<br>Bioti<br>Aqui                 | Crust (B<br>c Crust (<br>atic Faur                          | 11)<br>B12)<br>a (B13)               |             |               |          | Sedi                             | er Marks (B1) (Riverine)   |
| tlan<br>X<br>X<br>X | d Hydrology In<br>Primary Ir<br>Surface Water<br>High Water Ta                                    | ndicators (mir<br>r (A1)<br>able (A2)<br>3)  |                  | Salt<br>Bioti<br>Aqua<br>Hydr         | Crust (B<br>c Crust (<br>atic Faur<br>rogen Su              | 11)<br>B12)<br>la (B13)<br>Ifide Ode | or (C1)     |               | X        | Sedi<br>Drift                    | er Marks (B1) (Riverine)<br>ment Deposits (B2) (Riverine)  |
|                     | d Hydrology In<br>Primary Ir<br>Surface Water<br>High Water Ta<br>Saturation (A3                  | ndicators (mir<br>r (A1)<br>able (A2)<br>3)<br>(B1) (Nonriver                      | rine)            | Salt<br>Bioti<br>Aqua<br>Hydr         | Crust (B<br>c Crust (<br>atic Faur<br>rogen Su              | 11)<br>B12)<br>la (B13)<br>Ifide Ode | or (C1)     | Roots (C3)    | X<br>X   | Sedi<br>Drift<br>Drair           | er Marks (B1) (Riverine)<br>ment Deposits (B2) (Riverine)<br>Deposits (B3) (Riverine)                        |
| x<br>X<br>X<br>X    | d Hydrology In<br>Primary Ir<br>Surface Water<br>High Water Ta<br>Saturation (A3<br>Water Marks ( | ndicators (mir<br>r (A1)<br>able (A2)<br>3)<br>(B1) (Nonriver<br>sits (B2) (Nonriv | rine)<br>/erine) | Salt<br>Bioti<br>Aqua<br>Hydi<br>Oxid | Crust (B<br>c Crust (<br>atic Faur<br>rogen Su<br>ized Rhiz | 11)<br>B12)<br>a (B13)<br>Ifide Od   | or (C1)     | Roots (C3)    |          | Sedi<br>Drift<br>Drair<br>Dry-\$ | er Marks (B1) (Riverine)<br>ment Deposits (B2) (Riverine)<br>Deposits (B3) (Riverine)<br>nage Patterns (B10) |

Yes X No Depth (inches): 0 Water Table Present? Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)

Water Stained Leaves (B9)

х

Inundation Visible on Aerial Imagery (B7)

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

Thin Muck Surface (C7)

Yes X No Depth (inches):

Other (Explain in Remarks)

--See Climatic Summary Below--

Field Observations:

Surface Water Present?

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal val

5

Х

Yes X

Shallow Aquitard (D3)

FAC-Neutral Test (D5)

Wetland Hydrology Present?

No

| Project/Site:           | Utah Lake                         |                | City/County:      | Utah Co.                | Sampling Date: 7/6/2021  |
|-------------------------|-----------------------------------|----------------|-------------------|-------------------------|--|
| Applicant/Owner:        | LRS                               |                |                   |                         | State: <u>Utah</u> Sampling Point: <u>A-DP05</u>                 |
| Investigator(s):        | A. Mathes T. Taylor               | S. Fuller      |                   | Section, Township, I    |  |
| Landform: (hillslope, t | errace, etc.):                    | Other          |                   | Local relief (concave,  | convex, none): None Slope (%): <u>0-2%</u>                       |
| Subregion (LRR):        | MLRA 28                           | BA; LRR D      | Lat.              | 40.291307               | Long111.762310 Datum: WGS84                                      |
| Soil Map Unit Name:     |                                   |                | Beaches           |                         | NWI Classification: PEM1F  |
| Are climatic/hydrologi  | c conditions on the site          | typical for ti | ime of year?      | Yes                     | No X (If no, explain in the Remarks)                             |
| Are Vegetation          | X ,Soil                           | or Hy,         | /drology          | _significantly disturbe | d?   |
| Are Vegetation          | ,Soil                             | or Hy,         | /drology          | _naturally problemation | ?  |
| Are Normal Circumsta    | ances Present?                    | Yes <u>X</u>   | No                | (If needed, explain a   | ny answers in Remarks)   |
| SUMMARY OF FI           | INDINGS - Attach                  | site map :     | showing sa        | mpling point loca       | tions, transects, important features, etc.                       |
|                         | tic Vegetation Present?           |                |                   |                         | pled Area within a Wetland?                                      |
|                         | Hydric Soil Present?              | Yes X          | No                | Yes                     | XNo  |
| Wetla                   | nd Hydrology Present?             | Yes X          | No                |                         |  |
|                         |                                   |                |                   | _                       |  |
| Remarks:                |                                   |                |                   |                         |  |
| Data point located alo  | ong PEM L2 boundary [             | Drought cone   | ditions Some n    | nanagement of invasive  | es has occurred  |
|                         |                                   |                |                   |                         |  |
| VEGETATION - U          | Jse scientific name               | es of plan     | nts               |                         |  |
|                         |                                   | Absolute       | Dominant          |                         |  |
| Tree Stratum            | Plot size: r= 30'                 | % Cover        | Species?          | Indicator Status        | Dominance Test Worksheet   |
| 1                       |                                   |                |                   |                         | -  |
| 2.                      |                                   |                |                   |                         | Number of dominant species that are                              |
| 3.                      |                                   |                |                   |                         | OBL, FACW, or FAC: <u>1</u> (A)                                  |
| 4.                      |                                   |                |                   |                         | Total number of dominant species                                 |
|                         |                                   | 0              | = Total Cover     |                         | across all strata: <u>1</u> (B)                                  |
|                         |                                   |                |                   |                         | Percent of dominant species that are                             |
| Sapling/Shrub Stratur   | <u>n</u> Plot size: <u>r= 30'</u> |                |                   |                         | OBL, FACW, or FAC: 100% (A/B)                                    |
| 1.                      |                                   |                |                   |                         | Prevalence Index Worksheet                                       |
| 2.                      |                                   |                |                   |                         | Total % cover of: Multiply by:                                   |
| 0                       |                                   |                |                   |                         | OBL species 100 x 1 100  |
| 4                       |                                   |                |                   |                         | FACW species 0 x 2 0   |
| 5.                      |                                   |                |                   |                         | FAC species 0 x 3 0  |
|                         |                                   | 0              | = Total Cover     |                         | FACU species 0 x 4 0   |
|                         |                                   |                |                   |                         | UPL species 0 x 5 0  |
| Herb Stratum            | Plot size: r= 5'                  |                |                   |                         | Column Total <u>100</u> (A) <u>100</u> (B)                       |
|                         | ctus acutus                       | 100            | Y                 | OBL                     | Prevalence Index: 1.0 (B/A)                                      |
| <u> </u>                |                                   |                |                   |                         | Hydrophytic Vegetation Indicators:                               |
| <u> </u>                |                                   |                |                   |                         | X 1 - Rapid Test for Hydrophytic Vegetation                      |
|                         |                                   |                |                   |                         | X 2 - Dominance Test is >50%                                     |
| г                       |                                   |                |                   |                         | X 3 - Prevalence Index is $\leq 3.0^*$                           |
| 6                       |                                   |                |                   |                         | Problematic Hydrophytic Vegetation* (Explain)                    |
|                         |                                   |                |                   | ·                       | *Indicators of hydric soil and wetland hydrology must be present |
|                         |                                   |                |                   |                         | unless disturbed or problematic                                  |
| 8.                      |                                   | 100            | - Total Ories     |                         | Hudrophytic Vogetation Brocont?                                  |
|                         |                                   | 100            | = Total Cover     |                         | Hydrophytic Vegetation Present?                                  |
|                         |                                   |                |                   |                         |  |
|                         | Plot size: r= 30'                 |                |                   |                         | Yes <u>X</u> No  |
|                         |                                   |                |                   |                         | 4  |
| 2.                      |                                   |                |                   |                         | 4  |
|                         |                                   | 0              | = Total Cover     |                         |  |
| % Bare Ground in        | Herb Stratum                      | % Cove         | er of Biotic Crus | st                      |  |
| Remarks: (if observe    | d, list morphological ad          | aptations be   | elow).            |                         |  |
| Remarks: (if observe    | d, list morphological ad          | aptations be   | elow).            |                         |  |

| rofile Description:                                | Describe to                           | depth n     | eeded to | uocumen  | t the m             | ulcator o  |                   | ce of mui | icators.)                  |                              |
|--|---------------------------------------|-------------|----------|----------|---------------------|------------|-------------------|-----------|----------------------------|------------------------------|
| Depth  | Mat                                   | rix         |          | Redox F  | eatures             |            |                   |           |                            |                              |
| (inches)   | Color                                 | %           | Color    | %        | Type*               | Loc**      | Texture           |           | Ren                        | narks                        |
| 0-   |                                       |             |          |          |                     | -          |                   |           |                            |                              |
|  |                                       |             |          |          |                     |            |                   |           |                            |                              |
|  |                                       |             |          |          |                     |            |                   |           |                            |                              |
|  |                                       |             |          |          |                     |            |                   |           |                            |                              |
|  |                                       |             |          |          |                     |            |                   |           |                            |                              |
|  |                                       |             |          |          |                     |            |                   |           |                            |                              |
| Type: C=Concentratio                               |                                       |             |          |          |                     |            | grains **Location | n: PL=Por |                            | matia Uudria Caila ***       |
| ydric Soil Indicator                               | s: (Applicab                          | le to all L | .ĸĸs, un |          |                     | ,          |                   |           | 1 cm Muck (A9) (LRR C)     | matic Hydric Soils ***       |
| `````  | Histosol (A1)<br>Histic Epipedon (A2) |             |          |          | Redox (<br>d Matrix |            |                   |           | 2 cm Muck (A10) (LRR E     |                              |
| Black Histic (                                     | <i>i</i>                              |             |          |          |                     | Mineral (F | 1)                |           | Reduced Vertic (F18)       | - /                          |
| Hydrogen Su  | ,                                     |             |          |          | -                   | Matirx (F2 | -                 |           | Red Parent Material (TF    | 2)                           |
| Stratified Lay                                     |                                       | R C)        |          |          | ed Matrix           |            | -/                |           | Other (Explain in Remar    | •                            |
| 1 cm Muck (A                                       |                                       |             |          |          |                     | Inface (F6 | )                 |           |                            |                              |
| Depleted Belo                                      | ,, ,                                  | e (A11)     |          | Deplete  | ed Dark             | Surface (I | =7)               |           |                            |                              |
| Thick Dark S                                       | urface (A12)                          |             |          | Redox    | Depress             | sions (F8) |                   |           |                            |                              |
| Sandy Mucky  | Mineral (S1                           | )           |          | Vernal   | Pools (F            | 9)         |                   |           | *** Indicators of hydrophy | ytic vegetation and wetland  |
| Sandy Gleye  | d Matrix (S4)                         |             |          |          |                     |            |                   | hyd       | drology must be present, u | nless disturbed or problemat |
| estrictive Layer (if o<br>Type:<br>Depth (inches): | bserved)                              |             |          |          | -                   | Hydric So  | oil Present?      | Yes       | - <u>X</u> No              | ·                            |
| emarks:  |                                       |             |          |          |                     |            |                   |           |                            |                              |
| ssumed hydric, inund                               | lated soils to                        | at least 8  | 8"       |          |                     |            |                   |           |                            |                              |
|  |                                       |             |          |          |                     |            |                   |           |                            |                              |
| IYDROLOGY  |                                       |             |          |          |                     |            |                   |           |                            |                              |
|  | diaatawa                              |             |          |          |                     |            |                   |           |                            |                              |
| /etland Hydrology I                                |                                       | la las      | fans :-  | a mula c |                     | at armin's |                   |           | Casandan ( Indiantan ( )   |                              |
|  | Indicators (m                         |             |          |          |                     | iai appiy) |                   |           | Secondary Indicators (2    |                              |

Х Х Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) Х Biotic Crust (B12) High Water Table (A2) Sediment Deposits (B2) (Riverine) Х Aquatic Fauna (B13) Drift Deposits (B3) (Riverine) Saturation (A3) Х Hydrogen Sulfide Odor (C1) Х Water Marks (B1) (Nonriverine) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) Х Sediment Deposits (B2) (Nonriverine) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Crayfish Burrows (C8) Recent Iron Reduction in Tilled Soil (C6) Х Surface Soil Cracks (B6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water Stained Leaves (B9) Other (Explain in Remarks) Х FAC-Neutral Test (D5) Field Observations: Wetland Hydrology Present? Surface Water Present? Х No Depth (inches): 5 Yes Yes\_X Water Table Present? X No 0 Yes Depth (inches): No Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)

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

--See Climatic Summary Below--

| Project/Site:            | Utah Lake                |                | City/County:     | Utah Co.                              | Sampling Date: 7/6/2021   |
|--------------------------|--------------------------|----------------|------------------|---------------------------------------|---|
| Applicant/Owner:         | LRS                      |                |                  |                                       | State: Utah Sampling Point: A-DP06                                    |
| Investigator(s):         | A. Mathes T. Taylor      | S. Fuller      |                  | Section, Township,                    |   |
| Landform: (hillslope, te | errace, etc.):           | Other          |                  |                                       | convex, none): None Slope (%): <u>0-2%</u>                            |
| Subregion (LRR):         | MLRA 28                  | BA; LRR D      | Lat.             | 40.306264                             | Long111.764633 Datum: WGS84   |
| Soil Map Unit Name:      |                          |                | Water            |                                       | NWI Classification: PEM1F   |
| Are climatic/hydrologic  | c conditions on the site | typical for ti | ime of year?     | Yes                                   | No X (If no, explain in the Remarks)                                  |
| Are Vegetation           | X,Soil                   | ,or Hy         | /drology         | _significantly disturbe               | d?  |
| Are Vegetation           | ,Soil                    | ,or Hy         | /drology         | naturally problemation                | ?   |
| Are Normal Circumsta     | ances Present?           | Yes X          | No               | (If needed, explain a                 | ny answers in Remarks)  |
|                          |                          |                |                  |                                       |   |
|                          |                          |                |                  |                                       | tions, transects, important features, etc.                            |
| Hydrophyt                | ic Vegetation Present?   |                |                  |                                       | pled Area within a Wetland?   |
|                          | Hydric Soil Present?     |                |                  |                                       | <u>X</u> No   |
| Wetlar                   | nd Hydrology Present?    | Yes <u>X</u>   | No               | _                                     |   |
| Remarks:                 |                          |                |                  |                                       |   |
|                          | ng PEM I 2 boundary [    | Drought con    | ditions Some r   | nanagement of invasive                | es has occurred   |
|                          |                          | orougin con    |                  | nanagement of invasive                |   |
|                          |                          |                |                  |                                       |   |
| VEGETATION - U           | se scientific name       | Absolute       | Dominant         |                                       | 1   |
| Tree Stratum             | Plot size: r= 30'        | % Cover        | Species?         | Indicator Status                      | Dominance Test Worksheet  |
| 1.                       |                          |                |                  |                                       |   |
| 2.                       |                          |                |                  |                                       | Number of dominant species that are                                   |
| 3.                       |                          |                |                  |                                       | OBL, FACW, or FAC: 1 (A)  |
| 4.                       |                          |                |                  |                                       |   |
|                          |                          | 0              | = Total Cover    |                                       | Total number of dominant species<br>across all strata: 1 (B)          |
|                          |                          |                |                  |                                       |   |
| Sapling/Shrub Stratun    | n Plot size: r= 30'      |                |                  |                                       | Percent of dominant species that are<br>OBL, FACW, or FAC: 100% (A/B) |
| 1                        |                          |                |                  |                                       | Prevalence Index Worksheet  |
| 0                        |                          |                |                  | ·                                     | Total % cover of: Multiply by:  |
|                          |                          |                |                  | ·                                     | OBL species 100 x 1 100   |
|                          |                          |                |                  | ·                                     | FACW species 0 x 2 0  |
| 5.                       |                          |                |                  | · · · · · · · · · · · · · · · · · · · | FAC species 0 x 3 0   |
|                          |                          | 0              | = Total Cover    |                                       | FACU species 0 x 4 0  |
|                          |                          | 0              |                  |                                       | UPL species 0 x 5 0   |
| Herb Stratum             | Plot size: r= 5'         |                |                  |                                       | Column Total <u>100</u> (A) <u>100</u> (B)                            |
|                          | ctus acutus              | 100            | Y                | OBL                                   | Prevalence Index: 1.0 (B/A)   |
| /                        |                          |                |                  |                                       | Hydrophytic Vegetation Indicators:                                    |
| <u> </u>                 |                          |                |                  |                                       | X 1 - Rapid Test for Hydrophytic Vegetation                           |
|                          |                          |                |                  | · .                                   | X 2 - Dominance Test is >50%  |
|                          |                          |                |                  | ·                                     | X 3 - Prevalence Index is $\leq 3.0^*$                                |
| 6                        |                          |                |                  | ·                                     | Problematic Hydrophytic Vegetation* (Explain)                         |
|                          |                          |                |                  |                                       | *Indicators of hydric soil and wetland hydrology must be present      |
| 7<br>8.                  |                          |                |                  |                                       | unless disturbed or problematic                                       |
| 0.                       |                          | 100            | = Total Cover    | ·                                     | Hydrophytic Vegetation Present?                                       |
|                          |                          | 100            |                  |                                       | ingurophytic vegetation riesellt                                      |
| Woody Vine Stratum       |                          |                |                  |                                       | Vos V No  |
|                          |                          |                |                  |                                       | Yes <u>X</u> No   |
| 1<br>2.                  |                          |                |                  | ·                                     | 1   |
| Ζ.                       |                          | 0              | - Total Cours    |                                       | 4   |
| % Data Oracit            | Llash Strati             |                | = Total Cover    | at                                    |   |
|                          | Herb Stratum             |                | er of Biotic Cru | St                                    |   |
| rtemarks: (IT observed   | d, list morphological ad | aptations be   | now).            |                                       |   |

| -rome L  | escription: (  | Describe to   | ueptn h     | eeaea to (   |                            |            |            | r confirm absend  | e of indi | icators.)   |  |  |  |
|----------|--|---------------|-------------|--------------|----------------------------|------------|------------|-------------------|-----------|---|--|--|--|
|          | Depth  | Mat           | rix         |              | Redox F                    | eatures    | ;          |                   |           |   |  |  |  |
|          | (inches)   | Color         | %           | Color        | %                          | Type*      | Loc**      | Texture           | Remarks   |   |  |  |  |
|          | 0-   |               |             |              |                            |            |            |                   |           |   |  |  |  |
|          |  |               |             |              |                            |            |            |                   |           |   |  |  |  |
|          |  |               |             |              |                            |            |            |                   |           |   |  |  |  |
|          |  |               |             |              |                            |            |            |                   |           |   |  |  |  |
|          |  |               |             |              |                            |            |            |                   |           |   |  |  |  |
|          |  |               |             |              |                            |            |            |                   |           |   |  |  |  |
| Type: C  | =Concentratio  | n, D=Depleti  | ion, RM=    | Reduced I    | Matrix, M                  | S=Mask     | ed Sand g  | grains **Location | : PL=Por  | re Lining, M=Matrix                                   |  |  |  |
| lydric S | Soil Indicators  | : (Applicab   | le to all L | RRs, unl     | ess othe                   | rwise n    | oted)      |                   |           | Indicators for Problematic Hydric Soils ***           |  |  |  |
|          | Histosol (A1)  |               |             |              | Sandy                      | Redox (    | S5)        |                   |           | 1 cm Muck (A9) <b>(LRR C)</b>                         |  |  |  |
|          | Histic Epipedo   | on (A2)       |             |              | Strippe                    | d Matrix   | (S6)       |                   |           | 2 cm Muck (A10) <b>(LRR B)</b>                        |  |  |  |
|          | Black Histic (A  | A3)           |             |              | Loamy                      | Mucky I    | Mineral (F | 1)                |           | Reduced Vertic (F18)                                  |  |  |  |
|          | Hydrogen Sul   | fide (A4)     |             |              | Loamy                      | Gleyed     | Matirx (F  | 2)                |           | Red Parent Material (TF2)                             |  |  |  |
|          | Stratified Laye  | ers (A5) (LRI | RC)         |              | Deplete                    | ed Matri   | x (F3)     |                   |           | Other (Explain in Remarks)                            |  |  |  |
|          | 1 cm Muck (A   | 9) (LRR D)    |             |              | Redox Dark Surface (F6)    |            |            |                   |           |   |  |  |  |
|          | Depleted Below   | v Dark Surfac | e (A11)     |              | Depleted Dark Surface (F7) |            |            |                   |           |   |  |  |  |
|          | Thick Dark Su  | Irface (A12)  |             |              | Redox                      | Depress    | sions (F8) |                   |           |   |  |  |  |
|          | Sandy Mucky  |               | )           |              | Vernal                     | Pools (F   | -9)        |                   |           | *** Indicators of hydrophytic vegetation and wetland  |  |  |  |
|          | Sandy Gleyed   | Matrix (S4)   |             |              |                            |            |            |                   | hyd       | drology must be present, unless disturbed or problema |  |  |  |
|          | ive Layer (if o  | bserved)      |             | ·            |                            |            |            |                   |           |   |  |  |  |
|          | Type:<br>th (inches):                                  |               |             |              |                            | -          | Hydric Se  | oil Present?      | Yes       | No  |  |  |  |
| Dob      | (  |               |             |              |                            | -          |            |                   |           |   |  |  |  |
| Remarks  | 8:   |               |             |              |                            |            |            |                   |           |   |  |  |  |
| ssume    | d hydric, inunda                                       | ated soils to | at least 8  | 3"           |                            |            |            |                   |           |   |  |  |  |
|          |  |               |             |              |                            |            |            |                   |           |   |  |  |  |
|          |  |               |             |              |                            |            |            |                   |           |   |  |  |  |
| IYDRO    | DLOGY  |               |             |              |                            |            |            |                   |           |   |  |  |  |
| Vetland  | Hydrology In   | dicators:     |             |              |                            |            |            |                   |           |   |  |  |  |
| Cuana    |  |               | inimum c    | of one is re | auire: ch                  | eck all th | nat apply) |                   |           | Secondary Indicators (2 or more required)             |  |  |  |
| v        | Primary Indicators (minimum of one is require; check a |               |             |              |                            |            |            |                   |           |   |  |  |  |

Х Х Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) Х Biotic Crust (B12) Sediment Deposits (B2) (Riverine) High Water Table (A2) Х Aquatic Fauna (B13) Drift Deposits (B3) (Riverine) Saturation (A3) Х Hydrogen Sulfide Odor (C1) Х Water Marks (B1) (Nonriverine) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) Х Sediment Deposits (B2) (Nonriverine) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Crayfish Burrows (C8) Recent Iron Reduction in Tilled Soil (C6) Х Surface Soil Cracks (B6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water Stained Leaves (B9) Х Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Wetland Hydrology Present? Surface Water Present? Х No Depth (inches): 5 Yes Yes\_X Water Table Present? X No 0 Yes Depth (inches): No Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)

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

#### --See Climatic Summary Below--

| Project/Site:            | Utah Lake                |                | City/County:     | Utah Co.               | Sampling Date: 7/6/2021   |     |
|--------------------------|--------------------------|----------------|------------------|------------------------|---|-----|
| Applicant/Owner:         | LRS                      |                |                  |                        | State: Utah Sampling Point: A-DP07                              |     |
| Investigator(s):         | A. Mathes T. Taylor      | S. Fuller      |                  | Section, Township, I   |   |     |
| Landform: (hillslope, te | errace, etc.):           | Other          |                  |                        | convex, none): None Slope (%): <u>0-2%</u>                      |     |
| Subregion (LRR):         | MLRA 28                  | BA; LRR D      | Lat.             | 40.318561              | Long111.766987 Datum: <u>WGS84</u>                              |     |
| Soil Map Unit Name:      |                          |                | Water            |                        | NWI Classification: PEM1F                                       |     |
| Are climatic/hydrologic  | conditions on the site   | typical for ti | ime of year?     | Yes                    | No X (If no, explain in the Remarks)                            |     |
| Are Vegetation           | X ,Soil                  | or Hy,         | /drology         | significantly disturbe | d?  |     |
| Are Vegetation           | ,Soil                    | or Hy,         | /drology         | naturally problemation | ?   |     |
| Are Normal Circumsta     | nces Present?            | Yes <u>X</u>   | No               | (If needed, explain a  | ny answers in Remarks)  |     |
| SUMMARY OF FI            | NDINGS - Attach          | site map :     | showing sa       | mpling point loca      | tions, transects, important features, etc.                      |     |
|                          | c Vegetation Present?    |                |                  |                        | pled Area within a Wetland?                                     |     |
|                          | Hydric Soil Present?     | Yes <u>X</u>   | No               | Yes                    | XNo   |     |
| Wetlar                   | nd Hydrology Present?    | Yes X          | No               |                        |   |     |
|                          |                          |                |                  |                        |   |     |
| Remarks:                 |                          |                |                  |                        |   |     |
| Data point located alo   | ng PEM L2 boundary [     | Drought cond   | ditions Some r   | nanagement of invasive | es has occurred   |     |
|                          |                          |                |                  |                        |   |     |
| VEGETATION - U           | se scientific nam        | es of plan     | nts              |                        |   |     |
|                          |                          | Absolute       | Dominant         |                        |   |     |
| Tree Stratum             | Plot size: <u>r= 30'</u> | % Cover        | Species?         | Indicator Status       | Dominance Test Worksheet  |     |
| 1                        |                          |                |                  |                        | 4   |     |
| 2.                       |                          |                |                  |                        | Number of dominant species that are                             |     |
| 3.                       |                          |                |                  |                        | OBL, FACW, or FAC:(A)   |     |
| 4.                       |                          |                |                  |                        | Total number of dominant species                                |     |
|                          |                          | 0              | = Total Cover    |                        | across all strata: <u>1</u> (B)                                 |     |
|                          |                          |                |                  |                        | Percent of dominant species that are                            |     |
| Sapling/Shrub Stratum    | Plot size: r= 30'        |                |                  |                        | OBL, FACW, or FAC: 100% (A/B)                                   |     |
| 1.                       |                          |                |                  |                        | Prevalence Index Worksheet                                      |     |
| 2.                       |                          |                |                  |                        | Total % cover of: Multiply by:                                  |     |
| 3.                       |                          |                |                  |                        | OBL species <u>100</u> x 1 <u>100</u>                           |     |
| 4.                       |                          |                |                  |                        | FACW species 0 x 2 0  |     |
| 5.                       |                          |                |                  |                        | FAC species x _3  |     |
|                          |                          | 0              | = Total Cover    |                        | FACU species 0 x 4 0  |     |
|                          |                          |                |                  |                        | UPL species 0 x 5 0   |     |
| Herb Stratum             | Plot size: r= 5'         |                |                  |                        | Column Total <u>100 (</u> A) <u>100 (</u> B)                    |     |
| 1. Schoenopled           | tus acutus               | 100            | Y                | OBL                    | Prevalence Index: 1.0 (B/A)                                     |     |
| 2.                       |                          |                |                  |                        | Hydrophytic Vegetation Indicators:                              |     |
| 8                        |                          |                |                  |                        | X 1 - Rapid Test for Hydrophytic Vegetation                     |     |
|                          |                          |                |                  |                        | X 2 - Dominance Test is >50%                                    |     |
|                          |                          |                |                  | ·                      | X 3 - Prevalence Index is $\leq 3.0^*$                          |     |
| 6                        |                          |                |                  | ·                      | Problematic Hydrophytic Vegetation* (Explain)                   |     |
|                          |                          |                |                  |                        | *Indicators of hydric soil and wetland hydrology must be preser | nt, |
| 8.                       |                          |                |                  |                        | unless disturbed or problematic                                 |     |
|                          |                          | 100            | = Total Cover    |                        | Hydrophytic Vegetation Present?                                 |     |
|                          |                          |                |                  |                        |   |     |
| Woody Vine Stratum       | Plot size: r= 30'        |                |                  |                        | Yes <u>X</u> No   |     |
| 1.                       |                          |                |                  |                        |   |     |
| 2.                       |                          |                |                  |                        |   |     |
|                          |                          | 0              | = Total Cover    |                        |   |     |
| % Bare Ground in         | Herb Stratum             |                | er of Biotic Cru | st                     |   |     |
|                          | l, list morphological ad |                |                  |                        | 1   |     |
| (                        |                          | ,              | ,                |                        |   |     |

|        | Depth                | Mati          | rix        |            | Redox F              | eatures  |            |                         |  |                |                                     |                     |
|--------|----------------------|---------------|------------|------------|----------------------|----------|------------|-------------------------|--|----------------|-------------------------------------|---------------------|
|        | (inches)             | Color         | %          | Color      | %                    | Type*    | Loc**      | Texture                 | Remarks  |                |                                     |                     |
|        | 0-                   |               |            |            |                      |          |            |                         |  |                |                                     |                     |
|        |                      |               |            |            |                      |          |            |                         |  |                |                                     |                     |
|        |                      |               |            |            |                      |          |            |                         |  |                |                                     |                     |
|        |                      |               |            |            |                      |          |            |                         |  |                |                                     |                     |
|        |                      |               |            |            |                      |          |            |                         |  |                |                                     |                     |
|        |                      |               |            |            |                      |          |            |                         |  |                |                                     |                     |
|        |                      |               |            |            |                      |          |            |                         |  |                |                                     |                     |
|        | -0                   | D-D-s-lati    |            |            | Antoine MAG          |          |            | **!                     |  | - 1 in in n Ma | - N - 4                             |                     |
|        |                      |               |            |            |                      |          |            | grains **Locatior       | 1: PL=Por  |                |                                     |                     |
| -      | oil Indicators       | : (Applicabl  | e to all L | .RRs, unle |                      |          | ,          |                         |  |                | ors for Problemati<br>((A9) (LRR C) | ic Hydric Soils *** |
|        | Histosol (A1)        |               | Sandy      | ,          |                      |          |            | 2 cm Muck (A10) (LRR B) |  |                |                                     |                     |
|        | Histic Epipedon (A2) |               |            |            | Strippe              |          | . ,        |                         |  |                | /ertic (F18)                        |                     |
|        | Black Histic (A      | ,             |            |            |                      |          | Mineral (F |                         |  |                | nt Material (TF2)                   |                     |
|        | Hydrogen Sulf        | . ,           |            |            | -                    |          | Matirx (F2 | 2)                      |  |                |                                     |                     |
|        | Stratified Laye      |               | RC)        |            | Depleted Matrix (F3) |          |            |                         |  | Other (Exp     | olain in Remarks)                   |                     |
|        | 1 cm Muck (As        |               |            |            |                      |          | Irface (F6 | /                       |  |                |                                     |                     |
|        | Depleted Below       |               | e (A11)    |            | 1                    |          | Surface (I | 1                       |  |                |                                     |                     |
|        | Thick Dark Su        | , ,           |            |            |                      |          | sions (F8) |                         |  |                |                                     |                     |
|        | Sandy Mucky          |               |            |            | Vernal               | Pools (F | -9)        |                         | egetation and wetland<br>s disturbed or problema |                |                                     |                     |
|        | Sandy Gleyed         |               |            |            |                      |          |            |                         | nyu  | Tology musi    | t be present, unless                |                     |
|        | ve Layer (if ol      | oserved)      |            |            |                      |          |            |                         |  |                |                                     |                     |
|        | Туре:                |               |            |            |                      | -        |            |                         |  |                |                                     |                     |
| Dept   | h (inches):          |               |            |            |                      | -        | Hydric So  | oil Present?            | Yes  | X              | No                                  |                     |
| emarks |                      |               |            |            |                      |          |            |                         |  |                |                                     |                     |
|        |                      | stad apile to | at least ( |            |                      |          |            |                         |  |                |                                     |                     |
| ssumeu | d hydric, inunda     |               | alleast    | )          |                      |          |            |                         |  |                |                                     |                     |
|        |                      |               |            |            |                      |          |            |                         |  |                |                                     |                     |
|        |                      |               |            |            |                      |          |            |                         |  |                |                                     |                     |
| YDRC   | DLOGY                |               |            |            |                      |          |            |                         |  |                |                                     |                     |

| wettand                               | Hydrology indicators:             |          |        |             |                             |          |   |   |
|---------------------------------------|-----------------------------------|----------|--------|-------------|-----------------------------|----------|---|---|
|                                       | Primary Indicators (min           | imum o   | of one | is require; | check all that apply)       |          |   | Secondary Indicators (2 or more required) |
| X Surface Water (A1) Salt Crust (B11) |                                   |          |        |             |                             |          |   | Water Marks (B1) (Riverine)               |
| Х                                     | High Water Table (A2)             |          |        | Biotic Cru  | st (B12)                    |          |   | Sediment Deposits (B2) (Riverine)         |
| Х                                     | Saturation (A3)                   |          |        | Aquatic F   | auna (B13)                  |          |   | Drift Deposits (B3) (Riverine)            |
| Х                                     | Water Marks (B1) (Nonriver        | ine)     |        | Hydrogen    | Sulfide Odor (C1)           |          | Х | Drainage Patterns (B10)                   |
|                                       | Sediment Deposits (B2) (Nonrive   | erine)   |        | Oxidized R  | Rhizospheres on Living Ro   | ots (C3) | Х | Dry-Season Water Table (C2)               |
|                                       | Drift Deposits (B3) (Nonrive      | rine)    |        | Presence    | of Reduced Iron (C4)        |          |   | Crayfish Burrows (C8)                     |
|                                       | Surface Soil Cracks (B6)          |          |        | Recent Iro  | on Reduction in Tilled Soil | (C6)     | Х | Saturation Visible on Aerial Imagery (C9) |
| Х                                     | Inundation Visible on Aerial Imag | ery (B7) |        | Thin Mucl   | k Surface (C7)              |          |   | Shallow Aquitard (D3)                     |
|                                       | Water Stained Leaves (B9)         |          |        | Other (Ex   | plain in Remarks)           |          | Х | FAC-Neutral Test (D5)                     |
| Field Ob                              | oservations:                      |          |        |             |                             |          |   |   |
| Surface                               | Water Present?                    | Yes      | Х      | No          | Depth (inches):             | 5        | _ | Wetland Hydrology Present?                |
| Water Ta                              | able Present?                     | Yes      | Х      | No          | Depth (inches):             | 0        | _ | YesX No                                   |
| Saturation Present? Yes X             |                                   |          |        |             | Depth (inches):             | 0        | _ |   |
| (includes capillary fringe)           |                                   |          |        |             |                             |          |   |   |

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

## --See Climatic Summary Below--

| Project/Site:          | Utah Lake                 |                | City/County:     | Utah Co.                | Sampling Date: 7/7/2021                                       |        |
|------------------------|---------------------------|----------------|------------------|-------------------------|---|--------|
| Applicant/Owner:       | LRS                       |                |                  |                         | State: UtahSampling Point:A-DP08                              | i      |
| Investigator(s):       | A. Mathes T. Taylor       | S. Fuller      |                  | Section, Township,      |   |        |
|                        | terrace, etc.):           | Other          |                  |                         | convex, none): None Slope (%): <u>0-2%</u>                    | 6      |
| Subregion (LRR):       | MLRA 28                   | BA; LRR D      | Lat.             | 40.347384               | _ Long. <u>-111.811051</u> Datum: <u>WGS84</u>                |        |
| Soil Map Unit Name:    |                           |                | Water            |                         | NWI Classification: PEM1F                                     |        |
| Are climatic/hydrolog  | ic conditions on the site | typical for ti | ime of year?     | Yes                     | No X (If no, explain in the Remarks)                          |        |
| Are Vegetation         | X ,Soil                   | or Hy,         | /drology         | _significantly disturbe | .d?   |        |
| Are Vegetation         | ,Soil                     | or Hy,         | /drology         | _naturally problemation | c?  |        |
| Are Normal Circumst    | ances Present?            | Yes <u>X</u>   | No               | (If needed, explain a   | any answers in Remarks)                                       |        |
| SUMMARY OF F           | INDINGS - Attach          | site map       | showing sa       | mpling point loca       | itions, transects, important features, etc.                   |        |
|                        | tic Vegetation Present?   |                |                  |                         | npled Area within a Wetland?                                  |        |
|                        | Hydric Soil Present?      | Yes X          |                  |                         | X No  |        |
| Wetla                  | ind Hydrology Present?    |                |                  |                         |   |        |
|                        | , ,,                      |                |                  | _                       |   |        |
| Remarks:               |                           |                |                  |                         |   |        |
| Data point located alo | ong PEM L2 boundary [     | Drought con    | ditions Some n   | nanagement of invasive  | es has occurred   |        |
|                        |                           |                |                  |                         |   |        |
| VEGETATION - L         | Jse scientific nam        | es of plar     | nts              |                         |   |        |
|                        |                           | Absolute       | Dominant         |                         |   |        |
| Tree Stratum           | Plot size: r= 30'         | % Cover        | Species?         | Indicator Status        | Dominance Test Worksheet                                      |        |
| 1                      |                           |                |                  |                         | _   |        |
| 2.                     |                           |                |                  |                         | Number of dominant species that are                           |        |
| 3.                     |                           |                |                  |                         | OBL, FACW, or FAC: 1 (A)                                      |        |
| 4.                     |                           |                |                  |                         | Total number of dominant species                              |        |
|                        |                           | 0              | = Total Cover    |                         | across all strata: 1 (B)                                      |        |
|                        |                           |                |                  |                         | Percent of dominant species that are                          |        |
| Sapling/Shrub Stratu   | m Plot size: r= 30'       |                |                  |                         | OBL, FACW, or FAC: 100% (A/B)                                 | )      |
| 1.                     |                           |                |                  |                         | Prevalence Index Worksheet                                    |        |
| 2.                     |                           |                |                  |                         | Total % cover of: Multiply by:                                |        |
| 0                      |                           |                |                  |                         | OBL species 100 x 1 100                                       |        |
| 4                      |                           |                |                  |                         | FACW species 0 x 2 0  |        |
| 5.                     |                           |                |                  |                         | FAC species 0 x 3 0   |        |
|                        |                           | 0              | = Total Cover    |                         | FACU species 0 x 4 0  |        |
|                        |                           |                |                  |                         | UPL species 0 x 5 0   |        |
| Herb Stratum           | Plot size: r= 5'          |                |                  |                         | Column Total 100 (A) 100 (B)                                  |        |
|                        | ectus acutus              | 100            | Y                | OBL                     | Prevalence Index: 1.0 (B/A)                                   | )      |
| /                      |                           |                |                  |                         | Hydrophytic Vegetation Indicators:                            | /      |
|                        |                           |                |                  |                         | X 1 - Rapid Test for Hydrophytic Vegetation                   |        |
|                        |                           |                |                  |                         | X 2 - Dominance Test is >50%                                  |        |
| -                      |                           |                |                  |                         | X 3 - Prevalence Index is $\leq 3.0^{*}$                      |        |
| 6                      |                           |                |                  |                         | Problematic Hydrophytic Vegetation* (Explain)                 |        |
|                        |                           |                |                  |                         | *Indicators of hydric soil and wetland hydrology must be pre- | esent, |
|                        |                           |                |                  |                         | unless disturbed or problematic                               | *      |
| 8.                     |                           | 400            | - Total Crim     |                         | Hydrophytic Vegetation Breest?                                |        |
|                        |                           | 100            | = Total Cover    |                         | Hydrophytic Vegetation Present?                               |        |
|                        |                           |                |                  |                         |   |        |
|                        | Plot size: r= 30'         |                |                  |                         | Yes <u>X</u> No   |        |
|                        |                           |                |                  |                         | 4   |        |
| 2.                     |                           |                |                  |                         | 4   |        |
|                        |                           | 0              | = Total Cover    |                         |   |        |
| % Bare Ground in       | Herb Stratum              | % Cove         | er of Biotic Cru | st                      |   |        |
| Remarks: (if observe   | d, list morphological ad  | aptations be   | elow).           |                         |   |        |
|                        |                           |                |                  |                         |   |        |
|                        |                           |                |                  |                         |   |        |
|                        |                           |                |                  |                         |   |        |

| -rotile D | escription: (I   | Describe to   | depth n     | eeaed to (   | aocumer                    | it the in  | alcator o  | r confirm absend  | ce ot indi | cators.)                               |                  |  |  |
|-----------|--|---------------|-------------|--------------|----------------------------|------------|------------|-------------------|------------|--|------------------|--|--|
|           | Depth  | Mati          | rix         |              | Redox F                    | eatures    |            |                   |            |  |                  |  |  |
|           | (inches)   | Color         | %           | Color        | %                          | Type*      | Loc**      | Texture           | Remarks    |  |                  |  |  |
|           | 0-   |               |             |              |                            |            |            |                   |            |  |                  |  |  |
|           |  |               |             |              |                            |            |            |                   |            |  |                  |  |  |
|           |  |               |             |              |                            |            |            |                   |            |  |                  |  |  |
|           |  |               |             |              |                            |            |            |                   |            |  |                  |  |  |
|           |  |               |             |              |                            |            |            |                   |            |  |                  |  |  |
|           |  |               |             |              |                            |            |            |                   |            |  |                  |  |  |
| Туре: С   | =Concentratio  | n, D=Depleti  | ion, RM=    | Reduced I    | /atrix, M                  | S=Mask     | ed Sand    | grains **Location | : PL=Por   | e Lining, M=Matrix                     |                  |  |  |
| lydric S  | oil Indicators   | : (Applicabl  | le to all L | RRs, unle    | ess othe                   | rwise n    | oted)      |                   |            | Indicators for Problematic Hydr        | ric Soils ***    |  |  |
|           | Histosol (A1)  |               |             |              | Sandy Redox (S5)           |            |            |                   |            | 1 cm Muck (A9) <b>(LRR C)</b>          |                  |  |  |
|           | Histic Epipedo   | on (A2)       |             |              | Strippe                    | d Matrix   | (S6)       |                   |            | 2 cm Muck (A10) <b>(LRR B)</b>         |                  |  |  |
|           | Black Histic (A  | 43)           |             |              | Loamy                      | Mucky I    | Mineral (F | 1)                |            | Reduced Vertic (F18)                   |                  |  |  |
|           | Hydrogen Sulf  | fide (A4)     |             |              | Loamy                      | Gleyed     | Matirx (F  | 2)                |            | Red Parent Material (TF2)              |                  |  |  |
|           | Stratified Laye  | ers (A5) (LRI | RC)         |              | Deplete                    | ed Matri   | x (F3)     |                   |            | Other (Explain in Remarks)             |                  |  |  |
|           | 1 cm Muck (A   | 9) (LRR D)    |             |              | Redox Dark Surface (F6)    |            |            |                   |            |  |                  |  |  |
|           | Depleted Below   | v Dark Surfac | e (A11)     |              | Depleted Dark Surface (F7) |            |            |                   |            |  |                  |  |  |
|           | Thick Dark Su  | Irface (A12)  |             |              | Redox                      | Depress    | sions (F8) | 1                 |            |  |                  |  |  |
|           | Sandy Mucky  |               | )           |              | Vernal                     | Pools (F   | -9)        |                   |            | *** Indicators of hydrophytic vegetati | on and wetland   |  |  |
|           | Sandy Gleyed   | Matrix (S4)   |             |              |                            |            |            |                   | hyd        | rology must be present, unless distur  | bed or problemat |  |  |
|           | i <b>ve Layer (if o</b> l<br>Type:                     | bserved)      |             |              |                            |            |            |                   |            |  |                  |  |  |
| Dept      | h (inches):  |               |             |              |                            | -          | Hydric S   | oil Present?      | Yes        | <u>X</u> No                            |                  |  |  |
| Remarks   |  |               |             |              |                            |            |            |                   |            |  |                  |  |  |
|           | 1 hydric, inunda                                       | atod coile to | at loast §  | 2"           |                            |            |            |                   |            |  |                  |  |  |
| Source    | a riyuno, inunua                                       |               | aricasr     | ,            |                            |            |            |                   |            |  |                  |  |  |
|           |  |               |             |              |                            |            |            |                   |            |  |                  |  |  |
| IYDRO     | DLOGY  |               |             |              |                            |            |            |                   |            |  |                  |  |  |
| Vetland   | Hydrology In   | dicators:     |             |              |                            |            |            |                   |            |  |                  |  |  |
|           |  |               | inimum c    | of one is re | auire: ch                  | eck all th | nat apply) |                   |            | Secondary Indicators (2 or more req    | uired)           |  |  |
| V         | Primary Indicators (minimum of one is require; check a |               |             |              |                            |            |            |                   | ~          |  |                  |  |  |

Х Х Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) Х Biotic Crust (B12) Sediment Deposits (B2) (Riverine) High Water Table (A2) Х Aquatic Fauna (B13) Drift Deposits (B3) (Riverine) Saturation (A3) Х Hydrogen Sulfide Odor (C1) Х Water Marks (B1) (Nonriverine) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) Х Sediment Deposits (B2) (Nonriverine) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Crayfish Burrows (C8) Recent Iron Reduction in Tilled Soil (C6) Х Surface Soil Cracks (B6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water Stained Leaves (B9) Х Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Wetland Hydrology Present? Surface Water Present? Х No Depth (inches): 5 Yes Yes\_X Water Table Present? X No 0 Yes Depth (inches): No Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)

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

#### --See Climatic Summary Below--

| Project/Site:            | Utah Lake                |                | City/County:     | Utah Co.                  | Sampling Date: 7/7/2                                     | 021        |
|--------------------------|--------------------------|----------------|------------------|---------------------------|--|------------|
| Applicant/Owner:         | LRS                      |                |                  |                           | State: UtahSampling Point:A-DI                           | 209<br>209 |
| Investigator(s):         | A. Mathes T. Taylor      | S. Fuller      |                  | Section, Township,        | Range: <u>0</u>  |            |
| Landform: (hillslope, te | errace, etc.):           | Other          |                  | Local relief (concave,    | convex, none): None Slope (%): 0                         | -2%        |
| Subregion (LRR):         | MLRA 28                  | BA; LRR D      | Lat.             | 40.350265                 | Long111.817188 Datum: WGS84                              |            |
| Soil Map Unit Name:      |                          |                | Water            |                           | NWI Classification: PEM1F                                |            |
| Are climatic/hydrologic  | c conditions on the site | typical for ti | me of year?      | Yes                       | No X (If no, explain in the Remarks)                     |            |
| Are Vegetation           | X ,Soil                  | ,or Hy         | drology          | significantly disturbe    | d?   |            |
| Are Vegetation           | ,Soil                    | ,or Hy         | drology          | naturally problemation    | ?  |            |
| Are Normal Circumsta     | ances Present?           | Yes X          | No               | <br>(If needed, explain a | ny answers in Remarks)                                   |            |
| SUMMARY OF FI            |                          |                | _                |                           | tions, transects, important features, etc.               |            |
|                          | ic Vegetation Present?   | -              |                  |                           | pled Area within a Wetland?                              |            |
| , , ,                    | Hydric Soil Present?     |                | _                |                           | XNo  |            |
| Wetlar                   | nd Hydrology Present?    |                |                  | -                         |  |            |
|                          |                          |                |                  | _                         |  |            |
| Remarks:                 |                          |                |                  |                           |  |            |
| Data point located alo   | ng PEM L2 boundary [     | Drought cond   | ditions Some m   | anagement of invasive     | es has occurred  |            |
|                          |                          |                |                  |                           |  |            |
| VEGETATION - U           | se scientific nam        | es of plan     | ts               |                           |  |            |
|                          |                          | Absolute       | Dominant         |                           |  |            |
| Tree Stratum             | Plot size: <u>r= 30'</u> | % Cover        | Species?         | Indicator Status          | Dominance Test Worksheet                                 |            |
| 1.                       |                          |                |                  |                           |  |            |
| 2.                       |                          |                |                  |                           | Number of dominant species that are                      |            |
| 3.                       |                          |                |                  |                           |  | A)         |
| 4.                       |                          |                |                  |                           | Total number of dominant species                         |            |
|                          |                          | 0 :            | = Total Cover    |                           |  | B)         |
|                          |                          |                |                  |                           | Percent of dominant species that are                     |            |
| Sapling/Shrub Stratun    | n_ Plot size: r= 30'     |                |                  |                           |  | A/B)       |
| 1.                       |                          |                |                  |                           | Prevalence Index Worksheet                               |            |
| 2.                       |                          |                |                  |                           | Total % cover of: Multiply by:                           |            |
| 2                        |                          |                |                  |                           | OBL species 0 x 1 0                                      |            |
| 4.                       |                          |                |                  |                           | FACW species 100 x 2 200                                 |            |
| 5.                       |                          |                |                  |                           | FAC species 0 x 3 0                                      |            |
|                          |                          | 0 :            | = Total Cover    |                           | FACU species 0 x 4 0                                     |            |
|                          |                          | -              |                  |                           | UPL species 0 x 5 0                                      |            |
| Herb Stratum             | Plot size: r= 5'         |                |                  |                           |  | B)         |
| 1. Phragmites a          |                          | 100            | Y                | FACW                      |  | B/A)       |
| 2.                       |                          | 100            | <u>'</u>         |                           | Hydrophytic Vegetation Indicators:                       | 5// ()     |
|                          |                          |                |                  |                           | X 1 - Rapid Test for Hydrophytic Vegetation              |            |
| 4.                       |                          |                |                  |                           | X 2 - Dominance Test is >50%                             |            |
|                          |                          |                |                  |                           | X 3 - Prevalence Index is $\leq 3.0^*$                   |            |
| 5<br>6.                  |                          |                |                  |                           | Problematic Hydrophytic Vegetation* (Explain)            |            |
| 7                        |                          |                |                  |                           | *Indicators of hydric soil and wetland hydrology must be | e present, |
|                          |                          |                |                  |                           | unless disturbed or problematic                          | · ,        |
| 8.                       |                          |                |                  |                           |  |            |
|                          |                          | 100 :          | = Total Cover    |                           | Hydrophytic Vegetation Present?                          |            |
|                          |                          |                |                  |                           |  |            |
| Woody Vine Stratum       | Plot size: <u>r= 30'</u> |                |                  |                           | Yes <u>X</u> No  |            |
|                          |                          |                |                  |                           | 4  |            |
| 2.                       |                          |                |                  |                           | 4  |            |
|                          |                          |                | = Total Cover    |                           |  |            |
| % Bare Ground in         | Herb Stratum             | % Cove         | r of Biotic Crus | t                         |  |            |
| Remarks: (if observed    | d, list morphological ad | aptations be   | low).            |                           |  |            |
|                          |                          |                |                  |                           |  |            |
|                          |                          |                |                  |                           |  |            |
|                          |                          |                |                  |                           |  |            |

|         | Depth             | Mati          |            |            | Redox F              |           |            | r confirm absend  |            |                  |                    |                       |
|---------|-------------------|---------------|------------|------------|----------------------|-----------|------------|-------------------|------------|------------------|--------------------|-----------------------|
|         | (inches)          | Color         | %          | Color      | %                    |           | Loc**      | Texture           |            |                  | Remarks            |                       |
|         | 0-                | COIOI         | 70         | COIDI      | 70                   | туре      | LUC        | Texture           |            |                  | Remarks            | ,                     |
|         | 0-                |               |            |            |                      |           |            |                   |            |                  |                    |                       |
|         |                   |               |            |            |                      |           |            |                   |            |                  |                    |                       |
|         |                   |               |            |            |                      |           |            |                   |            |                  |                    |                       |
|         |                   |               |            |            |                      |           |            |                   |            |                  |                    |                       |
|         |                   |               |            |            |                      |           |            |                   |            |                  |                    |                       |
|         |                   |               |            |            |                      |           |            |                   |            |                  |                    |                       |
|         |                   |               |            |            |                      |           |            |                   |            |                  |                    |                       |
| Type: ( | C=Concentration   | n, D=Depleti  | on, RM=    | Reduced I  | Matrix, M            | S=Mask    | ed Sand g  | grains **Location | : PL=Pore  | e Lining, M=     | Matrix             |                       |
| lydric  | Soil Indicators   | : (Applicabl  | e to all L | .RRs. unle | ess other            | rwise no  | oted)      | -                 |            | Indicato         | ors for Problemati | c Hydric Soils ***    |
|         | Histosol (A1)     | <u> </u>      |            |            |                      | Redox (   |            |                   |            |                  | (A9) (LRR C)       |                       |
|         | Histic Epipedo    | on (A2)       |            |            |                      | d Matrix  |            |                   |            | 2 cm Muck        | (A10) (LRR B)      |                       |
|         | Black Histic (A   |               |            |            |                      | Mucky I   | Mineral (F | 1)                |            | Reduced V        | ertic (F18)        |                       |
|         | Hydrogen Sult     | fide (A4)     |            | Loamy      | Gleyed               | Matirx (F | 2)         |                   | Red Parent | t Material (TF2) |                    |                       |
|         | Stratified Laye   | ers (A5) (LRI | RC)        |            | Depleted Matrix (F3) |           |            |                   |            | Other (Exp       | lain in Remarks)   |                       |
|         | 1 cm Muck (A      | 9) (LRR D)    |            |            | Redox                | Dark Su   | urface (F6 | )                 |            |                  |                    |                       |
|         | Depleted Below    | / Dark Surfac | e (A11)    |            | Deplete              | ed Dark   | Surface (  | F7)               |            |                  |                    |                       |
|         | Thick Dark Su     | rface (A12)   |            |            | Redox                | Depress   | sions (F8) |                   |            |                  |                    |                       |
|         | Sandy Mucky       | Mineral (S1)  | )          |            | Vernal               | Pools (F  | -9)        |                   |            |                  |                    | egetation and wetland |
|         | Sandy Gleyed      | Matrix (S4)   |            |            |                      |           |            |                   | hyd        | rology must      | be present, unless | disturbed or problema |
| estric  | tive Layer (if ol | bserved)      |            |            |                      |           |            |                   |            |                  |                    |                       |
|         | Туре:             |               |            |            |                      | _         |            |                   |            |                  |                    |                       |
| Dep     | oth (inches):     |               |            |            |                      | _         | Hydric So  | oil Present?      | Yes        | Х                | No                 |                       |
|         |                   |               |            |            |                      |           |            |                   |            |                  |                    |                       |
| Remark  |                   |               |            |            |                      |           |            |                   |            |                  |                    |                       |
| ssume   | d hydric, inunda  | ated soils to | at least 8 | 3"         |                      |           |            |                   |            |                  |                    |                       |
|         |                   |               |            |            |                      |           |            |                   |            |                  |                    |                       |
|         |                   |               |            |            |                      |           |            |                   |            |                  |                    |                       |
| IYDR    | OLOGY             |               |            |            |                      |           |            |                   |            |                  |                    |                       |

| wettand                               | Hydrology indicators:             |          |        |             |                             |          |   |   |
|---------------------------------------|-----------------------------------|----------|--------|-------------|-----------------------------|----------|---|---|
|                                       | Primary Indicators (min           | imum o   | of one | is require; | check all that apply)       |          |   | Secondary Indicators (2 or more required) |
| X Surface Water (A1) Salt Crust (B11) |                                   |          |        |             |                             |          |   | Water Marks (B1) (Riverine)               |
| Х                                     | High Water Table (A2)             |          |        | Biotic Cru  | st (B12)                    |          |   | Sediment Deposits (B2) (Riverine)         |
| Х                                     | Saturation (A3)                   |          |        | Aquatic F   | auna (B13)                  |          |   | Drift Deposits (B3) (Riverine)            |
| Х                                     | Water Marks (B1) (Nonriver        | ine)     |        | Hydrogen    | Sulfide Odor (C1)           |          | Х | Drainage Patterns (B10)                   |
|                                       | Sediment Deposits (B2) (Nonrive   | erine)   |        | Oxidized R  | Rhizospheres on Living Ro   | ots (C3) | Х | Dry-Season Water Table (C2)               |
|                                       | Drift Deposits (B3) (Nonrive      | rine)    |        | Presence    | of Reduced Iron (C4)        |          |   | Crayfish Burrows (C8)                     |
|                                       | Surface Soil Cracks (B6)          |          |        | Recent Iro  | on Reduction in Tilled Soil | (C6)     | Х | Saturation Visible on Aerial Imagery (C9) |
| Х                                     | Inundation Visible on Aerial Imag | ery (B7) |        | Thin Mucl   | k Surface (C7)              |          |   | Shallow Aquitard (D3)                     |
|                                       | Water Stained Leaves (B9)         |          |        | Other (Ex   | plain in Remarks)           |          | Х | FAC-Neutral Test (D5)                     |
| Field Ob                              | oservations:                      |          |        |             |                             |          |   |   |
| Surface                               | Water Present?                    | Yes      | Х      | No          | Depth (inches):             | 5        | _ | Wetland Hydrology Present?                |
| Water Ta                              | able Present?                     | Yes      | Х      | No          | Depth (inches):             | 0        | _ | YesX No                                   |
| Saturation Present? Yes X             |                                   |          |        |             | Depth (inches):             | 0        | _ |   |
| (includes capillary fringe)           |                                   |          |        |             |                             |          |   |   |

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

--See Climatic Summary Below--

| Project/Site:            | Utah Lake              |               | City/County:     | Utah Co.                | Sampling Date: 7/7/2021  |
|--------------------------|------------------------|---------------|------------------|-------------------------|--|
| Applicant/Owner:         | LRS                    |               |                  |                         | State: <u>Utah</u> Sampling Point: <u>A-DP10</u>   |
| Investigator(s):         | A. Mathes T. Taylor    | S. Fuller     |                  | Section, Township,      |  |
| Landform: (hillslope, te | rrace, etc.):          | Other         |                  |                         | convex, none): None Slope (%): <u>0-2%</u>   |
| Subregion (LRR):         | MLRA 28                | BA; LRR D     | Lat.             | 40.341908               | Long111.906837 Datum: WGS84  |
| Soil Map Unit Name:      |                        |               | Water            |                         | NWI Classification: PEM1F  |
| Are climatic/hydrologic  | conditions on the site | typical for t | ime of year?     | Yes                     | No X (If no, explain in the Remarks)   |
| Are Vegetation           | X,Soil                 | ,or Hy        | /drology         | _significantly disturbe | d?   |
| Are Vegetation           | ,Soil                  | ,or Hy        | /drology         | naturally problemation  | ?  |
| Are Normal Circumstar    | nces Present?          | Yes X         | No               | _(If needed, explain a  | ny answers in Remarks)   |
|                          | DINGS - Attach         | site map      | showing sa       | mpling point loca       | tions, transects, important features, etc.   |
|                          | Vegetation Present?    |               |                  |                         | pled Area within a Wetland?  |
| , , , ,                  | Hydric Soil Present?   |               |                  |                         | No   |
| Wetlan                   | d Hydrology Present?   |               |                  |                         |  |
|                          | a , a                  |               |                  | _                       |  |
| Remarks:                 |                        |               |                  |                         |  |
| Data point located alon  | g PEM L2 boundary l    | Drought con   | ditions Some n   | nanagement of invasive  | es has occurred  |
|                          |                        |               |                  |                         |  |
| VEGETATION - Us          | se scientific nam      | es of plar    | nts              |                         |  |
|                          |                        | Absolute      | Dominant         |                         |  |
| Tree Stratum             | Plot size: r= 30'      | % Cover       | Species?         | Indicator Status        | Dominance Test Worksheet   |
| 1.                       |                        |               |                  |                         | 4  |
| 2.                       |                        |               |                  |                         | Number of dominant species that are  |
| 3.                       |                        |               |                  |                         | OBL, FACW, or FAC: <u>1</u> (A)  |
| 4.                       |                        |               |                  |                         | Total number of dominant species   |
|                          |                        | 0             | = Total Cover    |                         | across all strata: <u>1</u> (B)  |
|                          |                        |               |                  |                         | Percent of dominant species that are   |
| Sapling/Shrub Stratum    | Plot size: r= 30'      |               |                  |                         | OBL, FACW, or FAC: 100% (A/B)  |
| 1.                       |                        |               |                  |                         | Prevalence Index Worksheet   |
| 2.                       |                        |               |                  |                         | Total % cover of: Multiply by:   |
| 3.                       |                        |               |                  |                         | OBL species <u>35</u> x 1 <u>35</u>  |
| 4.                       |                        |               |                  |                         | FACW species 0 x 2 0   |
| 5.                       |                        |               |                  |                         | FAC species 0 x 3 0  |
|                          |                        | 0             | = Total Cover    |                         | FACU species 0 x 4 0   |
|                          |                        |               |                  |                         | UPL species 0 x 5 0  |
| Herb Stratum             | Plot size: r= 5'       |               |                  |                         | Column Total <u>35</u> (A) <u>35</u> (B)   |
| 1. Schoenoplect          | us acutus              | 35            | Y                | OBL                     | Prevalence Index: 1.0 (B/A)  |
| 2.                       |                        |               |                  |                         | Hydrophytic Vegetation Indicators:   |
| 3.                       |                        |               |                  |                         | X 1 - Rapid Test for Hydrophytic Vegetation  |
| 4.                       |                        |               |                  |                         | X 2 - Dominance Test is >50%   |
| 5.                       |                        |               |                  |                         | X 3 - Prevalence Index is <u>&lt;</u> 3.0*   |
| 6.                       |                        |               |                  |                         | Problematic Hydrophytic Vegetation* (Explain)  |
| 7.                       |                        |               |                  |                         | *Indicators of hydric soil and wetland hydrology must be present,<br>unless disturbed or problematic |
| 8.                       |                        |               |                  |                         |  |
|                          |                        | 35            | = Total Cover    |                         | Hydrophytic Vegetation Present?  |
|                          |                        |               |                  |                         |  |
| Woody Vine Stratum       | Plot size: r= 30'      |               |                  |                         | Yes <u>X</u> No  |
| 1.                       |                        |               |                  |                         | 1  |
| 2.                       |                        |               |                  |                         |  |
|                          |                        | 0             | = Total Cover    |                         |  |
|                          |                        |               |                  |                         |  |
| % Bare Ground in H       | lerb Stratum           | % Cove        | er of Biotic Cru | st                      |  |

|   |             | Describe to   |            |             |             |            |            |                |         |  |                   |                       |  |  |
|---|-------------|---------------|------------|-------------|-------------|------------|------------|----------------|---------|--|-------------------|-----------------------|--|--|
| [   | Depth       | Mati          | rix        |             | Redox F     | eatures    |            |                |         |  |                   |                       |  |  |
| (ir   | nches)      | Color         | %          | Color       | %           | Type*      | Loc**      | Texture        | Remarks |  |                   |                       |  |  |
|   | 0-          |               |            |             |             |            |            |                |         |  |                   |                       |  |  |
|   |             |               |            |             |             |            |            |                |         |  |                   |                       |  |  |
|   |             |               |            |             |             |            |            |                |         |  |                   |                       |  |  |
|   |             |               |            |             | _           |            |            |                |         |  |                   |                       |  |  |
|   |             |               |            |             |             |            |            |                |         |  |                   |                       |  |  |
|   | contration  | D-Doplati     | on PM-     | Poducod     | Motrix M    | S=Mook     | od Sond (  |                |         | e Lining, M=Mat                                      | triv              |                       |  |  |
| lydric Soil In                              |             | · · · ·       | -          |             |             |            |            | grains Locatio |         |  |                   | c Hydric Soils ***    |  |  |
|   | sol (A1)    |               |            |             |             | Redox (    | ,          |                |         | 1 cm Muck (A9  |                   |                       |  |  |
|   | c Epipedo   | on (A2)       |            |             |             | d Matrix   |            |                |         | 2 cm Muck (A1  | 0) (LRR B)        |                       |  |  |
|   | K Histic (A |               |            |             |             |            | Mineral (F | 1)             |         | Reduced Vertie                                       | c (F18)           |                       |  |  |
|   | ogen Sulf   | ,             |            |             |             | -          | Matirx (F2 |                |         | Red Parent Ma  | aterial (TF2)     |                       |  |  |
| Strat                                       | ified Laye  | ers (A5) (LRF | RC)        |             | Deplete     | ed Matriz  | x (F3)     |                |         | Other (Explain                                       | in Remarks)       |                       |  |  |
| 1 cm  | Muck (A     | 9) (LRR D)    |            |             | Redox       | Dark Su    | ırface (F6 | )              |         |  |                   |                       |  |  |
| Deple                                       | eted Below  | Dark Surfac   | e (A11)    |             | Deplete     | ed Dark    | Surface (I | F7)            |         |  |                   |                       |  |  |
| Thick                                       | C Dark Su   | rface (A12)   |            |             | Redox       | Depress    | sions (F8) |                |         |  |                   |                       |  |  |
| Sanc  | ly Mucky    | Mineral (S1)  | )          |             | Vernal      | Pools (F   | -9)        |                |         | *** Indicators of hydrophytic vegetation and wetland |                   |                       |  |  |
| Sanc  | ly Gleyed   | Matrix (S4)   |            |             |             |            |            |                | hyc     | Irology must be                                      | present, unless   | disturbed or problema |  |  |
| <b>testrictive La</b><br>Type<br>Depth (inc | :           | bserved)      |            |             |             | -          | Hydric So  | oil Present?   | Yes     | <u> </u>   | No                |                       |  |  |
| emarks:                                     |             |               |            |             |             |            |            |                |         |  |                   |                       |  |  |
| ssumed hydr                                 | ic, inunda  | ated soils to | at least 8 | 3"          |             |            |            |                |         |  |                   |                       |  |  |
|   |             |               |            |             |             |            |            |                |         |  |                   |                       |  |  |
|   | <u></u>     |               |            |             |             |            |            |                |         |  |                   |                       |  |  |
| IYDROLO                                     | GT          |               |            |             |             |            |            |                |         |  |                   |                       |  |  |
| etland Hyd                                  | rology In   | dicators:     |            |             |             |            |            |                |         |  |                   |                       |  |  |
|   | Drimary Ir  | ndicators (m  | inimum c   | f one is re | eauire: che | eck all th | nat apply) |                |         | Secondary Ind  | licators (2 or mo | re required)          |  |  |

Х Х Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) Х Biotic Crust (B12) High Water Table (A2) Sediment Deposits (B2) (Riverine) Х Aquatic Fauna (B13) Drift Deposits (B3) (Riverine) Saturation (A3) Х Hydrogen Sulfide Odor (C1) Х Water Marks (B1) (Nonriverine) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) Х Sediment Deposits (B2) (Nonriverine) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Crayfish Burrows (C8) Recent Iron Reduction in Tilled Soil (C6) Х Surface Soil Cracks (B6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water Stained Leaves (B9) Other (Explain in Remarks) Х FAC-Neutral Test (D5) Field Observations: Wetland Hydrology Present? Surface Water Present? Х No Depth (inches): 5 Yes Yes\_X Water Table Present? X No 0 Yes Depth (inches): No Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)

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

#### --See Climatic Summary Below--

| Project/Site:           | Utah Lake                  |                | City/County:    | Utah Co.                | Sampling Date: 7/7/2021   |
|-------------------------|----------------------------|----------------|-----------------|-------------------------|---|
| Applicant/Owner:        | LRS                        |                |                 |                         | State: UtahSampling Point:A-DP11                                |
| Investigator(s):        | A. Mathes T. Taylor        | S. Fuller      |                 | Section, Township,      |   |
| Landform: (hillslope, t | errace, etc.):             | Other          |                 |                         | convex, none): None Slope (%): <u>0-2%</u>                      |
| Subregion (LRR):        | MLRA 28                    | A; LRR D       | Lat.            | 40.299748               | Long111.876916 Datum: WGS84                                     |
| Soil Map Unit Name:     |                            |                | Water           |                         | NWI Classification: PEM1F                                       |
| Are climatic/hydrologi  | c conditions on the site   | typical for ti | me of year?     | Yes                     | No X (If no, explain in the Remarks)                            |
| Are Vegetation          | X ,Soil                    | or Hy,         | drology         | _significantly disturbe | d?  |
| Are Vegetation          | ,Soil                      | ,or Hy         | drology         | naturally problemation  | ?   |
| Are Normal Circumsta    | ances Present?             | Yes <u>X</u>   | No              | (If needed, explain a   | ny answers in Remarks)  |
| SUMMARY OF FI           | NDINGS - Attach            | site man s     | showing sa      | mpling point loca       | tions, transects, important features, etc.                      |
|                         | ic Vegetation Present?     |                |                 |                         | pled Area within a Wetland?                                     |
|                         | Hydric Soil Present?       | Yes X          | No              | Yes                     | XNo   |
| Wetla                   | nd Hydrology Present?      | Yes X          | No              |                         |   |
|                         |                            |                |                 |                         |   |
| Remarks:                |                            |                |                 |                         |   |
| Data point located alo  | ng PEM L2 boundary [       | Drought cone   | ditions Some n  | nanagement of invasive  | es has occurred   |
|                         |                            |                |                 |                         |   |
| VEGETATION - U          | Ise scientific name        | es of plar     | Its             |                         |   |
|                         |                            | Absolute       | Dominant        |                         |   |
| Tree Stratum            | Plot size: r= 30'          | % Cover        | Species?        | Indicator Status        | Dominance Test Worksheet  |
| 1                       |                            |                |                 |                         | -   |
| 2.                      |                            |                |                 |                         | Number of dominant species that are                             |
| 3.                      |                            |                |                 |                         | OBL, FACW, or FAC:(A)   |
| 4.                      |                            |                |                 |                         | Total number of dominant species                                |
|                         |                            | 0              | = Total Cover   |                         | across all strata: <u>1</u> (B)                                 |
|                         |                            |                |                 |                         | Percent of dominant species that are                            |
| Sapling/Shrub Stratur   | n Plot size: <u>r= 30'</u> |                |                 |                         | OBL, FACW, or FAC: 100% (A/B)                                   |
| 1.                      |                            |                |                 |                         | Prevalence Index Worksheet                                      |
| 2.                      |                            |                |                 |                         | Total % cover of: Multiply by:                                  |
| 3.                      |                            |                |                 |                         | OBL species <u>0</u> x 1 <u>0</u>                               |
| 4.                      |                            |                |                 |                         | FACW species <u>15</u> x 2 <u>30</u>                            |
| 5.                      |                            |                |                 |                         | FAC species 0 x 3 0   |
|                         |                            | 0              | = Total Cover   |                         | FACU species 0 x 4 0  |
|                         |                            |                |                 |                         | UPL species 0 x 5 0   |
| Herb Stratum            | Plot size: r= 5'           |                |                 |                         | Column Total 15 (A) 30 (B)                                      |
| 1. Phragmites           | australis                  | 15             | Y               | FACW                    | Prevalence Index: 2.0 (B/A)                                     |
| 2.                      |                            |                |                 |                         | Hydrophytic Vegetation Indicators:                              |
| 8                       |                            |                |                 |                         | X 1 - Rapid Test for Hydrophytic Vegetation                     |
|                         |                            |                |                 |                         | X 2 - Dominance Test is >50%                                    |
| г                       |                            |                |                 |                         | X 3 - Prevalence Index is <u>&lt;</u> 3.0*                      |
| 6                       |                            |                |                 | ·                       | Problematic Hydrophytic Vegetation* (Explain)                   |
| 7                       |                            |                |                 |                         | *Indicators of hydric soil and wetland hydrology must be presen |
| 8.                      |                            |                |                 |                         | unless disturbed or problematic                                 |
|                         |                            | 15             | = Total Cover   |                         | Hydrophytic Vegetation Present?                                 |
|                         |                            |                |                 |                         |   |
| Woody Vine Stratum      | Plot size: r= 30'          |                |                 |                         | Yes <u>X</u> No   |
| 1.                      |                            |                |                 |                         |   |
| 2.                      |                            |                |                 | ·                       |   |
|                         |                            | 0              | = Total Cover   |                         |   |
| % Bare Ground in        | Herb Stratum               | % Cove         | r of Biotic Cru | st                      |   |
|                         | d, list morphological ad   |                |                 |                         | 1   |
|                         |                            |                |                 |                         |   |

|          | Depth             | Mati          | rix         |            | Redox F  | eatures  | ;          |                   |           |             |                   |  |
|----------|-------------------|---------------|-------------|------------|----------|----------|------------|-------------------|-----------|-------------|-------------------|--|
|          | (inches)          | Color         | %           | Color      | %        | Type*    | Loc**      | Texture           |           |             | Remarks           | 3  |
|          | 0-                |               |             |            |          |          |            |                   |           |             |                   |  |
|          |                   |               |             |            |          |          |            |                   |           |             |                   |  |
|          |                   |               |             |            |          |          |            |                   |           |             |                   |  |
|          |                   |               |             |            |          |          | _          |                   |           |             |                   |  |
|          |                   |               |             |            |          |          | -          |                   |           |             |                   |  |
|          |                   |               |             |            |          |          | -          |                   |           |             |                   |  |
|          | -                 |               |             |            |          |          | -          |                   |           |             |                   |  |
| _        |                   |               |             |            | <u> </u> |          |            |                   |           |             |                   |  |
|          |                   |               |             |            |          |          |            | grains **Locatior | n: PL=Por | -           |                   |  |
| lydric   | Soil Indicators   | : (Applicabl  | le to all I | _RRs, unle |          |          |            |                   |           | 1           |                   | ic Hydric Soils ***                                |
|          | Histosol (A1)     |               |             |            |          | Redox (  |            |                   |           |             | (A9) (LRR C)      |  |
|          | Histic Epipedo    |               |             |            |          | d Matrix | . /        |                   |           |             | (A10) (LRR B)     |  |
|          | Black Histic (A   | 1             |             |            |          |          | Mineral (F |                   |           | Reduced V   | . ,               |  |
|          | Hydrogen Sul      | . ,           |             |            | ,        | ,        | Matirx (F  | 2)                |           |             | Material (TF2)    |  |
|          | Stratified Laye   | ers (A5) (LRI | RC)         |            |          | ed Matri |            |                   |           | Other (Expl | ain in Remarks)   |  |
|          | 1 cm Muck (A      | 9) (LRR D)    |             |            | Redox    | Dark Su  | Irface (F6 | )                 |           |             |                   |  |
|          | Depleted Below    |               | e (A11)     |            | 1 .      |          | Surface (  | ,                 |           |             |                   |  |
|          | Thick Dark Su     | ( )           |             |            |          | •        | sions (F8) |                   |           |             |                   |  |
|          | Sandy Mucky       |               |             |            | Vernal   | Pools (F | -9)        |                   | byd       |             |                   | vegetation and wetland<br>s disturbed or problemat |
|          | Sandy Gleyed      |               |             |            |          |          |            |                   | nyu       | nology must | be present, unles |  |
| lestric  | tive Layer (if o  | bserved)      |             |            |          |          |            |                   |           |             |                   |  |
|          | Туре:             |               |             |            |          | -        |            |                   |           |             |                   |  |
| Dep      | oth (inches):     |               |             |            |          | -        | Hydric So  | oil Present?      | Yes       | X           | No                |  |
| Remark   | ·e.               |               |             |            |          |          |            |                   |           |             |                   |  |
|          | ed hydric, inunda | ated soils to | at least \$ | 2"         |          |          |            |                   |           |             |                   |  |
| 13501110 | sa nyano, mana    |               | aricasri    | 5          |          |          |            |                   |           |             |                   |  |
|          |                   |               |             |            |          |          |            |                   |           |             |                   |  |
|          | OLOGY             |               |             |            |          |          |            |                   |           |             |                   |  |

| vveuanc   | nyurology mulcators.              |   |       |             |                           |           |   |   |  |  |
|-----------|-----------------------------------|---|-------|-------------|---------------------------|-----------|---|---|--|--|
|           | Primary Indicators (min           | imum o  | f one | is require; | check all that apply)     |           |   | Secondary Indicators (2 or more required) |  |  |
| Х         | Surface Water (A1)                |   |       | Salt Crust  | : (B11)                   |           |   | Water Marks (B1) (Riverine)               |  |  |
| Х         | High Water Table (A2)             |   |       | Biotic Cru  | st (B12)                  |           |   | Sediment Deposits (B2) (Riverine)         |  |  |
| Х         | Saturation (A3)                   |   |       | Aquatic F   | auna (B13)                |           |   | Drift Deposits (B3) (Riverine)            |  |  |
| Х         | Water Marks (B1) (Nonriver        | ine)  |       | Hydrogen    | Sulfide Odor (C1)         |           | Х | Drainage Patterns (B10)                   |  |  |
|           | Sediment Deposits (B2) (Nonriv    | erine)  |       | Oxidized R  | Rhizospheres on Living Ro | oots (C3) | Х | Dry-Season Water Table (C2)               |  |  |
|           | Drift Deposits (B3) (Nonrive      | rine)   |       | Presence    | of Reduced Iron (C4)      |           |   | Crayfish Burrows (C8)                     |  |  |
|           | Surface Soil Cracks (B6)          | Cracks (B6) Recent Iron Reduction in Tilled Soil (C6) |       |             |                           |           | Х | Saturation Visible on Aerial Imagery (C9) |  |  |
| Х         | Inundation Visible on Aerial Imag | jery (B7)   |       | Thin Mucl   | k Surface (C7)            |           |   | Shallow Aquitard (D3)                     |  |  |
|           | Water Stained Leaves (B9)         |   |       | Other (Ex   | plain in Remarks)         |           | Х | FAC-Neutral Test (D5)                     |  |  |
| Field Ob  | servations:                       |   |       |             |                           |           |   |   |  |  |
| Surface   | Water Present?                    | Yes   | Х     | No          | Depth (inches):           | 5         | _ | Wetland Hydrology Present?                |  |  |
| Water Ta  | able Present?                     | Yes   | Х     | No          | Depth (inches):           | 0         |   | Yes X No                                  |  |  |
| Saturatio | on Present?                       | Yes   | Х     | No          | Depth (inches):           | 0         | _ |   |  |  |
| (includes | s capillary fringe)               |   |       |             |                           |           | _ |   |  |  |

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

## --See Climatic Summary Below--

| Project/Site:            | Utah Lake              |                | City/County: l    | Jtah Co.               | Sampling Date: 7/7/2021  |     |
|--------------------------|------------------------|----------------|-------------------|------------------------|--|-----|
| Applicant/Owner:         | LRS                    |                |                   |                        | State: Utah Sampling Point: A-DP12   |     |
| Investigator(s):         | A. Mathes T. Taylor    | S. Fuller      |                   | Section, Township,     | Range: <u>0</u>  |     |
| Landform: (hillslope, te | errace, etc.):         | Other          | I                 | Local relief (concave, | convex, none): <u>None</u> Slope (%): <u>0-2%</u>  |     |
| Subregion (LRR):         | MLRA 28                | BA; LRR D      | Lat.              | 40.285412              | Long111.866036 Datum: <u>WGS84</u>   |     |
| Soil Map Unit Name:      |                        |                | Water             |                        | NWI Classification: PEM1F  |     |
| Are climatic/hydrologic  | conditions on the site | typical for ti | me of year?       | Yes                    | No X (If no, explain in the Remarks)   |     |
| Are Vegetation           | X ,Soil                | ,or Hy         | drology           | significantly disturbe | d?   |     |
| Are Vegetation           | ,Soil                  | ,or Hy         | drology           | naturally problemation | ?  |     |
| Are Normal Circumsta     | nces Present?          | Yes X          | No                |                        | ny answers in Remarks)   |     |
| SUMMARY OF FI            | NDINGS - Attach        | site map s     | showing sar       | npling point loca      | tions, transects, important features, etc.   |     |
|                          | c Vegetation Present?  | · · ·          |                   |                        | pled Area within a Wetland?  |     |
| , , ,                    | Hydric Soil Present?   |                |                   |                        | <u>X</u> No  |     |
| Wetlar                   | d Hydrology Present?   |                | _                 |                        |  |     |
|                          |                        |                |                   | -                      |  |     |
| Remarks:                 |                        |                |                   |                        |  |     |
| Data point located alo   | ng PEM L2 boundary [   | Drought cond   | ditions Some ma   | anagement of invasive  | es has occurred  |     |
|                          |                        |                |                   |                        |  |     |
| VEGETATION - U           | se scientific nam      | es of plan     | its               |                        |  |     |
|                          |                        | Absolute       | Dominant          |                        |  |     |
| Tree Stratum             | Plot size: r= 30'      | % Cover        | Species?          | Indicator Status       | Dominance Test Worksheet   |     |
| 1.                       |                        |                |                   |                        |  |     |
| 2.                       |                        |                |                   |                        | Number of dominant species that are  |     |
| 3.                       |                        |                |                   |                        | OBL, FACW, or FAC: 2 (A)   |     |
| 4.                       |                        |                |                   |                        | Total number of dominant species   |     |
|                          |                        | 0 :            | = Total Cover     |                        | across all strata: <u>2</u> (B)  |     |
|                          |                        |                |                   |                        | Percent of dominant species that are   |     |
| Sapling/Shrub Stratum    | Plot size: r= 30'      |                |                   |                        | OBL, FACW, or FAC: 100% (A/B)  |     |
| 1.                       |                        |                |                   |                        | Prevalence Index Worksheet   |     |
| 2.                       |                        |                |                   |                        | Total % cover of: Multiply by:   |     |
| 3.                       |                        |                |                   |                        | OBL species <u>15</u> x 1 <u>15</u>  |     |
| 4.                       |                        |                |                   |                        | FACW species <u>20</u> x 2 <u>40</u>   |     |
| 5.                       |                        |                |                   |                        | FAC species <u>5</u> x 3 <u>15</u>   |     |
|                          |                        | 0 :            | = Total Cover     |                        | FACU species 0 x 4 0   |     |
|                          |                        |                |                   |                        | UPL species 0 x 5 0  |     |
| Herb Stratum             | Plot size: r= 5'       |                |                   |                        | Column Total <u>40</u> (A) <u>70</u> (B)   |     |
| 1. Phragmites a          | ustralis               | 20             | Y                 | FACW                   | Prevalence Index: 1.8 (B/A)  |     |
| 2. <u>Schoenoplec</u>    | tus acutus             | 15             | Y                 | OBL                    | Hydrophytic Vegetation Indicators:   |     |
| 3. Tamarix chin          | ensis                  | 5              | N                 | FAC                    | X 1 - Rapid Test for Hydrophytic Vegetation  |     |
| 4.                       |                        |                |                   |                        | X 2 - Dominance Test is >50%   |     |
| 5.                       |                        |                |                   |                        | X 3 - Prevalence Index is <3.0*  |     |
| 6.                       |                        |                |                   |                        | Problematic Hydrophytic Vegetation* (Explain)  |     |
| 7.                       |                        |                |                   |                        | *Indicators of hydric soil and wetland hydrology must be preser<br>unless disturbed or problematic | nt, |
| 8.                       |                        |                |                   |                        |  |     |
|                          |                        | 40 :           | = Total Cover     |                        | Hydrophytic Vegetation Present?  |     |
|                          |                        |                |                   |                        |  |     |
| Woody Vine Stratum       | Plot size: r= 30'      |                |                   |                        | Yes <u>X</u> No  |     |
| 1.                       |                        |                |                   |                        |  |     |
| 2.                       |                        |                |                   |                        |  |     |
|                          |                        | 0 :            | = Total Cover     |                        |  |     |
| % Bare Ground in         | Herb Stratum           | % Cove         | r of Biotic Crust | t                      |  |     |
| Remarks: (if observed    |                        |                | low).             |                        | 1  |     |
|                          |                        |                |                   |                        |  |     |
|                          |                        |                |                   |                        |  |     |
|                          |                        |                |                   |                        |  |     |

|                     | (= = = = = = = = = = = = = = = = = = = |             | 1         |           |          |            | r confirm absend  |          | 64(013)   |         |
|---------------------|--|-------------|-----------|-----------|----------|------------|-------------------|----------|---|---------|
| Depth               | Mat                                    | rix         |           | Redox F   | eatures  | 3          |                   |          |   |         |
| (inches)            | Color                                  | %           | Color     | %         | Type'    | * Loc**    | Texture           |          | Remarks   |         |
| 0-                  |  |             |           |           |          |            |                   |          |   |         |
|                     |  |             |           |           |          |            |                   |          |   |         |
|                     |  |             |           |           |          |            |                   |          |   |         |
|                     |  |             |           |           |          |            |                   |          |   |         |
|                     |  |             |           |           |          |            |                   |          |   |         |
|                     |  |             |           |           |          |            |                   |          |   |         |
|                     |  |             |           |           |          |            |                   |          |   |         |
| Type: C=Concentra   | tion, D=Deplet                         | ion, RM=    | Reduced N | /atrix, M | S=Mask   | ed Sand g  | grains **Location | : PL=Por | e Lining, M=Matrix                              |         |
| ydric Soil Indicate | ors: (Applicab                         | le to all l | RRs, unle | ess othe  | rwise n  | oted)      |                   |          | Indicators for Problematic Hydric Soils ?       | ***     |
| Histosol (A         | 1)                                     |             |           | Sandy     | Redox (  | (S5)       |                   |          | 1 cm Muck (A9) <b>(LRR C)</b>                   |         |
| Histic Epipe        | edon (A2)                              |             |           | Strippe   | d Matrix | k (S6)     |                   |          | 2 cm Muck (A10) <b>(LRR B)</b>                  |         |
| Black Histic        | ; (A3)                                 |             |           | Loamy     | Mucky    | Mineral (F | 1)                |          | Reduced Vertic (F18)                            |         |
| Hydrogen S          | Sulfide (A4)                           |             |           | Loamy     | Gleyed   | Matirx (F  | 2)                |          | Red Parent Material (TF2)                       |         |
| Stratified L        | ayers (A5) (LR                         | RC)         |           | Deplete   | ed Matri | ix (F3)    |                   |          | Other (Explain in Remarks)                      |         |
| 1 cm Muck           | (A9) (LRR D)                           |             |           | Redox     | Dark Su  | urface (F6 | )                 |          |   |         |
| Depleted Be         | low Dark Surfac                        | e (A11)     |           | Deplete   | ed Dark  | Surface (  | F7)               |          |   |         |
| Thick Dark          | Surface (A12)                          |             |           | Redox     | Depres   | sions (F8) |                   |          |   |         |
| Sandy Muc           | ky Mineral (S1                         | )           |           | Vernal    | Pools (I | F9)        |                   |          | *** Indicators of hydrophytic vegetation and w  | etland  |
| Sandy Gley          | ved Matrix (S4)                        |             |           |           |          |            |                   | hyd      | rology must be present, unless disturbed or pro | oblemat |
| estrictive Layer (i | f observed)                            |             |           |           |          |            |                   |          |   |         |
| Туре:               |  |             |           |           | _        |            |                   |          |   |         |
| Depth (inches):     |  |             |           |           | _        | Hydric So  | oil Present?      | Yes      | X No  |         |
| emarks:             |  |             |           |           |          |            |                   |          |   |         |
|                     |  |             |           |           |          |            |                   |          |   |         |
| ssumed hydric, inu  | nualed solis to                        | at least o  | <b>)</b>  |           |          |            |                   |          |   |         |
|                     |  |             |           |           |          |            |                   |          |   |         |
|                     |  |             |           |           |          |            |                   |          |   |         |
| IYDROLOGY           |  |             |           |           |          |            |                   |          |   |         |
| etland Hydrology    | Indicators:                            |             |           |           |          |            |                   |          |   |         |
|                     |  |             |           |           |          |            |                   |          |   |         |

| vveuanu  | a Hydrology indicators.            |          |       |             |                           |           |   |   |  |  |
|----------|------------------------------------|----------|-------|-------------|---------------------------|-----------|---|---|--|--|
|          | Primary Indicators (mini           | mum o    | f one | is require; | check all that apply)     |           |   | Secondary Indicators (2 or more required) |  |  |
| Х        | Surface Water (A1)                 |          |       | Salt Crust  | : (B11)                   |           | Х | Water Marks (B1) (Riverine)               |  |  |
| Х        | High Water Table (A2)              |          |       | Biotic Cru  | st (B12)                  |           |   | Sediment Deposits (B2) (Riverine)         |  |  |
| Х        | Saturation (A3)                    |          |       | Aquatic F   | auna (B13)                |           |   | Drift Deposits (B3) (Riverine)            |  |  |
| х        | Water Marks (B1) (Nonriveri        | ne)      |       | Hydrogen    | Sulfide Odor (C1)         |           | Х | Drainage Patterns (B10)                   |  |  |
|          | Sediment Deposits (B2) (Nonrive    | rine)    |       | Oxidized R  | hizospheres on Living Ro  | oots (C3) | Х | Dry-Season Water Table (C2)               |  |  |
|          | Drift Deposits (B3) (Nonriver      | ine)     |       | Presence    | of Reduced Iron (C4)      |           |   | Crayfish Burrows (C8)                     |  |  |
|          | Surface Soil Cracks (B6)           |          |       | Recent Iro  | n Reduction in Tilled Soi | I (C6)    | Х | Saturation Visible on Aerial Imagery (C9) |  |  |
| Х        | Inundation Visible on Aerial Image | ery (B7) |       | Thin Mucl   | c Surface (C7)            |           |   | Shallow Aquitard (D3)                     |  |  |
|          | Water Stained Leaves (B9)          |          |       | Other (Ex   | plain in Remarks)         |           | Х | FAC-Neutral Test (D5)                     |  |  |
| Field O  | bservations:                       |          |       |             |                           |           |   |   |  |  |
| Surface  | Water Present?                     | Yes      | Х     | No          | Depth (inches):           | 5         | _ | Wetland Hydrology Present?                |  |  |
| Water T  | able Present?                      | Yes      | Х     | No          | Depth (inches):           | 0         | _ | Yes X No                                  |  |  |
| Saturati | on Present?                        | Yes      | Х     | No          | Depth (inches):           | 0         | _ |   |  |  |
| (include | s capillary fringe)                |          |       |             |                           |           |   |   |  |  |

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

--See Climatic Summary Below--

| Project/Site:            | Utah Lake                |                 | City/County:     | Utah Co.               | Sampling Date: 7/7/2021  |   |
|--------------------------|--------------------------|-----------------|------------------|------------------------|--|---|
| Applicant/Owner:         | LRS                      |                 |                  |                        | State: UtahSampling Point:A-DP13   |   |
| Investigator(s):         | A. Mathes T. Taylor      | S. Fuller       |                  | Section, Township, I   | Range: 0   |   |
| Landform: (hillslope, te | errace, etc.):           | Other           |                  | Local relief (concave, | convex, none): None Slope (%): <u>0-2%</u>   |   |
| Subregion (LRR):         | MLRA 28                  | BA; LRR D       | Lat.             | 40.268974              | Long111.854603 Datum: WGS84  |   |
| Soil Map Unit Name:      |                          |                 | Water            |                        | NWI Classification: L2ABF  |   |
| Are climatic/hydrologic  | conditions on the site   | typical for til | me of year?      | Yes                    | No X (If no, explain in the Remarks)   |   |
| Are Vegetation           | X,Soil                   | ,or Hy          | drology          | significantly disturbe | d?   |   |
| Are Vegetation           | ,Soil                    | or Hy,          | drology          | _naturally problematic | ?  |   |
| Are Normal Circumsta     | nces Present?            | Yes <u>X</u>    | No               | _(If needed, explain a | ny answers in Remarks)   |   |
| SUMMARY OF FI            | NDINGS - Attach          | site map s      | showing sa       | mpling point loca      | tions, transects, important features, etc.   |   |
|                          | c Vegetation Present?    |                 |                  |                        | pled Area within a Wetland?  |   |
| , , ,                    | Hydric Soil Present?     |                 |                  | _                      | <u>    X    </u> No  |   |
| Wetlan                   | d Hydrology Present?     |                 |                  | -                      |  |   |
|                          |                          |                 |                  | -                      |  |   |
| Remarks:                 |                          |                 |                  |                        |  |   |
| Data point located alor  | ng PEM L2 boundary [     | Drought conc    | litions Some m   | anagement of invasive  | es has occurred  |   |
|                          |                          |                 |                  |                        |  |   |
| VEGETATION - U           | se scientific nam        | es of plan      | ts               |                        |  |   |
|                          |                          | Absolute        | Dominant         |                        | 1  |   |
| Tree Stratum             | Plot size: r= 30'        | % Cover         | Species?         | Indicator Status       | Dominance Test Worksheet   |   |
| 1                        |                          |                 |                  |                        | -  |   |
| 2.                       |                          |                 |                  |                        | Number of dominant species that are  |   |
| 3.                       |                          |                 |                  |                        | OBL, FACW, or FAC:(A)  |   |
| 4.                       |                          |                 |                  |                        | Total number of dominant species   |   |
|                          |                          | 0 =             | = Total Cover    |                        | across all strata: <u>1</u> (B)  |   |
|                          |                          |                 |                  |                        | Percent of dominant species that are   |   |
| Sapling/Shrub Stratum    | Plot size: r= 30'        |                 |                  |                        | OBL, FACW, or FAC: 100% (A/B)  |   |
| 1.                       |                          |                 |                  |                        | Prevalence Index Worksheet   |   |
| 2.                       |                          |                 |                  |                        | Total % cover of: Multiply by:   |   |
| 3.                       |                          |                 |                  |                        | OBL species <u>80</u> x 1 <u>80</u>  |   |
| 4.                       |                          |                 |                  |                        | FACW species 0 x 2 0   |   |
| 5.                       |                          |                 |                  |                        | FAC species 0 x 3 0  |   |
|                          |                          | 0 =             | = Total Cover    |                        | FACU species 0 x 4 0   |   |
|                          |                          |                 |                  |                        | UPL species 0 x 5 0  |   |
| Herb Stratum             | Plot size: r= 5'         |                 |                  |                        | Column Total 80 (A) 80 (B)   |   |
| 1. <u>Schoenoplec</u>    | tus acutus               | 80              | Y                | OBL                    | Prevalence Index: 1.0 (B/A)  |   |
| 2.                       |                          |                 |                  |                        | Hydrophytic Vegetation Indicators:   |   |
| 3.                       |                          |                 |                  |                        | X 1 - Rapid Test for Hydrophytic Vegetation  |   |
| 4.                       |                          |                 |                  |                        | X 2 - Dominance Test is >50%   |   |
| 5.                       |                          |                 |                  |                        | X 3 - Prevalence Index is <3.0*  |   |
| 6.                       |                          |                 |                  |                        | Problematic Hydrophytic Vegetation* (Explain)  |   |
| 7.                       |                          |                 |                  |                        | *Indicators of hydric soil and wetland hydrology must be present,<br>unless disturbed or problematic | , |
| 8.                       |                          |                 |                  |                        |  |   |
|                          |                          | 80 =            | = Total Cover    |                        | Hydrophytic Vegetation Present?  |   |
|                          |                          |                 |                  |                        | <b>X X X</b>   |   |
| Woody Vine Stratum       | Plot size: <u>r= 30'</u> |                 |                  |                        | Yes <u>X</u> No  |   |
|                          |                          |                 |                  |                        | 4  |   |
| 2.                       |                          |                 |                  |                        | 4  |   |
|                          |                          |                 | = Total Cover    |                        |  |   |
|                          | Herb Stratum             |                 | r of Biotic Crus | t                      |  |   |
| Remarks: (if observed    | l, list morphological ad | aptations be    | low).            |                        |  |   |

| TOTILE | Description: (   |                 |            |            |            |            |             |               |           |  |
|--------|------------------|-----------------|------------|------------|------------|------------|-------------|---------------|-----------|--|
|        | Depth            | Matrix          |            |            | Redox F    |            | T           |               |           |  |
|        | (inches)         | Color           | %          | Color      | %          | Type*      | Loc**       | Texture       |           | Remarks  |
|        | 0-               |                 |            |            |            |            | -           |               |           |  |
|        |                  |                 |            |            |            |            | -           |               |           |  |
|        |                  |                 |            |            |            |            |             |               |           |  |
|        |                  |                 |            |            |            |            |             |               |           |  |
|        |                  |                 |            |            |            |            |             |               |           |  |
|        |                  |                 |            |            |            |            |             |               |           |  |
|        |                  |                 |            |            |            |            |             |               |           |  |
|        |                  |                 |            |            |            |            |             |               |           |  |
| ype:   | C=Concentratio   | n, D=Depletio   | n, RM=F    | Reduced N  | latrix, M  | S=Maske    | ed Sand g   | grains **Loca | ation: Pl | _=Pore Lining, M=Matrix                                |
| dric   | Soil Indicators  | : (Applicable   | to all L   | RRs, unle  | ss other   | wise no    | oted)       |               |           | Indicators for Problematic Hydric Soils ***            |
|        | Histosol (A1)    |                 |            |            |            | Redox (    |             |               |           | 1 cm Muck (A9) (LRR C)                                 |
|        | Histic Epipedo   | on (A2)         |            |            | -          | d Matrix   |             |               |           | 2 cm Muck (A10) <b>(LRR B)</b>                         |
|        | Black Histic (A  |                 |            |            |            |            | /ineral (F  | 1)            |           | Reduced Vertic (F18)                                   |
|        | Hydrogen Sul     |                 |            |            |            |            | Matirx (F2  |               |           | Red Parent Material (TF2)                              |
|        | Stratified Lave  | . ,             | C)         |            | 1          | ed Matrix  |             | -/            |           | Other (Explain in Remarks)                             |
|        | 1 cm Muck (A     |                 | 0)         |            | 1          |            | rface (F6)  | )             |           |  |
|        | Depleted Below   | ,, ,            | (A11)      |            |            |            | Surface (I  |               |           | -  |
|        | - ·              |                 | (ATT)      |            | 1          |            | ions (F8)   | 7)            |           | -  |
|        | Thick Dark Su    |                 |            |            |            | Pools (F   | , ,         |               |           | *** Indicators of hydrophytic vegetation and wetland   |
|        | Sandy Mucky      |                 |            |            | veniai     |            | 9)          |               |           | hydrology must be present, unless disturbed or problem |
|        | Sandy Gleyed     |                 |            |            |            |            |             |               |           |  |
| stric  | tive Layer (if o | bserved)        |            |            |            |            |             |               |           |  |
| -      | Туре:            |                 |            |            |            | -          |             |               |           | N  |
| De     | oth (inches):    |                 |            |            |            | - ľ        | Hydric So   | oil Present?  |           | Yes <u>X</u> No  |
| mark   | · · ·            |                 |            |            |            |            |             |               |           |  |
|        | ed hydric, inund | ated soils to a | t least 8' |            |            |            |             |               |           |  |
| Joann  | la nyano, mana   |                 | it loadt o |            |            |            |             |               |           |  |
|        |                  |                 |            |            |            |            |             |               |           |  |
|        |                  |                 |            |            |            |            |             |               |           |  |
| YDR    | OLOGY            |                 |            |            |            |            |             |               |           |  |
| etlan  | d Hydrology In   | dicators:       |            |            |            |            |             |               |           |  |
|        |                  | ndicators (mir  | nimum of   | one is rec | auire: che | eck all th | at apply)   |               |           | Secondary Indicators (2 or more required)              |
| Х      | Surface Wate     | ,               |            |            | Crust (B   |            | 1.1.1/      |               |           | Water Marks (B1) (Riverine)                            |
| х      | High Water Ta    |                 |            |            | c Crust (  | ,          |             |               |           | Sediment Deposits (B2) (Riverine)                      |
| х      | Saturation (A    |                 |            |            | atic Faur  |            |             |               |           | Drift Deposits (B2) (Riverine)                         |
| X      | Water Marks      |                 | rino)      |            | rogen Su   | . ,        | or (C1)     |               | х         | Drainage Patterns (B10)                                |
|        |                  |                 | - í        |            | -          |            |             | Roots (C3)    | X         |  |
|        | Sediment Depos   |                 |            |            |            |            | d Iron (C4  | . ,           | ~         | Dry-Season Water Table (C2)                            |
|        | Drift Deposits   | (B3) (Nonrive   | erine)     | Fies       |            | เอินแปล์ไ  | . 11011 (04 | 7             |           | Crayfish Burrows (C8)                                  |

Surface Water Present? Yes X No Depth (inches): Yes X No Depth (inches): 0 Water Table Present? Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)

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

--See Climatic Summary Below--

Field Observations:

Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)

Water Stained Leaves (B9)

х

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal val

5

Х

Х

Saturation Visible on Aerial Imagery (C9)

Yes X

Shallow Aquitard (D3)

FAC-Neutral Test (D5)

Wetland Hydrology Present?

Recent Iron Reduction in Tilled Soil (C6)

Thin Muck Surface (C7)

Other (Explain in Remarks)

No

| Project/Site:         | Utah Lake                         |               | City/County:      | Utah Co.                | Sampling Date: 7/8/2021   | 1      |
|-----------------------|-----------------------------------|---------------|-------------------|-------------------------|---|--------|
| Applicant/Owner:      | LRS                               |               |                   |                         | State: UtahSampling Point:A-DP14  | 1      |
| Investigator(s):      | A. Mathes T. Taylor               | S. Fuller     |                   | Section, Township,      | Range: 0  |        |
| Landform: (hillslope, | terrace, etc.):                   | Other         |                   | Local relief (concave,  | convex, none): None Slope (%): <u>0-2%</u>  | 6      |
| Subregion (LRR):      | MLRA 28                           | A; LRR D      | Lat.              | 40.142167               | Long111.781204 Datum: WGS84   |        |
| Soil Map Unit Name:   |                                   |               | Water             |                         | NWI Classification: L2ABF   |        |
| Are climatic/hydrolog | ic conditions on the site         |               |                   | -                       |   |        |
| Are Vegetation        | X ,Soil                           | ,or H         | lydrology         | significantly disturbe  | :d?   |        |
| Are Vegetation        | ,Soil                             | ,or H         | lydrology         | _naturally problemation | o?  |        |
| Are Normal Circumst   | ances Present?                    | Yes <u>X</u>  | No                | _(If needed, explain a  | any answers in Remarks)   |        |
|                       |                                   |               | •                 |                         | ations, transects, important features, etc.   |        |
| Hydrophy              | tic Vegetation Present?           |               |                   |                         | npled Area within a Wetland?  |        |
|                       | Hydric Soil Present?              |               |                   | Yes                     | <u>X</u> No   |        |
| Wetla                 | Ind Hydrology Present?            | Yes <u>X</u>  | No                | _                       |   |        |
| Remarks:              |                                   |               |                   |                         |   |        |
|                       | ong PEM L2 boundary D             | Drought cor   | nditions Some m   | anagement of invasiv    | es has occurred   |        |
|                       |                                   | in a gint ooi |                   |                         |   |        |
|                       | les scientific nom                |               |                   |                         |   |        |
| VEGETATION - C        | Jse scientific name               | Absolute      | Dominant          |                         | 1   |        |
| Tree Stratum          | Plot size: <u>r= 30'</u>          | % Cover       |                   | Indicator Status        | Dominance Test Worksheet  |        |
| 1                     |                                   |               |                   |                         |   |        |
| 2.                    |                                   |               |                   |                         | Number of dominant species that are   |        |
| 3.                    |                                   |               |                   |                         | OBL, FACW, or FAC:(A)   |        |
| 4.                    |                                   |               |                   |                         | - Total number of dominant species  |        |
|                       |                                   | 0             | = Total Cover     |                         | across all strata: <u>1</u> (B)   |        |
| Sapling/Shrub Stratu  | <u>m</u> Plot size: <u>r= 30'</u> |               |                   |                         | Percent of dominant species that are<br>OBL, FACW, or FAC: 100% (A/B  | š)     |
| 1.                    |                                   |               |                   |                         | Prevalence Index Worksheet  |        |
| 2.                    |                                   |               |                   |                         | Total % cover of: Multiply by:  |        |
| 3.                    |                                   |               |                   |                         | OBL species <u>0</u> x 1 <u>0</u>   |        |
| 4.                    |                                   |               |                   |                         | FACW species <u>60</u> x 2 <u>120</u>   |        |
| 5.                    |                                   |               |                   |                         | FAC species 0 x 3 0   |        |
|                       |                                   | 0             | = Total Cover     |                         | FACU species 0 x 4 0  |        |
|                       |                                   |               |                   |                         | UPL species 0 x 5 0   |        |
| Herb Stratum          | Plot size: r= 5'                  |               |                   |                         | Column Total <u>60</u> (A) <u>120</u> (B)   |        |
| 1. Phragmites         | australis                         | 60            | Y                 | FACW                    | Prevalence Index: 2.0 (B/A  | ()     |
| 2.                    |                                   |               |                   |                         | Hydrophytic Vegetation Indicators:  |        |
|                       |                                   |               |                   |                         | X 1 - Rapid Test for Hydrophytic Vegetation   |        |
|                       |                                   |               |                   |                         | X 2 - Dominance Test is >50%  |        |
| 5                     |                                   |               |                   |                         | X 3 - Prevalence Index is <3.0*   |        |
|                       |                                   |               |                   |                         | Problematic Hydrophytic Vegetation* (Explain) *Indicators of hydric soil and wetland hydrology must be pre- | resent |
|                       |                                   |               |                   |                         | unless disturbed or problematic   | esent, |
| 8.                    |                                   |               |                   |                         |   |        |
|                       |                                   | 60            | = Total Cover     |                         | Hydrophytic Vegetation Present?   |        |
| Woody Vine Stratum    | Plot size: r= 30'                 |               |                   |                         | YesX No   |        |
|                       |                                   |               |                   |                         |   |        |
| 2.                    |                                   |               |                   |                         | 1   |        |
|                       |                                   | 0             | = Total Cover     |                         | 1   |        |
| % Bare Ground in      | Herb Stratum                      |               | er of Biotic Crus | t                       |   |        |
|                       | d, list morphological ad          |               |                   |                         |   |        |
|                       | en killed on the shoreline        |               | ,                 | ite                     |   |        |

| Profile Description:  | 1   |             |           |   |           |                |                   |           |   |  |  |  |
|-----------------------|---|-------------|-----------|---|-----------|----------------|-------------------|-----------|---|--|--|--|
| Depth                 | Mat   |             |           | Redox F   |           |                |                   |           |   |  |  |  |
| (inches)              | Color   | %           | Color     | %   | Туре      | * Loc**        | Texture           |           | Remarks   |  |  |  |
| 0-                    |   |             |           |   |           |                |                   |           |   |  |  |  |
|                       |   |             |           |   |           |                |                   |           |   |  |  |  |
|                       |   |             |           |   |           |                |                   |           |   |  |  |  |
|                       |   |             |           |   |           |                |                   |           |   |  |  |  |
|                       |   |             |           |   |           |                |                   |           |   |  |  |  |
|                       |   |             |           |   |           |                |                   |           |   |  |  |  |
|                       |   |             |           |   |           |                |                   |           |   |  |  |  |
| Type: C=Concentra     | tion D=Deplet   | ion RM=     | Reduced N | Aatrix M  | S=Mask    | ed Sand o      | arains **Location | · PI =Por | re Lining M=Matrix  |  |  |  |
|                       |   |             |           |   |           |                |                   |           | <b>.</b>  |  |  |  |
| Histosol (A           |   | le to all l |           |   | Redox (   |                |                   |           | Indicators for Problematic Hydric Soils ***<br>1 cm Muck (A9) (LRR C) |  |  |  |
|                       | Histic Epipedon (A2)                                    |             |           |   |           | (SS)<br>k (S6) |                   |           | 2 cm Muck (A10) (LRR B)   |  |  |  |
|                       | Black Histic (A3)                                       |             |           |   |           | Mineral (F     | 1)                |           | Reduced Vertic (F18)  |  |  |  |
|                       |   |             |           |   |           | Matirx (F2     | •                 |           | Red Parent Material (TF2)   |  |  |  |
|                       | Hydrogen Sulfide (A4)<br>Stratified Layers (A5) (LRR C) |             |           |   |           | ix (F3)        | 2)                |           | Other (Explain in Remarks)  |  |  |  |
|                       | (A9) (LRR D)  | K 0)        |           |   |           |                | )                 |           | (   |  |  |  |
|                       | low Dark Surfac   | ο (Δ11)     |           | Redox Dark Surface (F6)<br>Depleted Dark Surface (F7) |           |                |                   |           |   |  |  |  |
|                       | Surface (A12)   |             |           |   |           | sions (F8)     | 1                 |           |   |  |  |  |
|                       | ky Mineral (S1  |             |           |   | Pools (I  | ,              |                   |           | *** Indicators of hydrophytic vegetation and wetland                  |  |  |  |
|                       | ed Matrix (S4)  |             |           | Vornar  | 1 0010 (1 | ,              |                   | hyd       | drology must be present, unless disturbed or problem                  |  |  |  |
| Restrictive Layer (in |   |             |           |   |           |                |                   |           |   |  |  |  |
| Type:                 | <i>c</i> ,  |             |           |   |           |                |                   |           |   |  |  |  |
| Depth (inches):       |   |             |           |   | -         | Hydric So      | oil Present?      | Yes       | <u>X</u> No   |  |  |  |
| Dopar (monoo).        |   |             |           |   | -         |                |                   |           | <u> </u>  |  |  |  |
| Remarks:              |   |             |           |   |           |                |                   |           |   |  |  |  |
| ssumed hydric, inu    | ndated soils to   | at least a  | 8"        |   |           |                |                   |           |   |  |  |  |
|                       |   |             |           |   |           |                |                   |           |   |  |  |  |
|                       |   |             |           |   |           |                |                   |           |   |  |  |  |
| IYDROLOGY             |   |             |           |   |           |                |                   |           |   |  |  |  |
|                       |   |             |           |   |           |                |                   |           |   |  |  |  |
|                       |   |             |           |   |           |                |                   |           |   |  |  |  |

| vveuanu  | i Hyurology mulcators.             |          |       |             |                           |          |   |   |
|----------|------------------------------------|----------|-------|-------------|---------------------------|----------|---|---|
|          | Primary Indicators (mini           | mum o    | f one | is require; | check all that apply)     |          |   | Secondary Indicators (2 or more required) |
| Х        | Surface Water (A1)                 |          |       | Salt Crust  | : (B11)                   |          | Х | Water Marks (B1) (Riverine)               |
| Х        | High Water Table (A2)              |          |       | Biotic Cru  | st (B12)                  |          |   | Sediment Deposits (B2) (Riverine)         |
| Х        | Saturation (A3)                    |          |       | Aquatic Fa  | auna (B13)                |          |   | Drift Deposits (B3) (Riverine)            |
| х        | Water Marks (B1) (Nonriveri        | ne)      |       | Hydrogen    | Sulfide Odor (C1)         |          | Х | Drainage Patterns (B10)                   |
|          | Sediment Deposits (B2) (Nonrive    | rine)    |       | Oxidized R  | hizospheres on Living Ro  | ots (C3) | Х | Dry-Season Water Table (C2)               |
|          | Drift Deposits (B3) (Nonriver      | ine)     |       | Presence    | of Reduced Iron (C4)      |          |   | Crayfish Burrows (C8)                     |
|          | Surface Soil Cracks (B6)           |          |       | Recent Iro  | n Reduction in Tilled Soi | I (C6)   | Х | Saturation Visible on Aerial Imagery (C9) |
| Х        | Inundation Visible on Aerial Image | ery (B7) |       | Thin Mucl   | c Surface (C7)            |          |   | Shallow Aquitard (D3)                     |
|          | Water Stained Leaves (B9)          |          |       | Other (Ex   | plain in Remarks)         |          | Х | FAC-Neutral Test (D5)                     |
| Field O  | bservations:                       |          |       |             |                           |          |   |   |
| Surface  | Water Present?                     | Yes      | Х     | No          | Depth (inches):           | 5        | _ | Wetland Hydrology Present?                |
| Water T  | able Present?                      | Yes      | Х     | No          | Depth (inches):           | 0        | _ | Yes X No                                  |
| Saturati | on Present?                        | Yes      | Х     | No          | Depth (inches):           | 0        | _ |   |
| (include | s capillary fringe)                |          |       |             |                           |          |   |   |

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

--See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Project/Site:                                | Utah Lake                |               | City/County:     | Utah Co.               |                                 | Sampling Date:                                     |                          |
|--|--------------------------|---------------|------------------|------------------------|---------------------------------|--|--------------------------|
|  | LRS                      |               |                  |                        | State: Utah                     | Sampling Point:                                    | A-DP15                   |
|  | A. Mathes T. Taylor      |               |                  |                        |                                 |  |                          |
| Landform: (hillslope, ter                    |                          |               |                  | Local relief (concave, |                                 |  |                          |
| Subregion (LRR):                             | MLRA 28                  | 3A; LRR D     | Lat              | 40.152736              | Long. <u>-111.750</u>           |  |                          |
| Soil Map Unit Name:                          |                          |               | Water            |                        |                                 | IWI Classification: <u>I</u>                       |                          |
| Are climatic/hydrologic                      |                          |               |                  |                        |                                 | o, explain in the Re                               | marks)                   |
|  |                          |               |                  | significantly disturbe |                                 |  |                          |
| Are Vegetation                               |                          |               |                  | naturally problematio  |                                 | -)   |                          |
| Are Normal Circumstan                        | ces Present?             | res <u>X</u>  |                  | _(If needed, explain a | ny answers in Remark            | s)   |                          |
| SUMMARY OF FIN                               | IDINGS - Attach          | site map s    | showing sa       | mpling point loca      | tions, transects, i             | mportant featu                                     | res, etc.                |
|  | Vegetation Present?      |               |                  |                        | pled Area within a W            |  | •                        |
|  | Hydric Soil Present?     |               |                  |                        | <u>    X   </u> No <u> </u>     |  |                          |
| Wetland                                      | Hydrology Present?       |               |                  |                        | <u></u>                         |  |                          |
|  | ,                        |               |                  | _                      |                                 |  |                          |
| Remarks:                                     |                          |               |                  |                        |                                 |  |                          |
| Data point located alon                      | g PEM L2 boundary,       | near small st | tream inlet to l | ake Drought conditions | 6                               |  |                          |
|  |                          |               |                  |                        |                                 |  |                          |
| VEGETATION - Us                              | e scientific nam         | es of plan    | ts               |                        |                                 |  |                          |
|  |                          | Absolute      | Dominant         |                        |                                 |  |                          |
| <u>Free Stratum</u>                          | Plot size: <u>r= 30'</u> |               | Species?         | Indicator Status       | Dominar                         | ice Test Workshee                                  | et                       |
|  |                          |               |                  |                        |                                 |  |                          |
|  |                          |               |                  |                        | Number of dominant              | •  | 4 (4)                    |
|  |                          |               |                  |                        | OBL, FACW                       | , or FAC:  | <u>1</u> (A)             |
| 4.   |                          |               | Tatal Osuan      |                        | Total number of do              |  | 4 (D)                    |
|  |                          | 0 =           | = Total Cover    |                        | across all                      | strata:  | <u>1</u> (B)             |
|  |                          |               |                  |                        | Percent of dominant             | •  | 4000/ (A/D)              |
| Sapling/Shrub Stratum                        | Plot size: $r=30'$       |               |                  |                        | OBL, FACW                       |  | 100% (A/B)               |
|  |                          |               |                  |                        | Prevalence Index W              |  |                          |
|  |                          |               |                  |                        | Total % cover of:               | •  |                          |
|  |                          |               |                  |                        |                                 | <u>0 x 1</u>                                       | 90                       |
|  |                          |               |                  |                        | FACW species 0                  |  | 0                        |
| 5  |                          |               |                  |                        | FAC species 0                   |  | 0                        |
|  |                          | 0 =           | = Total Cover    |                        | FACU species 0                  |  | 0                        |
|  |                          |               |                  |                        | · · ·                           | ) x 5 _  | 0(T)                     |
| lerb Stratum                                 | Plot size: <u>r= 5'</u>  |               |                  | 0.51                   | Column Total 90                 |  | <u>90</u> (B)            |
|  | us acutus                | 90            | Y                | OBL                    |                                 | Prevalence Index:                                  | 1.0 (B/A)                |
|  |                          |               |                  |                        | Hydrophytic Vegeta              |  | , , ,.                   |
|  |                          |               |                  |                        |                                 | st for Hydrophytic V                               | egetation                |
| _  |                          |               |                  |                        | X 2 - Dominand                  |  |                          |
| •  |                          |               |                  |                        | X 3 - Prevalence<br>Problematic | ce Index is <u>&lt;</u> 3.0*<br>Hydrophytic Vegeta | ition* (Explain)         |
|  |                          |               |                  |                        |                                 |  | drology must be present, |
|  |                          |               |                  |                        | unless disturbed or p           | ,  | ·····3) ······· [······, |
| 8.   |                          |               | Tatal Original   |                        |                                 | tion Dress   |                          |
|  |                          | 90 =          | = Total Cover    |                        | Hydrophytic Vegeta              | uon Present?                                       |                          |
| Noody Vina Stratum                           | Plot size: r= 201        |               |                  |                        | Vac                             | Y N-   |                          |
| Noody Vine Stratum                           |                          |               |                  |                        | Yes_                            | <u>X</u> No_                                       |                          |
| 1<br>2.                                      |                          |               |                  |                        | 1                               |  |                          |
| ۷.   |                          |               | = Total Cover    |                        | 1                               |  |                          |
|  |                          |               |                  |                        |                                 |  |                          |
| % Para Craund in L                           | orh Strature             | 0/ 0          |                  | ot                     |                                 |  |                          |
| % Bare Ground in H<br>Remarks: (if observed, |                          | -             | r of Biotic Cru  | st                     |                                 |  |                          |

|           | Description: (I      | Mati          |             |            | Redox F    |          |            |                   |               |                 |                     |                       |
|-----------|----------------------|---------------|-------------|------------|------------|----------|------------|-------------------|---------------|-----------------|---------------------|-----------------------|
|           |                      | Color         | %           | Color      | Kedox F    |          | * Loc**    | Taxtura           |               |                 | Demerke             |                       |
|           | (inches)             | Color         | %           | Color      | %          | Туре     | LOC        | Texture           |               |                 | Remarks             |                       |
|           | 0-                   |               |             |            |            |          |            |                   |               |                 |                     |                       |
|           |                      |               |             |            |            |          |            |                   |               |                 |                     |                       |
|           |                      |               |             |            |            |          |            |                   |               |                 |                     |                       |
|           | -                    |               |             |            |            |          |            |                   |               |                 |                     |                       |
|           |                      |               |             |            |            |          |            |                   |               |                 |                     |                       |
|           | -                    |               |             |            |            |          |            |                   |               |                 |                     |                       |
|           |                      |               |             |            |            |          |            |                   |               |                 |                     |                       |
|           |                      |               |             |            |            |          |            |                   |               |                 |                     |                       |
| Гуре: С   | C=Concentration      | n, D=Depleti  | ion, RM=    | Reduced I  | Matrix, M  | S=Mask   | ked Sand g | grains **Locatior | : PL=Por      | e Lining, M=Ma  | atrix               |                       |
| lydric \$ | Soil Indicators      | : (Applicabl  | le to all I | LRRs, unle | ess othe   | rwise n  | oted)      |                   |               |                 |                     | c Hydric Soils ***    |
|           | Histosol (A1)        |               |             |            | Sandy      | Redox    | (S5)       |                   |               | 1 cm Muck (A    |                     |                       |
|           | Histic Epipedon (A2) |               |             |            |            | d Matrix | x (S6)     |                   |               | 2 cm Muck (A    | .10) <b>(LRR B)</b> |                       |
|           | Black Histic (A      |               | Loamy       | Mucky      | Mineral (F | 1)       |            | Reduced Vert      | . ,           |                 |                     |                       |
|           | Hydrogen Sulf        |               | Loamy       | Gleyed     | Matirx (F2 | 2)       |            | Red Parent M      | . ,           |                 |                     |                       |
|           | Stratified Laye      |               | Deplete     | ed Matri   | ix (F3)    |          |            | Other (Explain    | n in Remarks) |                 |                     |                       |
|           | 1 cm Muck (A         | 9) (LRR D)    |             |            | Redox      | Dark Su  | urface (F6 | )                 |               |                 |                     |                       |
|           | Depleted Below       | / Dark Surfac | e (A11)     |            | Deplete    | ed Dark  | Surface (I | F7)               |               |                 |                     |                       |
|           | Thick Dark Su        | rface (A12)   |             |            | Redox      | Depres   | sions (F8) |                   |               |                 |                     |                       |
|           | Sandy Mucky          | Mineral (S1)  | )           |            | Vernal     | Pools (I | F9)        |                   |               | *** Indicators  | of hydrophytic v    | egetation and wetland |
|           | Sandy Gleyed         | Matrix (S4)   |             |            |            |          |            |                   | hyd           | Irology must be | present, unless     | disturbed or problem  |
| Restrict  | ive Layer (if o      | bserved)      |             |            |            |          |            |                   |               |                 |                     |                       |
|           | Type:                |               |             |            |            |          |            |                   |               |                 |                     |                       |
| Dep       | th (inches):         |               |             |            |            | _        | Hvdric So  | oil Present?      | Yes           | х               | No                  |                       |
| '         | ( <i>'</i>           |               |             |            |            | -        |            |                   |               |                 |                     |                       |
| Remark    | 5:                   |               |             |            |            |          |            |                   |               |                 |                     |                       |
| ssume     | d hydric, inunda     | ated soils to | at least 8  | 8"         |            |          |            |                   |               |                 |                     |                       |
|           |                      |               |             |            |            |          |            |                   |               |                 |                     |                       |
|           |                      |               |             |            |            |          |            |                   |               |                 |                     |                       |
|           |                      |               |             |            |            |          |            |                   |               |                 |                     |                       |
| IYDR      | OLOGY                |               |             |            |            |          |            |                   |               |                 |                     |                       |
|           |                      |               |             |            |            |          |            |                   |               |                 |                     |                       |

| vveuanu  | i Hyurology mulcators.             |          |       |             |                           |          |   |   |
|----------|------------------------------------|----------|-------|-------------|---------------------------|----------|---|---|
|          | Primary Indicators (mini           | mum o    | f one | is require; | check all that apply)     |          |   | Secondary Indicators (2 or more required) |
| Х        | Surface Water (A1)                 |          |       | Salt Crust  | : (B11)                   |          | Х | Water Marks (B1) (Riverine)               |
| Х        | High Water Table (A2)              |          |       | Biotic Cru  | st (B12)                  |          |   | Sediment Deposits (B2) (Riverine)         |
| Х        | Saturation (A3)                    |          |       | Aquatic Fa  | auna (B13)                |          |   | Drift Deposits (B3) (Riverine)            |
| х        | Water Marks (B1) (Nonriveri        | ne)      |       | Hydrogen    | Sulfide Odor (C1)         |          | Х | Drainage Patterns (B10)                   |
|          | Sediment Deposits (B2) (Nonrive    | rine)    |       | Oxidized R  | hizospheres on Living Ro  | ots (C3) | Х | Dry-Season Water Table (C2)               |
|          | Drift Deposits (B3) (Nonriver      | ine)     |       | Presence    | of Reduced Iron (C4)      |          |   | Crayfish Burrows (C8)                     |
|          | Surface Soil Cracks (B6)           |          |       | Recent Iro  | n Reduction in Tilled Soi | I (C6)   | Х | Saturation Visible on Aerial Imagery (C9) |
| Х        | Inundation Visible on Aerial Image | ery (B7) |       | Thin Mucl   | c Surface (C7)            |          |   | Shallow Aquitard (D3)                     |
|          | Water Stained Leaves (B9)          |          |       | Other (Ex   | plain in Remarks)         |          | Х | FAC-Neutral Test (D5)                     |
| Field O  | bservations:                       |          |       |             |                           |          |   |   |
| Surface  | Water Present?                     | Yes      | Х     | No          | Depth (inches):           | 5        | _ | Wetland Hydrology Present?                |
| Water T  | able Present?                      | Yes      | Х     | No          | Depth (inches):           | 0        | _ | Yes X No                                  |
| Saturati | on Present?                        | Yes      | Х     | No          | Depth (inches):           | 0        | _ |   |
| (include | s capillary fringe)                |          |       |             |                           |          |   |   |

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

--See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| -                          | Utah Lake            |               |                  | Lltah Co                |                               | mpling Date:            | 7/8/2021                |
|----------------------------|----------------------|---------------|------------------|-------------------------|-------------------------------|-------------------------|-------------------------|
|                            |                      |               | City/County:     | Otall CO.               |                               |                         |                         |
|                            | LRS                  |               |                  |                         |                               | mpling Point:           | A-DP16                  |
|                            | A. Mathes T. Taylor  |               |                  |                         |                               |                         |                         |
| Landform: (hillslope, terr |                      |               |                  |                         | convex, none): No             |                         |                         |
| Subregion (LRR):           | MLRA 28              | BA; LRR D     | Lat.             | 40.175422               | Long111.738711                |                         |                         |
| Soil Map Unit Name:        |                      |               | Water            |                         |                               | lassification: L        |                         |
| Are climatic/hydrologic c  |                      |               |                  |                         |                               | plain in the Rei        | narks)                  |
|                            |                      |               |                  | _significantly disturbe |                               |                         |                         |
|                            |                      |               |                  | naturally problematio   |                               |                         |                         |
| Are Normal Circumstand     | ces Present?         | Yes <u>X</u>  | No               | (If needed, explain a   | ny answers in Remarks)        |                         |                         |
|                            |                      | - 14          | haudaa aa        | mulium unint lana       | tione transate imm            |                         |                         |
|                            |                      |               |                  |                         | tions, transects, impo        |                         | es, etc.                |
|                            | Vegetation Present?  |               |                  |                         | pled Area within a Wetlan     | d?                      |                         |
|                            | Hydric Soil Present? |               | _                |                         | <u>X</u> No                   |                         |                         |
| Wetland                    | Hydrology Present?   | Yes <u>X</u>  | No               | _                       |                               |                         |                         |
| Remarks:                   |                      |               |                  |                         |                               |                         |                         |
| Data point located along   | PEM I 2 boundary     | near small si | tream inlet to l | ake Drought conditions  |                               |                         |                         |
| bata point located along   | T EW EZ Boundary,    |               |                  | and Drought conditions  | ,                             |                         |                         |
|                            |                      |               | 4-               |                         |                               |                         |                         |
| VEGETATION - Use           | e scientific name    | Absolute      | Dominant         |                         |                               |                         |                         |
| Tree Stratum               | Plot size: r= 30'    |               | Species?         | Indicator Status        | Dominance T                   | est Workshee            | t                       |
| 1.                         |                      |               |                  |                         |                               |                         |                         |
| 2.                         |                      |               |                  |                         | Number of dominant spec       | cies that are           |                         |
| 3.                         |                      |               |                  |                         | OBL, FACW, or F               |                         | 1 (A)                   |
| 4.                         |                      |               |                  |                         | Total number of domina        | nt snecies              |                         |
|                            |                      | 0 =           | = Total Cover    |                         | across all strata             | •                       | 1 (B)                   |
|                            |                      |               |                  |                         | Percent of dominant spec      | vies that are           |                         |
| Sapling/Shrub Stratum      | Plot size: r= 30'    |               |                  |                         | OBL, FACW, or F               |                         | 100% (A/B)              |
| 1.                         |                      |               |                  |                         | Prevalence Index Works        | heet                    |                         |
| 2                          |                      |               |                  |                         | Total % cover of:             | Multiply                | by:                     |
| 0                          |                      |               |                  |                         | OBL species 90                | x 1                     | 90                      |
|                            |                      |               |                  |                         | FACW species 0                | x 2                     | 0                       |
| 5.                         |                      |               |                  |                         | FAC species 0                 | x 3                     | 0                       |
|                            |                      | 0 =           | = Total Cover    |                         | FACU species 0                | x 4                     | 0                       |
|                            |                      |               |                  |                         | UPL species 0                 | x 5                     | 0                       |
| Herb Stratum               | Plot size: r= 5'     |               |                  |                         | Column Total 90 (A            | A)                      | 90 (B)                  |
| 1. Schoenoplectu           | is acutus            | 90            | Y                | OBL                     |                               | alence Index:           | 1.0 (B/A)               |
| 2.                         |                      |               |                  |                         | Hydrophytic Vegetation        | Indicators:             |                         |
| 2                          |                      |               |                  |                         | X 1 - Rapid Test for          | Hydrophytic V           | egetation               |
| 4                          |                      |               |                  |                         | X 2 - Dominance Te            | st is >50%              |                         |
| _                          |                      |               |                  |                         | X 3 - Prevalence Inc          | lex is <u>&lt;</u> 3.0* |                         |
| _                          |                      |               |                  |                         | Problematic Hydro             | ophytic Vegeta          | ion* (Explain)          |
| _                          |                      |               |                  |                         | *Indicators of hydric soil ar |                         | rology must be present, |
| 8.                         |                      |               |                  |                         | unless disturbed or proble    | matic                   |                         |
|                            |                      | 90 =          | = Total Cover    |                         | Hydrophytic Vegetation        | Present?                |                         |
|                            |                      |               |                  |                         |                               |                         |                         |
| Noody Vine Stratum         | Plot size: r= 30'    |               |                  |                         | Yes X                         | No                      |                         |
|                            |                      |               |                  |                         |                               |                         |                         |
| 2.                         |                      |               |                  |                         | 1                             |                         |                         |
|                            | <u> </u>             | 0 =           | = Total Cover    |                         | 1                             |                         |                         |
|                            |                      |               |                  |                         |                               |                         |                         |
| % Bare Ground in He        | erb Stratum          | % Cove        | r of Biotic Cru  | st                      |                               |                         |                         |

|         | Depth             | Mati          | rix         |           | Redox F    | eatures  | 6          |                   |                         |              |                     |                          |
|---------|-------------------|---------------|-------------|-----------|------------|----------|------------|-------------------|-------------------------|--------------|---------------------|--------------------------|
|         | (inches)          | Color         | %           | Color     | %          | Type*    | * Loc**    | Texture           |                         |              | Remark              | S                        |
|         | 0-                |               |             |           |            |          |            |                   |                         |              |                     |                          |
|         |                   |               |             |           |            |          |            |                   |                         |              |                     |                          |
|         |                   |               |             |           |            |          |            |                   |                         |              |                     |                          |
|         |                   |               |             |           |            |          |            |                   |                         |              |                     |                          |
|         |                   |               |             |           |            |          |            |                   |                         |              |                     |                          |
|         |                   |               |             |           |            |          |            |                   |                         |              |                     |                          |
|         |                   |               |             |           |            |          |            |                   |                         |              |                     |                          |
|         |                   |               |             |           |            |          |            |                   |                         |              |                     |                          |
| Type: 0 | C=Concentratio    | n, D=Depleti  | ion, RM=    | Reduced N | /atrix, M  | S=Mask   | ed Sand g  | grains **Locatior | n: PL=Por               | e Lining, M= | Matrix              |                          |
| lydric  | Soil Indicators   | : (Applicabl  | le to all I | RRs, unle | ess other  | rwise n  | oted)      |                   |                         |              |                     | tic Hydric Soils ***     |
|         | Histosol (A1)     |               |             |           | Sandy      | Redox (  | (S5)       |                   |                         |              | (A9) <b>(LRR C)</b> |                          |
|         | Histic Epipedo    |               |             | Strippe   | d Matrix   | k (S6)   |            |                   | 2 cm Muck (A10) (LRR B) |              |                     |                          |
|         | Black Histic (A3) |               |             |           |            | Mucky    | Mineral (F | 1)                |                         | Reduced V    | . ,                 |                          |
|         | Hydrogen Sul      |               | Loamy       | Gleyed    | Matirx (F2 | 2)       |            | Red Paren         | t Material (TF2)        |              |                     |                          |
|         | Stratified Laye   | ers (A5) (LRI | RC)         |           | Deplete    | ed Matri | x (F3)     |                   |                         | Other (Exp   | lain in Remarks)    |                          |
|         | 1 cm Muck (A      | 9) (LRR D)    |             |           | Redox      | Dark Su  | urface (F6 | )                 |                         |              |                     |                          |
|         | Depleted Below    | / Dark Surfac | e (A11)     |           | Deplete    | ed Dark  | Surface (  | F7)               |                         |              |                     |                          |
|         | Thick Dark Su     | rface (A12)   |             |           | Redox      | Depres   | sions (F8) | 1                 |                         |              |                     |                          |
|         | Sandy Mucky       | Mineral (S1)  | )           |           | Vernal     | Pools (F | F9)        |                   |                         |              |                     | vegetation and wetland   |
|         | Sandy Gleyed      | Matrix (S4)   |             |           |            |          |            |                   | hyd                     | rology must  | be present, unles   | s disturbed or problemat |
| Restric | tive Layer (if o  | bserved)      |             |           |            |          |            |                   |                         |              |                     |                          |
|         | Туре:             |               |             |           |            | _        |            |                   |                         |              |                     |                          |
| Dep     | oth (inches):     |               |             |           |            |          | Hydric So  | oil Present?      | Yes                     | х            | No                  |                          |
|         |                   |               |             |           |            | _        |            |                   |                         |              |                     |                          |
| Remark  | s:                |               |             |           |            |          |            |                   |                         |              |                     |                          |
| Assume  | d hydric, inund   | ated soils to | at least 8  | 3"        |            |          |            |                   |                         |              |                     |                          |
|         |                   |               |             |           |            |          |            |                   |                         |              |                     |                          |
|         |                   |               |             |           |            |          |            |                   |                         |              |                     |                          |
|         | OLOGY             |               |             |           |            |          |            |                   |                         |              |                     |                          |

| wettand   | Hydrology indicators:            |            |       |             |                            |          | - |   |
|-----------|----------------------------------|------------|-------|-------------|----------------------------|----------|---|---|
|           | Primary Indicators (mi           | inimum c   | f one | is require; | check all that apply)      |          |   | Secondary Indicators (2 or more required) |
| Х         | Surface Water (A1)               |            |       | Salt Crust  | : (B11)                    |          |   | Water Marks (B1) (Riverine)               |
| Х         | High Water Table (A2)            |            |       | Biotic Cru  | st (B12)                   |          |   | Sediment Deposits (B2) (Riverine)         |
| Х         | Saturation (A3)                  |            |       | Aquatic Fa  | auna (B13)                 |          |   | Drift Deposits (B3) (Riverine)            |
| Х         | Water Marks (B1) (Nonrive        | erine)     |       | Hydrogen    | Sulfide Odor (C1)          |          | Х | Drainage Patterns (B10)                   |
|           | Sediment Deposits (B2) (Nonri    | iverine)   |       | Oxidized R  | Rhizospheres on Living Ro  | ots (C3) | Х | Dry-Season Water Table (C2)               |
|           | Drift Deposits (B3) (Nonriv      | erine)     |       | Presence    | of Reduced Iron (C4)       |          |   | Crayfish Burrows (C8)                     |
|           | Surface Soil Cracks (B6)         |            |       | Recent Iro  | n Reduction in Tilled Soil | I (C6)   | Х | Saturation Visible on Aerial Imagery (C9) |
| Х         | Inundation Visible on Aerial Ima | agery (B7) |       | Thin Muck   | k Surface (C7)             |          |   | Shallow Aquitard (D3)                     |
|           | Water Stained Leaves (B9         | )          |       | Other (Ex   | plain in Remarks)          |          | Х | FAC-Neutral Test (D5)                     |
| Field Ob  | servations:                      |            |       |             |                            |          |   |   |
| Surface   | Water Present?                   | Yes        | Х     | No          | Depth (inches):            | 5        | _ | Wetland Hydrology Present?                |
| Water Ta  | able Present?                    | Yes        | Х     | No          | Depth (inches):            | 0        |   | Yes X No                                  |
| Saturatio | on Present?                      | Yes        | Х     | No          | Depth (inches):            | 0        | _ |   |
| (includes | s capillary fringe)              |            |       |             |                            |          |   |   |

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

### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Project/Site | e:             | Utah Lake              |                | City/County: I   | Utah Co.               | Sampling Date: 7/8/2021                                       |       |
|--------------|----------------|------------------------|----------------|------------------|------------------------|---|-------|
| Applicant/C  | Owner:         | LRS                    |                |                  |                        | State: Utah Sampling Point: A-DP17                            |       |
| Investigator | r(s):          | A. Mathes T. Taylor    | S. Fuller      |                  | Section, Township, I   | Range: <u>0</u>   |       |
| Landform: (  | (hillslope, te | rrace, etc.):          | Other          |                  | Local relief (concave, | convex, none): None Slope (%): <u>0-2%</u>                    |       |
| Subregion (  | (LRR):         | MLRA 28                | A; LRR D       | Lat.             | 40.176167              | Long111.722743 Datum: WGS84                                   |       |
| Soil Map U   | nit Name:      |                        |                | Mixed alluvial I | and                    | NWI Classification: L2ABF                                     |       |
| Are climatio | c/hydrologic   | conditions on the site | typical for ti | me of year?      | Yes                    | No X (If no, explain in the Remarks)                          |       |
| Are Vegeta   | ition          | X ,Soil                | or Hy,         | drology          | significantly disturbe | 1?  |       |
| Are Vegeta   | ition          | ,Soil                  | or Hy,         | drology          | _naturally problematio | ?   |       |
| Are Normal   | l Circumstar   | ices Present?          | Yes X          | No               | (If needed, explain a  | ny answers in Remarks)  |       |
| SUMMAF       | RY OF FIN      | IDINGS - Attach        | site map s     | showing sar      | npling point loca      | tions, transects, important features, etc.                    |       |
|              |                | Vegetation Present?    | -              |                  |                        | pled Area within a Wetland?                                   |       |
|              | , , ,          | Hydric Soil Present?   |                |                  | _                      | <u>X</u> No   |       |
|              | Wetland        | d Hydrology Present?   |                | _                |                        |   |       |
|              |                |                        |                |                  | -                      |   |       |
| Remarks:     |                |                        |                |                  |                        |   |       |
| Data point l | located alon   | g PEM L2 boundary [    | Drought conc   | litions Some m   | anagement of invasive  | es has occurred   |       |
|              |                |                        |                |                  |                        |   |       |
| VEGETA       | TION - Us      | e scientific nam       | es of nlan     | ts               |                        |   |       |
| TEGEIA       |                |                        | Absolute       | Dominant         |                        |   |       |
| Tree Stratu  | <u>im</u>      | Plot size: r= 30'      | % Cover        | Species?         | Indicator Status       | Dominance Test Worksheet                                      |       |
| 1            |                |                        |                |                  |                        |   |       |
| 2.           |                |                        |                |                  |                        | Number of dominant species that are                           |       |
| 3.           |                |                        |                |                  |                        | OBL, FACW, or FAC: 2 (A)                                      |       |
| 4.           |                |                        |                |                  |                        | Total number of dominant species                              |       |
|              |                |                        | 0 =            | = Total Cover    |                        | across all strata: <u>2</u> (B)                               |       |
|              |                |                        |                |                  |                        | Percent of dominant species that are                          |       |
| Sapling/Shi  | rub Stratum    | Plot size: r= 30'      |                |                  |                        | OBL, FACW, or FAC: 100% (A/B)                                 |       |
| 1.           |                |                        |                |                  |                        | Prevalence Index Worksheet                                    |       |
| 2.           |                |                        |                |                  |                        | Total % cover of: Multiply by:                                |       |
| 3.           |                |                        |                |                  |                        | OBL species 30 x 1 30   |       |
| 4.           |                |                        |                |                  |                        | FACW species 10 x 2 20  |       |
| 5.           |                |                        |                |                  |                        | FAC species 0 x 3 0   |       |
|              |                |                        | 0 =            | = Total Cover    |                        | FACU species 0 x 4 0  |       |
|              |                |                        |                |                  |                        | UPL species 0 x 5 0   |       |
| Herb Stratu  | um             | Plot size: r= 5'       |                |                  |                        | Column Total 40 (A) 50 (B)                                    |       |
| 1. So        | choenoplect    | us acutus              | 30             | Y                | OBL                    | Prevalence Index: 1.3 (B/A)                                   |       |
| 2. PI        | hragmites au   | ustralis               | 10             | Y                | FACW                   | Hydrophytic Vegetation Indicators:                            |       |
| 3.           |                |                        |                |                  |                        | X 1 - Rapid Test for Hydrophytic Vegetation                   |       |
| 4.           |                |                        |                |                  |                        | X 2 - Dominance Test is >50%                                  |       |
| 5.           |                |                        |                |                  |                        | X 3 - Prevalence Index is <3.0*                               |       |
| 6.           |                |                        |                |                  |                        | Problematic Hydrophytic Vegetation* (Explain)                 |       |
| 7.           |                |                        |                |                  |                        | *Indicators of hydric soil and wetland hydrology must be pre- | sent, |
| 8.           |                |                        |                |                  |                        | unless disturbed or problematic                               |       |
|              |                |                        | 40 =           | = Total Cover    |                        | Hydrophytic Vegetation Present?                               |       |
|              |                |                        |                |                  |                        |   |       |
| Woody Vine   | e Stratum      | Plot size: r= 30'      |                |                  |                        | Yes <u>X</u> No   |       |
| 1            |                |                        |                |                  |                        | 4   |       |
| 2.           |                |                        |                |                  |                        | 4   |       |
|              |                |                        |                | = Total Cover    |                        |   |       |
| % Bare       | Ground in H    | lerb Stratum           | % Cove         | r of Biotic Crus | t                      |   |       |
| Remarks:     | (if observed,  | list morphological ad  | aptations be   | low).            |                        |   |       |
|              |                |                        |                |                  |                        |   |       |

| Tome     | bescription. (                             | Describe to   | uepinn      | eeueu to t        | locumer  | it the m  |            | r confirm absen            | Le UI IIIUI             | cators.)  |         |
|----------|--|---------------|-------------|-------------------|--|-----------|------------|----------------------------|-------------------------|---|---------|
|          | Depth                                      | Mat           | rix         |                   | Redox F  | eatures   | \$         |                            |                         |   |         |
|          | (inches)                                   | Color         | %           | Color             | %  | Type*     | Loc**      | Texture                    |                         | Remarks   |         |
|          | 0-   |               |             |                   |  |           |            |                            |                         |   |         |
|          |  |               |             |                   |  |           |            |                            |                         |   |         |
|          |  |               |             |                   |  |           |            |                            |                         |   |         |
|          |  |               |             |                   |  |           |            |                            |                         |   |         |
|          |  |               |             |                   |  |           |            |                            |                         |   |         |
|          |  |               |             |                   |  |           |            |                            |                         |   |         |
|          |  |               |             |                   |  |           |            |                            |                         |   |         |
|          |  | n D-Danlati   | an DM-      | Deduced           | Actrix M   | -Maak     | ad Cand a  | raina **I apatian          |                         | a Lining M-Matrix   |         |
|          |  |               |             |                   |  |           |            | grains Location            | I: PL=PON               | e Lining, M=Matrix  |         |
| lydric   | Soil Indicators                            | : (Applicabl  | le to all l | <u>-RRs, unle</u> |  |           |            |                            |                         | Indicators for Problematic Hydric Soils<br>1 cm Muck (A9) (LRR C) | ***     |
|          | Histosol (A1)                              |               |             |                   | Redox (  |           |            |                            | 2 cm Muck (A10) (LRR B) |   |         |
|          | Histic Epipedon (A2)<br>Black Histic (A3)  |               |             |                   |  | d Matrix  | . /        |                            |                         | Reduced Vertic (F18)  |         |
|          | Black Histic (A3)<br>Hydrogen Sulfide (A4) |               |             |                   |  |           | Mineral (F | •                          |                         | Red Parent Material (TF2)   |         |
|          |  |               | -           |                   | Matirx (F2   | 2)        |            | Other (Explain in Remarks) |                         |   |         |
|          | Stratified Laye                            |               | κC)         |                   |  | ed Matri  |            | <b>`</b>                   |                         |   |         |
|          | 1 cm Muck (A                               | / \ /         | o (A 11)    |                   | Redox Dark Surface (F6) Depleted Dark Surface (F7) |           |            |                            |                         |   |         |
|          | Depleted Below<br>Thick Dark Su            |               | e (ATT)     |                   |  |           | sions (F8) | ,                          |                         |   |         |
|          | Sandy Mucky                                | · /           | )           |                   |  | Pools (F  | ( )        |                            |                         | *** Indicators of hydrophytic vegetation and w                    | votland |
|          | Sandy Mucky                                |               |             |                   | venta  | 1 0013 (1 | 3)         |                            | hyd                     | lrology must be present, unless disturbed or pr                   |         |
| Postrict | tive Layer (if o                           |               |             |                   |  |           |            |                            |                         |   |         |
| 1001110  | Type:                                      | 5001100)      |             |                   |  |           |            |                            |                         |   |         |
| Den      | th (inches):                               |               |             |                   |  | -         | Hydric Se  | oil Present?               | Yes                     | X No  |         |
| Dob      | (  |               |             |                   |  | -         |            |                            |                         |   |         |
| Remark   | s:   |               |             |                   |  |           |            |                            |                         |   |         |
| ssume    | d hydric, inunda                           | ated soils to | at least 8  | 3"                |  |           |            |                            |                         |   |         |
|          |  |               |             |                   |  |           |            |                            |                         |   |         |
|          |  |               |             |                   |  |           |            |                            |                         |   |         |
| סחענ     | OLOGY                                      |               |             |                   |  |           |            |                            |                         |   |         |
|          | 01001                                      |               |             |                   |  |           |            |                            |                         |   |         |
|          |  |               |             |                   |  |           |            |                            |                         |   |         |

| Hotland   | i nyai ology inaloatoro.         |            |       |             |                            |           |   |   |
|-----------|----------------------------------|------------|-------|-------------|----------------------------|-----------|---|---|
|           | Primary Indicators (mi           | nimum o    | f one | is require; | check all that apply)      |           |   | Secondary Indicators (2 or more required) |
| Х         | Surface Water (A1)               |            |       | Salt Crust  | t (B11)                    |           | Х | Water Marks (B1) (Riverine)               |
| Х         | High Water Table (A2)            |            |       | Biotic Cru  | ist (B12)                  |           |   | Sediment Deposits (B2) (Riverine)         |
| Х         | Saturation (A3)                  |            |       | Aquatic F   | auna (B13)                 |           |   | Drift Deposits (B3) (Riverine)            |
| Х         | Water Marks (B1) (Nonrive        | erine)     |       | Hydrogen    | n Sulfide Odor (C1)        |           | Х | Drainage Patterns (B10)                   |
|           | Sediment Deposits (B2) (Nonri    | verine)    |       | Oxidized F  | Rhizospheres on Living Ro  | oots (C3) | Х | Dry-Season Water Table (C2)               |
|           | Drift Deposits (B3) (Nonriv      | erine)     |       | Presence    | of Reduced Iron (C4)       |           |   | Crayfish Burrows (C8)                     |
|           | Surface Soil Cracks (B6)         |            |       | Recent Irc  | on Reduction in Tilled Soi | il (C6)   | Х | Saturation Visible on Aerial Imagery (C9) |
| Х         | Inundation Visible on Aerial Ima | agery (B7) |       | Thin Muc    | k Surface (C7)             |           |   | Shallow Aquitard (D3)                     |
|           | Water Stained Leaves (B9         | )          |       | Other (Ex   | plain in Remarks)          |           | Х | FAC-Neutral Test (D5)                     |
| Field Ol  | oservations:                     |            |       |             |                            |           |   |   |
| Surface   | Water Present?                   | Yes        | х     | No          | Depth (inches):            | 5         |   | Wetland Hydrology Present?                |
| Water T   | able Present?                    | Yes        | Х     | No          | Depth (inches):            | 0         | _ | Yes X No                                  |
| Saturatio | on Present?                      | Yes        | Х     | No          | Depth (inches):            | 0         | _ |   |
| (include: | s capillary fringe)              |            |       |             |                            |           | - |   |

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

### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Project/Site:            | Utah Lake                             |                        | City/County:    | Utah Co.                |                                 | Sampling Date:               | 7/8/2021                |
|--------------------------|---------------------------------------|------------------------|-----------------|-------------------------|---------------------------------|------------------------------|-------------------------|
| pplicant/Owner:          | LRS                                   |                        |                 |                         | State: Utah                     | Sampling Point:              | A-DP18                  |
| nvestigator(s):          | A. Mathes T. Taylor                   | S. Fuller              |                 | Section, Township,      | <br>Range: 0                    |                              |                         |
| andform: (hillslope, ter | race, etc.):                          | Other                  |                 | Local relief (concave,  | convex, none):                  | None                         | Slope (%): <u>0-2%</u>  |
| ubregion (LRR):          | MLRA 28                               | BA; LRR D              |                 |                         | Long111.718                     |                              |                         |
| oil Map Unit Name:       |                                       |                        | Mixed alluvial  | land                    | N                               | WI Classification: L         | 2ABF                    |
| e climatic/hydrologic    | conditions on the site                | typical for ti         | me of year?     | Yes                     | No X (If n                      | o, explain in the Re         | marks)                  |
| e Vegetation             | ,Soil                                 | ,or Hy                 | drology         | significantly disturbe  | d?                              |                              |                         |
| re Vegetation            | ,Soil                                 | ,or Hy                 | drology         | _naturally problemation | c?                              |                              |                         |
| re Normal Circumstan     | ces Present?                          | Yes <u>X</u>           | No              | _(If needed, explain a  | iny answers in Remark           | s)                           |                         |
|                          | IDINGS - Attach                       | sito man o             | showing sa      | mpling point loca       | itions, transects, i            | mnortant featu               | res etc                 |
|                          | Vegetation Present?                   |                        |                 |                         | pled Area within a We           |                              |                         |
|                          | Hydric Soil Present?                  |                        |                 |                         | XNo                             |                              |                         |
|                          | d Hydrology Present?                  |                        |                 |                         |                                 |                              |                         |
|                          | , ,,                                  |                        |                 | _                       |                                 |                              |                         |
| emarks:                  |                                       |                        |                 |                         |                                 |                              |                         |
| ta point located alone   | g PEM L2 boundary [                   | Drought cond           | ditions         |                         |                                 |                              |                         |
|                          |                                       |                        |                 |                         |                                 |                              |                         |
| EGETATION - US           | e scientific nam                      | es of plan<br>Absolute | Dominant        |                         |                                 |                              |                         |
| ee Stratum               | Plot size: <u>r= 30'</u>              |                        | Species?        | Indicator Status        | Dominan                         | ice Test Workshee            | t                       |
| 1.                       |                                       |                        |                 |                         | _                               |                              |                         |
| 2.                       |                                       |                        |                 |                         | Number of dominant              | species that are             |                         |
| 3.                       |                                       |                        |                 |                         | OBL, FACW,                      | , or FAC:                    | <u>1</u> (A)            |
| 4.                       |                                       | <u> </u>               |                 |                         | Total number of do              | minant species               |                         |
|                          |                                       | 0                      | = Total Cover   |                         | across all                      | strata:                      | 1 (B)                   |
|                          |                                       |                        |                 |                         | Percent of dominant             |                              |                         |
| pling/Shrub Stratum      | Plot size: r= 30'                     |                        |                 |                         | OBL, FACW                       |                              | 100% (A/B)              |
|                          |                                       |                        |                 |                         | Prevalence Index W              |                              |                         |
|                          |                                       |                        |                 |                         | Total % cover of:               |                              |                         |
| 4                        |                                       |                        |                 |                         | · · ·                           | <u>)</u> x 1 _               |                         |
| 4<br>5.                  |                                       |                        |                 | ·                       | FACW species 0<br>FAC species 0 |                              | 0                       |
| 5.                       |                                       | 0                      | = Total Cover   |                         | FAC species 0                   |                              | <u> </u>                |
|                          |                                       | 0                      |                 |                         |                                 | x 5                          | 0                       |
| rb Stratum_              | Plot size: r= 5'                      |                        |                 |                         | Column Total 70                 |                              | (B)                     |
|                          | 11013120. 1-0                         | 70                     | Y               | OBL                     |                                 | <u> </u>                     | <u> </u>                |
| 0                        |                                       |                        |                 |                         | Hydrophytic Vegeta              |                              |                         |
|                          |                                       |                        |                 |                         |                                 | st for Hydrophytic V         | egetation               |
|                          |                                       |                        |                 |                         | X 2 - Dominano                  |                              | 0                       |
| F                        |                                       |                        |                 |                         | X 3 - Prevalence                | ce Index is <u>&lt;</u> 3.0* |                         |
| â                        |                                       |                        |                 |                         | Problematic                     | Hydrophytic Vegeta           | tion* (Explain)         |
| 7                        |                                       |                        |                 |                         |                                 |                              | rology must be present, |
| 8.                       |                                       |                        |                 |                         | unless disturbed or p           | opiematic                    |                         |
|                          |                                       | 70                     | = Total Cover   |                         | Hydrophytic Vegeta              | tion Present?                |                         |
|                          |                                       |                        |                 |                         |                                 |                              |                         |
| oody Vine Stratum        | Plot size: <u>r= 30'</u>              |                        |                 |                         | Yes                             | <u>X</u> No_                 |                         |
|                          |                                       |                        |                 |                         | 4                               |                              |                         |
| 2.                       |                                       |                        |                 |                         | 4                               |                              |                         |
| Z                        |                                       | 0                      | = Total Cover   |                         |                                 |                              |                         |
|                          |                                       |                        |                 |                         |                                 |                              |                         |
| % Bare Ground in H       | lerb Stratum<br>list morphological ad | -                      | r of Biotic Cru | st                      |                                 |                              |                         |

|        | Depth                                     | Mat           |            |           | Redox F  |            |            | r confirm absen   |             |                         |                     |                          |  |
|--------|---|---------------|------------|-----------|----------|------------|------------|-------------------|-------------|-------------------------|---------------------|--------------------------|--|
|        | (inches)                                  | Color         | %          | Color     | %        | Type*      | Loc**      | Texture           |             |                         | Remark              | 5                        |  |
|        | 0-  |               |            |           |          |            |            |                   |             |                         |                     |                          |  |
|        |   |               |            |           |          |            |            |                   |             |                         |                     |                          |  |
|        |   |               |            |           |          |            |            |                   |             |                         |                     |                          |  |
|        |   |               |            |           |          |            |            |                   |             |                         |                     |                          |  |
|        |   |               |            |           |          |            |            |                   |             |                         |                     |                          |  |
|        |   |               |            |           |          |            |            |                   |             |                         |                     |                          |  |
|        |   |               |            |           | -        |            |            |                   |             |                         |                     |                          |  |
| Type   |   | n D=Deploti   | on RM-     | Reduced ! | Jatriv M | S=Maek     | ed Sand (  | grains **Locatior | PI =Por     | elining M-I             | Matrix              |                          |  |
|        | Soil Indicators                           |               |            |           |          |            |            | Jianis Location   |             | 0                       |                     | ic Hydric Soils ***      |  |
| Iyaric | Histosol (A1)                             | с (Аррпсарі   | e to all i |           |          | Redox (    | ,          |                   |             |                         | (A9) (LRR C)        | IC Hydric Solis          |  |
|        | Histic Epipedon (A2)                      |               |            |           |          | d Matrix   |            |                   |             | 2 cm Muck (A10) (LRR B) |                     |                          |  |
|        |   |               |            |           |          | Mineral (F | 1)         |                   | Reduced V   |                         |                     |                          |  |
|        | Hydrogen Sulfide (A4) Loamy Gley          |               |            |           |          | ,          | ,          |                   | Red Parent  | Material (TF2)          |                     |                          |  |
|        | Stratified Layers (A5) (LRR C) Depleted M |               |            |           |          |            | -/         |                   | Other (Expl | ain in Remarks)         |                     |                          |  |
|        | 1 cm Muck (A                              |               | /          |           |          |            | Inface (F6 | )                 |             |                         |                     |                          |  |
|        | Depleted Below                            | / \           | e (A11)    |           |          |            | Surface (I |                   |             |                         |                     |                          |  |
|        | Thick Dark Su                             | Irface (A12)  | <u> </u>   |           | Redox    | Depress    | sions (F8) | ,                 |             |                         |                     |                          |  |
|        | Sandy Mucky                               | Mineral (S1)  | )          |           | Vernal   | Pools (F   | -9)        |                   |             | *** Indicator           | rs of hydrophytic v | vegetation and wetland   |  |
|        | Sandy Gleyed                              | Matrix (S4)   |            |           |          |            |            |                   | hyd         | rology must             | be present, unles   | s disturbed or problemat |  |
| estric | tive Layer (if o                          | bserved)      |            |           |          |            |            |                   |             |                         |                     |                          |  |
|        | Туре:                                     |               |            |           |          | _          |            |                   |             |                         |                     |                          |  |
| Dep    | oth (inches):                             |               |            |           |          |            | Hydric So  | oil Present?      | Yes         | Х                       | No                  |                          |  |
|        |   |               |            |           |          |            |            |                   |             |                         |                     |                          |  |
| Remark |   |               |            | ~"        |          |            |            |                   |             |                         |                     |                          |  |
| ssume  | ed hydric, inunda                         | ated soils to | at least & | 3"        |          |            |            |                   |             |                         |                     |                          |  |
|        |   |               |            |           |          |            |            |                   |             |                         |                     |                          |  |
|        |   |               |            |           |          |            |            |                   |             |                         |                     |                          |  |
| IYDR   | OLOGY                                     |               |            |           |          |            |            |                   |             |                         |                     |                          |  |

| vvelianu  | Hydrology mulcators.              |           |       |             |                           |           |   |   |  |
|-----------|-----------------------------------|-----------|-------|-------------|---------------------------|-----------|---|---|--|
|           | Primary Indicators (min           | imum o    | f one | is require; | check all that apply)     |           |   | Secondary Indicators (2 or more required) |  |
| Х         | Surface Water (A1)                |           |       | Salt Crust  | : (B11)                   |           |   | Water Marks (B1) (Riverine)               |  |
| Х         | High Water Table (A2)             |           |       | Biotic Cru  | st (B12)                  |           |   | Sediment Deposits (B2) (Riverine)         |  |
| Х         | Saturation (A3)                   |           |       | Aquatic Fa  | auna (B13)                |           |   | Drift Deposits (B3) (Riverine)            |  |
| Х         | Water Marks (B1) (Nonriver        | ine)      |       | Hydrogen    | Sulfide Odor (C1)         |           | Х | Drainage Patterns (B10)                   |  |
|           | Sediment Deposits (B2) (Nonriv    | erine)    |       | Oxidized R  | Rhizospheres on Living Ro | oots (C3) | Х | Dry-Season Water Table (C2)               |  |
|           | Drift Deposits (B3) (Nonrive      | rine)     |       | Presence    | of Reduced Iron (C4)      |           |   | Crayfish Burrows (C8)                     |  |
|           | Surface Soil Cracks (B6)          |           |       | Recent Iro  | n Reduction in Tilled Soi | il (C6)   | Х | Saturation Visible on Aerial Imagery (C9) |  |
| Х         | Inundation Visible on Aerial Imag | jery (B7) |       | Thin Muck   | k Surface (C7)            |           |   | Shallow Aquitard (D3)                     |  |
|           | Water Stained Leaves (B9)         |           |       | Other (Ex   | plain in Remarks)         |           | Х | FAC-Neutral Test (D5)                     |  |
| Field Ob  | servations:                       |           |       |             |                           |           |   |   |  |
| Surface   | Water Present?                    | Yes       | Х     | No          | Depth (inches):           | 5         | _ | Wetland Hydrology Present?                |  |
| Water Ta  | able Present?                     | Yes       | Х     | No          | Depth (inches):           | 0         |   | Yes X No                                  |  |
| Saturatio | on Present?                       | Yes       | Х     | No          | Depth (inches):           | 0         | _ |   |  |
| (includes | s capillary fringe)               |           |       |             |                           |           |   |   |  |

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

### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Project/Site:            | Litab Laka               |               | City/County:    | Litab Ca              |                         | Sampling Data:              | 7/9/2021                 |
|--------------------------|--------------------------|---------------|-----------------|-----------------------|-------------------------|-----------------------------|--------------------------|
| 2                        |                          |               | City/County:    | Otan Co.              | Stata: Litab            | Sampling Date:              |                          |
| Applicant/Owner:         | LRS                      |               |                 | Osstisus Taumahin I   | State: <u>Utah</u>      | Sampling Point:             | A-DP19                   |
| Investigator(s):         | T. Taylor, S. Fuller,    |               |                 |                       |                         |                             | 01 (91) 0.091            |
| Landform: (hillslope, te |                          |               |                 |                       | convex, none):          |                             |                          |
| Subregion (LRR):         | MLRA 28                  | BA; LRR D     | Lat             | 40.130966             | _ Long. <u>-111.840</u> |                             |                          |
| Soil Map Unit Name:      |                          |               | Water           | N                     |                         | WI Classification: <u>L</u> |                          |
| Are climatic/hydrologic  |                          |               |                 |                       |                         | o, explain in the Re        | marks)                   |
| Are Vegetation           | ,Soil                    |               |                 |                       |                         |                             |                          |
| Are Vegetation           |                          |               |                 | naturally problematio |                         | <b>`</b>                    |                          |
| Are Normal Circumsta     |                          |               |                 |                       | ny answers in Remarks   |                             |                          |
|                          |                          |               |                 |                       | tions, transects, i     |                             | res, etc.                |
| Hydrophytic              | c Vegetation Present?    |               |                 |                       | pled Area within a We   |                             |                          |
|                          | Hydric Soil Present?     |               | _               |                       | <u>    X   </u> No      |                             |                          |
| Wetlan                   | d Hydrology Present?     | Yes <u>X</u>  | No              | _                     |                         |                             |                          |
| Remarks:                 |                          |               |                 |                       |                         |                             |                          |
| See Trimble point for o  | ffset Drought conditio   | ins           |                 |                       |                         |                             |                          |
|                          |                          |               |                 |                       |                         |                             |                          |
| VEGETATION - U           | se scientific nam        | es of plan    | ts              |                       |                         |                             |                          |
| Tro o Stratum            | Distaize: r= 20          | Absolute      | Dominant        | Indiantar Status      | Dominon                 | aa Taat Markahaa            |                          |
| Tree Stratum             | Plot size: r= 30'        |               | Species?        | Indicator Status      | Dominan                 | ce Test Workshee            | 1                        |
|                          |                          |               |                 |                       | -                       |                             |                          |
| •                        |                          |               |                 |                       | Number of dominant      |                             | 4 (A)                    |
|                          |                          |               |                 |                       | OBL, FACW,              | or FAC:                     | <u>1</u> (A)             |
| 4.                       |                          |               |                 |                       | Total number of do      |                             |                          |
|                          |                          | 0 =           | = Total Cover   |                       | across all              | strata:                     | <u>    1    (B)</u>      |
|                          |                          |               |                 |                       | Percent of dominant     | •                           |                          |
| Sapling/Shrub Stratum    | Plot size: <u>r= 30'</u> |               |                 |                       | OBL, FACW,              |                             | 100% (A/B)               |
|                          |                          |               |                 | ·                     | Prevalence Index We     |                             |                          |
| 2.                       |                          |               |                 | ·                     | Total % cover of:       |                             |                          |
|                          |                          |               |                 |                       |                         | 0 x 1 _                     | 100                      |
|                          |                          |               |                 | ·                     | FACW species 0          |                             | 0                        |
| 5                        |                          |               |                 | ·                     | FAC species 0           |                             | 0                        |
|                          |                          | 0 =           | = Total Cover   |                       | FACU species 0          | x 4                         | 0                        |
|                          |                          |               |                 |                       |                         | x 5                         | 0                        |
| Herb Stratum             | Plot size: r= 5'         |               |                 |                       | Column Total 10         | 0_(A)                       | <u>100</u> (B)           |
|                          | tus acutus               | 100           | Y               | OBL                   | F                       | Prevalence Index:           | 1.0 (B/A)                |
|                          |                          |               |                 |                       | Hydrophytic Vegetat     | tion Indicators:            |                          |
| 3.                       |                          |               |                 |                       | X 1 - Rapid Tes         | st for Hydrophytic V        | egetation                |
| 4.                       |                          |               |                 |                       | X 2 - Dominanc          | e Test is >50%              |                          |
|                          |                          |               |                 |                       | X 3 - Prevalence        | _                           | ·· · · · · · · ·         |
| 6.                       |                          |               |                 |                       |                         | Hydrophytic Vegeta          |                          |
| 7.                       |                          |               |                 |                       | unless disturbed or pr  |                             | Irology must be present, |
| 8.                       |                          |               |                 |                       |                         |                             |                          |
|                          |                          | 100 =         | = Total Cover   |                       | Hydrophytic Vegetat     | tion Present?               |                          |
|                          |                          |               |                 |                       |                         |                             |                          |
| Noody Vine Stratum       | Plot size: r= 30'        |               |                 |                       | Yes                     | <u>X</u> No_                |                          |
| 1                        |                          |               |                 |                       | 4                       |                             |                          |
| 2.                       |                          |               |                 |                       | 4                       |                             |                          |
|                          |                          |               | = Total Cover   |                       |                         |                             |                          |
| % Bare Ground in I       | Herb Stratum             | % Cove        | r of Biotic Cru | st                    |                         |                             |                          |
| Remarks: (if observed    | , list morphological ac  | laptations be | low).           |                       | •                       |                             |                          |
|                          |                          |               |                 |                       |                         |                             |                          |
|                          |                          |               |                 |                       |                         |                             |                          |

|          | Depth<br>(inches)<br>0-        | Color                     |            | 1          | Redox F    |          |             |                 |           |                   |                                      |
|----------|--------------------------------|---------------------------|------------|------------|------------|----------|-------------|-----------------|-----------|-------------------|--------------------------------------|
|          | 0-                             |                           | %          | Color      | %          | Type*    | * Loc**     | Texture         |           |                   | Remarks                              |
|          |                                |                           |            |            |            |          |             |                 |           |                   |                                      |
|          |                                |                           |            |            |            |          |             |                 |           |                   |                                      |
|          |                                |                           |            |            |            |          |             |                 |           |                   |                                      |
|          |                                |                           |            |            |            |          |             |                 |           |                   |                                      |
|          |                                |                           |            |            |            |          |             |                 |           |                   |                                      |
|          |                                |                           |            |            |            |          |             |                 |           |                   |                                      |
| ľ        |                                |                           |            |            |            |          |             |                 |           |                   |                                      |
| ype: C   | =Concentratio                  | n, D=Depleti              | on, RM=    | Reduced N  | /atrix, MS | S=Mask   | ed Sand g   | rains **Locatio | n: PL=Por | e Lining, M=Matr  | ix                                   |
| ydric S  | Soil Indicators                | : (Applicabl              | e to all L | .RRs, unle | ss other   | rwise n  | oted)       |                 |           | Indicators for    | or Problematic Hydric Soils ***      |
|          | Histosol (A1)                  |                           |            |            | Sandy      | Redox (  | (S5)        |                 |           | 1 cm Muck (A9)    | (LRR C)                              |
|          | Histic Epipedo                 | on (A2)                   |            |            | Strippe    | d Matrix | (S6)        |                 |           | 2 cm Muck (A10    | )) (LRR B)                           |
|          | Black Histic (A                | (3)                       |            |            | Loamy      | Mucky    | Mineral (F  | 1)              |           | Reduced Vertic    | (F18)                                |
|          | Hydrogen Sulf                  | ide (A4)                  |            |            | Loamy      | Gleyed   | Matirx (F2  | 2)              |           | Red Parent Mat    | erial (TF2)                          |
|          | Stratified Layers (A5) (LRR C) |                           |            |            | Deplete    | ed Matri | x (F3)      |                 |           | Other (Explain i  | n Remarks)                           |
|          | 1 cm Muck (A                   | 9) (LRR D)                |            |            | Redox      | Dark Su  | urface (F6) | )               |           |                   |                                      |
|          | Depleted Below                 | / Dark Surfac             | e (A11)    |            | Deplete    | ed Dark  | Surface (I  | =7)             |           |                   |                                      |
|          | Thick Dark Su                  | rface (A12)               |            |            | Redox      | Depres   | sions (F8)  |                 |           |                   |                                      |
|          | Sandy Mucky                    | Mineral (S1)              | )          |            | Vernal     | Pools (F | F9)         |                 |           |                   | hydrophytic vegetation and wetland   |
|          | Sandy Gleyed                   | Matrix (S4)               |            |            |            |          |             |                 | hyd       | lrology must be p | resent, unless disturbed or problema |
| estricti | ive Layer (if o                | oserved)                  |            |            |            |          |             |                 |           |                   |                                      |
|          | Туре:                          |                           |            |            |            | _        |             |                 |           |                   |                                      |
| Dept     | th (inches):                   |                           |            |            |            | _        | Hydric So   | oil Present?    | Yes       | Х                 | No                                   |
|          |                                |                           |            |            |            |          |             |                 |           |                   |                                      |
| lemarks  |                                |                           |            |            |            |          |             |                 |           |                   |                                      |
| ssume    | hydric soils                   |                           |            |            |            |          |             |                 |           |                   |                                      |
|          |                                |                           |            |            |            |          |             |                 |           |                   |                                      |
|          |                                |                           |            |            |            |          |             |                 |           |                   |                                      |
|          | OLOGY                          |                           |            |            |            |          |             |                 |           |                   |                                      |
| IDRU     |                                |                           |            |            |            |          |             |                 |           |                   |                                      |
|          |                                |                           |            |            |            |          |             |                 |           |                   |                                      |
|          | Hydrology In                   | dicators:<br>ndicators (m |            |            |            |          |             |                 |           | <u> </u>          | cators (2 or more required)          |

Х Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Aquatic Fauna (B13) Drift Deposits (B3) (Riverine) Saturation (A3) Hydrogen Sulfide Odor (C1) Water Marks (B1) (Nonriverine) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (Nonriverine) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish <u>Burrows (C8)</u> Recent Iron Reduction in Tilled Soil (C6) Surface Soil Cracks (B6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Wetland Hydrology Present? Yes X No Depth (inches): Surface Water Present? Yes X Yes \_\_\_\_ No \_\_\_\_ Depth (inches): \_\_\_\_\_ Water Table Present? No Saturation Present? Yes No Depth (inches): (includes capillary fringe)

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

#### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Ulah Water Conservancy District the lake elevation was 4.485.346 which is a -3.695" below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the central Ulah Water Collated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Project/Site:         | Utah Lake                |              | City/County:         | Utah Co                | Sampling Date: 7/9/2  | 2021  |
|-----------------------|--------------------------|--------------|----------------------|------------------------|---|-------|
| pplicant/Owner:       | LRS                      |              | eng, eeung:          |                        | State: Utah Sampling Point: A-D                                   |       |
| vestigator(s):        | T. Taylor, S. Fuller, I  | D. Harnsberg | ier                  | Section, Township,     |   | · - • |
|                       | rrace, etc.):            |              |                      |                        | convex, none): <u>None</u> Slope (%): <u>(</u>                    | )-2%  |
| bregion (LRR):        |                          | BA; LRR D    |                      |                        |   |       |
| il Map Unit Name:     |                          |              |                      |                        |   |       |
| •                     | conditions on the site   |              |                      |                        | No X (If no, explain in the Remarks)                              |       |
| e Vegetation          |                          |              |                      | significantly disturbe | · · · · ·   |       |
| e Vegetation          |                          |              |                      | naturally problemation |   |       |
| e Normal Circumsta    |                          |              |                      |                        | ny answers in Remarks)  |       |
|                       |                          |              | _                    |                        | tions, transects, important features, etc.                        |       |
|                       | vegetation Present?      | -            | -                    |                        | pled Area within a Wetland?                                       |       |
|                       | Hydric Soil Present?     | Yes <u>X</u> | No                   | Yes                    | <u>X</u> No   |       |
| Wetlan                | d Hydrology Present?     | Yes <u>X</u> | No                   |                        |   |       |
|                       |                          |              |                      |                        |   |       |
| emarks:               |                          |              |                      |                        |   |       |
| e Trimble point for o | ffset Drought conditio   | ns           |                      |                        |   |       |
| EGETATION - U         | se scientific nam        |              |                      |                        | 1   |       |
| ee Stratum            | Plot size: <u>r= 30'</u> |              | Dominant<br>Species? | Indicator Status       | Dominance Test Worksheet  |       |
|                       |                          |              |                      |                        |   |       |
| 3.                    |                          |              |                      |                        | Number of dominant species that are<br>OBL, FACW, or FAC: 1 (     | (A)   |
| 4.                    |                          |              |                      |                        | · · · · · · · · · · · · · · · · · · ·                             |       |
|                       |                          | 0 :          | = Total Cover        |                        | Total number of dominant species across all strata: 1 (           | (B)   |
|                       |                          |              |                      |                        |   | . ,   |
| pling/Shrub Stratum   | Plot size: r= 30'        |              |                      |                        | Percent of dominant species that are<br>OBL, FACW, or FAC: 100% ( | A/B)  |
| 1                     |                          |              |                      |                        | Prevalence Index Worksheet  | ,     |
| 2                     |                          |              |                      |                        | Total % cover of: Multiply by:                                    |       |
| <b>a</b>              |                          |              |                      |                        | OBL species 75 x 1 75   |       |
| 4                     |                          |              |                      |                        | FACW species 15 x 2 30  |       |
| 5.                    |                          |              |                      |                        | FAC species 5 x 3 15  |       |
|                       |                          | 0 :          | = Total Cover        |                        | FACU species 0 x 4 0  |       |
|                       |                          |              |                      |                        | UPL species 0 x 5 0   |       |
| rb Stratum            | Plot size: r= 5'         |              |                      |                        |   | (B)   |
| 1. Schoenoplec        |                          | 75           | Y                    | OBL                    |   | B/A)  |
| 2. Phragmites a       |                          | 15           | <br>N                | FACW                   | Hydrophytic Vegetation Indicators:                                |       |
| 3. Tamarix chine      |                          | 5            | N                    | FAC                    | X 1 - Rapid Test for Hydrophytic Vegetation                       |       |
| 4.                    |                          |              |                      |                        | X 2 - Dominance Test is >50%                                      |       |
| 5.                    |                          |              |                      |                        | X 3 - Prevalence Index is $\leq 3.0^*$                            |       |
| 6                     |                          | ·            |                      |                        | Problematic Hydrophytic Vegetation* (Explain)                     |       |
|                       |                          |              |                      |                        | *Indicators of hydric soil and wetland hydrology must be          |       |
| 8.                    |                          |              |                      |                        | unless disturbed or problematic                                   |       |
| <u> </u>              |                          | 95 :         | = Total Cover        |                        | Hydrophytic Vegetation Present?                                   |       |
| ody Vine Stratum      | Plot size: r= 30'        |              |                      |                        | YesX No   |       |
|                       |                          |              |                      |                        | <u> </u>  |       |
|                       |                          | ·            |                      |                        | 1   |       |
|                       |                          |              | = Total Cover        |                        | 1   |       |
| 2.                    |                          | - n ·        |                      |                        |   |       |
| 2.                    | Herb Stratum             |              | r of Biotic Cru      | st                     |   |       |

| Profile Desc  | ription: (I     | Describe to   | depth n     | eeded to | documer     | nt the in         | ndicator o | r confirm abse   | nce of indi | cators.)      |                       |                     |
|---------------|-----------------|---------------|-------------|----------|-------------|-------------------|------------|------------------|-------------|---------------|-----------------------|---------------------|
|               | Depth           | Mat           |             |          | Redox F     |                   |            |                  |             |               |                       |                     |
| (             | (inches)        | Color         | %           | Color    | %           | Type <sup>3</sup> | * Loc**    | Texture          |             | Remarks       |                       |                     |
|               | 0-              |               |             |          |             |                   |            |                  |             |               |                       |                     |
|               |                 |               |             |          |             |                   |            |                  |             |               |                       |                     |
|               |                 |               |             |          | _           |                   |            |                  |             |               |                       |                     |
|               |                 |               |             |          | _           |                   | _          |                  |             |               |                       |                     |
|               |                 |               |             |          | _           |                   | _          |                  |             |               |                       |                     |
|               |                 | -             |             |          | _           |                   | _          |                  |             |               |                       |                     |
|               |                 | -             |             |          | _           |                   | _          |                  |             |               |                       |                     |
|               |                 |               |             |          |             |                   |            |                  |             |               |                       |                     |
| Type: C=Co    | oncentration    | n, D=Depleti  | ion, RM=    | Reduced  | Matrix, M   | S=Mask            | ked Sand g | grains **Locatio | on: PL=Por  | e Lining, M=N | latrix                |                     |
| lydric Soil I | Indicators      | : (Applicabl  | le to all L | RRs, un  | less othe   | rwise n           | oted)      |                  |             |               | s for Problematic H   | ydric Soils ***     |
| Hist          | tosol (A1)      |               |             |          | Sandy       | Redox             | (S5)       |                  |             | 1 cm Muck (   | A9) <b>(LRR C)</b>    |                     |
| Hist          | tic Epipedo     | on (A2)       |             |          | Strippe     | d Matrix          | x (S6)     |                  |             |               | A10) <b>(LRR B)</b>   |                     |
| Blac          | ck Histic (A    | 43)           |             |          | Loamy       | Mucky             | Mineral (F | 1)               |             | Reduced Ve    | rtic (F18)            |                     |
| Hyc           | drogen Suli     | fide (A4)     |             |          | Loamy       | Gleyed            | Matirx (F  | 2)               |             | Red Parent I  | Material (TF2)        |                     |
| Stra          | atified Laye    | ers (A5) (LRI | RC)         |          | Deplete     | ed Matri          | ix (F3)    |                  |             | Other (Expla  | iin in Remarks)       |                     |
| 1 cr          | m Muck (A       | 9) (LRR D)    |             |          | Redox       | Dark Su           | urface (F6 | )                |             |               |                       |                     |
| Dep           | leted Below     | v Dark Surfac | e (A11)     |          | Deplete     | ed Dark           | Surface (  | F7)              |             |               |                       |                     |
| Thio          | ck Dark Su      | Irface (A12)  |             |          | Redox       | Depres            | sions (F8) |                  |             |               |                       |                     |
| Sar           | ndy Mucky       | Mineral (S1)  | )           |          | Vernal      | Pools (I          | F9)        |                  |             |               | s of hydrophytic vege |                     |
| Sar           | ndy Gleyed      | I Matrix (S4) |             |          |             |                   |            |                  | hyd         | rology must b | e present, unless dis | turbed or problemat |
| Restrictive L | Layer (if o     | bserved)      |             |          |             |                   |            |                  |             |               |                       |                     |
| Тур           | e:              |               |             |          |             | _                 |            |                  |             |               |                       |                     |
| Depth (in     | Depth (inches): |               |             |          |             | _                 | Hydric S   | oil Present?     | Yes         | Х             | No                    |                     |
|               |                 |               |             |          |             |                   |            |                  |             |               |                       |                     |
| Remarks:      |                 |               |             |          |             |                   |            |                  |             |               |                       |                     |
| ssume hydr    | ric soils       |               |             |          |             |                   |            |                  |             |               |                       |                     |
|               |                 |               |             |          |             |                   |            |                  |             |               |                       |                     |
|               |                 |               |             |          |             |                   |            |                  |             |               |                       |                     |
| IYDROLC       | DGY             |               |             |          |             |                   |            |                  |             |               |                       |                     |
|               |                 |               |             |          |             |                   |            |                  |             |               |                       |                     |
| Vetland Hyd   |                 |               |             |          |             |                   |            | I                |             |               |                       |                     |
| ~             |                 | ndicators (m  | inimum c    |          |             |                   | hat apply) |                  |             | Secondary I   | ndicators (2 or more  | required)           |
| X Sur         | face Wate       | r (A1)        |             | Sa       | lt Crust (B | 11)               |            |                  | Wate        | er Marks (B1) | (Riverine)            |                     |

| Wetlan                | d Hydrology Indicators:                 |        |  |   |
|-----------------------|---|--------|--|---|
|                       | Primary Indicators (minimum             | of one | is require; check all that apply)          | Secondary Indicators (2 or more required) |
| Х                     | Surface Water (A1)                      |        | Salt Crust (B11)                           | Water Marks (B1) (Riverine)               |
| High Water Table (A2) |   |        | Biotic Crust (B12)                         | Sediment Deposits (B2) (Riverine)         |
|                       | Saturation (A3)                         |        | Aquatic Fauna (B13)                        | Drift Deposits (B3) (Riverine)            |
|                       | Water Marks (B1) (Nonriverine)          |        | Hydrogen Sulfide Odor (C1)                 | Drainage Patterns (B10)                   |
|                       | Sediment Deposits (B2) (Nonriverine)    |        | Oxidized Rhizospheres on Living Roots (C3) | Dry-Season Water Table (C2)               |
|                       | Drift Deposits (B3) (Nonriverine)       |        | Presence of Reduced Iron (C4)              | Crayfish Burrows (C8)                     |
|                       | Surface Soil Cracks (B6)                |        | Recent Iron Reduction in Tilled Soil (C6)  | Saturation Visible on Aerial Imagery (C9) |
|                       | Inundation Visible on Aerial Imagery (B | 7)     | Thin Muck Surface (C7)                     | Shallow Aquitard (D3)                     |
|                       | Water Stained Leaves (B9)               |        | Other (Explain in Remarks)                 | FAC-Neutral Test (D5)                     |
| Field C               | bservations:                            |        |  |   |
| Surface               | Water Present? Yes                      | х      | No Depth (inches): 4                       | Wetland Hydrology Present?                |
| Water -               | Table Present? Yes                      |        | No Depth (inches):                         | Yes X No                                  |
| Saturat               | ion Present? Yes                        |        | No Depth (inches):                         |   |
| (include              | es capillary fringe)                    |        |  |   |

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

### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| 021        |
|------------|
| 21         |
| 00/        |
| 2%         |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
| .)         |
| )          |
|            |
| /B)        |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
| )          |
| /A)        |
|            |
|            |
|            |
|            |
| present,   |
| p. 63611l, |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
| pr         |

|           | escription: (                           | Sescribe 10                       | uepui ii    |           | locumen    | it the fi |            | i commi absen    | ice of mul | cators.)         |                                      |
|-----------|---|-----------------------------------|-------------|-----------|------------|-----------|------------|------------------|------------|------------------|--------------------------------------|
|           | Depth                                   | Matr                              | rix         |           | Redox F    | eatures   | 5          |                  |            |                  |                                      |
|           | (inches)                                | Color                             | %           | Color     | %          | Type'     | * Loc**    | Texture          |            |                  | Remarks                              |
| ,         | 0-                                      |                                   |             |           |            |           |            |                  |            |                  |                                      |
|           |   | <u> </u>                          |             |           |            |           |            |                  |            |                  |                                      |
| -         |   | <u> </u>                          |             |           |            |           |            |                  |            |                  |                                      |
| -         |   |                                   |             |           |            |           |            |                  |            |                  |                                      |
| -         |   |                                   |             |           |            |           |            |                  |            |                  |                                      |
| -         |   | <u> </u>                          |             |           |            |           |            |                  |            |                  |                                      |
| -         |   |                                   |             |           |            |           |            |                  |            |                  |                                      |
| l         |   |                                   |             | <u> </u>  |            |           |            |                  |            |                  |                                      |
| Гуре: C=  | =Concentratio                           | n, D=Depleti                      | on, RM=     | Reduced N | /atrix, MS | S=Mask    | ed Sand g  | grains **Locatio | n: PL=Pore | e Lining, M=Matr | ix                                   |
| lydric S  | oil Indicators                          | : (Applicabl                      | le to all L | RRs, unle | ess other  | wise n    | oted)      |                  |            |                  | or Problematic Hydric Soils ***      |
|           | Histosol (A1)                           |                                   |             |           | Sandy      | Redox (   | (S5)       |                  |            | 1 cm Muck (A9)   |                                      |
|           | Histic Epipedo                          | on (A2)                           |             |           | Strippe    | d Matrix  | k (S6)     |                  |            | 2 cm Muck (A10   |                                      |
|           | Black Histic (A                         | 43)                               |             |           | Loamy      | Mucky     | Mineral (F | -1)              |            | Reduced Vertic   | · · /                                |
|           | Hydrogen Sul                            | fide (A4)                         |             |           | Loamy      | Gleyed    | Matirx (F  | 2)               |            | Red Parent Mat   | · · ·                                |
|           | Stratified Layers (A5) (LRR C) Depleted |                                   |             |           |            | ed Matri  | ix (F3)    |                  |            | Other (Explain i | n Remarks)                           |
|           | 1 cm Muck (A                            | 9) (LRR D)                        |             |           | Redox      | Dark Su   | urface (F6 | )                |            |                  |                                      |
|           | Depleted Below                          | v Dark Surfac                     | e (A11)     |           | Deplete    | ed Dark   | Surface (  | F7)              |            |                  |                                      |
|           | Thick Dark Su                           | Irface (A12)                      |             |           | Redox      | Depres    | sions (F8) | 1                |            |                  |                                      |
|           | Sandy Mucky                             | Mineral (S1)                      | )           |           | Vernal     | Pools (I  | F9)        |                  |            |                  | hydrophytic vegetation and wetland   |
|           | Sandy Gleyed                            | I Matrix (S4)                     |             |           |            |           |            |                  | hyd        | rology must be p | resent, unless disturbed or problema |
| lestricti | ve Layer (if o                          | bserved)                          |             |           |            |           |            |                  |            |                  |                                      |
| -         | Туре:                                   |                                   |             |           |            | _         |            |                  |            |                  |                                      |
| Depth     | Depth (inches):                         |                                   |             |           |            |           | Hydric So  | oil Present?     | Yes        | X                | No                                   |
|           |   |                                   |             |           |            |           |            |                  |            |                  |                                      |
| Remarks   | :                                       |                                   |             |           |            |           |            |                  |            |                  |                                      |
| ssume h   | hydric soils                            |                                   |             |           |            |           |            |                  |            |                  |                                      |
|           |   |                                   |             |           |            |           |            |                  |            |                  |                                      |
|           |   |                                   |             |           |            |           |            |                  |            |                  |                                      |
|           |   |                                   |             |           |            |           |            |                  |            |                  |                                      |
|           | DLOGY                                   |                                   |             |           |            |           |            |                  |            |                  |                                      |
| IYDRC     |   |                                   |             |           |            |           |            |                  |            |                  |                                      |
| IYDRC     | Hydrology In                            | <b>idicators:</b><br>ndicators (m |             |           |            |           |            |                  |            |                  | cators (2 or more required)          |

Х Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Aquatic Fauna (B13) Drift Deposits (B3) (Riverine) Saturation (A3) Hydrogen Sulfide Odor (C1) Water Marks (B1) (Nonriverine) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (Nonriverine) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Crayfish Burrows (C8) Recent Iron Reduction in Tilled Soil (C6) Surface Soil Cracks (B6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Wetland Hydrology Present? Yes X No Depth (inches): Surface Water Present? Yes \_\_\_\_ No \_\_\_\_ Depth (inches): \_\_\_\_\_ Yes X Water Table Present? No Saturation Present? Yes No Depth (inches): (includes capillary fringe)

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

#### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4,485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the resull of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Project/Site:         | Utah Lake                 |                | City/County:   | Utah Co.               |  | ampling Date:              |                            |
|-----------------------|---------------------------|----------------|----------------|------------------------|--|----------------------------|----------------------------|
| Applicant/Owner:      | LRS                       |                |                | o // =                 |  | mpling Point:              | B01-DP                     |
| nvestigator(s):       | C.Nguyen, N.Jones         | 0.1            |                | -                      | Range: 0                                       |                            |                            |
|                       | errace, etc.):            |                |                |                        | convex, none): Cor                             |                            | Slope (%): <u>0-2%</u>     |
| Subregion (LRR):      | MLRA 28                   | A; LRR D       |                | 40.236392              | Long111.742178                                 |                            |                            |
| Soil Map Unit Name:   |                           | 4              | Water          | N                      |  | Classification: <u>L2/</u> |                            |
| , ,                   | conditions on the site    |                |                | Yes                    |  | cplain in the Rema         | irks)                      |
| Are Vegetation        |                           |                |                | significantly disturbe |  |                            |                            |
| Are Vegetation        | ,Soil                     |                |                |                        |  |                            |                            |
| are normal Circumstar | nces Present?             | res <u>A</u>   |                | _(II needed, explain a | ny answers in Remarks)                         |                            |                            |
| SUMMARY OF FI         | NDINGS - Attach           | site map s     | showing sa     | mpling point loca      | tions, transects, imp                          | ortant feature             | s. etc.                    |
|                       | c Vegetation Present?     |                | -              |                        | pled Area within a Wetlar                      |                            | -,                         |
| riyalopriya           | Hydric Soil Present?      |                |                | _                      | <u>    X    No                            </u> |                            |                            |
| Wetlan                | d Hydrology Present?      |                |                |                        |  |                            |                            |
| Wollan                | a Hydrology i rocont.     | 100            |                | _                      |  |                            |                            |
| Remarks:              |                           |                |                |                        |  |                            |                            |
|                       | conditions, water level   | is likely lowe | er than usual. | Data point was collect | ed at the mouth of Provo R                     | iver within well de        | fined a PEM wetland.       |
| Drought conditions    |                           |                |                |                        |  |                            |                            |
| VEGETATION - U        | se scientific name        | es of plan     | ts             |                        |  |                            |                            |
|                       |                           | Absolute       | Dominant       |                        |  |                            |                            |
| <u>Free Stratum</u>   | Plot size: <u>r= 30'</u>  | % Cover        | Species?       | Indicator Status       | Dominance 1                                    | est Worksheet              |                            |
|                       |                           |                |                |                        | -  |                            |                            |
|                       |                           |                |                |                        | Number of dominant spe                         |                            |                            |
|                       |                           |                |                |                        | OBL, FACW, or F                                | -AC:                       | <u>1</u> (A)               |
| 4.                    |                           |                |                |                        | Total number of domina                         |                            |                            |
|                       |                           | 0 =            | = Total Cover  |                        | across all strat                               | a:                         | <u>1</u> (B)               |
|                       |                           |                |                |                        | Percent of dominant spe                        |                            |                            |
| Sapling/Shrub Stratum | Plot size: $r=30^{\circ}$ |                |                |                        | OBL, FACW, or F                                |                            | 100% (A/B)                 |
| 0                     |                           |                |                |                        | Prevalence Index Works                         |                            |                            |
| â                     |                           |                |                |                        | Total % cover of:                              | Multiply b                 | ·                          |
|                       |                           |                |                |                        | OBL species 75                                 |                            | 75<br>0                    |
| 4                     |                           |                |                |                        | · ·  | x 2                        |                            |
| 5.                    |                           | 0 =            | - Total Cavar  |                        | · ·  | x 3                        | 0                          |
|                       |                           | 0 -            | = Total Cover  |                        | FACU species 0<br>UPL species 0                |                            | 0                          |
| Herb Stratum          | Diot aiza: r= 5'          |                |                |                        | Column Total 75 (                              |                            |                            |
| 1. Scirpus neva       | Plot size: <u>r= 5'</u>   | 75             | Y              | OBL                    |  | alence Index:              | <u>75</u> (B)<br>1.0 (B/A) |
| 2.                    |                           |                |                |                        | Hydrophytic Vegetation                         |                            | 1.0 (B/A)                  |
| 2                     |                           |                |                |                        | X 1 - Rapid Test for                           |                            | otation                    |
| 4                     |                           |                |                |                        | X 2 - Dominance Te                             | , , , ,                    | etation                    |
|                       | <u> </u>                  |                |                |                        | X 3 - Prevalence In                            |                            |                            |
| 6.                    |                           |                |                |                        | Problematic Hydr                               | —                          | n* (Explain)               |
| -                     |                           |                |                |                        | *Indicators of hydric soil a                   |                            | logy must be present,      |
| 8.                    |                           |                |                |                        | unless disturbed or proble                     | matic                      |                            |
| J                     |                           | 75 =           | = Total Cover  |                        | Hydrophytic Vegetation                         | Present?                   |                            |
|                       |                           | 10 -           |                |                        |  |                            |                            |
| Noody Vine Stratum    | Plot size: r= 30'         |                |                |                        | Yes X  | No                         |                            |
|                       |                           |                |                |                        |  |                            |                            |
|                       |                           |                |                |                        | 1  |                            |                            |
| 2.                    |                           |                |                |                        |  |                            |                            |
| 2.                    |                           |                | = Total Cover  |                        | -  |                            |                            |

Remarks: (if observed, list morphological adaptations below).

Bulrush is likely Scirpus acutus (hardstem bulrush).

| Profile   | Description: (  | Describe to                           | depth ne   | eded to c | locumen                  | t the inc  | licator o |  | Sence U     | rinai  | cators.)                                    |  |
|---|---|---------------------------------------|------------|-----------|--------------------------|------------|-----------|--|-------------|--|---|--|
|   | Depth   | Matri                                 | ix         |           | Redox F                  | eatures    | 1         |  |             |  |   |  |
|   | (inches)  | Color                                 | %          | Color     | %                        | Type*      | Loc**     | Texture  |             |  | Remarks                                     |  |
|   | 0-  |                                       |            |           |                          |            |           |  |             |  |   |  |
|   |   |                                       |            |           |                          |            |           |  |             |  |   |  |
|   |   |                                       |            |           |                          |            |           |  |             |  |   |  |
|   |   |                                       |            |           |                          |            |           |  |             |  |   |  |
|   |   |                                       |            |           |                          |            |           |  |             |  |   |  |
|   |   |                                       |            |           |                          |            |           |  |             |  |   |  |
|   |   |                                       |            |           |                          |            |           |  |             |  |   |  |
|   |   |                                       |            |           |                          |            |           |  |             |  |   |  |
| ype: (  | C=Concentratio  | n, D=Depletio                         | on, RM=F   | Reduced N | latrix, MS               | S=Maske    | ed Sand g | grains **Loca  | ation: PL   | =Pore  | e Lining, M=Matrix                          |  |
| /dric   | Soil Indicators   | : (Applicable                         | e to all L | RRs. unle | ss other                 | wise no    | ted)      |  |             |  | Indicators for Problematic Hydric Soils *** |  |
|   | Histosol (A1)   |                                       |            |           |                          | Redox (S   |           |  |             |  | 1 cm Muck (A9) (LRR C)                      |  |
|   | Histic Epipede  | on (A2)                               |            |           | Stripped Matrix (S6)     |            |           |  |             |  | 2 cm Muck (A10) <b>(LRR B)</b>              |  |
|   | Black Histic (A   |                                       |            |           | Loamy Mucky Mineral (F1) |            |           |  |             |  | Reduced Vertic (F18)                        |  |
|   | Hydrogen Sul  | ,                                     |            |           | · · · · ·                | ,          | Matirx (F | ,  |             |  | Red Parent Material (TF2)                   |  |
|   | Stratified Lave   | . ,                                   | 2 C)       |           | -                        | d Matrix   |           | -)   |             |  | Other (Explain in Remarks)                  |  |
|   | 1 cm Muck (A  |                                       | (0)        |           |                          |            | face (F6  | )  |             |  |   |  |
|   | Depleted Below  |                                       | (A11)      |           |                          |            | Surface ( |  |             |  |   |  |
|   | Thick Dark Su   |                                       | (ATT)      |           |                          |            | ions (F8) | ,  |             |  |   |  |
|   |   | · · · · · · · · · · · · · · · · · · · |            |           |                          |            |           |  |             | *** Indicators of hydrophytic vegetation and wetland |   |  |
|   | Sandy Mucky Mineral (S1) Vernal Poc<br>Sandy Gleyed Matrix (S4) |                                       |            |           | 9)                       |            |           | hydrology must be present, unless disturbed or problem |             |  |   |  |
| ostric  | tive Layer (if o  |                                       |            |           |                          |            |           |  |             |  |   |  |
| estric  | • •   | userveu)                              |            |           |                          |            |           |  |             |  |   |  |
| Dor   | Type:   |                                       |            | -         | Hydric Soil Present?     |            |           |  | X No        |  |   |  |
| Deb   | Depth (inches):   |                                       |            | - ſ       | iyunc So                 | JIFresent  |           | res  | <u>X</u> No |  |   |  |
| emark   | s:  |                                       |            |           |                          |            |           |  |             |  |   |  |
| ssume   | e hydric soils  |                                       |            |           |                          |            |           |  |             |  |   |  |
|   | ,   |                                       |            |           |                          |            |           |  |             |  |   |  |
|   |   |                                       |            |           |                          |            |           |  |             |  |   |  |
|   | OLOGY   |                                       |            |           |                          |            |           |  |             |  |   |  |
| IDK   | OLUGI   |                                       |            |           |                          |            |           |  |             |  |   |  |
| etlan   | d Hydrology In  | dicators:                             |            |           |                          |            |           |  |             |  |   |  |
| Primary Indicators (minimum of one is require; chec |   |                                       |            |           |                          | eck all th | at apply) |  |             |  | Secondary Indicators (2 or more required)   |  |
| Х   | Surface Wate  | r (A1)                                |            | Salt      | Crust (B                 | 11)        |           |  |             | Wate   | er Marks (B1) (Riverine)                    |  |
|   | High Water Ta   | able (A2)                             |            | Biot      | ic Crust (               | B12)       |           |  |             | Sedi   | ment Deposits (B2) (Riverine)               |  |
|   | Saturation (A   | 3)                                    |            | Aqu       | atic Faun                | a (B13)    |           |  |             | Drift  | Deposits (B3) (Riverine)                    |  |
| Х   | Water Marks   |                                       | erine)     |           | rogen Su                 |            | or (C1)   |  | Х           |  | nage Patterns (B10)                         |  |
|   | Sediment Depos  |                                       |            | Oxid      | ized Rhizo               | ospheres   | on Living | Roots (C3)   |             |  | Season Water Table (C2)                     |  |
|   |   | /                                     |            |           |                          |            | -         |  |             | +-·, `   |   |  |

--See Climatic Summary Below--

Field Observations: Surface Water Present?

Water Table Present?

(includes capillary fringe)

Saturation Present?

х

Drift Deposits (B3) (Nonriverine)

Inundation Visible on Aerial Imagery (B7)

Surface Soil Cracks (B6)

Water Stained Leaves (B9)

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal val

24

Crayfish Burrows (C8)

Shallow Aquitard (D3)

FAC-Neutral Test (D5)

Wetland Hydrology Present?

Х

Saturation Visible on Aerial Imagery (C9)

Yes X

Presence of Reduced Iron (C4)

Thin Muck Surface (C7)

Yes X No Depth (inches):

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

Other (Explain in Remarks)

Yes X No Depth (inches): 0

Yes X No Depth (inches): 0

Recent Iron Reduction in Tilled Soil (C6)

No

| Project/Site:  | Utah Lake                                   |                     | City/County:         | Utah Co.               | Sampling Date: 7/6/2021  |
|--|---|---------------------|----------------------|------------------------|--|
| Applicant/Owner:   | LRS   |                     |                      |                        | State: Utah Sampling Point: B02-DP   |
| Investigator(s):   | C.Nguyen, N.Jones                           |                     |                      | Section, Township,     | Range: 0   |
| Landform: (hillslope, ter                                | race, etc.):                                | Other               |                      | Local relief (concave, | convex, none): Concave Slope (%): <u>0-2%</u>                                    |
| Subregion (LRR):   | MLRA 28                                     | BA; LRR D           | Lat.                 | 40.223751              | Long111.732092 Datum: WGS84  |
| Soil Map Unit Name:                                      |   |                     | Water                |                        | NWI Classification: PEM1F  |
| Are climatic/hydrologic                                  | conditions on the site                      | typical for ti      | ime of year?         | Yes                    | No X (If no, explain in the Remarks)   |
| Are Vegetation   | ,Soil                                       | or Hy,              | /drology             | significantly disturbe | d?   |
| Are Vegetation   |   |                     |                      | naturally problemation |  |
| Are Normal Circumstan                                    | ces Present?                                | Yes <u>X</u>        | No                   | (If needed, explain a  | ny answers in Remarks)   |
|  |   |                     |                      |                        | tions, transects, important features, etc.                                       |
|  | Vegetation Present?<br>Hydric Soil Present? |                     |                      |                        | pled Area within a Wetland?  |
|  | Hydrology Present?                          |                     |                      |                        | <u>X</u> No  |
| Wetland  | Hydrology Fresent?                          | Tes A               |                      | _                      |  |
| Remarks:   |   |                     |                      |                        |  |
| Data point located on ea<br>of the wetland. Wetland      |   |                     |                      |                        | ush species however cattails represent about 10-15 percent total cov<br>nditions |
| VEGETATION - Us  | e scientific name                           | es of plan          | nts                  |                        |  |
| <u>Tree Stratum</u><br>1.                                | Plot size: <u>r= 30'</u>                    | Absolute<br>% Cover | Dominant<br>Species? | Indicator Status       | Dominance Test Worksheet   |
|  |   |                     |                      |                        |  |
| 3.   |   |                     |                      |                        | Number of dominant species that are<br>OBL, FACW, or FAC: 1 (A)                  |
| 4.   |   |                     |                      |                        |  |
|  |   | 0                   | = Total Cover        |                        | Total number of dominant species<br>across all strata:1(B)                       |
| Sapling/Shrub Stratum                                    | Plot size: r= 30'                           |                     |                      |                        | Percent of dominant species that are<br>OBL, FACW, or FAC: 100% (A/B)            |
|  |   |                     |                      |                        | Prevalence Index Worksheet   |
|  |   |                     |                      |                        | Total % cover of: Multiply by:   |
|  | <u> </u>                                    |                     |                      |                        | OBL species <u>60</u> x 1 <u>60</u>  |
|  | <u> </u>                                    |                     |                      |                        | FACW species 0 x 2 0   |
| 5  |   |                     |                      |                        | FAC species 0 x 3 0  |
|  |   | 0                   | = Total Cover        |                        | FACU species 0 x 4 0   |
| Llovb Stratum  | Dist size, r. 5'                            |                     |                      |                        | UPL species $0 \times 5 = 0$   |
| Herb Stratum   | Plot size: <u>r= 5'</u>                     | 50                  | V                    | OPI                    | Column Total <u>60</u> (A) <u>60</u> (B)   |
| <ol> <li>Scirpus nevad</li> <li>Typha angusti</li> </ol> |   | <u> </u>            | <u> </u>             | OBL<br>OBL             | Prevalence Index: 1.0 (B/A) Hydrophytic Vegetation Indicators:                   |
| 3.   |   | 10                  |                      | UDL                    | X 1 - Rapid Test for Hydrophytic Vegetation                                      |
|  |   |                     |                      |                        | X 2 - Dominance Test is >50%   |
| 4<br>5.  |   |                     |                      |                        | X 3 - Prevalence Index is $\leq 3.0^{*}$   |
| 6.   |   |                     |                      |                        | Problematic Hydrophytic Vegetation* (Explain)                                    |
| 7  |   |                     |                      |                        | *Indicators of hydric soil and wetland hydrology must be present,                |
| 8.   |   |                     |                      |                        | unless disturbed or problematic  |
|  |   | 60                  | = Total Cover        |                        | Hydrophytic Vegetation Present?  |
|  |   |                     |                      |                        | YesX No  |
| Woody Vine Stratum                                       | Plot size: <u>r= 30'</u>                    |                     |                      |                        |  |
| _  |   |                     |                      |                        |  |
|  | Plot size: <u>r= 30'</u>                    |                     |                      |                        |  |
| 1  |   |                     | = Total Cover        |                        | -  |
| 1  |   | 0                   |                      |                        |  |

|            | Depth   | Mati  | rix        |           | Redox F  | eatures  | ;          |                   |           |            |   |               |
|------------|---|---|------------|-----------|----------|----------|------------|-------------------|-----------|------------|---|---------------|
|            | (inches)  | Color   | %          | Color     | %        | Type*    | Loc**      | Texture           |           |            | Remarks   |               |
|            | 0-  |   |            |           |          |          |            |                   |           |            |   |               |
|            |   |   |            |           |          |          |            |                   |           |            |   |               |
|            |   |   |            |           |          |          |            |                   |           |            |   |               |
|            |   |   |            |           |          |          |            |                   |           |            |   |               |
|            |   |   |            |           |          |          |            |                   |           |            |   |               |
|            |   |   |            |           | -        |          | -          |                   |           |            |   |               |
|            |   |   |            |           |          |          | +          |                   |           |            |   |               |
|            |   | D-Doplati   | on PM-     | Bodupod   | Motrix M | S-Mook   | od Sand /  | grains **Locatior | . DI -Dor | olining M- | Motrix  |               |
|            |   |   |            |           |          |          |            | grains Location   | 1. FL-F00 | -          |   |               |
| /dric \$   | Soil Indicators   | : (Applicabl                                      | e to all L | _RRs, unl |          |          |            |                   |           |            | rs for Problematic Hyd<br>(A9) (LRR C)                | ric Soils *** |
|            | Histosol (A1)   | (4.0)   |            |           |          | Redox (  |            |                   |           |            | (A10) (LRR B)   |               |
|            | Histic Epipedo  |   |            |           |          | d Matrix | . /        |                   |           | Reduced V  |   |               |
|            | Black Histic (A   |   |            |           |          |          | Mineral (F |                   |           |            | Material (TF2)  |               |
|            | Hydrogen Sulf   | ( )   |            |           |          | í        | Matirx (F  | 2)                |           |            | ain in Remarks)                                       |               |
|            |   | ed Layers (A5) (LRR C) Depleted Muck (A9) (LRR D) |            |           |          |          |            | 、<br>、            |           |            |   |               |
|            | ,   | uck (A9) (LRR D) Redox Da                         |            |           |          |          |            | ,                 |           |            |   |               |
|            |   | Below Dark Surface (A11) Depleted I               |            |           |          |          |            | 1                 |           |            |   |               |
|            |   | ick Dark Surface (A12) Redox De                   |            |           |          |          | . ,        | 1                 |           | *** 1 1' ( | <u> </u>  |               |
|            | Sandy Mucky Mineral (S1) Vernal Poo<br>Sandy Gleyed Matrix (S4) |   |            |           |          |          | -9)        |                   | hvd       |            | rs of hydrophytic vegetat<br>be present, unless distu |               |
| - 4-12 - 4 |   |   |            |           |          |          |            |                   |           | 0,         | 1 /   |               |
| STRICI     | tive Layer (if ol   | oservea)  |            |           |          |          |            |                   |           |            |   |               |
| Dan        | Type:   |   |            |           |          | -        | Undria C.  |                   | Vac       | ×          | No  |               |
| Dep        | th (inches):  |   |            |           |          | -        | nyaric S   | oil Present?      | res       | X          | No  |               |
| emark      | s:  |   |            |           |          |          |            |                   |           |            |   |               |
| sume       | hydric soils  |   |            |           |          |          |            |                   |           |            |   |               |
|            | ,   |   |            |           |          |          |            |                   |           |            |   |               |
|            |   |   |            |           |          |          |            |                   |           |            |   |               |
|            | OLOGY   |   |            |           |          |          |            |                   |           |            |   |               |

| vetiar  | id Hydrology Indicators                   | :            |           |                   |                            |          | 1                     |   |
|---------|---|--------------|-----------|-------------------|----------------------------|----------|-----------------------|---|
|         | Primary Indicators                        | (minimum o   | f one     | is require;       | check all that apply)      |          |                       | Secondary Indicators (2 or more required) |
| Х       | Surface Water (A1)                        |              |           | Salt Crust        | t (B11)                    |          | Х                     | Water Marks (B1) (Riverine)               |
| Х       | High Water Table (A2)                     |              |           | Biotic Cru        | st (B12)                   |          |                       | Sediment Deposits (B2) (Riverine)         |
| Х       | Saturation (A3)                           |              |           | Aquatic Fa        | auna (B13)                 |          |                       | Drift Deposits (B3) (Riverine)            |
| Х       | Water Marks (B1) (Nor                     | nriverine)   |           | Hydrogen          | Sulfide Odor (C1)          |          | Х                     | Drainage Patterns (B10)                   |
|         | Sediment Deposits (B2) (N                 | lonriverine) |           | Oxidized R        | Rhizospheres on Living Ro  | ots (C3) |                       | Dry-Season Water Table (C2)               |
|         | Drift Deposits (B3) (No                   | nriverine)   |           | Presence          | of Reduced Iron (C4)       |          |                       | Crayfish Burrows (C8)                     |
|         | Surface Soil Cracks (B                    | 6)           |           | Recent Iro        | n Reduction in Tilled Soil | l (C6)   | Х                     | Saturation Visible on Aerial Imagery (C9) |
| x       | Inundation Visible on Aerial Imagery (B7) |              |           | Thin Muck         | k Surface (C7)             |          |                       | Shallow Aquitard (D3)                     |
|         | Water Stained Leaves                      |              | Other (Ex | plain in Remarks) |                            |          | FAC-Neutral Test (D5) |   |
| Field C | Observations:                             |              |           |                   |                            |          |                       |   |
| Surfac  | e Water Present?                          | Yes          | Х         | No                | Depth (inches):            | 10       | _                     | Wetland Hydrology Present?                |
| Water   | Table Present?                            | Yes          | х         | No                | Depth (inches):            | 0        | _                     | YesX No                                   |
| Satura  | tion Present?                             | Yes          | Х         | No                | Depth (inches):            | 0        | _                     |   |
| (includ | es capillary fringe)                      |              |           |                   |                            |          |                       |   |

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

### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.10.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Hydrology associated with shoreline flooding.

| Project/Site:  | Utah Lake                             |                       | City/County:    | Utah Co.               |  | Sampling Date:               | 7/6/           | /2021          |
|----------------|---------------------------------------|-----------------------|-----------------|------------------------|--|------------------------------|----------------|----------------|
| Applicant/Ow   | ner: LRS                              |                       |                 |                        | State: Utah                                      | Sampling Point:              | B0             | 3-DP           |
| Investigator(s | ): C.Nguyen, N.                       | Jones                 |                 | Section, Township,     | Range: <u>0</u>                                  |                              |                |                |
| Landform: (hi  | llslope, terrace, etc.):              | Other                 |                 | Local relief (concave, | convex, none):                                   | Concave                      | Slope (%):     | 0-2%           |
| Subregion (LI  | RR): <u>M</u>                         | LRA 28A; LRR D        | Lat.            |                        | Long111.729                                      |                              |                |                |
| Soil Map Unit  | Name:                                 |                       | Water           |                        | N  | WI Classification:           | PEM1F          |                |
| Are climatic/h | ydrologic conditions on th            | he site typical for t | ime of year?    | Yes                    | No X (If n                                       | o, explain in the Re         | emarks)        |                |
| Are Vegetatio  | on,                                   | Soil,or Hy            | /drology        | significantly disturbe | d?   |                              |                |                |
| Are Vegetatio  |                                       | Soil ,or Hy           |                 |                        | ?  |                              |                |                |
| Are Normal C   | ircumstances Present?                 | Yes X                 | No              | (If needed, explain a  | ny answers in Remark                             | s)                           |                |                |
|                |                                       |                       |                 |                        |  |                              |                |                |
| SUMMARY        | OF FINDINGS - At                      | tach site map         | showing sa      | mpling point loca      | tions, transects, i                              | mportant featu               | res, etc.      |                |
| H              | ydrophytic Vegetation Pre             | esent? Yes <u>X</u>   | No              | Is the Sam             | pled Area within a W                             | etland?                      |                |                |
|                | Hydric Soil Pre                       | esent? Yes X          | No              | Yes                    | <u>X</u> No                                      |                              |                |                |
|                | Wetland Hydrology Pre                 | esent? Yes X          | No              |                        |  |                              |                |                |
|                |                                       |                       |                 |                        |  |                              |                |                |
| Remarks:       |                                       |                       |                 |                        |  |                              |                |                |
|                | cated on edge of PEM we               | etland boundary. V    | egetation still | dominated by bulrush s | pecies however startin                           | ig to observe some           | Panicum and    | dying saltceda |
| Drought cond   | litions                               |                       |                 |                        |  |                              |                |                |
| VEGETAT        | ION - Use scientific                  | names of plar         | nts             |                        |  |                              |                |                |
| <b>T</b> 01 1  |                                       | Absolute              | Dominant        |                        |  |                              |                |                |
| Tree Stratum   | Plot size: r=                         | 30' % Cover           | Species?        | Indicator Status       | Dominar  | nce Test Workshee            | et             |                |
| 1              |                                       |                       |                 |                        | -  |                              |                |                |
| 2              |                                       |                       |                 |                        | Number of dominan                                | •                            | 0              | (              |
| 3              |                                       |                       |                 |                        | OBL, FACW  | , or FAC:                    | 2              | (A)            |
| 4.             |                                       |                       |                 |                        | Total number of do                               |                              | 0              |                |
|                |                                       | 0                     | = Total Cover   |                        | across all                                       | strata:                      | 3              | (B)            |
|                |                                       |                       |                 |                        | Percent of dominant                              |                              |                |                |
|                | <u>b Stratum</u> Plot size: <u>r=</u> |                       |                 |                        | OBL, FACW  | •                            | 67%            | (A/B)          |
|                | narix aphylla                         | 10                    | Y               | FAC                    | Prevalence Index W                               |                              |                |                |
| 2              |                                       |                       |                 |                        | Total % cover of:                                | •                            |                |                |
| 3.             |                                       |                       |                 |                        |  | <u>0 x 1</u>                 | 30             |                |
| 4              |                                       |                       |                 |                        |  | ) x 2                        | 0              |                |
| 5              |                                       |                       |                 |                        | FAC species 1                                    |                              | 30             |                |
|                |                                       | 10                    | = Total Cover   |                        | · · ·  | <u>5</u> x 4 _               | 60             |                |
|                |                                       |                       |                 |                        | UPL species 0                                    | ) x 5                        | 0              |                |
| Herb Stratum   | Plot size: r=                         | 5'                    |                 |                        | Column Total 5                                   | <u>5</u> (A)                 |                | (B)            |
|                | pus nevadensis                        | 30                    | Y               | OBL                    |  | Prevalence Index:            | 2.2            | (B/A)          |
| 2. <u>Pan</u>  | icum capillare                        | 15                    | Y               | FACU                   | Hydrophytic Vegeta                               | tion Indicators:             |                |                |
| 3.             |                                       |                       |                 |                        | 1 - Rapid Te                                     | st for Hydrophytic V         | egetation/     |                |
| 4.             |                                       |                       |                 |                        | X 2 - Dominan                                    | ce Test is >50%              |                |                |
| 5.             |                                       |                       |                 |                        |  | ce Index is <u>&lt;</u> 3.0* |                |                |
| 6.             |                                       |                       |                 |                        |  | Hydrophytic Vegeta           |                |                |
| 7.             |                                       |                       |                 |                        | *Indicators of hydric s<br>unless disturbed or p |                              | drology must b | be present,    |
| 8.             |                                       |                       |                 |                        | unicas uniculueu or p                            | obiematio                    |                |                |

| 45 | = Total Cover | Hydrophytic Vegetation Present? |
|----|---------------|---------------------------------|
|    |               |                                 |

| Woody Vine Stratum_ Plot size: <u>r= 3</u> | )'                      | YesXNo |
|--|-------------------------|--------|
| 1  |                         |        |
| 2.   |                         |        |
|  | 0 = Total Cover         |        |
| % Bare Ground in Herb Stratum              | % Cover of Biotic Crust |        |

Remarks: (if observed, list morphological adaptations below).

Panicum is unknown species. Tamarix species is likely the invasive tamarix ramosissima.

| (inches)         Color         %         Type*         Loc**         Texture         Remarks           0-           | Dep              | th                                  | Matr                                | ix         |          | Redox F   | eatures  |            |                   |          |                                   |                      |  |
|---|------------------|-------------------------------------|-------------------------------------|------------|----------|-----------|----------|------------|-------------------|----------|-----------------------------------|----------------------|--|
| Image: Subscription of the system of the  | (inch            | es)                                 | Color                               | %          | Color    | %         | Type*    | Loc**      | Texture           |          | Remarks                           |                      |  |
| hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted)       Indicators for Problematic Hydric Soils ***         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sufide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Below Dark Surface (A11)         Depleted Below Dark Surface (A12)       Redox Depressions (F8)       *** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Sandy Gleyed Matrix (S4)       Vernal Pools (F9)       *** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Type:  | 0-               | ,                                   |                                     |            |          |           |          |            |                   |          |                                   |                      |  |
| ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted)     Indicators for Problematic Hydric Soils ***       Histosol (A1)     Sandy Redox (S5)     1 cm Muck (A9) (LRR C)       Histic Epipedon (A2)     Stripped Matrix (S6)     2 cm Muck (A10) (LRR B)       Black Histic (A3)     Loamy Mucky Mineral (F1)     Reduced Vertic (F18)       Hydrogen Sulfide (A4)     Loamy Gleyed Matrix (F2)     Red Parent Material (TF2)       Stratified Layers (A5) (LRR C)     Depleted Matrix (F3)     Other (Explain in Remarks)       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)     *** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem       Sandy Gleyed Matrix (S4)     Type:  |                  |                                     |                                     |            |          |           |          |            |                   |          |                                   |                      |  |
| ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted)     Indicators for Problematic Hydric Soils ***       Histosol (A1)     Sandy Redox (S5)     1 cm Muck (A9) (LRR C)       Histic Epipedon (A2)     Stripped Matrix (S6)     2 cm Muck (A10) (LRR B)       Black Histic (A3)     Loamy Mucky Mineral (F1)     Reduced Vertic (F18)       Hydrogen Sulfide (A4)     Loamy Gleyed Matrix (F2)     Red Parent Material (TF2)       Stratified Layers (A5) (LRR C)     Depleted Matrix (F3)     Other (Explain in Remarks)       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)     *** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem       Sandy Gleyed Matrix (S4)     Type:  |                  |                                     |                                     |            |          |           |          |            |                   |          |                                   |                      |  |
| ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted)       Indicators for Problematic Hydric Soils ***         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         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)       *** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Sandy Gleyed Matrix (S4)       Hydric Soil Present?       Yes       X       No         marks:   |                  |                                     |                                     |            |          |           |          |            |                   |          |                                   |                      |  |
| ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted)       Indicators for Problematic Hydric Soils ***         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         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)       *** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Sandy Gleyed Matrix (S4)       Hydric Soil Present?       Yes       X       No         marks:   |                  |                                     |                                     |            |          |           |          |            |                   |          |                                   |                      |  |
| ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted)       Indicators for Problematic Hydric Soils ***         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Other (Explain in Remarks)         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       *** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Sandy Gleyed Matrix (S4)       Hydric Soil Present?       Yes       X       No         marks:       Mydric Soil Present?       Yes       X       No  |                  |                                     |                                     |            |          |           |          |            |                   |          |                                   |                      |  |
| hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted)       Indicators for Problematic Hydric Soils ***         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sufide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Below Dark Surface (A11)         Depleted Below Dark Surface (A12)       Redox Depressions (F8)       *** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Sandy Gleyed Matrix (S4)       Vernal Pools (F9)       *** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Type:  |                  |                                     |                                     |            |          |           |          |            |                   |          |                                   |                      |  |
| http://www.second.com/second/secon |                  |                                     |                                     |            |          |           |          |            |                   |          |                                   |                      |  |
| Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       **** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Sandy Gleyed Matrix (S4)  | Type: C=Concer   | tratior                             | n, D=Depleti                        | on, RM=    | Reduced  | Matrix, M | S=Mask   | ed Sand g  | grains **Location | : PL=Por | e Lining, M=Matrix                |                      |  |
| Histock (kt)       Extra prediction (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Below Dark Surface (A11)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       *** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       **** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         testrictive Layer (if observed)       Type:   | ydric Soil Indic | ators:                              | : (Applicabl                        | e to all L | .RRs, un | less othe | rwise no | oted)      |                   |          | Indicators for Problematic I      | Hydric Soils ***     |  |
| Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matirx (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         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)       **** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       **** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Restrictive Layer (if observed)       Type:  | Histosol         | (A1)                                |                                     |            |          | Sandy     | Redox (  | S5)        |                   |          | 1 cm Muck (A9) <b>(LRR C)</b>     |                      |  |
| Back Hinder (HD)       Estanty Hinder (HT)       Red Parent Material (TF2)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         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)       **** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Sandy Gleyed Matrix (S4)       Yes       X       No         Type:   | Histic E         | ipedo                               | n (A2)                              |            |          | Strippe   | d Matrix | : (S6)     |                   |          | 2 cm Muck (A10) <b>(LRR B)</b>    |                      |  |
| Induction (M)       Example (Notice (M))       Example (Notice (M))       Example (Notice (M))         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         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)       **** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       **** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Startified Layer (if observed)       Type:   | Black H          | stic (A                             | .3)                                 |            |          | Loamy     | Mucky I  | Mineral (F | 1)                |          | Reduced Vertic (F18)              |                      |  |
| 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)       *** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Type:   | Hydroge          | n Sulf                              | ide (A4)                            |            |          | Loamy     | Gleyed   | Matirx (F  | 2)                |          | Red Parent Material (TF2)         |                      |  |
| 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)       *** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Restrictive Layer (if observed)  | Stratifie        | ed Layers (A5) (LRR C) Depleted Mat |                                     |            |          |           |          | x (F3)     |                   |          | Other (Explain in Remarks)        |                      |  |
| Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9)         Sandy Gleyed Matrix (S4)       **** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         testrictive Layer (if observed)       Type:         Depth (inches):  | 1 cm Mu          | ck (A§                              | (A9) (LRR D) Redox Dark S           |            |          |           |          | ırface (F6 | )                 |          |                                   |                      |  |
| Sandy Mucky Mineral (S1)       Vernal Pools (F9)       **** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Sandy Gleyed Matrix (S4)       **** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         testrictive Layer (if observed)       **** Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem         Type:  | Depleted         | Below                               | Now Dark Surface (A11) Depleted Dar |            |          |           |          | Surface (  | F7)               |          |                                   |                      |  |
| Sandy Gleyed Matrix (S4)     hydrology must be present, unless disturbed or problem       Restrictive Layer (if observed)     Type:       Depth (inches):   | Thick D          | irk Su                              | rface (A12)                         |            |          | Redox     | Depress  | sions (F8) |                   |          |                                   |                      |  |
| Isandy Gleged Matrix (S4)     Isandy Gleged Matrix (S4)       Restrictive Layer (if observed)       Type:       Depth (inches):       Hydric Soil Present?       Yes       X       No   | Sandy M          | Mucky Mineral (S1) Vernal Pools     |                                     |            |          |           | Pools (F | 9)         |                   |          |                                   |                      |  |
| Type:   | Sandy C          | ileyed                              | Matrix (S4)                         |            |          |           |          |            |                   | hyd      | rology must be present, unless di | sturbed or problemat |  |
| Depth (inches):     Hydric Soil Present?     Yes     X     No       Remarks:  | estrictive Laye  | r (if ob                            | oserved)                            |            |          |           |          |            |                   |          |                                   |                      |  |
| lemarks:  | Type:            |                                     |                                     |            |          |           | _        |            |                   |          |                                   |                      |  |
|   | Depth (inche     | ):                                  |                                     |            |          |           | _        | Hydric S   | oil Present?      | Yes      | <u>X</u> No                       |                      |  |
|   |                  |                                     |                                     |            |          |           |          |            |                   |          |                                   |                      |  |
| issume hydric soils   |                  |                                     |                                     |            |          |           |          |            |                   |          |                                   |                      |  |
|   | ssume hydric so  | ils                                 |                                     |            |          |           |          |            |                   |          |                                   |                      |  |
|   |                  |                                     |                                     |            |          |           |          |            |                   |          |                                   |                      |  |
|   |                  |                                     |                                     |            |          |           |          |            |                   |          |                                   |                      |  |
|   |                  |                                     |                                     |            |          |           |          |            |                   |          |                                   |                      |  |

| Primary Indicator          | s (minimum of o | ne is require; cl | neck all that apply)           |   | Secondary Indicators (2 or more required) |
|----------------------------|-----------------|-------------------|--------------------------------|---|---|
| Surface Water (A1)         |                 | Salt Crust (I     | 311)                           | Х | Water Marks (B1) (Riverine)               |
| X High Water Table (A2     | )               | Biotic Crust      | (B12)                          |   | Sediment Deposits (B2) (Riverine)         |
| X Saturation (A3)          |                 | Aquatic Fau       | ına (B13)                      |   | Drift Deposits (B3) (Riverine)            |
| Water Marks (B1) (No       | nriverine)      | Hydrogen S        | ulfide Odor (C1)               | Х | Drainage Patterns (B10)                   |
| Sediment Deposits (B2) (   | Nonriverine)    | Oxidized Rhi      | zospheres on Living Roots (C3) | Х | Dry-Season Water Table (C2)               |
| Drift Deposits (B3) (No    | onriverine)     | Presence of       | f Reduced Iron (C4)            |   | Crayfish Burrows (C8)                     |
| Surface Soil Cracks (B     | 36)             | Recent Iron       | Reduction in Tilled Soil (C6)  | Х | Saturation Visible on Aerial Imagery (C9) |
| Inundation Visible on Aeri | al Imagery (B7) | Thin Muck S       | Surface (C7)                   | Х | Shallow Aquitard (D3)                     |
| Water Stained Leaves       | (B9)            | Other (Expl       | ain in Remarks)                |   | FAC-Neutral Test (D5)                     |
| Field Observations:        |                 |                   |                                |   |   |
| Surface Water Present?     | Yes             | No X              | Depth (inches):                | _ | Wetland Hydrology Present?                |
| Vater Table Present?       | Yes             | No X              | Depth (inches):                | _ | Yes X No                                  |
| Saturation Present?        | Yes X           | No                | Depth (inches): 0              | _ |   |
| includes capillary fringe) |                 |                   |                                |   |   |

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

--See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Ulah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Ignore b10 and c2 for secondary indicators

| Project/Site:                                   | Utah Lake                   |               | City/County:     | Utah Co.               |                               | Sampling Date:                                      | 7/6/2021                                |
|---|-----------------------------|---------------|------------------|------------------------|-------------------------------|---|---|
| Applicant/Owner:                                | LRS                         |               |                  |                        | State: Utah                   | Sampling Point:                                     | B04-DP                                  |
| Investigator(s):                                | C.Nguyen, N.Jones           |               |                  | Section, Township, I   | Range: <u>0</u>               |   |   |
| Landform: (hillslope, ter                       | race, etc.):                | Other         |                  | Local relief (concave, | convex, none):                | Concave   | Slope (%): <u>0-2%</u>                  |
| Subregion (LRR):                                | MLRA 28                     | A; LRR D      | Lat.             | 40.194752              | Long111.73                    | 0017 Datum: <u>N</u>                                | VGS84                                   |
| Soil Map Unit Name:                             |                             |               | Water            |                        | N                             | WI Classification: F                                | PEM1F                                   |
| Are climatic/hydrologic                         | conditions on the site      | typical for t | ime of year?     | Yes                    | No <u>X</u> (If n             | no, explain in the Re                               | marks)                                  |
| Are Vegetation                                  | ,Soil                       | ,or Hy        | /drology         | significantly disturbe | d?                            |   |   |
| Are Vegetation                                  | ,Soil                       | or Hy,        | /drology         | naturally problemation | ?                             |   |   |
| Are Normal Circumstan                           | ces Present?                | Yes <u>X</u>  | No               | (If needed, explain a  | ny answers in Remark          | (s)   |   |
| SUMMARY OF FIN                                  | IDINGS - Attach s           | site map :    | showing sa       | mpling point loca      | tions, transects, i           | important featu                                     | res. etc.                               |
|   | Vegetation Present?         | -             |                  |                        | pled Area within a W          | -   |   |
|   | Hydric Soil Present?        | -             |                  |                        | X No                          |   |   |
|   | Hydrology Present?          |               |                  |                        |                               |   |   |
|   | , .,                        |               |                  | _                      |                               |   |   |
| Remarks:  |                             |               |                  |                        |                               |   |   |
|   | •                           |               | •                | •                      |                               | •   | bulrush still represent about           |
| 20-30 percent of the we                         | etland. Wetland startin     | g to have la  | arge areas of o  | pen nonvegetated area  | as. Drought conditions        |   |   |
| VEGETATION - Us                                 | e scientific name           | es of plar    | nts              |                        |                               |   |   |
|   |                             | Absolute      | Dominant         |                        |                               |   |   |
| Tree Stratum                                    | Plot size: <u>r= 30'</u>    |               | Species?         | Indicator Status       | Dominai                       | nce Test Workshee                                   | et                                      |
|   | ·                           |               |                  |                        | -                             |   |   |
| 2.  | ·                           |               |                  |                        | Number of dominan             | •   | 0                                       |
|   | ·                           |               |                  |                        | OBL, FACW                     | , or FAC:   | (A)                                     |
| 4.  |                             |               |                  |                        | Total number of do            |   |   |
|   |                             | 0             | = Total Cover    |                        | across all                    | strata:   | <u>2</u> (B)                            |
|   |                             |               |                  |                        | Percent of dominan            |   |   |
| Sapling/Shrub Stratum                           | Plot size: $r = 30^{\circ}$ |               |                  |                        | OBL, FACW                     |   | 100% (A/B)                              |
| 1.  | ·                           |               |                  |                        | Prevalence Index W            |   |   |
|   |                             |               |                  |                        | Total % cover of:             | •   |   |
|   |                             |               |                  |                        |                               | <u>0 x 1</u>  | 30                                      |
|   |                             |               |                  |                        | FACW species 5                |   | 100                                     |
| 5   |                             |               |                  |                        | FAC species (                 |   | 0                                       |
|   |                             | 0             | = Total Cover    |                        | FACU species                  |   | 0                                       |
|   |                             |               |                  |                        | · · ·                         | <u>)</u> x 5 _                                      | 0 (5)                                   |
| Herb Stratum                                    | Plot size: <u>r= 5'</u>     |               | .,               | 51014                  | Column Total 8                |   | <u>130</u> (B)                          |
| 1. <u>Phragmites au</u>                         |                             | 50            | <u> </u>         | FACW                   |                               | Prevalence Index:                                   | 1.6 (B/A)                               |
| 2. <u>Scirpus nevac</u>                         | lensis                      | 30            | Y                | OBL                    | Hydrophytic Vegeta            |   |   |
| 3   |                             |               |                  |                        |                               | est for Hydrophytic V                               | egetation                               |
| 4.  |                             |               |                  |                        | X 2 - Dominan                 |   |   |
|   |                             |               |                  |                        | X 3 - Prevalen<br>Problematic | ce Index is <3.0 <sup>^</sup><br>Hydrophytic Vegeta | tion* (Explain)                         |
| 6.  |                             |               |                  |                        |                               | , , , , ,   | Irology must be present,                |
|   |                             |               |                  |                        | unless disturbed or p         |   | . , , , , , , , , , , , , , , , , , , , |
| 8.  |                             | 00            | - Total Origina  |                        | Hudrophutic Versit            | tion Brocowt?                                       |   |
|   |                             | 80            | = Total Cover    |                        | Hydrophytic Vegeta            | auon Present?                                       |   |
| Woody Vinc Strature                             |                             |               |                  |                        | V <sub>c</sub> -              | V N-  |   |
| Woody Vine Stratum                              |                             |               |                  |                        | Yes_                          | <u>X</u> No_  |   |
| 1<br>2.   |                             |               |                  |                        | 4                             |   |   |
| Ζ   |                             | 0             | - Total Casar    |                        | 4                             |   |   |
| % Poro Crownd in U                              | orb Strature                |               | = Total Cover    | at                     |                               |   |   |
|   | erb Stratum                 |               | er of Biotic Cru | SI                     |                               |   |   |
| Remarks: (if observed,<br>Dominated by phragmit |                             |               | -                | ated masses with areas | s of no vegetation.           |   |   |

| rpe: C=Conce<br>dric Soil Ind<br>Histose            | licators: (A                         |                           |            | Color     | %          | Type*   | * Loc**    | Texture           |   | Remarks  |  |  |
|---|--------------------------------------|---------------------------|------------|-----------|------------|---------|------------|-------------------|---|--|--|--|
| rpe: C=Conce<br>dric Soil Ind<br>Histose<br>Histose | entration, l<br>icators: (/          |                           |            | Reduced I |            |         |            |                   |   |  |  |  |
| dric Soil Ind<br>Histoso<br>Histic E                | licators: (A                         |                           |            | Reduced I |            |         |            |                   |   |  |  |  |
| dric Soil Ind<br>Histoso<br>Histic E                | licators: (A                         |                           |            | Reduced I |            |         |            |                   |   |  |  |  |
| dric Soil Ind<br>Histoso<br>Histic E                | licators: (A                         |                           |            | Reduced I |            |         |            |                   |   |  |  |  |
| dric Soil Ind<br>Histoso<br>Histic E                | licators: (A                         |                           |            | Reduced N |            |         |            |                   |   |  |  |  |
| dric Soil Ind<br>Histoso<br>Histic E                | licators: (A                         |                           |            | Reduced   |            |         |            |                   |   |  |  |  |
| dric Soil Ind<br>Histoso<br>Histic E                | licators: (A                         |                           |            | Reduced I |            |         |            |                   |   |  |  |  |
| dric Soil Ind<br>Histoso<br>Histic E                | licators: (A                         |                           |            | Reduced I |            |         |            |                   |   |  |  |  |
| dric Soil Ind<br>Histoso<br>Histic E                | licators: (A                         |                           |            | Reduced I |            | Ť.      |            |                   |   |  |  |  |
| Histoso<br>Histic E                                 | ol (A1)                              | Applicabl                 | o to all I |           | Matrix, MS | S=Mask  | ed Sand g  | grains **Location | n: PL=Pore  | e Lining, M=Matrix                               |  |  |
| Histic E  | . /                                  |                           |            | RRs, unle | ess other  | wise n  | oted)      |                   |   | Indicators for Problematic Hydric Soils **       |  |  |
|   | Eninodon                             |                           |            |           | Sandy      | Redox ( | (S5)       |                   |   | 1 cm Muck (A9) <b>(LRR C)</b>                    |  |  |
| Black I   | Histic Epipedon (A2) Stripped Mat    |                           |            |           |            |         |            |                   |   | 2 cm Muck (A10) <b>(LRR B)</b>                   |  |  |
|   | Histic (A3)                          | )                         |            |           | Loamy      | Mucky   | Mineral (F | 1)                |   | Reduced Vertic (F18)                             |  |  |
| Hydrog  | gen Sulfide                          | e (A4)                    |            |           | Loamy      | Gleyed  | Matirx (F  | 2)                |   | Red Parent Material (TF2)                        |  |  |
| Stratific   | ied Layers (A5) (LRR C) Depleted     |                           |            |           |            |         | x (F3)     |                   |   | Other (Explain in Remarks)                       |  |  |
| 1 cm M  | /luck (A9)                           | uck (A9) (LRR D) Redox [  |            |           |            |         | urface (F6 | )                 |   |  |  |  |
| Deplete   | ed Below D                           |                           |            |           |            |         | Surface (  | F7)               |   |  |  |  |
| Thick [   | Dark Surfa                           | Surface (A12) Redox Depre |            |           |            |         | sions (F8) |                   |   |  |  |  |
| Sandy   | andy Mucky Mineral (S1) Vernal Pools |                           |            |           |            |         | F9)        |                   | *** Indicators of hydrophytic vegetation and wetlar |  |  |  |
| Sandy   | Gleyed M                             | latrix (S4)               |            |           |            |         |            |                   | hyd   | rology must be present, unless disturbed or prob |  |  |
| strictive Lay                                       | ver (if obs                          | erved)                    |            |           |            |         |            |                   |   |  |  |  |
| Type:   |                                      |                           |            |           |            | _       |            |                   |   |  |  |  |
| Depth (inche  | es):                                 |                           |            |           |            | _       | Hydric So  | oil Present?      | Yes   | <u>X</u> No                                      |  |  |
|   |                                      |                           |            |           |            |         |            |                   |   |  |  |  |
| marks:  |                                      |                           |            |           |            |         |            |                   |   |  |  |  |
| sume hydric s                                       | soils                                |                           |            |           |            |         |            |                   |   |  |  |  |
|   |                                      |                           |            |           |            |         |            |                   |   |  |  |  |
|   |                                      |                           |            |           |            |         |            |                   |   |  |  |  |

|         | Primary Indicators                                   | (minimum of    | fone | is require; | check all that apply)     |          |   | Secondary Indicators (2 or more required) |  |  |  |
|---------|--|----------------|------|-------------|---------------------------|----------|---|---|--|--|--|
| Х       | Surface Water (A1)                                   |                |      | Salt Crust  | t (B11)                   |          |   | Water Marks (B1) (Riverine)               |  |  |  |
|         | High Water Table (A2)                                |                |      | Biotic Cru  | st (B12)                  |          |   | Sediment Deposits (B2) (Riverine)         |  |  |  |
| Х       | Saturation (A3)                                      |                |      | Aquatic Fa  | auna (B13)                |          |   | Drift Deposits (B3) (Riverine)            |  |  |  |
| Х       | Water Marks (B1) (Non                                | riverine)      |      | Hydrogen    | Sulfide Odor (C1)         |          |   | Drainage Patterns (B10)                   |  |  |  |
|         | Sediment Deposits (B2) (N                            | onriverine)    |      | Oxidized R  | Rhizospheres on Living Ro | ots (C3) |   | Dry-Season Water Table (C2)               |  |  |  |
|         | Drift Deposits (B3) (Nor                             | nriverine)     |      | Presence    | of Reduced Iron (C4)      |          |   | Crayfish Burrows (C8)                     |  |  |  |
|         | Surface Soil Cracks (B                               | 6)             |      | Recent Iro  | n Reduction in Tilled Soi | l (C6)   | Х | Saturation Visible on Aerial Imagery (C9) |  |  |  |
| <       | Inundation Visible on Aeria                          | I Imagery (B7) |      | Thin Muck   | k Surface (C7)            |          |   | Shallow Aquitard (D3)                     |  |  |  |
|         | Water Stained Leaves (B9) Other (Explain in Remarks) |                |      |             |                           |          |   | FAC-Neutral Test (D5)                     |  |  |  |
| -ield ( | Observations:  |                |      |             |                           |          |   |   |  |  |  |
| Surfac  | e Water Present?                                     | Yes            | х    | No          | Depth (inches):           | 2        | _ | Wetland Hydrology Present?                |  |  |  |
| Nater   | Table Present?                                       | Yes            | х    | No          | Depth (inches):           | 0        | _ | Yes X No                                  |  |  |  |
| Satura  | ation Present?                                       | Yes            | х    | No          | Depth (inches):           | 0        | _ |   |  |  |  |
| includ  | les capillary fringe)                                |                |      |             |                           |          |   |   |  |  |  |

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

### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.10.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Delta formation with isolated wetlands.

| Project/Site:            | Utah Lake                |                        | City/County:     | Utah Co.                |                       | Sampling Date:                             | 7/7/2021                                   |
|--------------------------|--------------------------|------------------------|------------------|-------------------------|-----------------------|--|--|
| Applicant/Owner:         | LRS                      |                        |                  |                         | State: Utah           | Sampling Point:                            | B05-DP                                     |
| Investigator(s):         | C.Nguyen, N.Jones        |                        |                  | Section, Township, I    | Range: <u>0</u>       |  |  |
| Landform: (hillslope, te | rrace, etc.):            | Other                  |                  | Local relief (concave,  | convex, none):        | Concave                                    | Slope (%): <u>0-2%</u>                     |
| Subregion (LRR):         | MLRA 28                  | A; LRR D               | Lat.             | 40.183137               | Long111.70            | 9755 Datum: V                              | VGS84                                      |
| Soil Map Unit Name:      |                          | Pro                    | ovo Bay silty cl | ay loam                 | N                     | WI Classification: L                       | 2USC                                       |
| Are climatic/hydrologic  | conditions on the site   | typical for ti         | me of year?      | Yes                     | No <u>X</u> (If n     | no, explain in the Rei                     | marks)                                     |
| Are Vegetation           | ,Soil                    | ,or Hy                 | drology          | _significantly disturbe | d?                    |  |  |
| Are Vegetation           | ,Soil                    |                        |                  | naturally problemation  |                       |  |  |
| Are Normal Circumsta     | nces Present?            | Yes <u>X</u>           | No               | _(If needed, explain a  | ny answers in Remark  | (s)  |  |
| SUMMARY OF FI            |                          |                        |                  |                         |                       | -  | res, etc.                                  |
| Hydrophytic              | c Vegetation Present?    |                        |                  |                         | pled Area within a W  |  |  |
|                          | Hydric Soil Present?     |                        |                  | Yes                     | <u>    X   </u> No    |  |  |
| Wetlan                   | d Hydrology Present?     | Yes <u>X</u>           | No               | _                       |                       |  |  |
| Remarks:                 |                          |                        |                  |                         |                       |  |  |
|                          |                          | boundary wi            | thin a delta lan | dform. Vegetation now   | dominated by phragm   | nites. Wetland startir                     | g to have large areas of oper              |
| non-vegetated areas.     | -                        |                        |                  |                         |                       |  |  |
| VEGETATION - U           | se scientific name       | es of plan<br>Absolute | Dominant         |                         |                       |  |  |
| Tree Stratum             | Plot size: <u>r= 30'</u> | % Cover                | Species?         | Indicator Status        | Domina                | nce Test Workshee                          | t  |
| 1                        |                          |                        |                  |                         | _                     |  |  |
| 2.                       |                          |                        |                  |                         | Number of dominan     | t species that are                         |  |
| 3.                       |                          |                        |                  |                         | OBL, FACW             |  | 1 (A)                                      |
| 4.                       |                          |                        |                  |                         | Total number of do    | ominant species                            |  |
|                          |                          | 0                      | = Total Cover    |                         | across all            |  | 1(B)                                       |
|                          |                          |                        |                  |                         | Percent of dominan    | t species that are                         |  |
| Sapling/Shrub Stratum    | Plot size: r= 30'        |                        |                  |                         | OBL, FACW             | /, or FAC:                                 | 100% (A/B)                                 |
|                          |                          |                        |                  |                         | Prevalence Index W    | /orksheet                                  |  |
| 2.                       |                          |                        |                  |                         | Total % cover of:     |  | / by:                                      |
|                          |                          |                        |                  |                         |                       | 0 x 1                                      | 0  |
|                          |                          | <u> </u>               |                  |                         | FACW species 7        |  | 150  |
| 5.                       |                          | <u> </u>               |                  |                         |                       | 0 x 3 _                                    | 0  |
|                          |                          | 0                      | = Total Cover    |                         |                       | 0 x 4 _                                    | 0  |
|                          |                          |                        |                  |                         | · ·                   | 0 x 5 _                                    | 0  |
| Herb Stratum             | Plot size: <u>r= 5'</u>  |                        |                  |                         | Column Total 7        |  | <u>150</u> (B)                             |
| 1. <u>Phragmites a</u>   | ustralis                 | 75                     | Y                | FACW                    |                       | Prevalence Index:                          | 2.0 (B/A)                                  |
|                          |                          | <u> </u>               |                  |                         | Hydrophytic Vegeta    |  |  |
|                          |                          | <u> </u>               |                  |                         |                       | est for Hydrophytic V                      | egetation                                  |
|                          |                          |                        |                  |                         | X 2 - Dominan         |  |  |
| 5.                       |                          | ;                      |                  |                         | X 3 - Prevalen        | _  | tion* (Evalsia)                            |
| 6.                       |                          | ;                      |                  |                         |                       | Hydrophytic Vegeta<br>soil and wetland hyd | tion^ (Explain)<br>rology must be present, |
|                          |                          | ;                      |                  |                         | unless disturbed or p |  | .e.egy maet be present,                    |
| 8.                       |                          |                        |                  |                         |                       |  |  |
|                          |                          | 75                     | = Total Cover    |                         | Hydrophytic Vegeta    | ation Present?                             |  |
| Woody Vine Stratum       | Plot size: r= 30'        |                        |                  |                         | Yes                   | X No                                       |  |
|                          |                          |                        |                  |                         |                       |  |  |
| 2.                       |                          |                        |                  |                         | ]                     |  |  |
|                          |                          | 0                      | = Total Cover    |                         | ]                     |  |  |
| % Bare Ground in I       | Herb Stratum             | % Cove                 | r of Biotic Crus | st                      |                       |  |  |
| Remarks: (if observed    | , list morphological ad  | aptations be           | low).            |                         | 1                     |  |  |
| Dominated by phragmi     | tes. Wetland is starting | g to have iso          | plated masses    | with areas of no veget  | ation.                |  |  |

|                 | (inches)       |                           |            |                            | I YEADY L               | eatures  | 5          |                   |            |   |                     |                     |  |
|-----------------|----------------|---------------------------|------------|----------------------------|-------------------------|----------|------------|-------------------|------------|---|---------------------|---------------------|--|
|                 |                | Color                     | %          | Color                      | %                       | Туре     | * Loc**    | Texture           |            | _   | Remarks             |                     |  |
|                 | 0-             |                           |            |                            |                         |          |            |                   |            |   |                     |                     |  |
|                 |                |                           |            |                            |                         |          |            |                   |            |   |                     |                     |  |
|                 |                |                           |            |                            |                         |          | _          |                   |            |   |                     |                     |  |
| L               |                |                           |            |                            |                         |          |            |                   |            |   |                     |                     |  |
|                 |                |                           |            |                            |                         |          | _          |                   |            |   |                     |                     |  |
| L               |                |                           |            |                            |                         |          |            |                   |            |   |                     |                     |  |
|                 |                |                           |            |                            |                         |          | _          |                   |            |   |                     |                     |  |
| L               |                |                           |            |                            |                         |          |            |                   |            |   |                     |                     |  |
| <u> </u>        |                | •                         |            |                            |                         |          |            | grains **Location | 1: PL=Pore | 0   |                     |                     |  |
| <u>dric Soi</u> | il Indicators: | (Applicabl                | e to all L | .RRs, unle                 | ess other               | rwise n  | oted)      |                   |            |   | s for Problematic   | Hydric Soils ***    |  |
| H               | listosol (A1)  |                           |            |                            | Sandy                   | Redox    | (S5)       |                   |            | 1 cm Muck (   | ,, ,                |                     |  |
| H               | listic Epipedo | n (A2)                    |            |                            | Strippe                 | d Matrix | x (S6)     |                   |            |   | A10) <b>(LRR B)</b> |                     |  |
| B               | lack Histic (A | .3)                       |            |                            | Loamy                   | Mucky    | Mineral (F | -1)               |            | Reduced Ve  | ( )                 |                     |  |
| H               | lydrogen Sulf  | ide (A4)                  |            |                            | Loamy                   | Gleyed   | Matirx (F  | 2)                |            | Red Parent  | Material (TF2)      |                     |  |
| S               | tratified Laye | rs (A5) (LRF              | RC)        |                            | Deplete                 | ed Matri | ix (F3)    |                   |            | Other (Expla  | in in Remarks)      |                     |  |
| 1               | cm Muck (AS    | 9) (LRR D)                |            |                            | Redox Dark Surface (F6) |          |            |                   |            |   |                     |                     |  |
| D               | epleted Below  | Dark Surface              |            | Depleted Dark Surface (F7) |                         |          |            |                   |            |   |                     |                     |  |
| TI              | hick Dark Su   | Surface (A12) Redox Depre |            |                            |                         |          | sions (F8) | 1                 |            |   |                     |                     |  |
| S               | andy Mucky     | Mineral (S1)              | )          |                            | Vernal                  | Pools (I | F9)        |                   |            | *** Indicators of hydrophytic vegetation and wetlan<br>hydrology must be present, unless disturbed or problem |                     |                     |  |
| S               | andy Gleyed    | Matrix (S4)               |            |                            |                         |          |            |                   | hyd        | rology must b   | e present, unless d | isturbed or problem |  |
| strictive       | e Layer (if ol | oserved)                  |            |                            |                         |          |            |                   |            |   |                     |                     |  |
| Ту              | ype:           |                           |            |                            |                         | _        |            |                   |            |   |                     |                     |  |
| Depth /         | (inches):      |                           |            |                            |                         | _        | Hydric S   | oil Present?      | Yes        | Х   | No                  |                     |  |
|                 |                |                           |            |                            |                         |          |            |                   |            |   |                     |                     |  |
| marks:          |                |                           |            |                            |                         |          |            |                   |            |   |                     |                     |  |
| sume hy         | dric soils     |                           |            |                            |                         |          |            |                   |            |   |                     |                     |  |
|                 |                |                           |            |                            |                         |          |            |                   |            |   |                     |                     |  |
|                 |                |                           |            |                            |                         |          |            |                   |            |   |                     |                     |  |

|         | Primary Indicators          | (minimum of  | f one      | is require;               | check all that apply)     |          |   | Secondary Indicators (2 or more required) |  |  |  |
|---------|-----------------------------|--------------|------------|---------------------------|---------------------------|----------|---|---|--|--|--|
| Х       | Surface Water (A1)          |              |            | Salt Crust                | : (B11)                   |          |   | Water Marks (B1) (Riverine)               |  |  |  |
|         | High Water Table (A2)       |              |            | Biotic Cru                | st (B12)                  |          |   | Sediment Deposits (B2) (Riverine)         |  |  |  |
| Х       | Saturation (A3)             |              |            | Aquatic Fa                | auna (B13)                |          |   | Drift Deposits (B3) (Riverine)            |  |  |  |
| Х       | Water Marks (B1) (Nor       | nriverine)   |            | Hydrogen                  | Sulfide Odor (C1)         |          |   | Drainage Patterns (B10)                   |  |  |  |
|         | Sediment Deposits (B2) (N   | Nonriverine) |            | Oxidized R                | Rhizospheres on Living Ro | ots (C3) |   | Dry-Season Water Table (C2)               |  |  |  |
|         | Drift Deposits (B3) (No     | onriverine)  |            | Presence                  | of Reduced Iron (C4)      |          |   | Crayfish Burrows (C8)                     |  |  |  |
|         | Surface Soil Cracks (B      |              | Recent Iro | n Reduction in Tilled Soi | l (C6)                    | Х        | Saturation Visible on Aerial Imagery (C9) |   |  |  |  |
| <       | Inundation Visible on Aeria |              | Thin Mucl  | k Surface (C7)            |                           |          | Shallow Aquitard (D3)                     |   |  |  |  |
|         | Water Stained Leaves        | (B9)         |            | Other (Ex                 | plain in Remarks)         |          |   | FAC-Neutral Test (D5)                     |  |  |  |
| Field ( | Observations:               |              |            |                           |                           |          |   |   |  |  |  |
| Surfac  | e Water Present?            | Yes          | х          | No                        | Depth (inches):           | 18       | _   | Wetland Hydrology Present?                |  |  |  |
| Nater   | Table Present?              | Yes          | х          | No                        | Depth (inches):           | 0        | _   | Yes X No                                  |  |  |  |
| Satura  | ation Present?              | Yes          | Х          | No                        | Depth (inches):           | 0        | _   |   |  |  |  |
| includ  | les capillary fringe)       |              |            |                           |                           |          |   |   |  |  |  |

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

### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.10.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Delta formation with isolated wetlands.

| Project/Site:   | Utah Lake                |               | City/County:       | Utah Co.                | Sampling Date: 7/7/2021   |
|---|--------------------------|---------------|--------------------|-------------------------|---|
| Applicant/Owner:  | LRS                      |               |                    |                         | State: Utah Sampling Point: B-06 DP   |
| Investigator(s):  | C.Nguyen, N.Jones        |               |                    | Section, Township,      | Range: <u>0</u>   |
| Landform: (hillslope, te                                      | rrace, etc.):            | Other         |                    | Local relief (concave,  | convex, none): Concave Slope (%): 0-2%  |
| Subregion (LRR):  | MLRA 28                  | A; LRR D      | Lat.               | 40.189773               | Long111.715599 Datum: WGS84   |
| Soil Map Unit Name:   |                          | Pr            | ovo Bay silty cla  | ay loam                 | NWI Classification: L2ABF   |
| Are climatic/hydrologic                                       | conditions on the site   | typical for t | ime of year?       | Yes                     | No X (If no, explain in the Remarks)  |
| Are Vegetation  | ,Soil                    | ,or Hy        | /drology           | significantly disturbe  | d?  |
| Are Vegetation  | ,Soil                    | or Hy         | /drology           | _naturally problemation | ?   |
| Are Normal Circumstar   | nces Present?            | Yes <u>X</u>  | No                 | _(If needed, explain a  | ny answers in Remarks)  |
| SUMMARY OF FIN  | NDINGS - Attach          | site map      | showing sa         | npling point loca       | tions, transects, important features, etc.  |
| Hydrophytic   | vegetation Present?      |               |                    |                         | pled Area within a Wetland?   |
|   | Hydric Soil Present?     | Yes X         | No                 | Yes                     | No  |
| Wetlan  | d Hydrology Present?     | Yes <u>X</u>  | No                 | -                       |   |
| Demerice  |                          |               |                    |                         |   |
| Remarks:<br>Data point located on e<br>Large areas of dead Pl | 0                        |               | ary within a delta | a landform. Vegetatior  | n now dominated by phragmites with 20 % cattails and 10% bulrush                            |
| VEGETATION - U  | se scientific name       | e of plar     | nte                |                         |   |
|   |                          | Absolute      | Dominant           |                         |   |
| Tree Stratum  | Plot size: r= 30'        | % Cover       | Species?           | Indicator Status        | Dominance Test Worksheet  |
| 1   |                          |               |                    |                         | -   |
| 2.  |                          |               |                    |                         | Number of dominant species that are   |
| 3.  |                          |               |                    |                         | OBL, FACW, or FAC: <u>2</u> (A)   |
| 4.  |                          |               |                    |                         | Total number of dominant species  |
|   |                          | 0             | = Total Cover      |                         | across all strata: <u>2</u> (B)   |
|   |                          |               |                    |                         | Percent of dominant species that are  |
| Sapling/Shrub Stratum   | Plot size: r= 30'        |               |                    |                         | OBL, FACW, or FAC: 100% (A/B)   |
|   |                          |               |                    |                         | Prevalence Index Worksheet  |
|   |                          |               |                    |                         | Total % cover of: Multiply by:  |
|   |                          |               |                    |                         | OBL species <u>35</u> x 1 <u>35</u>   |
| 4.  |                          |               |                    |                         | FACW species 70 x 2 140   |
| 5.  |                          |               |                    |                         | FAC species 0 x 3 0   |
|   |                          | 0             | = Total Cover      |                         | FACU species 0 x 4 0  |
|   |                          |               |                    |                         | UPL species 0 x 5 0   |
| Herb Stratum  | Plot size: <u>r= 5'</u>  |               |                    |                         | Column Total <u>105</u> (A) <u>175</u> (B)  |
| 1. Phragmites a   |                          | 70            | <u> </u>           | FACW                    | Prevalence Index: 1.7 (B/A)   |
| 2. <u>Typha angus</u>   |                          | 25            | <u> </u>           | OBL                     | Hydrophytic Vegetation Indicators:  |
| 3. <u>Scirpus neva</u>  | densis                   | 10            | <u>         N</u>  | OBL                     | X 1 - Rapid Test for Hydrophytic Vegetation   |
| 4.  |                          |               |                    |                         | X 2 - Dominance Test is >50%  |
| 5.  |                          |               |                    |                         | X 3 - Prevalence Index is <u>&lt;</u> 3.0*<br>Problematic Hydrophytic Vegetation* (Explain) |
| 6.  |                          |               |                    |                         | *Indicators of hydric soil and wetland hydrology must be present,                           |
| 7.  |                          |               |                    |                         | unless disturbed or problematic   |
| 8.  |                          |               |                    |                         |   |
|   |                          | 105           | = Total Cover      |                         | Hydrophytic Vegetation Present?   |
| Maadu Vin - Ot  |                          |               |                    |                         |   |
| Woody Vine Stratum  | Plot size: <u>r= 30'</u> |               |                    |                         | Yes <u>X</u> No   |
| 1.  |                          |               |                    |                         | 4   |
| 2.  |                          |               |                    |                         | 4   |
|   |                          |               | = Total Cover      |                         |   |
| % Bare Ground in H  |                          |               | er of Biotic Crus  | t                       |   |
| Remarks: (if observed<br>Dominated by phragmi                 |                          |               | ,                  | with areas of no veget  | ation.  |

|         | Depth            | Mat           | rix        |          | Redox F                 | eatures               | 5          |                   |          |  |         |  |
|---------|------------------|---------------|------------|----------|-------------------------|-----------------------|------------|-------------------|----------|--|---------|--|
|         | (inches)         | Color         | %          | Color    | %                       | Type*                 | * Loc**    | Texture           |          | Remarks  |         |  |
|         | 0-               |               |            |          |                         |                       |            |                   |          |  |         |  |
|         |                  |               |            |          |                         |                       |            |                   |          |  |         |  |
|         |                  |               |            |          | _                       |                       |            |                   |          |  |         |  |
|         |                  |               |            |          |                         |                       |            |                   |          |  |         |  |
|         |                  |               |            |          | _                       |                       |            |                   |          |  |         |  |
|         |                  |               |            |          |                         |                       |            |                   |          |  |         |  |
|         |                  |               |            |          |                         |                       |            |                   |          |  |         |  |
|         |                  |               |            |          |                         |                       |            |                   |          |  |         |  |
| Гуре: ( | C=Concentratio   | n, D=Depleti  | on, RM=    | Reduced  | Matrix, M               | S=Mask                | ed Sand    | grains **Location | : PL=Por | e Lining, M=Matrix                               |         |  |
| lydric  | Soil Indicators  | : (Applicabl  | e to all l | RRs, unl | ess othe                | rwise n               | oted)      |                   |          | Indicators for Problematic Hydric Soils          | ***     |  |
|         | Histosol (A1)    |               |            |          | Sandy                   | Redox (               | (S5)       |                   |          | 1 cm Muck (A9) <b>(LRR C)</b>                    |         |  |
|         | Histic Epipedo   | on (A2)       |            |          | Strippe                 | d Matrix              | (S6)       |                   |          | 2 cm Muck (A10) <b>(LRR B)</b>                   |         |  |
|         | Black Histic (A  | A3)           |            |          | Loamy                   | Mucky                 | Mineral (F | 1)                |          | Reduced Vertic (F18)                             |         |  |
|         | Hydrogen Sul     | fide (A4)     |            |          | Loamy                   | Gleyed                | Matirx (F  | 2)                |          | Red Parent Material (TF2)                        |         |  |
|         | Stratified Laye  | ers (A5) (LRI | RC)        |          | Depleted Matrix (F3)    |                       |            |                   |          | Other (Explain in Remarks)                       |         |  |
|         | 1 cm Muck (A     | .9) (LRR D)   |            |          | Redox Dark Surface (F6) |                       |            |                   |          |  |         |  |
|         | Depleted Below   | v Dark Surfac | e (A11)    |          | Deplete                 | ted Dark Surface (F7) |            |                   |          |  |         |  |
|         | Thick Dark Su    | urface (A12)  |            |          | Redox                   | Depress               | sions (F8) | 1                 |          |  |         |  |
|         | Sandy Mucky      | Mineral (S1)  | )          |          | Vernal                  | Pools (F              | -9)        |                   |          | *** Indicators of hydrophytic vegetation and w   |         |  |
|         | Sandy Gleyed     | d Matrix (S4) |            |          |                         |                       |            |                   | hyd      | lrology must be present, unless disturbed or pro | oblemat |  |
| lestric | tive Layer (if o | bserved)      |            |          |                         |                       |            |                   |          |  |         |  |
|         | Туре:            |               |            |          |                         | _                     |            |                   |          |  |         |  |
| Dep     | oth (inches):    |               |            |          |                         | _                     | Hydric S   | oil Present?      | Yes      | <u>X</u> No                                      |         |  |
|         |                  |               |            |          |                         |                       |            |                   |          |  |         |  |
| Remark  |                  |               |            |          |                         |                       |            |                   |          |  |         |  |
| ssume   | hydric soils     |               |            |          |                         |                       |            |                   |          |  |         |  |
|         |                  |               |            |          |                         |                       |            |                   |          |  |         |  |
|         |                  |               |            |          |                         |                       |            |                   |          |  |         |  |

|        | Primary Indicators          | s (minimum o    | f one | is require; | check all that apply)      |          |   | Secondary Indicators (2 or more required) |  |  |  |
|--------|-----------------------------|-----------------|-------|-------------|----------------------------|----------|---|---|--|--|--|
| Х      | Surface Water (A1)          |                 |       | Salt Crust  | t (B11)                    |          |   | Water Marks (B1) (Riverine)               |  |  |  |
|        | High Water Table (A2)       |                 |       | Biotic Cru  | st (B12)                   |          |   | Sediment Deposits (B2) (Riverine)         |  |  |  |
| Х      | Saturation (A3)             |                 |       | Aquatic Fa  | auna (B13)                 |          |   | Drift Deposits (B3) (Riverine)            |  |  |  |
| Х      | Water Marks (B1) (Nor       | nriverine)      |       | Hydrogen    | Sulfide Odor (C1)          |          |   | Drainage Patterns (B10)                   |  |  |  |
|        | Sediment Deposits (B2) (N   | Nonriverine)    |       | Oxidized R  | Rhizospheres on Living Ro  | ots (C3) |   | Dry-Season Water Table (C2)               |  |  |  |
|        | Drift Deposits (B3) (No     | onriverine)     |       | Presence    | of Reduced Iron (C4)       |          |   | Crayfish Burrows (C8)                     |  |  |  |
|        | Surface Soil Cracks (B      | 6)              |       | Recent Iro  | n Reduction in Tilled Soil | (C6)     | Х | Saturation Visible on Aerial Imagery (C9) |  |  |  |
| (      | Inundation Visible on Aeria | al Imagery (B7) |       | Thin Muck   | k Surface (C7)             |          |   | Shallow Aquitard (D3)                     |  |  |  |
|        | Water Stained Leaves        | (B9)            |       | Other (Ex   | plain in Remarks)          |          |   | FAC-Neutral Test (D5)                     |  |  |  |
| ield ( | Observations:               |                 |       |             |                            |          |   |   |  |  |  |
| Surfac | e Water Present?            | Yes             | Х     | No          | Depth (inches):            | 2        | _ | Wetland Hydrology Present?                |  |  |  |
| Nater  | Table Present?              | Yes             | Х     | No          | Depth (inches):            | 0        | _ | Yes X No                                  |  |  |  |
| Satura | tion Present?               |                 |       |             | Depth (inches):            |          | _ |   |  |  |  |
| includ | les capillary fringe)       | _               |       |             |                            |          | - |   |  |  |  |

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

### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.10.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Delta formation with isolated wetlands.

| r  |                          |               |                   |                          |                                  |   |                               |
|--|--------------------------|---------------|-------------------|--------------------------|----------------------------------|---|-------------------------------|
| Project/Site:  | Utah Lake                |               | City/County:      | Utah Co.                 |                                  | Sampling Date:                          |                               |
| Applicant/Owner:   | LRS                      |               |                   |                          | State: Utah                      | Sampling Point:                         | B07-DP                        |
| Investigator(s):   | C.Nguyen, N.Jones        |               |                   | Section, Township, F     |                                  |   |                               |
| Landform: (hillslope, te                                       | rrace, etc.):            | Other         |                   | Local relief (concave, o | convex, none):                   | Concave                                 | Slope (%): <u>0-2%</u>        |
| Subregion (LRR):   | MLRA 28                  | A; LRR D      | Lat.              | 40.196613                | Long111.71                       | 5420 Datum: <u>V</u>                    | VGS84                         |
| Soil Map Unit Name:  |                          | Pr            | ovo Bay silty cla | ay loam                  | N                                | WI Classification: L                    | 2ABF                          |
| Are climatic/hydrologic  | conditions on the site   | typical for t | ime of year?      | Yes                      | No <u>X</u> (If n                | no, explain in the Re                   | marks)                        |
| Are Vegetation   | ,Soil                    | ,or Hy        | /drology          | _significantly disturbed | d?                               |   |                               |
| Are Vegetation   |                          |               |                   | naturally problematic    |                                  |   |                               |
| Are Normal Circumstar  |                          |               |                   |                          |                                  | (s)                                     |                               |
|  |                          |               | ohowing oo        | -                        | tiono tronocto i                 | inn a stant facture                     |                               |
| SUMMARY OF FIN   | Vegetation Present?      |               | -                 |                          | pled Area within a W             | -                                       | res, etc.                     |
| Tiyutophyuc  | Hydric Soil Present?     |               |                   |                          | •                                |   |                               |
| Matlem   |                          |               |                   | _                        | <u>    X   </u> No               |   |                               |
| vveuan   | d Hydrology Present?     | res <u>x</u>  |                   | _                        |                                  |   |                               |
| Remarks:   |                          |               |                   |                          |                                  |   |                               |
| Data point located on e  | dae of PEM/LAC wet       | and bounda    | arv within a delt | a landform. Vegetation   | now dominated by ca              | attail species howeve                   | er phragmites still represent |
| about 20-30 percent of   |                          |               |                   |                          |                                  |   |                               |
|  |                          |               |                   |                          |                                  |   |                               |
| VEGETATION - Us  | se scientific name       | Absolute      | Dominant          |                          |                                  |   |                               |
| Tree Stratum   | Plot size: r= 30'        |               | Species?          | Indicator Status         | Domina                           | nce Test Workshee                       | t                             |
| 1.   |                          |               |                   |                          |                                  |   |                               |
| 2.   |                          |               |                   |                          | Number of deminen                | t analise that are                      |                               |
| 3.   |                          |               |                   |                          | Number of dominan<br>OBL, FACW   |   | 2 (A)                         |
| 4.   |                          |               |                   |                          | -                                |   | ( )                           |
|  |                          | 0             | = Total Cover     |                          | Total number of do<br>across all |   | 2 (B)                         |
|  |                          | -             |                   |                          |                                  | _                                       | (=)                           |
| Sapling/Shrub Stratum  | Plot size: r= 30'        |               |                   |                          | Percent of dominan<br>OBL, FACW  | •                                       | 100% (A/B)                    |
| 1.   |                          |               |                   |                          | Prevalence Index W               |   |                               |
| 2  |                          |               |                   |                          | Total % cover of:                |   | / by:                         |
|  | ·                        |               |                   |                          |                                  | 00 x 1                                  | 100                           |
|  |                          |               |                   |                          | FACW species                     |   | 0                             |
| 5.   |                          |               |                   |                          | FAC species (                    |   | 0                             |
| J  | ·                        | 0             | = Total Cover     |                          | FACU species (                   |   | 0                             |
|  |                          | 0             |                   |                          |                                  | 0 x 5                                   | 0                             |
| Herb Stratum   | Diot aize: r= E'         |               |                   |                          | · · · ·                          |   |                               |
|  | Plot size: <u>r= 5'</u>  | 70            | V                 | OBL                      | Column Total <u>10</u>           |   |                               |
| <ol> <li><u>Typha angust</u></li> <li>Scirpus nevad</li> </ol> |                          | 70<br>30      | Y<br>Y            | OBL                      | Hydrophytic Vegeta               | Prevalence Index:                       | 1.0 (B/A)                     |
|  |                          |               | I                 | UDL                      |                                  |   | agatation                     |
|  | · .                      |               |                   |                          | · · ·                            | est for Hydrophytic V                   | eyelallon                     |
| 4.   |                          |               |                   |                          | X 2 - Dominan                    |   |                               |
|  |                          |               |                   |                          | X 3 - Prevalen<br>Problematic    | ce index is <3.0"<br>Hydrophytic Vegeta | tion* (Explain)               |
| 6  |                          |               |                   |                          |                                  | , , , , ,                               | rology must be present,       |
|  |                          |               |                   |                          | unless disturbed or p            |   |                               |
| 8.   | · ·                      | 165           |                   |                          |                                  |   |                               |
|  |                          | 100           | = Total Cover     |                          | Hydrophytic Vegeta               | ation Present?                          |                               |
|  |                          |               |                   |                          |                                  |   |                               |
| Woody Vine Stratum   | Plot size: r= 30'        |               |                   |                          | Yes_                             | <u>X</u> No                             |                               |
|  |                          |               |                   |                          | 4                                |   |                               |
| 2.   |                          |               |                   |                          | 4                                |   |                               |
|  |                          | 0             | = Total Cover     |                          |                                  |   |                               |
| % Bare Ground in F   | lerb Stratum             | % Cove        | er of Biotic Crus |                          |                                  |   |                               |
| Remarks: (if observed,   | , list morphological ada | aptations be  | elow).            |                          |                                  |   |                               |
| Dominated by cattail ar  | nd phragmite. Wetland    | is starting   | to have isolated  | l masses with areas of   | no vegetation. Replac            | ce bulrush with phra                    | gmites.                       |

|        | Depth           | Matr          | ix         |           | Redox F                    | eatures  | 3          |                   |           |   |           |              |              |              |
|--------|-----------------|---------------|------------|-----------|----------------------------|----------|------------|-------------------|-----------|---|-----------|--------------|--------------|--------------|
|        | (inches)        | Color         | %          | Color     | %                          | Туре     | * Loc**    | Texture           |           |   |           | Remark       | s            |              |
|        | 0-              |               |            |           |                            |          |            |                   |           |   |           |              |              |              |
|        |                 |               |            |           |                            |          |            |                   |           |   |           |              |              |              |
|        |                 |               |            |           |                            |          |            |                   |           |   |           |              |              |              |
|        |                 |               |            |           |                            |          |            |                   |           |   |           |              |              |              |
|        |                 |               |            |           |                            |          |            |                   |           |   |           |              |              |              |
|        |                 |               |            |           |                            |          |            |                   |           |   |           |              |              |              |
|        |                 |               |            |           |                            |          | _          |                   |           |   |           |              |              |              |
|        |                 |               |            |           |                            |          |            |                   |           |   |           |              |              |              |
| /pe: C | C=Concentratio  | n, D=Depleti  | on, RM=    | Reduced N | /atrix, M                  | S=Mask   | ked Sand   | grains **Locatior | : PL=Pore | e Lining, M                                 | I=Matrix  | (            |              |              |
| dric S | Soil Indicators | : (Applicabl  | e to all I | RRs, unle | ss other                   | rwise n  | oted)      |                   |           | Indicators for Problematic Hydric Soils *** |           |              |              | Soils ***    |
|        | Histosol (A1)   |               |            |           | Sandy                      | Redox    | (S5)       |                   |           | 1 cm Muck (A9) <b>(LRR C)</b>               |           |              |              |              |
|        | Histic Epipedo  | on (A2)       |            |           | Strippe                    | d Matrix | x (S6)     |                   |           | 2 cm Muc                                    | k (A10)   | (LRR B)      |              |              |
|        | Black Histic (A | A3)           |            |           | Loamy                      | Mucky    | Mineral (F | -1)               |           | Reduced                                     | Vertic (  | F18)         |              |              |
|        | Hydrogen Sul    | fide (A4)     |            |           | Loamy                      | Gleyed   | Matirx (F  | 2)                |           | Red Pare                                    | nt Mate   | rial (TF2)   |              |              |
|        | Stratified Laye | ers (A5) (LRF | RC)        |           | Depleted Matrix (F3)       |          |            |                   |           | Other (Ex                                   | plain in  | Remarks)     |              |              |
|        | 1 cm Muck (A    | .9) (LRR D)   |            |           | Redox Dark Surface (F6)    |          |            |                   |           |   |           |              |              |              |
|        | Depleted Below  | v Dark Surfac | e (A11)    |           | Depleted Dark Surface (F7) |          |            |                   |           |   |           |              |              |              |
|        | Thick Dark Su   | urface (A12)  |            |           | Redox                      | Depres   | sions (F8) | )                 |           |   |           |              |              |              |
|        | Sandy Mucky     | Mineral (S1)  | )          |           | Vernal                     | Pools (  | F9)        |                   |           |   |           |              |              | and wetland  |
|        | Sandy Gleyed    | d Matrix (S4) |            |           |                            |          |            |                   | hyd       | rology mus                                  | st be pro | esent, unles | ss disturbed | d or problem |
| strict | ive Layer (if o | bserved)      |            |           |                            |          |            |                   |           |   |           |              |              |              |
|        | Туре:           |               |            |           |                            | _        |            |                   |           |   |           |              |              |              |
| Dep    | th (inches):    |               |            |           |                            | _        | Hydric S   | oil Present?      | Yes       | Х   | _         | No           |              | _            |
|        |                 |               |            |           |                            |          |            |                   |           |   |           |              |              |              |
| marks  | S:              |               |            |           |                            |          |            |                   |           |   |           |              |              |              |
| sume   | hydric soils    |               |            |           |                            |          |            |                   |           |   |           |              |              |              |
|        |                 |               |            |           |                            |          |            |                   |           |   |           |              |              |              |
|        |                 |               |            |           |                            |          |            |                   |           |   |           |              |              |              |

| Wetland   | Hydrology Indicators:        |              |      |             |                            |          |   |   |
|-----------|------------------------------|--------------|------|-------------|----------------------------|----------|---|---|
|           | Primary Indicators           | (minimum of  | fone | is require; | check all that apply)      |          |   | Secondary Indicators (2 or more required) |
| Х         | Surface Water (A1)           |              |      | Salt Crust  | t (B11)                    |          |   | Water Marks (B1) (Riverine)               |
|           | High Water Table (A2)        |              |      | Biotic Cru  | st (B12)                   |          |   | Sediment Deposits (B2) (Riverine)         |
| х         | Saturation (A3)              |              |      | Aquatic F   | auna (B13)                 |          |   | Drift Deposits (B3) (Riverine)            |
| х         | Water Marks (B1) (Noni       | riverine)    |      | Hydrogen    | Sulfide Odor (C1)          |          |   | Drainage Patterns (B10)                   |
|           | Sediment Deposits (B2) (No   | onriverine)  |      | Oxidized R  | Rhizospheres on Living Ro  | ots (C3) |   | Dry-Season Water Table (C2)               |
|           | Drift Deposits (B3) (Nor     | nriverine)   |      | Presence    | of Reduced Iron (C4)       |          |   | Crayfish Burrows (C8)                     |
|           | Surface Soil Cracks (B6      | 3)           |      | Recent Iro  | on Reduction in Tilled Soi | l (C6)   | Х | Saturation Visible on Aerial Imagery (C9) |
| х         | Inundation Visible on Aerial | Imagery (B7) |      | Thin Muck   | k Surface (C7)             |          |   | Shallow Aquitard (D3)                     |
|           | Water Stained Leaves (       | B9)          |      | Other (Ex   | plain in Remarks)          |          |   | FAC-Neutral Test (D5)                     |
| Field Ob  | servations:                  |              |      |             |                            |          |   |   |
| Surface   | Water Present?               | Yes          | х    | No          | Depth (inches):            | 12       | _ | Wetland Hydrology Present?                |
| Water Ta  | able Present?                | Yes          | х    | No          | Depth (inches):            | 0        | _ | YesX No                                   |
| Saturatio | n Present?                   | Yes          | х    | No          | Depth (inches):            | 0        | _ |   |
| (includes | capillary fringe)            |              |      |             |                            |          |   |   |

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

--See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.10.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Delta formation with isolated wetlands.

| Project/Site:            | Utah Lake              |                | City/County:      | Utah Co.               | Sampling Date: 7/8/2021   |
|--------------------------|------------------------|----------------|-------------------|------------------------|---|
| Applicant/Owner:         | LRS                    |                |                   |                        | State: Utah Sampling Point: B08-DP                                |
| Investigator(s):         | C.Nguyen, N.Jones      |                |                   | Section, Township,     | Range: <u>0</u>   |
| Landform: (hillslope, te | race, etc.):           | Other          |                   | Local relief (concave, | convex, none): Concave Slope (%): 0-2%                            |
| Subregion (LRR):         | MLRA 28                | BA; LRR D      | Lat.              | 40.180769              | Long111.680230 Datum: WGS84                                       |
| Soil Map Unit Name:      |                        |                | Water             |                        | NWI Classification: L2ABF   |
| Are climatic/hydrologic  | conditions on the site | typical for ti | ime of year?      | Yes                    | No X (If no, explain in the Remarks)                              |
| Are Vegetation           | ,Soil                  | ,or Hy         | /drology          | significantly disturbe | d?  |
| Are Vegetation           | ,Soil                  | ,or Hy         | /drology          | naturally problemation | ?   |
| Are Normal Circumstar    | ces Present?           | Yes <u>X</u>   | No                | (If needed, explain a  | ny answers in Remarks)  |
|                          |                        |                |                   |                        |   |
|                          |                        |                |                   |                        | tions, transects, important features, etc.                        |
| Hydrophytic              | Vegetation Present?    |                |                   |                        | pled Area within a Wetland?                                       |
|                          | Hydric Soil Present?   |                |                   |                        | <u>X</u> No   |
| Wetland                  | Hydrology Present?     | Yes <u>X</u>   | No                | _                      |   |
| Remarks:                 |                        |                |                   |                        |   |
|                          | dae of PEM/LAC wet     | land bounda    | arv within a delt | a landform. Vegetation | dominated by cattails. There is evidence of phragmites which has  |
| been treated. Drought of |                        |                |                   |                        |   |
| VEGETATION - Us          | o sciontific nam       | os of plan     | te                |                        |   |
| VEGETATION - 08          |                        | Absolute       | Dominant          |                        |   |
| Tree Stratum             | Plot size: r= 30'      | % Cover        | Species?          | Indicator Status       | Dominance Test Worksheet  |
| 1.                       |                        |                |                   |                        |   |
| 2.                       |                        |                |                   |                        | Number of dominant species that are                               |
| 3.                       |                        |                |                   |                        | OBL, FACW, or FAC: 2 (A)  |
| 4.                       |                        |                |                   |                        | Total number of dominant species                                  |
|                          |                        | 0              | = Total Cover     |                        | across all strata: <u>2</u> (B)                                   |
|                          |                        |                |                   |                        | Percent of dominant species that are                              |
| Sapling/Shrub Stratum    | Plot size: r= 30'      |                |                   |                        | OBL, FACW, or FAC: 100% (A/B)                                     |
| 1.                       |                        |                |                   |                        | Prevalence Index Worksheet  |
| 2.                       |                        |                |                   |                        | Total % cover of: Multiply by:                                    |
| 3.                       |                        |                |                   |                        | OBL species <u>120</u> x 1 <u>120</u>                             |
| 4.                       |                        |                |                   |                        | FACW species 0 x 2 0  |
| 5.                       |                        |                |                   |                        | FAC species <u>0</u> x 3 <u>0</u>                                 |
|                          |                        | 0              | = Total Cover     |                        | FACU species 0 x 4 0  |
|                          |                        |                |                   |                        | UPL species 0 x 5 0   |
| Herb Stratum             | Plot size: r= 5'       |                |                   |                        | Column Total <u>120</u> (A) <u>120</u> (B)                        |
| 1. Typha angust          | ifolia                 | 90             | Y                 | OBL                    | Prevalence Index: 1.0 (B/A)                                       |
| 2. <u>Scirpus neva</u>   | lensis                 | 30             | Y                 | OBL                    | Hydrophytic Vegetation Indicators:                                |
| 3.                       |                        |                |                   |                        | X 1 - Rapid Test for Hydrophytic Vegetation                       |
| 4.                       |                        |                |                   |                        | X 2 - Dominance Test is >50%                                      |
| 5.                       |                        |                |                   |                        | X 3 - Prevalence Index is <3.0*                                   |
| 6.                       |                        |                |                   |                        | Problematic Hydrophytic Vegetation* (Explain)                     |
| 7.                       |                        |                |                   |                        | *Indicators of hydric soil and wetland hydrology must be present, |
| 8.                       |                        |                |                   |                        | unless disturbed or problematic                                   |
|                          |                        | 120            | = Total Cover     |                        | Hydrophytic Vegetation Present?                                   |
|                          |                        |                |                   |                        |   |
| Woody Vine Stratum       | Plot size: r= 30'      |                |                   |                        | Yes <u>X</u> No   |
| 1.                       |                        |                |                   |                        |   |
| 2.                       |                        |                |                   |                        |   |
|                          |                        | 0              | = Total Cover     |                        |   |
|                          |                        |                |                   |                        |   |
| % Bare Ground in H       | erb Stratum            | % Cove         | er of Biotic Crus | st                     |   |

|        | Depth           | Matr             | rix        |           | Redox F                    | eatures  | 5          |                   |            |                      |                      |                      |
|--------|-----------------|------------------|------------|-----------|----------------------------|----------|------------|-------------------|------------|----------------------|----------------------|----------------------|
|        | (inches)        | Color            | %          | Color     | %                          | Туре     | * Loc**    | Texture           |            |                      | Remarks              |                      |
|        | 0-              |                  |            |           |                            |          |            |                   |            |                      |                      |                      |
|        |                 |                  |            |           |                            |          |            |                   |            |                      |                      |                      |
|        |                 |                  |            |           |                            |          |            |                   |            |                      |                      |                      |
|        |                 |                  |            |           |                            |          |            |                   |            |                      |                      |                      |
|        |                 |                  |            |           |                            |          | _          |                   |            |                      |                      |                      |
|        |                 |                  |            |           |                            |          |            |                   |            |                      |                      |                      |
|        |                 |                  |            |           |                            |          | _          |                   |            |                      |                      |                      |
|        |                 |                  |            |           |                            |          |            |                   |            |                      |                      |                      |
| ype: C | C=Concentratio  | n, D=Depleti     | on, RM=    | Reduced N | /latrix, M                 | S=Mask   | ked Sand   | grains **Location | 1: PL=Pore | e Lining, M=         | Matrix               |                      |
| dric S | Soil Indicators | : (Applicabl     | e to all I | RRs, unle | ess other                  | rwise n  | oted)      |                   |            | ors for Problemation | Hydric Soils ***     |                      |
|        | Histosol (A1)   |                  |            |           | Sandy                      | Redox    | (S5)       |                   |            |                      | (A9) <b>(LRR C)</b>  |                      |
|        | Histic Epipedo  | on (A2)          |            |           | Strippe                    | d Matrix | x (S6)     |                   |            |                      | (A10) <b>(LRR B)</b> |                      |
|        | Black Histic (A | 43)              |            |           | Loamy                      | Mucky    | Mineral (F | -1)               |            | Reduced V            | ( )                  |                      |
|        | Hydrogen Sul    | fide (A4)        |            |           | Loamy                      | Gleyed   | Matirx (F  | 2)                |            | Red Paren            | t Material (TF2)     |                      |
|        | Stratified Laye | ers (A5) (LRR C) |            |           | Depleted Matrix (F3)       |          |            |                   |            | Other (Exp           | lain in Remarks)     |                      |
|        | 1 cm Muck (A    | 9) (LRR D)       |            |           | Redox Dark Surface (F6)    |          |            |                   |            |                      |                      |                      |
|        | Depleted Below  | v Dark Surfac    | e (A11)    |           | Depleted Dark Surface (F7) |          |            |                   |            |                      |                      |                      |
|        | Thick Dark Su   | Irface (A12)     |            |           | Redox                      | Depres   | sions (F8) | )                 |            |                      |                      |                      |
|        | Sandy Mucky     | Mineral (S1)     | )          |           | Vernal                     | Pools (I | F9)        |                   |            |                      |                      | getation and wetland |
|        | Sandy Gleyed    | l Matrix (S4)    |            |           |                            |          |            |                   | hyd        | rology must          | be present, unless   | disturbed or problem |
| strict | ive Layer (if o | bserved)         |            |           |                            |          |            |                   |            |                      |                      |                      |
|        | Туре:           |                  |            |           |                            | _        |            |                   |            |                      |                      |                      |
| Dep    | th (inches):    |                  |            |           |                            | _        | Hydric S   | oil Present?      | Yes        | Х                    | No                   |                      |
|        |                 |                  |            |           |                            |          |            |                   |            |                      |                      |                      |
| mark   |                 |                  |            |           |                            |          |            |                   |            |                      |                      |                      |
| sume   | hydric soils    |                  |            |           |                            |          |            |                   |            |                      |                      |                      |
|        |                 |                  |            |           |                            |          |            |                   |            |                      |                      |                      |
|        |                 |                  |            |           |                            |          |            |                   |            |                      |                      |                      |

|         | Primary Indicators          | (minimum of | fone       | is require;               | check all that apply)     |          |   | Secondary Indicators (2 or more required) |  |  |  |
|---------|-----------------------------|-------------|------------|---------------------------|---------------------------|----------|---|---|--|--|--|
| Х       | Surface Water (A1)          |             |            | Salt Crust                | t (B11)                   |          |   | Water Marks (B1) (Riverine)               |  |  |  |
|         | High Water Table (A2)       |             |            | Biotic Cru                | st (B12)                  |          |   | Sediment Deposits (B2) (Riverine)         |  |  |  |
| Х       | Saturation (A3)             |             |            | Aquatic Fa                | auna (B13)                |          |   | Drift Deposits (B3) (Riverine)            |  |  |  |
| Х       | Water Marks (B1) (Non       | riverine)   |            | Hydrogen                  | Sulfide Odor (C1)         |          |   | Drainage Patterns (B10)                   |  |  |  |
|         | Sediment Deposits (B2) (N   | onriverine) |            | Oxidized R                | Rhizospheres on Living Ro | ots (C3) |   | Dry-Season Water Table (C2)               |  |  |  |
|         | Drift Deposits (B3) (Nor    | nriverine)  |            | Presence                  | of Reduced Iron (C4)      |          |   | Crayfish Burrows (C8)                     |  |  |  |
|         | Surface Soil Cracks (B      |             | Recent Iro | n Reduction in Tilled Soi | l (C6)                    | Х        | Saturation Visible on Aerial Imagery (C9) |   |  |  |  |
| <       | Inundation Visible on Aeria |             | Thin Muck  | k Surface (C7)            |                           |          | Shallow Aquitard (D3)                     |   |  |  |  |
|         | Water Stained Leaves        | (B9)        |            | Other (Ex                 | plain in Remarks)         |          |   | FAC-Neutral Test (D5)                     |  |  |  |
| -ield ( | Observations:               |             |            |                           |                           |          |   |   |  |  |  |
| Surfac  | e Water Present?            | Yes         | х          | No                        | Depth (inches):           | 2        | _   | Wetland Hydrology Present?                |  |  |  |
| Nater   | Table Present?              | Yes         | х          | No                        | Depth (inches):           | 0        | _   | Yes X No                                  |  |  |  |
| Satura  | ation Present?              | Yes         | х          | No                        | Depth (inches):           | 0        | _   |   |  |  |  |
| includ  | les capillary fringe)       |             |            |                           |                           |          |   |   |  |  |  |

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

### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.10.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Delta formation with isolated wetlands.

| Project/Site:             | Utah Lake                |                | City/County:      | Utah Co.                | Sampling Date: 7/8/2021  |
|---------------------------|--------------------------|----------------|-------------------|-------------------------|--|
| Applicant/Owner:          | LRS                      |                |                   |                         | State: Utah Sampling Point: B09-DP   |
| Investigator(s):          | C.Nguyen, N.Jones        |                |                   | Section, Township, I    | Range: <u>0</u>  |
| Landform: (hillslope, ter | rrace, etc.):            | Other          |                   | Local relief (concave,  | convex, none): Concave Slope (%): 0-2%   |
| Subregion (LRR):          | MLRA 28                  | A; LRR D       | Lat.              | 40.180203               | Long111.691625 Datum: WGS84  |
| Soil Map Unit Name:       |                          |                | Water             |                         | NWI Classification: L2ABF  |
| Are climatic/hydrologic   | conditions on the site   | typical for ti | me of year?       | Yes                     | No X (If no, explain in the Remarks)   |
| Are Vegetation            | ,Soil                    | or Hy,         | drology           | _significantly disturbe | d?   |
| Are Vegetation            | ,Soil                    | ,or Hy         | drology           | _naturally problematio  | ?  |
| Are Normal Circumstar     | ices Present?            | Yes X          | No                | (If needed, explain a   | ny answers in Remarks)   |
|                           |                          |                |                   |                         |  |
| SUMMARY OF FIN            | IDINGS - Attach          | site map s     | showing sa        | mpling point loca       | tions, transects, important features, etc.                                       |
| Hydrophytic               | Vegetation Present?      | Yes X          | No                | Is the Sam              | pled Area within a Wetland?  |
|                           | Hydric Soil Present?     | Yes X          | No                | Yes                     | <u>X</u> No  |
| Wetland                   | d Hydrology Present?     | Yes X          | No                | _                       |  |
|                           |                          |                |                   |                         |  |
| Remarks:                  |                          |                |                   |                         |  |
| Data point located on e   | dge of PEM/LAC wetl      | and bounda     | ry within a delta | a landform. Data point  | on the edge of a small island Drought conditions                                 |
|                           |                          |                |                   |                         |  |
| VEGETATION - Us           | e scientific name        | es of plan     | its               |                         |  |
| Teo a Otractura           |                          | Absolute       | Dominant          | la dia atau Otatua      | Deminence Test Werkehest   |
| Tree Stratum              | Plot size: <u>r= 30'</u> | % Cover        | Species?          | Indicator Status        | Dominance Test Worksheet   |
|                           |                          |                |                   |                         |  |
| 2.                        | · ·                      |                |                   |                         | Number of dominant species that are  |
| 3.                        | · ·                      |                |                   |                         | OBL, FACW, or FAC: <u>2</u> (A)  |
| 4.                        | · ·                      |                |                   |                         | Total number of dominant species   |
|                           |                          | 0              | = Total Cover     |                         | across all strata: <u>2</u> (B)  |
|                           |                          |                |                   |                         | Percent of dominant species that are   |
| Sapling/Shrub Stratum     | Plot size: $r=30'$       |                |                   |                         | OBL, FACW, or FAC: 100% (A/B)  |
| 1                         |                          |                |                   |                         | Prevalence Index Worksheet   |
|                           |                          |                |                   |                         | Total % cover of: Multiply by:   |
|                           | · ·                      |                | . <u> </u>        |                         | OBL species <u>110</u> x 1 <u>110</u>  |
| 4.                        | · ·                      |                | . <u> </u>        |                         | FACW species 0 x 2 0   |
| 5                         |                          |                |                   |                         | FAC species 0 x 3 0  |
|                           |                          | 0              | = Total Cover     |                         | FACU species 0 x 4 0   |
|                           |                          |                |                   |                         | UPL species <u>0</u> x 5 <u>0</u>  |
| Herb Stratum              | Plot size: <u>r= 5'</u>  |                |                   |                         | Column Total <u>110</u> (A) <u>110</u> (B)                                       |
| 1. <u>Typha angust</u>    |                          | 80             | <u> </u>          | OBL                     | Prevalence Index: 1.0 (B/A)  |
| 2. <u>Scirpus nevac</u>   | lensis                   | 30             | Y                 | OBL                     | Hydrophytic Vegetation Indicators:   |
| 3.                        | · ·                      |                | . <u> </u>        |                         | X 1 - Rapid Test for Hydrophytic Vegetation                                      |
| 4.                        | · ·                      |                | . <u> </u>        |                         | X 2 - Dominance Test is >50%   |
| 5                         |                          |                |                   |                         | X 3 - Prevalence Index is ≤3.0*<br>Problematic Hydrophytic Vegetation* (Explain) |
| 6.                        |                          |                |                   |                         | *Indicators of hydric soil and wetland hydrology must be present,                |
|                           |                          |                |                   |                         | unless disturbed or problematic  |
| 8                         |                          |                |                   |                         |  |
|                           |                          | 110            | = Total Cover     |                         | Hydrophytic Vegetation Present?  |
|                           |                          |                |                   |                         |  |
| Woody Vine Stratum        | Plot size: <u>r= 30'</u> |                |                   |                         | Yes <u>X</u> No  |
| 1                         |                          |                |                   |                         | 4  |
| 2.                        |                          |                |                   |                         | 4  |
|                           |                          |                | = Total Cover     |                         |  |
|                           | lerb Stratum             |                | er of Biotic Crus | t                       |  |
| Remarks: (if observed,    | list morphological ada   | aptations be   | low).             |                         |  |
| Vegetation is 80% catta   | ails.                    |                |                   |                         |  |

|           | (inches)        |                   |            |            | Redox Features             |          |            |                   |           |                                |                         |
|-----------|-----------------|-------------------|------------|------------|----------------------------|----------|------------|-------------------|-----------|--------------------------------|-------------------------|
|           |                 | Color             | %          | Color      | %                          | Type     | * Loc**    | Texture           |           | Remark                         | ks                      |
| _         | 0-              |                   |            |            |                            |          |            |                   |           |                                |                         |
|           |                 |                   |            |            |                            |          |            |                   |           |                                |                         |
|           |                 |                   |            |            |                            |          |            |                   |           |                                |                         |
|           |                 |                   |            |            |                            |          |            |                   |           |                                |                         |
|           |                 |                   |            |            |                            |          |            |                   |           |                                |                         |
|           |                 |                   |            |            |                            |          |            |                   |           |                                |                         |
|           |                 |                   |            |            |                            |          |            |                   |           |                                |                         |
|           |                 |                   |            |            |                            |          |            |                   |           |                                |                         |
| pe: C=C   | Concentratior   | n, D=Depleti      | on, RM=    | Reduced N  | /atrix, MS                 | S=Mask   | ed Sand    | grains **Location | : PL=Pore | e Lining, M=Matrix             |                         |
| dric Soi  | il Indicators   | : (Applicabl      | e to all L | .RRs, unle | ess other                  | wise n   | oted)      |                   |           | Indicators for Problema        | tic Hydric Soils ***    |
| Н         | listosol (A1)   |                   |            |            | Sandy                      | Redox (  | (S5)       |                   |           | 1 cm Muck (A9) (LRR C)         |                         |
| Н         | listic Epipedo  | n (A2)            |            |            | Strippe                    | d Matrix | (S6)       |                   |           | 2 cm Muck (A10) <b>(LRR B)</b> |                         |
| BI        | Black Histic (A | .3)               |            |            | Loamy                      | Mucky    | Mineral (F | -1)               |           | Reduced Vertic (F18)           |                         |
| H         | lydrogen Sulf   | ide (A4)          |            |            | Loamy                      | Gleyed   | Matirx (F  | 2)                |           | Red Parent Material (TF2)      |                         |
| St        | Stratified Laye | rers (A5) (LRR C) |            |            | Depleted Matrix (F3)       |          |            |                   |           | Other (Explain in Remarks)     |                         |
| 1         | cm Muck (As     | 9) (LRR D)        |            |            | Redox Dark Surface (F6)    |          |            |                   |           |                                |                         |
| De        | Depleted Below  | Dark Surface      | e (A11)    |            | Depleted Dark Surface (F7) |          |            |                   |           |                                |                         |
| TI        | hick Dark Su    | rface (A12)       |            |            | Redox                      | Depres   | sions (F8) | 1                 |           |                                |                         |
| S         | Sandy Mucky     | Mineral (S1)      | )          |            | Vernal                     | Pools (I | F9)        |                   |           | *** Indicators of hydrophytic  |                         |
| S         | andy Gleyed     | Matrix (S4)       |            |            |                            |          |            |                   | hyd       | Irology must be present, unles | ss disturbed or problem |
| strictive | e Layer (if ol  | oserved)          |            |            |                            |          |            |                   |           |                                |                         |
| Ту        | уре:            |                   |            |            |                            | _        |            |                   |           |                                |                         |
| Depth     | (inches):       |                   |            |            |                            | _        | Hydric S   | oil Present?      | Yes       | <u>    X        No  </u>       |                         |
|           |                 |                   |            |            |                            |          |            |                   |           |                                |                         |
| narks:    |                 |                   |            |            |                            |          |            |                   |           |                                |                         |
| sume hy   | ydric soils     |                   |            |            |                            |          |            |                   |           |                                |                         |
|           |                 |                   |            |            |                            |          |            |                   |           |                                |                         |
|           |                 |                   |            |            |                            |          |            |                   |           |                                |                         |

| Wetlan                   | d Hydrology Indicators                    | :            |                  |   |                           |          |                             |   |  |  |
|--------------------------|---|--------------|------------------|---|---------------------------|----------|-----------------------------|---|--|--|
|                          | Primary Indicators                        | (minimum of  | one              | is require;                               | check all that apply)     |          |                             | Secondary Indicators (2 or more required) |  |  |
| X Surface Water (A1)     |   |              | Salt Crust (B11) |   |                           |          | Water Marks (B1) (Riverine) |   |  |  |
|                          | High Water Table (A2)                     |              |                  | Biotic Cru                                | st (B12)                  |          |                             | Sediment Deposits (B2) (Riverine)         |  |  |
| Х                        | Saturation (A3)                           |              |                  | Aquatic Fauna (B13)                       |                           |          |                             | Drift Deposits (B3) (Riverine)            |  |  |
| Х                        | Water Marks (B1) (Nonriverine)            |              |                  | Hydrogen                                  | Sulfide Odor (C1)         |          |                             | Drainage Patterns (B10)                   |  |  |
|                          | Sediment Deposits (B2) (N                 | lonriverine) |                  | Oxidized R                                | Rhizospheres on Living Ro | ots (C3) |                             | Dry-Season Water Table (C2)               |  |  |
|                          | Drift Deposits (B3) (No                   | nriverine)   |                  | Presence                                  | of Reduced Iron (C4)      |          |                             | Crayfish Burrows (C8)                     |  |  |
| Surface Soil Cracks (B6) |   |              |                  | Recent Iron Reduction in Tilled Soil (C6) |                           |          |                             | Saturation Visible on Aerial Imagery (C9) |  |  |
| Х                        | Inundation Visible on Aerial Imagery (B7) |              |                  | Thin Muck                                 | k Surface (C7)            |          |                             | Shallow Aquitard (D3)                     |  |  |
|                          | Water Stained Leaves (B9) Other (Ex       |              |                  | Other (Ex                                 | (Explain in Remarks)      |          |                             | FAC-Neutral Test (D5)                     |  |  |
| Field O                  | bservations:                              |              |                  |   |                           |          |                             |   |  |  |
| Surface                  | Water Present?                            | Yes          | х                | No  | Depth (inches):           | 2        | _                           | Wetland Hydrology Present?                |  |  |
| Water Table Present? Yes |   | Х            | No               | Depth (inches):                           | 0                         | _        | YesX No                     |   |  |  |
| Saturat                  | Saturation Present? Yes                   |              | х                | No  | Depth (inches):           | 0        | _                           |   |  |  |
| (include                 | es capillary fringe)                      |              |                  |   |                           |          |                             |   |  |  |

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

--See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.10.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Delta formation with isolated wetlands.

| Project/Site:  | Utah Lake                |              | City/County:         | Utah Co.                    | Sampling Date: 7/9/2021   |  |  |  |
|--|--------------------------|--------------|----------------------|-----------------------------|---|--|--|--|
| Applicant/Owner:                                     | LRS                      |              |                      |                             | State: Utah Sampling Point: B10-DP                                    |  |  |  |
| Investigator(s):                                     | C.Nguyen, N.Jones,       | A.Mathes     |                      | Section, Township, Range: 0 |   |  |  |  |
| Landform: (hillslope, ter                            | race, etc.):             | Other        |                      | Local relief (concave,      | convex, none): Concave Slope (%): 0-2%                                |  |  |  |
| Subregion (LRR):                                     | MLRA 28                  | A; LRR D     | Lat.                 | 40.267579                   | Long111.849058 Datum: WGS84   |  |  |  |
| Soil Map Unit Name:                                  |                          |              | Beaches              |                             | NWI Classification: PEM1F   |  |  |  |
| Are climatic/hydrologic o                            |                          |              |                      |                             |   |  |  |  |
| Are Vegetation                                       | ,Soil                    | ,or Hy       | ydrology             | _significantly disturbe     | d?  |  |  |  |
| Are Vegetation                                       |                          |              |                      | _naturally problemation     |   |  |  |  |
| Are Normal Circumstan                                | ces Present?             | Yes X        | No                   | (If needed, explain a       | iny answers in Remarks)   |  |  |  |
| SUMMARY OF FIN                                       | DINGS - Attach           | site map     | showing sa           | mpling point loca           | tions, transects, important features, etc.                            |  |  |  |
| Hydrophytic  | Vegetation Present?      | Yes X        | No                   | Is the Sam                  | pled Area within a Wetland?   |  |  |  |
|  | Hydric Soil Present?     | Yes X        | No                   | Yes                         | <u>X</u> No   |  |  |  |
| Wetland  | Hydrology Present?       | Yes X        | No                   |                             |   |  |  |  |
|  |                          |              |                      |                             |   |  |  |  |
| Remarks:   |                          |              |                      |                             |   |  |  |  |
| Data point located on ea<br>shoreline salt cedar emo | •                        |              | Area is dominat      | ed by phragmites, whi       | ich extends from shoreline to 1-2ft of water. Further back into the   |  |  |  |
| VEGETATION - Us                                      | e scientific name        |              |                      |                             |   |  |  |  |
| <u>Tree Stratum</u><br>1.                            | Plot size: <u>r= 30'</u> |              | Dominant<br>Species? | Indicator Status            | Dominance Test Worksheet  |  |  |  |
| 2.   |                          |              |                      |                             | -   |  |  |  |
| 3.   |                          |              |                      |                             | Number of dominant species that are<br>OBL, FACW, or FAC: 2 (A)       |  |  |  |
| 3<br>4.  |                          |              | ·                    |                             | OBL, FACW, or FAC: <u>2</u> (A)                                       |  |  |  |
| 4.   |                          | 0            | = Total Cover        |                             | Total number of dominant species<br>across all strata: 2 (B)          |  |  |  |
| Sapling/Shrub Stratum                                | Plot size: r= 30'        |              |                      |                             | Percent of dominant species that are<br>OBL, FACW, or FAC: 100% (A/B) |  |  |  |
| 1  |                          |              |                      |                             | Prevalence Index Worksheet  |  |  |  |
| · · · · · · · · · · · · · · · · · · ·                |                          |              | ·                    |                             | Total % cover of: Multiply by:  |  |  |  |
| 2  |                          |              |                      |                             | OBL species 30 x 1 30   |  |  |  |
| 4.   |                          |              |                      |                             | FACW species 100 x 2 200  |  |  |  |
| 5.   |                          |              |                      |                             | FAC species 0 x 3 0   |  |  |  |
|  |                          | 0            | = Total Cover        |                             | FACU species 0 x 4 0  |  |  |  |
|  |                          |              |                      |                             | UPL species 0 x 5 0   |  |  |  |
| Herb Stratum   | Plot size: r= 5'         |              |                      |                             | Column Total <u>130</u> (A) <u>230</u> (B)                            |  |  |  |
| 1. Phragmites au                                     |                          | 100          | Y                    | FACW                        | Prevalence Index: 1.8 (B/A)   |  |  |  |
| 2. Scirpus nevad                                     |                          | 30           | Y                    | OBL                         | Hydrophytic Vegetation Indicators:                                    |  |  |  |
| 3.   |                          |              | ·                    |                             | X 1 - Rapid Test for Hydrophytic Vegetation                           |  |  |  |
| 4.   |                          |              |                      |                             | X 2 - Dominance Test is >50%  |  |  |  |
| 5.   |                          |              |                      |                             | X 3 - Prevalence Index is $\leq 3.0^*$                                |  |  |  |
| 6.   |                          |              |                      |                             | Problematic Hydrophytic Vegetation* (Explain)                         |  |  |  |
| 7  |                          |              |                      |                             | *Indicators of hydric soil and wetland hydrology must be present,     |  |  |  |
| 8.   |                          |              |                      |                             | unless disturbed or problematic                                       |  |  |  |
|  |                          | 130          | = Total Cover        |                             | Hydrophytic Vegetation Present?                                       |  |  |  |
|  |                          |              |                      |                             | N. N. N.  |  |  |  |
| Woody Vine Stratum                                   |                          |              |                      |                             | Yes <u>X</u> No   |  |  |  |
|  |                          |              | ·                    |                             | 4   |  |  |  |
| 2.   |                          | 0            | - Total O            |                             | 4   |  |  |  |
| % D 0  | and Observe              |              | = Total Cover        |                             |   |  |  |  |
| % Bare Ground in H                                   |                          |              | er of Biotic Crus    | t                           |   |  |  |  |
| Remarks: (if observed,<br>Wetland is dominated b     |                          | aptations be | eiow).               |                             |   |  |  |  |

| Profile | Description: (                 | Describe to      | depth ne   | eded to c                  | locumen                  | t the inc  | licator o  | r confirm abser  | ice of indi | cators.)   |  |
|---------|--------------------------------|------------------|------------|----------------------------|--------------------------|------------|------------|------------------|-------------|--|--|
|         | Depth                          | Matr             | ix         |                            | Redox F                  | eatures    | 1          |                  |             |  |  |
|         | (inches)                       | Color            | %          | Color                      | %                        | Type*      | Loc**      | Texture          |             | Remarks  |  |
|         | 0-                             |                  |            |                            |                          |            |            |                  |             |  |  |
|         |                                |                  |            |                            |                          |            |            |                  |             |  |  |
|         |                                |                  |            |                            |                          |            |            |                  |             |  |  |
|         |                                |                  |            |                            |                          |            |            |                  |             |  |  |
|         |                                |                  |            |                            |                          |            |            |                  |             |  |  |
|         |                                |                  |            |                            |                          |            |            |                  |             |  |  |
|         |                                |                  |            |                            |                          |            |            |                  |             |  |  |
|         |                                |                  |            |                            |                          |            |            |                  |             |  |  |
| ype: (  | C=Concentratio                 | n, D=Depletio    | on, RM=F   | Reduced N                  | Aatrix, MS               | S=Maske    | ed Sand g  | grains **Locatio | n: PL=Por   | e Lining, M=Matrix                                   |  |
| vdric   | Soil Indicators                | : (Applicable    | e to all L | RRs, unle                  | ss other                 | wise no    | ted)       |                  |             | Indicators for Problematic Hydric Soils ***          |  |
|         | Histosol (A1)                  |                  |            |                            |                          | Redox (S   |            |                  |             | 1 cm Muck (A9) (LRR C)                               |  |
|         | Histic Epipede                 | on (A2)          |            |                            |                          | d Matrix   |            |                  |             | 2 cm Muck (A10) <b>(LRR B)</b>                       |  |
|         | Black Histic (A                |                  |            |                            |                          |            | lineral (F | 1)               |             | Reduced Vertic (F18)                                 |  |
|         | Hydrogen Sulfide (A4)          |                  |            |                            | Loamy Gleyed Matirx (F2) |            |            |                  |             | Red Parent Material (TF2)                            |  |
|         | Stratified Layers (A5) (LRR C) |                  |            |                            | Depleted Matrix (F3)     |            |            |                  |             | Other (Explain in Remarks)                           |  |
|         | 1 cm Muck (A9) (LRR D)         |                  |            |                            | Redox Dark Surface (F6)  |            |            |                  |             |  |  |
|         |                                |                  |            | Depleted Dark Surface (F7) |                          |            |            |                  |             |  |  |
|         |                                |                  |            |                            |                          | ions (F8)  | ,          |                  |             |  |  |
|         | Sandy Mucky                    | , ,              |            |                            |                          | Pools (F   | . ,        |                  |             | *** Indicators of hydrophytic vegetation and wetland |  |
|         | Sandy Gleyed                   |                  |            |                            | , or indi                |            | 0)         |                  | hyd         | Irology must be present, unless disturbed or problem |  |
| estric  | tive Layer (if o               |                  |            |                            |                          |            |            |                  |             |  |  |
|         | Type:                          | ,                |            |                            |                          |            |            |                  |             |  |  |
| Der     | oth (inches):                  |                  |            |                            |                          | -          | lydric Se  | oil Present?     | Yes         | X No   |  |
| Dob     | un (monoo).                    |                  |            |                            |                          | - ľ        | iyano o    |                  | 100         |  |  |
| emark   | S:                             |                  |            |                            |                          |            |            |                  |             |  |  |
| ssume   | hydric soils                   |                  |            |                            |                          |            |            |                  |             |  |  |
|         |                                |                  |            |                            |                          |            |            |                  |             |  |  |
|         |                                |                  |            |                            |                          |            |            |                  |             |  |  |
| YDR     | OLOGY                          |                  |            |                            |                          |            |            |                  |             |  |  |
|         | 0100.                          |                  |            |                            |                          |            |            |                  |             |  |  |
| etlan   | d Hydrology In                 | dicators:        |            |                            |                          |            |            |                  |             |  |  |
|         | Primary I                      | ndicators (mi    | inimum of  | f one is re                | quire; che               | eck all th | at apply)  |                  |             | Secondary Indicators (2 or more required)            |  |
| Х       | Surface Wate                   | r (A1)           |            | Salt                       | Crust (B                 | 11)        |            |                  | Wate        | er Marks (B1) (Riverine)                             |  |
|         | High Water Ta                  | able (A2)        |            | Biot                       | ic Crust (               | B12)       |            |                  | Sedi        | iment Deposits (B2) (Riverine)                       |  |
| Х       | Saturation (A3                 | 3)               |            | Aqu                        | atic Faun                | a (B13)    | 3)         |                  |             | Deposits (B3) (Riverine)                             |  |
| Х       | Water Marks                    | (B1) (Nonrive    | erine)     | Hyd                        | rogen Su                 | lfide Od   | Odor (C1)  |                  | Drai        | Drainage Patterns (B10)                              |  |
|         | Sediment Depos                 | sits (B2) (Nonri | verine)    | Oxid                       | ized Rhizo               | ospheres   | on Living  | Roots (C3)       | Dry-        | Season Water Table (C2)                              |  |
|         |                                |                  | ,          |                            |                          |            |            |                  |             | · · ·  |  |

--See Climatic Summary Below--

Field Observations: Surface Water Present?

Water Table Present?

(includes capillary fringe)

Saturation Present?

х

Drift Deposits (B3) (Nonriverine)

Inundation Visible on Aerial Imagery (B7)

Surface Soil Cracks (B6)

Water Stained Leaves (B9)

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal val

24

Crayfish Burrows (C8)

Shallow Aquitard (D3)

FAC-Neutral Test (D5)

Wetland Hydrology Present?

Saturation Visible on Aerial Imagery (C9)

Yes X

Х

Presence of Reduced Iron (C4)

Thin Muck Surface (C7)

Yes X No Depth (inches):

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

Other (Explain in Remarks)

Yes X No Depth (inches): 0

Yes X No Depth (inches): 0

Recent Iron Reduction in Tilled Soil (C6)

No

| Project/Site:             | Utah Lake                                      |                     | City/County:         | Utah Co.                | Sampling Date: 7/9/2021  |
|---------------------------|--|---------------------|----------------------|-------------------------|--|
| Applicant/Owner:          | LRS  |                     |                      |                         | State: Utah Sampling Point: B11-DP   |
| Investigator(s):          | C.Nguyen, N.Jones,                             | A.Mathes            |                      | Section, Township,      | Range: <u>0</u>  |
| Landform: (hillslope, te  | errace, etc.):                                 | Other               |                      | Local relief (concave,  | convex, none): Concave Slope (%): 0-2%   |
| Subregion (LRR):          | MLRA 28  | A; LRR D            | Lat.                 | 40.263160               | Long111.853818 Datum: WGS84  |
| Soil Map Unit Name:       |  |                     | Water                |                         | NWI Classification: PEM1F  |
| Are climatic/hydrologic   | c conditions on the site                       | typical for t       | ime of year?         | Yes                     | No X (If no, explain in the Remarks)   |
| Are Vegetation            | ,Soil  | ,or H               | ydrology             | _significantly disturbe | d?   |
| Are Vegetation            | ,Soil  | ,or H               | ydrology             | naturally problemation  | ??   |
| Are Normal Circumsta      | nces Present?                                  | Yes                 | No <u></u>           | (If needed, explain a   | ny answers in Remarks)   |
| SUMMARY OF FI             | NDINGS - Attach                                | site map            | showing sa           | mpling point loca       | tions, transects, important features, etc.   |
| Hydrophyti                | ic Vegetation Present?                         | Yes X               |                      |                         | pled Area within a Wetland?  |
|                           | Hydric Soil Present?                           | Yes X               | No                   | Yes                     | No   |
| Wetlar                    | nd Hydrology Present?                          | Yes X               | No                   | _                       |  |
| Remarks:                  |  |                     |                      |                         |  |
| PEM wetland on the e      | dge of PEM and LAC b<br>bragmites and salt ced |                     | •                    |                         | xtends into 1-2 feet of water. Wetland continues along the shoreline w                 |
| VEGETATION - U            | se scientific name                             | es of plar          | nts                  |                         |  |
| <u>Tree Stratum</u><br>1. | Plot size: <u>r= 30'</u>                       | Absolute<br>% Cover | Dominant<br>Species? | Indicator Status        | Dominance Test Worksheet   |
| 2.                        |  |                     | ·                    |                         |  |
| 3.                        |  |                     |                      |                         | Number of dominant species that are<br>OBL, FACW, or FAC: 1 (A)                        |
| 4.                        |  |                     |                      |                         |  |
|                           |  | 0                   | = Total Cover        |                         | Total number of dominant species<br>across all strata:1(B)                             |
| Sapling/Shrub Stratum     | n_ Plot size: <u>r= 30'</u>                    |                     |                      |                         | Percent of dominant species that are<br>OBL, FACW, or FAC: 100% (A/B)                  |
|                           |  |                     | ·                    | ·                       | Prevalence Index Worksheet   |
|                           |  |                     | ·                    | ·                       | Total % cover of: Multiply by:   |
|                           |  |                     |                      |                         | OBL species <u>100</u> x 1 <u>100</u>  |
|                           |  |                     | ·                    |                         | FACW species 0 x 2 0   |
| 5.                        |  |                     |                      | ·                       | FAC species 0 x 3 0  |
|                           |  | 0                   | = Total Cover        |                         | FACU species 0 x 4 0   |
|                           |  |                     |                      |                         | UPL species 0 x 5 0  |
| Herb Stratum              | Plot size: <u>r= 5'</u>                        |                     |                      |                         | Column Total <u>100</u> (A) <u>100</u> (B)   |
| 1. <u>Scirpus neva</u>    | idensis  | 100                 | Y                    | OBL                     | Prevalence Index: 1.0 (B/A)  |
| 2.                        |  |                     |                      |                         | Hydrophytic Vegetation Indicators:   |
| 3.                        |  |                     | ·                    |                         | X 1 - Rapid Test for Hydrophytic Vegetation  |
|                           | <u> </u>                                       |                     | ·                    | ·                       | X 2 - Dominance Test is >50%   |
|                           | <u> </u>                                       |                     | ·                    | ·                       | X 3 - Prevalence Index is <a>3.0*</a><br>Problematic Hydrophytic Vegetation* (Explain) |
|                           | <u> </u>                                       |                     |                      | ·                       | *Indicators of hydric soil and wetland hydrology must be present,                      |
| 7.                        | <u> </u>                                       |                     |                      | ·                       | unless disturbed or problematic  |
| 8.                        |  | 100                 | = Total Cover        |                         | Hydrophytic Vegetation Present?  |
|                           |  |                     |                      |                         |  |
| Woody Vine Stratum<br>1.  | Plot size: <u>r= 30'</u>                       |                     |                      |                         | Yes <u>X</u> No  |
| 2.                        |  |                     |                      |                         | ]  |
|                           |  | 0                   | = Total Cover        |                         |  |
|                           |  | v                   |                      |                         |  |
| % Bare Ground in          | Herb Stratum                                   |                     | er of Biotic Cru     | st                      |  |

|                | Depth                                     | Matr                                | ix         |           | Redox F                                       | eatures  | ;              |                   |           |              |                  |              |                        |
|----------------|---|-------------------------------------|------------|-----------|---|----------|----------------|-------------------|-----------|--------------|------------------|--------------|------------------------|
|                | (inches)                                  | Color                               | %          | Color     | %   | Type*    | Loc**          | Texture           |           |              |                  | Remarks      |                        |
|                | 0-  |                                     |            |           |   |          |                |                   |           |              |                  |              |                        |
|                |   |                                     |            |           |   |          |                |                   |           |              |                  |              |                        |
|                |   |                                     |            |           |   |          |                |                   |           |              |                  |              |                        |
|                |   |                                     |            |           |   |          |                |                   |           |              |                  |              |                        |
|                |   |                                     |            |           |   |          |                |                   |           |              |                  |              |                        |
|                |   |                                     |            |           |   |          |                |                   |           |              |                  |              |                        |
|                |   |                                     |            |           |   |          |                |                   |           |              |                  |              |                        |
|                |   |                                     |            |           |   |          |                |                   |           |              |                  |              |                        |
| Туре: (        | C=Concentration                           | n, D=Depleti                        | on, RM=    | Reduced N | /atrix, M                                     | S=Mask   | ed Sand g      | grains **Locatior | n: PL=Por | e Lining, M= | Matrix           |              |                        |
| lydric         | Soil Indicators                           | : (Applicabl                        | e to all L | RRs, unle | ss othe                                       | rwise n  | oted)          |                   |           |              |                  |              | Hydric Soils ***       |
|                | Histosol (A1)                             |                                     |            |           | Sandy   | Redox (  | S5)            |                   |           | 1 cm Muck    | : (A9) <b>(L</b> | .RR C)       |                        |
|                | Histic Epipedon (A2)<br>Black Histic (A3) |                                     |            |           | Strippe                                       | d Matrix | (S6)           |                   |           | 2 cm Muck    | (A10) <b>(</b>   | LRR B)       |                        |
|                |   |                                     |            |           | Loamy   | Mucky I  | Mineral (F     | 1)                |           | Reduced \    | /ertic (F        | 18)          |                        |
|                | Hydrogen Sulf                             | Sulfide (A4)<br>Layers (A5) (LRR C) |            |           | Loamy Gleyed Matirx (F2) Depleted Matrix (F3) |          |                |                   |           | Red Paren    | t Materi         | al (TF2)     |                        |
|                | Stratified Laye                           |                                     |            |           |   |          |                |                   |           | Other (Exp   | olain in F       | Remarks)     |                        |
|                | 1 cm Muck (A                              | A9) (LRR D) Redox Dar               |            |           |   | Dark Su  | s Surface (F6) |                   |           |              |                  |              |                        |
|                | Depleted Below                            | / Dark Surface                      | e (A11)    |           | Deplete                                       | ed Dark  | Surface (      | F7)               |           |              |                  |              |                        |
|                | Thick Dark Su                             | rface (A12)                         |            |           | Redox   | Depress  | sions (F8)     | 1                 |           |              |                  |              |                        |
|                | Sandy Mucky                               | Mineral (S1)                        |            |           | Vernal  | Pools (F | -9)            |                   |           |              |                  |              | getation and wetland   |
|                | Sandy Gleyed                              | Matrix (S4)                         |            |           |   |          |                |                   | hyd       | rology must  | be pres          | sent, unless | disturbed or problemat |
| <b>lestric</b> | tive Layer (if o                          | bserved)                            |            |           |   |          |                |                   |           |              |                  |              |                        |
|                | Туре:                                     |                                     |            |           |   | -        |                |                   |           |              |                  |              |                        |
| Dep            | oth (inches):                             |                                     |            |           |   | _        | Hydric So      | oil Present?      | Yes       | Х            |                  | No           |                        |
|                |   |                                     |            |           |   |          |                |                   |           |              |                  |              |                        |
| Remark         |   |                                     |            |           |   |          |                |                   |           |              |                  |              |                        |
| ssume          | hydric soils                              |                                     |            |           |   |          |                |                   |           |              |                  |              |                        |
|                |   |                                     |            |           |   |          |                |                   |           |              |                  |              |                        |
|                |   |                                     |            |           |   |          |                |                   |           |              |                  |              |                        |

|  | Primary Indicators (minim            | um of  | one         | is require; o             | check all that apply)    |           |   | Secondary Indicators (2 or more required) |  |  |
|--|--------------------------------------|--------|-------------|---------------------------|--------------------------|-----------|---|---|--|--|
| Х  | Surface Water (A1)                   |        |             | Salt Crust                | (B11)                    |           |   | Water Marks (B1) (Riverine)               |  |  |
| Х  | High Water Table (A2)                |        |             | Biotic Crus               | st (B12)                 |           |   | Sediment Deposits (B2) (Riverine)         |  |  |
| X Saturation (A3) Aquatic Fauna (B13)          |                                      |        |             |                           |                          |           |   | Drift Deposits (B3) (Riverine)            |  |  |
| Х  | Water Marks (B1) (Nonriverine        | e)     |             | Hydrogen                  | Sulfide Odor (C1)        |           |   | Drainage Patterns (B10)                   |  |  |
|  | Sediment Deposits (B2) (Nonriverin   | ne)    |             | Oxidized Rh               | hizospheres on Living Ro | oots (C3) |   | Dry-Season Water Table (C2)               |  |  |
|  | Drift Deposits (B3) (Nonriverin      | e)     |             | Presence                  | of Reduced Iron (C4)     |           |   | Crayfish Burrows (C8)                     |  |  |
|  | Surface Soil Cracks (B6)             |        | Recent Iror | n Reduction in Tilled Soi | il (C6)                  | Х         | Saturation Visible on Aerial Imagery (C9) |   |  |  |
| ×  | Inundation Visible on Aerial Imagery | / (B7) |             | Thin Muck                 | Surface (C7)             |           |   | Shallow Aquitard (D3)                     |  |  |
|  | Water Stained Leaves (B9)            |        |             | Other (Exp                | olain in Remarks)        |           | Х   | FAC-Neutral Test (D5)                     |  |  |
| Field (  | Observations:                        |        |             |                           |                          |           |   |   |  |  |
| Surfac   | e Water Present?                     | res    | Х           | No                        | Depth (inches):          | 24        | _   | Wetland Hydrology Present?                |  |  |
| Water  | Table Present?                       | res    | Х           | No                        | Depth (inches):          | 0         | _   | Yes X No                                  |  |  |
| Saturation Present? Yes X No Depth (inches): 0 |                                      |        |             |                           |                          | 0         |   |   |  |  |
| (includ  | es capillary fringe)                 |        |             |                           | _ · · _                  |           | -   |   |  |  |

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

## --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Drain at/C | ite.                         | Litab Laka               |                | City/County       | Litah Ca               | Compling Date: 7/0/2021  |
|------------|------------------------------|--------------------------|----------------|-------------------|------------------------|--|
| Project/S  |                              | Utah Lake                |                | City/County:      | olan Co.               | Sampling Date: 7/9/2021<br>State: Utah Sampling Point: B12-DP  |
| Applicant  |                              | LRS<br>C Nauwon N Jones  | A Mothoo       |                   | Section, Township,     |  |
| Investiga  |                              |                          |                |                   |                        | convex, none): <u>Concave</u> Slope (%): <u>0-2%</u>   |
| Subregio   |                              | rrace, etc.):            |                |                   |                        | Long111.860160 Datum: WGS84  |
| -          |                              |                          |                |                   | 40.247812<br>ilt loam  |  |
|            |                              | conditions on the site   |                |                   |                        | NoX (If no, explain in the Remarks)  |
| Are Vege   |                              |                          |                |                   | significantly disturbe |  |
| Are Vege   |                              |                          |                |                   | naturally problematic  |  |
| Ŭ,         |                              |                          |                |                   |                        | ny answers in Remarks)   |
|            |                              |                          |                |                   |                        |  |
| 3011111/   |                              | Vegetation Present?      |                | _                 |                        | tions, transects, important features, etc.<br>pled Area within a Wetland?  |
|            |                              | Hydric Soil Present?     |                |                   |                        | XNo  |
|            | Wetland                      | d Hydrology Present?     |                |                   |                        |  |
|            |                              |                          |                |                   |                        |  |
| Remarks    |                              |                          |                |                   |                        |  |
|            |                              |                          |                |                   |                        | along the shoreline and dominated by salt cedar with little to no<br>per portions of the wetland do extend into the waterline. See data poin |
|            | aht conditions               | . Wetland does not ex    | kienu inio a v | waternine in this | location. However our  | er portions of the wetland do extend into the waterline. See data poin   |
| VEGET      | ATION - Us                   | e scientific nam         | es of plan     | its               |                        |  |
| T OI       |                              |                          | Absolute       | Dominant          |                        |  |
| Tree Stra  |                              | Plot size: <u>r= 30'</u> |                | Species?          | Indicator Status       | Dominance Test Worksheet   |
| 1.         |                              |                          |                |                   |                        | -  |
| 2.         |                              |                          |                |                   |                        | Number of dominant species that are<br>OBL. FACW. or FAC: 2 (A)  |
| 3.<br>4.   |                              |                          |                |                   |                        | OBL, FACW, or FAC: <u>2</u> (A)  |
| 4.         |                              |                          |                | = Total Cover     |                        | Total number of dominant species<br>across all strata: 2 (B)   |
|            |                              |                          | 0 .            |                   |                        | across all strata: <u>2</u> (B)  |
| Conling/   | Shrub Stratum                | Distaiza, r. 201         |                |                   |                        | Percent of dominant species that are   |
|            |                              | Plot size: <u>r= 30'</u> | 80             | V                 | FAC                    | OBL, FACW, or FAC: 100% (A/B)  Prevalence Index Worksheet  |
| 1.<br>2.   | Tamarix aphy<br>Elaeagnus an | -                        |                | Y<br>Y            | FAC                    | Total % cover of: Multiply by:   |
| 3.         |                              |                          |                |                   |                        | OBL species 0 x 1 0  |
| 4.         |                              |                          |                |                   |                        | FACW species 0 x 2 0   |
| 5.         |                              |                          |                |                   |                        | FAC species 105 x 3 315  |
| 0.         |                              |                          | 105 :          | = Total Cover     |                        | FACU species 0 x 4 0   |
|            |                              |                          | 100            |                   |                        | UPL species 0 x 5 0  |
| Herb Stra  | atum                         | Plot size: r= 5'         |                |                   |                        | Column Total 105 (A) 315 (B)   |
| 1.         |                              |                          |                |                   |                        | Prevalence Index: 3.0 (B/A)  |
| 2.         |                              |                          |                |                   |                        | Hydrophytic Vegetation Indicators:   |
| 3.         |                              |                          |                |                   |                        | 1 - Rapid Test for Hydrophytic Vegetation  |
| 4.         |                              |                          |                |                   |                        | X 2 - Dominance Test is >50%   |
| 5.         |                              |                          |                |                   |                        | X 3 - Prevalence Index is $\leq 3.0^*$   |
| 6.         |                              |                          |                |                   |                        | Problematic Hydrophytic Vegetation* (Explain)  |
| 7.         |                              |                          |                |                   |                        | *Indicators of hydric soil and wetland hydrology must be present,  |
| 8.         |                              |                          |                |                   |                        | unless disturbed or problematic  |
| <b>.</b>   |                              |                          | 0 :            | = Total Cover     |                        | Hydrophytic Vegetation Present?  |
|            |                              |                          |                |                   |                        |  |
| Woody V    | ine Stratum                  | Plot size: r= 30'        |                |                   |                        | YesXNo   |
| 1.         |                              |                          |                |                   |                        | 4  |
| 2.         |                              |                          |                |                   |                        | 4  |
|            |                              |                          | 0 :            | = Total Cover     |                        |  |
|            |                              |                          | a              |                   |                        |  |
| % Ba       | re Ground in ⊦               | lerb Stratum             | % Cove         | er of Biotic Crus | st                     |  |

|         | Depth                | Matr   | ix         |            | Redox F  | eatures   |            |                   |           |                                   |                      |
|---------|----------------------|--|------------|------------|--|---|------------|-------------------|-----------|-----------------------------------|----------------------|
|         | (inches)             | Color  | %          | Color      | %  | Type*   | Loc**      | Texture           |           | Remarks                           |                      |
|         | 0-                   |  |            |            |  |   |            |                   |           |                                   |                      |
|         |                      |  |            |            |  |   |            |                   |           |                                   |                      |
|         |                      |  |            |            |  |   |            |                   |           |                                   |                      |
|         |                      |  |            |            |  |   |            |                   |           |                                   |                      |
|         |                      |  |            |            |  |   |            |                   |           |                                   |                      |
|         |                      |  |            |            |  |   |            |                   |           |                                   |                      |
|         |                      |  |            |            |  |   |            |                   |           |                                   |                      |
|         |                      |  |            |            |  |   |            |                   |           |                                   |                      |
| Type: 0 | C=Concentratio       | n, D=Depleti   | on, RM=    | Reduced N  | latrix, M  | S=Mask  | ed Sand 🤉  | grains **Locatior | n: PL=Por | e Lining, M=Matrix                |                      |
| ydric   | Soil Indicators      | : (Applicabl   | e to all I | _RRs, unle | ss othe  | rwise no  | oted)      |                   |           | Indicators for Problematic        | Hydric Soils ***     |
|         | Histosol (A1)        |  |            |            | Sandy  | Redox (   | S5)        |                   |           | 1 cm Muck (A9) <b>(LRR C)</b>     |                      |
|         | Histic Epipedon (A2) |  |            |            | Strippe  | d Matrix  | (S6)       |                   |           | 2 cm Muck (A10) <b>(LRR B)</b>    |                      |
|         | Black Histic (A      | x Histic (A3)<br>ogen Sulfide (A4)<br>fied Layers (A5) (LRR C) |            |            | Loamy  | Mucky N   | Mineral (F | 1)                |           | Reduced Vertic (F18)              |                      |
|         | Hydrogen Sul         |  |            |            | Loamy Gleyed Matirx (F2)<br>Depleted Matrix (F3) |   |            |                   |           | Red Parent Material (TF2)         |                      |
|         | Stratified Laye      |  |            |            |  |   |            |                   |           | Other (Explain in Remarks)        |                      |
|         | 1 cm Muck (A         |  |            |            |  | ox Dark Surface (F6)<br>leted Dark Surface (F7) |            |                   |           |                                   |                      |
|         | Depleted Below       |  |            |            |  |   |            |                   |           |                                   |                      |
|         | Thick Dark Su        | urface (A12)   |            |            | Redox  | Depress   | sions (F8) |                   |           |                                   |                      |
|         | Sandy Mucky          | Mineral (S1)   |            |            | Vernal   | Pools (F  | 9)         |                   |           | *** Indicators of hydrophytic veg |                      |
|         | Sandy Gleyed         | d Matrix (S4)  |            |            |  |   |            |                   | hyd       | rology must be present, unless d  | isturbed or problema |
| estric  | tive Layer (if o     | bserved)   |            |            |  |   |            |                   |           |                                   |                      |
|         | Туре:                |  |            |            |  | _   |            |                   |           |                                   |                      |
| Dep     | oth (inches):        |  |            |            |  | _   | Hydric So  | oil Present?      | Yes       | X No                              |                      |
|         |                      |  |            |            |  |   |            |                   |           |                                   |                      |
| emark   | s:                   |  |            |            |  |   |            |                   |           |                                   |                      |
| ssume   | hydric soils         |  |            |            |  |   |            |                   |           |                                   |                      |
|         |                      |  |            |            |  |   |            |                   |           |                                   |                      |
|         |                      |  |            |            |  |   |            |                   |           |                                   |                      |

|         | Primary Indicators (minimum              | of one | is require; check all that appl | /)            |   | Secondary Indicators (2 or more required) |  |  |  |
|---------|--|--------|---------------------------------|---------------|---|---|--|--|--|
| Х       | Surface Water (A1)                       |        | Salt Crust (B11)                |               |   | Water Marks (B1) (Riverine)               |  |  |  |
|         | High Water Table (A2)                    | Х      | Biotic Crust (B12)              |               |   | Sediment Deposits (B2) (Riverine)         |  |  |  |
|         | Saturation (A3)                          |        | Aquatic Fauna (B13)             |               |   | Drift Deposits (B3) (Riverine)            |  |  |  |
| Х       | Water Marks (B1) (Nonriverine)           |        | Hydrogen Sulfide Odor (C1)      |               |   | Drainage Patterns (B10)                   |  |  |  |
|         | Sediment Deposits (B2) (Nonriverine)     |        | Oxidized Rhizospheres on Livir  | ig Roots (C3) |   | Dry-Season Water Table (C2)               |  |  |  |
|         | Drift Deposits (B3) (Nonriverine)        |        | Presence of Reduced Iron (      | 24)           |   | Crayfish Burrows (C8)                     |  |  |  |
|         | Surface Soil Cracks (B6)                 |        | Recent Iron Reduction in Tille  | d Soil (C6)   | Х | Saturation Visible on Aerial Imagery (C9) |  |  |  |
| Х       | Inundation Visible on Aerial Imagery (B7 |        | Thin Muck Surface (C7)          |               |   | Shallow Aquitard (D3)                     |  |  |  |
|         | Water Stained Leaves (B9)                |        | Other (Explain in Remarks)      |               | Х | FAC-Neutral Test (D5)                     |  |  |  |
| ield O  | bservations:                             |        |                                 |               |   |   |  |  |  |
| Surface | Water Present? Yes                       | Х      | No Depth (inches                | s): <u>4</u>  | _ | Wetland Hydrology Present?                |  |  |  |
| Vater 7 | able Present? Yes                        |        | No Depth (inches                | s):           | _ | YesX No                                   |  |  |  |
| Saturat | on Present? Yes                          |        | No Depth (inches                | s):           |   |   |  |  |  |
| include | s capillary fringe)                      |        |                                 | . <u> </u>    | _ |   |  |  |  |

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

--See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4,485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Saturation and highwater could no be observed from the boat. Due to the proximity of the wetland and the lake it is likely saturation and a water table are present.

| Project/Site:        | Utah Lake                                   |              | City/County:     | Litah Ca                |                             | Sampling Date:        | 7/9/2021                   |
|----------------------|---|--------------|------------------|-------------------------|-----------------------------|-----------------------|----------------------------|
| -                    |   |              | City/County.     | otan co.                | State: Utab                 |                       |                            |
| Applicant/Owner:     | LRS   | A Mathaa     |                  | Castian Township I      | State: <u>Utah</u>          | Sampling Point:       | B13-DP                     |
| Investigator(s):     | C.Nguyen, N.Jones,                          |              |                  |                         |                             | 0                     |                            |
|                      | terrace, etc.):                             |              |                  | Local relief (concave,  |                             |                       | Slope (%): <u>0-2%</u>     |
| Subregion (LRR):     | -   | A; LRR D     | _                |                         | _ Long. <u>-111.863</u>     |                       |                            |
| Soil Map Unit Name:  |   |              | Water            |                         |                             | WI Classification: I  |                            |
|                      | ic conditions on the site                   |              |                  | -                       | No <u></u> (If n            | io, explain in the Re | marks)                     |
| Are Vegetation       |   |              |                  | significantly disturbe  |                             |                       |                            |
| Are Vegetation       |   |              |                  | _naturally problematic  |                             |                       |                            |
| Are Normal Circumst  | ances Present?                              | Yes          | No <u>X</u>      | _(If needed, explain a  | ny answers in Remark        | s)                    |                            |
|                      |   |              |                  |                         |                             |                       |                            |
| SUMMARY OF F         | INDINGS - Attach                            | site map s   | showing sa       | mpling point loca       | tions, transects, i         | important featu       | res, etc.                  |
| Hydrophy             | tic Vegetation Present?                     |              |                  |                         | pled Area within a W        |                       |                            |
|                      | Hydric Soil Present?                        | Yes X        | No               | Yes                     | <u>    X   </u> No <u> </u> |                       |                            |
| Wetla                | nd Hydrology Present?                       | Yes X        | No               |                         |                             |                       |                            |
|                      |   |              |                  |                         |                             |                       |                            |
| Remarks:             |   |              |                  |                         |                             |                       |                            |
|                      | edge of PEM and LAC ion. Drought conditions |              | Vetland extend   | is north and south alon | ng the shoreline and do     | ominated by phrag.    | Wetland does extend into a |
|                      | ion. Drought conditions                     |              |                  |                         |                             |                       |                            |
| VEGETATION - U       | Jse scientific name                         | es of plan   | Its              |                         |                             |                       |                            |
|                      |   | Absolute     | Dominant         |                         |                             |                       |                            |
| Tree Stratum         | Plot size: <u>r= 30'</u>                    | % Cover      | Species?         | Indicator Status        | Dominar                     | nce Test Workshee     | et                         |
|                      | · .   |              |                  |                         | _                           |                       |                            |
| 2.                   |   |              |                  |                         | Number of dominant          |                       |                            |
|                      | · .   |              |                  |                         | OBL, FACW                   | , or FAC:             | (A)                        |
| 4.                   |   |              |                  |                         | Total number of do          | ominant species       |                            |
|                      |   | 0 =          | = Total Cover    |                         | across all                  | strata:               | 2(B)                       |
|                      |   |              |                  |                         | Percent of dominant         | t species that are    |                            |
| Sapling/Shrub Stratu | m Plot size: r= 30'                         |              |                  |                         | OBL, FACW                   | , or FAC:             | 100% (A/B)                 |
| 1. Elaeagnus a       | angustifolia                                | 25           | Υ                | FAC                     | Prevalence Index W          | /orksheet             |                            |
| 2.                   |   |              |                  |                         | Total % cover of:           | Multipl               | y by:                      |
| 3.                   |   |              |                  |                         | OBL species 0               | ) x 1                 | 0                          |
| 4.                   |   |              |                  |                         | FACW species 9              | <u>0 x 2</u>          | 180                        |
| 5.                   |   |              |                  |                         | FAC species 2               | <u>5 x 3</u>          | 75                         |
|                      |   | 25 =         | = Total Cover    |                         | FACU species                | ) x 4                 | 0                          |
|                      |   |              |                  |                         | UPL species 0               | ) x 5                 | 0                          |
| Herb Stratum         | Plot size: r= 5'                            |              |                  |                         | Column Total 11             | 15 (A)                | 255 (B)                    |
| 1. Phragmites        | australis                                   | 90           | Y                | FACW                    |                             | Prevalence Index:     | 2.2 (B/A)                  |
| 2.                   |   |              |                  |                         | Hydrophytic Vegeta          | tion Indicators:      |                            |
| 0                    |   |              |                  |                         | 1 - Rapid Te                | st for Hydrophytic V  | 'egetation                 |
|                      |   |              |                  |                         | X 2 - Dominan               | ce Test is >50%       | -                          |
| -                    |   |              |                  |                         | X 3 - Prevalenc             | ce Index is <3.0*     |                            |
| 6.                   |   |              |                  |                         |                             | Hydrophytic Vegeta    | ation* (Explain)           |
| -                    |   |              |                  |                         | ,                           | ,                     | drology must be present,   |
| 8.                   |   |              |                  |                         | unless disturbed or p       | roblematic            |                            |
| 0.                   |   | 90 =         | = Total Cover    |                         | Hydrophytic Vegeta          | tion Procent?         |                            |
|                      |   | 30           |                  |                         | Tryutophytic vegeta         | luon resent:          |                            |
| Moody Vino Stratum   | Distaiza, r. 201                            |              |                  |                         | Vaa                         | Y No                  |                            |
|                      | Plot size: <u>r= 30'</u>                    |              |                  |                         | res_                        | <u>X</u> No_          |                            |
|                      | · ·   | <u> </u>     |                  |                         | -                           |                       |                            |
| 2.                   |   |              |                  |                         | 4                           |                       |                            |
|                      |   |              | = Total Cover    |                         |                             |                       |                            |
|                      | Herb Stratum                                |              | r of Biotic Crus | st                      |                             |                       |                            |
| Remarks: (if observe | d, list morphological ad                    | aptations be | low).            |                         |                             |                       |                            |
|                      |   |              |                  |                         |                             |                       |                            |
| l                    |   |              |                  |                         |                             |                       |                            |

|        | Depth             | Matr   | ix         |            | Redox F   | ox Features |                 |                   |          |                                       |                  |
|--------|-------------------|--|------------|------------|-----------|-------------|-----------------|-------------------|----------|---------------------------------------|------------------|
|        | (inches)          | Color  | %          | Color      | %         | Type*       | * Loc**         | Texture           |          | Remarks                               |                  |
|        | 0-                |  |            |            |           |             |                 |                   |          |                                       |                  |
|        |                   |  |            |            |           |             |                 |                   |          |                                       |                  |
|        |                   |  |            |            |           |             |                 |                   |          |                                       |                  |
|        |                   |  |            |            |           |             |                 |                   |          |                                       |                  |
|        |                   |  |            |            |           |             |                 |                   |          |                                       |                  |
|        |                   |  |            |            |           |             |                 |                   |          |                                       |                  |
|        |                   |  |            |            |           |             |                 |                   |          |                                       |                  |
|        |                   |  |            |            |           |             |                 |                   |          |                                       |                  |
| ype: 0 | C=Concentratio    | n, D=Depleti   | on, RM=    | Reduced N  | latrix, M | S=Mask      | ed Sand g       | grains **Location | : PL=Por | e Lining, M=Matrix                    |                  |
| ydric  | Soil Indicators   | : (Applicabl   | e to all L | .RRs, unle | ss othe   | rwise n     | oted)           |                   |          | Indicators for Problematic Hyd        | ric Soils ***    |
|        | Histosol (A1)     |  |            |            |           | Redox (     |                 |                   |          | 1 cm Muck (A9) (LRR C)                |                  |
|        | Histic Epipedo    | on (A2)  |            |            | Strippe   | d Matrix    | (S6)            |                   |          | 2 cm Muck (A10) (LRR B)               |                  |
|        | Black Histic (A3) |  |            |            | Loamy     | Mucky       | Mineral (F      | 1)                |          | Reduced Vertic (F18)                  |                  |
|        | Hydrogen Sul      | ydrogen Sulfide (A4)   |            |            | Loamy     | Gleyed      | Matirx (F       | 2)                |          | Red Parent Material (TF2)             |                  |
|        | Stratified Laye   | Stratified Layers (A5) (LRR C)     Depleted Ma       1 cm Muck (A9) (LRR D)     Redox Dark |            |            |           | ed Matri    | x (F3)          |                   |          | Other (Explain in Remarks)            |                  |
|        | 1 cm Muck (A      |  |            |            |           | Dark Su     | Surface (F6)    |                   |          |                                       |                  |
|        | Depleted Below    | v Dark Surface   | e (A11)    |            | Deplete   | ed Dark     | rk Surface (F7) |                   |          |                                       |                  |
|        | Thick Dark Su     | Irface (A12)   |            |            | Redox     | Depres      | sions (F8)      |                   |          |                                       |                  |
|        | Sandy Mucky       | Mineral (S1)   |            |            | Vernal    | Pools (F    | -9)             |                   |          | *** Indicators of hydrophytic vegetat |                  |
|        | Sandy Gleyed      | I Matrix (S4)  |            |            |           |             |                 |                   | hyd      | Irology must be present, unless distu | rbed or problema |
| estric | tive Layer (if o  | bserved)   |            |            |           |             |                 |                   |          |                                       |                  |
|        | Туре:             |  |            |            |           | _           |                 |                   |          |                                       |                  |
| Dep    | oth (inches):     |  |            |            |           | _           | Hydric So       | oil Present?      | Yes      | <u>X</u> No                           |                  |
|        |                   |  |            |            |           |             |                 |                   |          |                                       |                  |
| emark  | s:                |  |            |            |           |             |                 |                   |          |                                       |                  |
| ssume  | hydric soils      |  |            |            |           |             |                 |                   |          |                                       |                  |
|        |                   |  |            |            |           |             |                 |                   |          |                                       |                  |

|         | Primary Indicators (minimum o             | f one | is require; check all that apply)          |   | Secondary Indicators (2 or more required) |  |  |  |
|---------|---|-------|--|---|---|--|--|--|
| Х       | Surface Water (A1)                        |       | Salt Crust (B11)                           |   | Water Marks (B1) (Riverine)               |  |  |  |
|         | High Water Table (A2)                     | Х     | Biotic Crust (B12)                         |   | Sediment Deposits (B2) (Riverine)         |  |  |  |
|         | Saturation (A3)                           |       | Aquatic Fauna (B13)                        |   | Drift Deposits (B3) (Riverine)            |  |  |  |
| Х       | Water Marks (B1) (Nonriverine)            |       | Hydrogen Sulfide Odor (C1)                 |   | Drainage Patterns (B10)                   |  |  |  |
|         | Sediment Deposits (B2) (Nonriverine)      |       | Oxidized Rhizospheres on Living Roots (C3) |   | Dry-Season Water Table (C2)               |  |  |  |
|         | Drift Deposits (B3) (Nonriverine)         |       | Presence of Reduced Iron (C4)              |   | Crayfish Burrows (C8)                     |  |  |  |
|         | Surface Soil Cracks (B6)                  |       | Recent Iron Reduction in Tilled Soil (C6)  | Х | Saturation Visible on Aerial Imagery (C9) |  |  |  |
| <       | Inundation Visible on Aerial Imagery (B7) |       | Thin Muck Surface (C7)                     |   | Shallow Aquitard (D3)                     |  |  |  |
|         | Water Stained Leaves (B9)                 |       | Other (Explain in Remarks)                 | Х | FAC-Neutral Test (D5)                     |  |  |  |
| Field ( | Observations:                             |       |  |   |   |  |  |  |
| Surfac  | e Water Present? Yes                      | х     | No Depth (inches): 4                       | _ | Wetland Hydrology Present?                |  |  |  |
| Nater   |   |       | No Depth (inches):                         |   | Yes X No                                  |  |  |  |
| Satura  | tion Present? Yes                         |       | No Depth (inches):                         |   |   |  |  |  |
| includ  | es capillary fringe)                      |       |  | - |   |  |  |  |

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

--See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4,485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Saturation and highwater could no be observed from the boat. Due to the proximity of the wetland and the lake it is likely saturation and a water table are present.

| Project/Site:   | Utah Lake               |               | City/County:     | Utah Co.                |                                  | Sampling Date:                         | 7/9/2021                 |
|---|-------------------------|---------------|------------------|-------------------------|----------------------------------|--|--------------------------|
| Applicant/Owner:  | LRS                     |               | · · ·            |                         | State: Utah                      | Sampling Point:                        |                          |
| Investigator(s):  | C.Nguyen, N.Jones,      | A.Mathes      |                  | Section, Township, I    |                                  |  |                          |
| Landform: (hillslope, te                                |                         |               |                  |                         | convex, none):                   | None                                   | Slope (%): 0-2%          |
| Subregion (LRR):  |                         |               | Lat.             |                         | Long111.890                      |  |                          |
| Soil Map Unit Name:                                     |                         |               | Water            |                         | N                                | WI Classification: L                   | 2ABF                     |
| Are climatic/hydrologic                                 |                         |               |                  | Yes                     | No <u>X</u> (If n                | o, explain in the Re                   | marks)                   |
| Are Vegetation  | ,Soil                   | ,or Hy        | drology          | significantly disturbe  | d?                               |  |                          |
| Are Vegetation  |                         |               |                  | _naturally problemation | ?                                |  |                          |
| Are Normal Circumstar                                   | nces Present?           | Yes           | No <u>X</u>      | _(If needed, explain a  | ny answers in Remark             | s)                                     |                          |
| SUMMARY OF FI   | NDINGS - Attach         | site map s    | showing sa       | mpling point loca       | tions, transects, i              | mportant featu                         | res, etc.                |
| Hydrophytic   | c Vegetation Present?   | Yes X         | No               | Is the Sam              | pled Area within a W             | etland?                                |                          |
|   | Hydric Soil Present?    | Yes X         | No               | Yes                     | <u>X</u> No                      |  |                          |
| Wetlan  | d Hydrology Present?    |               |                  |                         |                                  |  |                          |
|   |                         |               |                  | _                       |                                  |  |                          |
| Remarks:  |                         |               |                  |                         |                                  |  |                          |
| PFO wetland located o                                   | n the boundary of the   | LAC. Wetlar   | nd is dominate   | d by willow sp with few | / salt cedar Drought co          | onditions                              |                          |
| VEGETATION - U  | se scientific nam       | es of plan    | Its              |                         |                                  |  |                          |
|   |                         | Absolute      | Dominant         |                         |                                  |  |                          |
| Tree Stratum  | Plot size: r= 30'       |               | Species?         | Indicator Status        | Dominar                          | ice Test Workshee                      | t                        |
| 1. <u>Salix lasiolep</u>                                | is                      | 50            | Y                | FACW                    | _                                |  |                          |
| 2.  |                         |               |                  |                         | Number of dominant               |  | <b>0</b> (1)             |
|   |                         |               |                  |                         | OBL, FACW                        | , or FAC:                              | <u>3</u> (A)             |
| 4.  |                         |               |                  |                         | Total number of do               |  |                          |
|   |                         | 50 =          | = Total Cover    |                         | across all                       | strata:                                | <u>3</u> (B)             |
|   |                         |               |                  |                         | Percent of dominant              | •                                      | 1000/ (A/D)              |
| Sapling/Shrub Stratum                                   | Plot size: r= 30        |               |                  |                         | OBL, FACW                        |  | 100% (A/B)               |
| 2   |                         |               |                  |                         | Prevalence Index W               |  | . h                      |
| â   |                         |               |                  |                         | Total % cover of:<br>OBL species |  |                          |
| 3<br>4.   |                         |               |                  |                         | FACW species 5                   | ) x 1 _                                | <u> </u>                 |
| 4<br>5.   |                         |               |                  |                         | FAC species 1                    |  | 45                       |
| 5.  |                         | 0 =           | = Total Cover    |                         | FAC species 1                    |  | 0                        |
|   |                         | 0 -           |                  |                         |                                  | ) x 5                                  | 0                        |
| Harb Stratum  | Diotoizo: r= 5'         |               |                  |                         |                                  |  |                          |
| Herb Stratum  | Plot size: <u>r= 5'</u> | 10            | V                | EAC                     | Column Total 6                   |  |                          |
| <ol> <li>Xanthium stru</li> <li>Rumex crispu</li> </ol> | ımarium                 | <u> </u>      | Y<br>Y           | FAC<br>FAC              | Hydrophytic Vegeta               | Prevalence Index:                      | 2.2 (B/A)                |
| · · · · ·   |                         |               |                  |                         |                                  |  | egetation                |
| 4   |                         |               |                  |                         | X 2 - Dominan                    | st for Hydrophytic V                   | egeration                |
| _   |                         |               |                  |                         | X 3 - Prevalence                 |  |                          |
| <u> </u>  |                         |               |                  |                         |                                  | ce index is <3.0<br>Hydrophytic Vegeta | tion* (Explain)          |
| -   |                         |               |                  |                         |                                  |  | Irology must be present, |
| 8.  |                         |               |                  |                         | unless disturbed or p            | roblematic                             | •                        |
| υ   |                         | 15 =          | = Total Cover    |                         | Hydrophytic Vegeta               | tion Present?                          |                          |
|   |                         |               |                  |                         |                                  |  |                          |
| Woody Vine Stratum                                      | Plot size: r= 30'       |               |                  |                         | Yes                              | <u>X</u> No                            |                          |
| 1   |                         |               |                  |                         | 4                                |  |                          |
| 2.  |                         |               |                  |                         | 4                                |  |                          |
|   |                         |               | = Total Cover    |                         |                                  |  |                          |
| % Bare Ground in H                                      | lerb Stratum            | % Cove        | r of Biotic Crus | st                      |                                  |  |                          |
| Remarks: (if observed                                   | , list morphological ad | laptations be | low).            |                         |                                  |  |                          |
|   |                         |               |                  |                         |                                  |  |                          |

|        | Depth                | Matr  | ix         |            | Redox F                  | eatures   |                   |                   |           |  |          |
|--------|----------------------|---|------------|------------|--------------------------|---|-------------------|-------------------|-----------|--|----------|
|        | (inches)             | Color   | %          | Color      | %                        | Type*   | Loc**             | Texture           |           | Remarks  |          |
|        | 0-                   |   |            |            |                          |   |                   |                   |           |  |          |
|        |                      |   |            |            |                          |   |                   |                   |           |  |          |
|        |                      |   |            |            |                          |   |                   |                   |           |  |          |
|        |                      |   |            |            |                          |   |                   |                   |           |  |          |
|        |                      |   |            |            |                          |   |                   |                   |           |  |          |
|        |                      |   |            |            |                          |   |                   |                   |           |  |          |
|        |                      |   |            |            |                          |   |                   |                   |           |  |          |
|        |                      |   |            |            |                          |   |                   |                   |           |  |          |
|        |                      |   |            |            |                          |   |                   | grains **Location | n: PL=Por | e Lining, M=Matrix   |          |
| ydric  | Soil Indicators      | : (Applicabl  | e to all I | _RRs, unle |                          |   |                   |                   |           | Indicators for Problematic Hydric So   | oils *** |
|        | Histosol (A1)        |   |            |            |                          | Redox (   |                   |                   |           | 1 cm Muck (A9) (LRR C)   |          |
|        | Histic Epipedon (A2) |   |            |            | 1                        | d Matrix  | <b>,</b> <i>,</i> |                   |           | 2 cm Muck (A10) (LRR B)  |          |
|        | Black Histic (A      |   |            |            | Loamy Mucky Mineral (F1) |   |                   |                   |           | Reduced Vertic (F18)<br>Red Parent Material (TF2)  |          |
|        | Hydrogen Sul         | yers (A5) (LRR C) Depleted M<br>A9) (LRR D) Redox Dat |            |            |                          | Loamy Gleyed Matirx (F2)<br>Depleted Matrix (F3)<br>Redox Dark Surface (F6)<br>Depleted Dark Surface (F7) |                   |                   |           | Other (Explain in Remarks)   |          |
|        |                      |   |            |            |                          |   |                   |                   |           | Other (Explain in Remarks)   |          |
|        | · · ·                |   |            |            |                          |   |                   |                   |           |  |          |
|        | Depleted Below       |   | e (A11)    |            | 1 .                      |   |                   | 1                 |           |  |          |
|        | Thick Dark Su        | . ,   |            |            |                          |   | sions (F8)        | 1                 |           |  |          |
|        | Sandy Mucky          |   |            |            | Vernal                   | Pools (F  | -9)               |                   | hvd       | *** Indicators of hydrophytic vegetation ar<br>rology must be present, unless disturbed of |          |
|        | Sandy Gleyed         |   |            |            |                          |   |                   |                   |           |  |          |
| estric | tive Layer (if o     | bserved)  |            |            |                          |   |                   |                   |           |  |          |
| Dee    | Type:                |   |            |            |                          | -   |                   |                   | Vee       | Y No   |          |
| Dep    | th (inches):         |   |            |            |                          | - "   | Hyaric So         | oil Present?      | res       | <u>X</u> No  |          |
| emark  | s:                   |   |            |            |                          |   |                   |                   |           |  |          |
| ssume  | hydric soils         |   |            |            |                          |   |                   |                   |           |  |          |
|        |                      |   |            |            |                          |   |                   |                   |           |  |          |
|        |                      |   |            |            |                          |   |                   |                   |           |  |          |

|         | Primary Indicators          | (minimum of    | f one | is require; | check all that apply)        |         |   | Secondary Indicators (2 or more required) |  |  |  |
|---------|-----------------------------|----------------|-------|-------------|------------------------------|---------|---|---|--|--|--|
| Х       | Surface Water (A1)          |                |       | Salt Crust  | : (B11)                      |         |   | Water Marks (B1) (Riverine)               |  |  |  |
|         | High Water Table (A2)       |                | Х     | Biotic Cru  | st (B12)                     |         |   | Sediment Deposits (B2) (Riverine)         |  |  |  |
|         | Saturation (A3)             |                |       | Aquatic Fa  | auna (B13)                   |         |   | Drift Deposits (B3) (Riverine)            |  |  |  |
| Х       | Water Marks (B1) (Nor       | riverine)      |       | Hydrogen    | Sulfide Odor (C1)            |         |   | Drainage Patterns (B10)                   |  |  |  |
|         | Sediment Deposits (B2) (N   | onriverine)    |       | Oxidized R  | Rhizospheres on Living Root  | is (C3) |   | Dry-Season Water Table (C2)               |  |  |  |
|         | Drift Deposits (B3) (No     | nriverine)     |       | Presence    | of Reduced Iron (C4)         |         |   | Crayfish Burrows (C8)                     |  |  |  |
|         | Surface Soil Cracks (B      | 6)             |       | Recent Iro  | n Reduction in Tilled Soil ( | C6)     | Х | Saturation Visible on Aerial Imagery (C9) |  |  |  |
| X       | Inundation Visible on Aeria | I Imagery (B7) |       | Thin Muck   | k Surface (C7)               |         |   | Shallow Aquitard (D3)                     |  |  |  |
|         | Water Stained Leaves        | (B9)           |       | Other (Ex   | plain in Remarks)            |         | Х | FAC-Neutral Test (D5)                     |  |  |  |
| Field C | Observations:               |                |       |             |                              |         |   |   |  |  |  |
| Surface | e Water Present?            | Yes            | Х     | No          | Depth (inches):              | 4       | _ | Wetland Hydrology Present?                |  |  |  |
| Water   | Table Present?              | Yes            |       | No          | Depth (inches):              |         | _ | Yes X No                                  |  |  |  |
| Satura  | tion Present?               | Yes            |       | No          | Depth (inches):              |         |   |   |  |  |  |
| (includ | es capillary fringe)        | _              |       |             |                              |         | - |   |  |  |  |

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

## --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drire than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Saturation and water table are assumed due to the wetland proximity to the lake.

| Ubit Lele         ChycCounty, Ulah Co.         Sampling Date:         TR02021           vestigator(s):         E Casper, LWilder         Section, Township, Range:         0         Ground011           vestigator(s):         E Casper, LWilder         Load Intell (cancer, convex, rune)         None         Slipe (%) 2.10%           vestigator(s):         MERAZE, URKD         Lat.         40.247022         Long.         111738002         Dutum: WGS84           vestigator(s):         MERAZE, URKD         Lat.         40.247022         Long.         No.         X.0117           vestigator(s):         MERAZE, URKD         Lat.         40.247022         Long.         No.         X.0117           vestigation        Seil         _or Hydrology         intamsky troblematic?         No.         X.0117         No.         X.0117           vestigation        Seil  |                        |                          |               |                  |                       |   |
|--|------------------------|--------------------------|---------------|------------------|-----------------------|---|
| vesitgator(s):         E Casper, LViller         Socion. Township, Range: 0  | oject/Site:            | Utah Lake                |               | City/County:     | Utah Co.              |   |
| ndrom: (nilislope, terrace, etc.):   |                        |                          |               |                  |                       |   |
| MLRA 28A LRR D         Lat.         40.240762         Long.         -111.73802         Detu:         WG884           IM ap Unit Name:         Water         NV Classification: PEMIF         NV Classification: PEMIF         NV Classification: PEMIF           Vegetation         _Soil         _or Hydrology         instinutly disturbed?         NV   | estigator(s):          | E.Casper, L.Wilder       |               |                  | -                     |   |
| It Nap Unit Name:  | ndform: (hillslope, te | errace, etc.):           | fringe        |                  |                       |   |
| c.dimatic/hydrologic conditions on the site typical for time of year?       Yes  | bregion (LRR):         | MLRA 2                   | 8A; LRR D     | Lat.             | 40.240762             | Long111.738602 Datum: WGS84               |
| Vogetation       _Soll       _or Hydrology       significantly disturbed?         Vogetation       _Soll       _or Hydrology       naturally problematic?         Normal Circumstances Present?       Yes  |                        |                          |               |                  |                       |   |
| Vegetation   | climatic/hydrologic    |                          |               |                  |                       | No X (If no, explain in the Remarks)      |
| Normal Circumstances Present?       Yes       No       (If needed, explain any answers in Remarks)         IMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.       Is the Sampled Area within a Wetland?         Hydrophytic Vegetation Present? Yes       No       Yes       No         Hydrophytic Vegetation Present? Yes       No       Yes       No         wetland Hydrology Present? Yes       No       Yes       No         marks:       infining PEMIF wetland. Large stands of PHAU not in data point location.       Dominance Test Worksheet         1.       Absolute       Dominance Test Worksheet       1         2.       Absolute       Ocrimant       Prevalence Index Worksheet       1         4.       O       = Total Cover       Percent of dominant species across all strata:       1       1         2.       O       = Total Cover       Total // Cover of       Multiply by:       10% (A/B)         1.       O       = Total Cover       FAC Species 7       No       4       0         2.       O       = Total Cover       FAC Species 0       X 4       0       0         3.       O       = Total Cover       FAC Species 0       X 4       0       0         4.  | 0                      |                          |               |                  |                       | d?  |
| IMMARY OF FINDINGS - Attach site with a graphing point locations, transects, important features, etc.         Hydrophytic Vegetation Present? Yes X       No         The Sampling point location.         Operations         Colspan="2">Operations         Colspan="2">Colspan="2">Operations         Sampling PCMIF welland. Large stands of PHAU not in data point location.         Operation of dominant species that are OPEL, FACW, or FAC:         Operation of dominant species that are OPEL, FACW, or FAC:       1 (A)         Total Cover       Prevalence Index Worksheet         1       OPEL, FACW, or FAC:       1 (DO%, (AB)         Prevalence Index Worksheet         1       Colspan= 0       X       1         OPEL FACW, or FAC:       1 (DO%, (AB)<  | 8                      |                          |               |                  |                       |   |
| Is the Sampled Area within a Wetland?         Hydrophytic Vegetation Present? Yes No         Wetland Hydrology Present? Yes No         Wetland Hydrology Present? Yes No         The Size result of PHAU not in data point location.         Open in the Size result of PHAU not in data point location.         Open in the Size result of PHAU not in data point location.         Open in the Size result of PHAU not in data point location.         Colspan="2">Open in the Size result of Colspan= 20 result of Colspan="2">Open in the Size r  | Normal Circumsta       | nces Present?            | Yes <u>X</u>  | No               | (If needed, explain a | ny answers in Remarks)                    |
| Hydric Soil Present? Yes         X         No         Yes         X         No           marks:         : <td:< td="">         :         :         &lt;</td:<>   |                        |                          | -             |                  |                       |   |
| Wetland Hydrology Present? Yes _ X _ No           narks:           ffmming PEMIF wetland. Large stands of PHAU not in data point location.           couplet conditions           Dominant           a Stratum         Plot size: re 30'         Absolute         Dominant           1.  | Hydrophytic            | -                        |               |                  |                       | •   |
| narks:  firming PEMTF wetland. Large stands of PHAU not in data point location.  upth conditions  GETATION - Use scientific names of plants  Absolute Dominant  a Stratum Plot size: <u>r= 30 % Cover prevalence index Worksheet  across all strata:  0 = Total Cover 0 = Total </u> |                        | -                        | -             |                  | _                     | <u>X</u> No                               |
| dimensional species stands of PHAU not in data point location.         GETATION - Use scientific names of plants         a Stratum       Plot size: r= 30°       Note that are colspan="2">Number of dominant species that are colspan="2">OBL, FACW, or FAC: 1 (A)         1.   | Wetlan                 | d Hydrology Present?     | ? Yes X       | No               | _                     |   |
| nfiming PEM1F wetland. Large stands of PHAU not in data point location.  | marks:                 |                          |               |                  |                       |   |
| Segent conditions           Absolute Dominant<br>Modulte Stratum         Dominant<br>Modulte Stratum           Plot size: r= 30         Absolute<br>% Cover         Species?         Indicator Status         Dominance Test Worksheet           1.  |                        | tland. Large stands o    | f PHALL not i | in data noint lo | cation                |   |
| Absolute         Dominant           1.         Species?         Indicator Status           2.         Statum         Plot size: r= 30'         Number of dominant species that are<br>OBL, FACW, or FAC:         1           3.         0         = Total Cover         Derent of dominant species that are<br>OBL, FACW, or FAC:         1           1.         0         = Total Cover         Percent of dominant species that are<br>OBL, FACW, or FAC:         100% (A/B)           2.         .         .         OBL, FACW, or FAC:         100% (A/B)           2.         .         .         .         .           3.         .         .         .         .           4.         .         .         .         .           5.         .         .         .         .           6         Total Cover         FAC species         .         X           6.         .         .         .         .         .           1.         .         .         .         .         .         .           2.         .         .         .         .         .         .           2.         .         .         .         .         .         . <td>•</td> <td>land. Large stands s</td> <td></td> <td></td> <td></td> <td></td>   | •                      | land. Large stands s     |               |                  |                       |   |
| Absolute         Dominant           1.         Species?         Indicator Status           2.          Number of dominant species that are<br>OBL, FACW, or FAC:         1.           3.              4.              1.              2.              3.              0         = Total Cover             Ding/Shrub Stratum         Plot size: r = 30'             1.               2.               3.               4.               5.                6.         Y         FAC              1.                2. </td <td></td> <td>o oolontific</td> <td></td> <td></td> <td></td> <td></td>  |                        | o oolontific             |               |                  |                       |   |
| e Stratum         Plot size: r= 30         % Cover         Species?         Indicator Status           1.  | GETATION - US          | se scientific nam        |               |                  |                       |   |
| 2.   | <u>e Stratum</u>       | Plot size: <u>r= 30'</u> |               |                  | Indicator Status      | Dominance Test Worksheet                  |
| 2.   | 1                      |                          |               |                  |                       | 1   |
| 3.       OBL, FACW, or FAC:       1       (A)         4.       0       = Total Cover       Total number of dominant species across all strata:       1       (B)         90       = Total Cover       Percent of dominant species that are OBL, FACW, or FAC:       100% (A/B)         1.  | 2                      |                          |               |                  |                       | Number of dominant species that are       |
| 0= Total CoverItal Aumber of dominant species<br>across all strata:1(B) $1$ $0$ = Total CoverPercent of dominant species that are<br>OBL, FACW, or FAC: $100%$ (A/B)1. $0$ Prevalence Index Worksheet $0$ $10%$ (A/B)2. $0$ Total % cover of:Multiply by: $0$ 3. $0$ $0$ Total % cover of:Multiply by:4. $0$ $0$ FACW species $0$ $x$ $1$ $0$ $0$ $0$ $0$ $0$ $0$ $10%$ $10%$ $10%$ $0$ $0$ $0$ $0$ $10%$ $10%$ $10%$ $10%$ $10%$ $10%$ $1.$ $10%$ $10%$ $1%$ $10%$ $10%$ $10%$ $10%$ $10%$ $1.$ $10%$ $1%$ $10%$ $1%$ $10%$ $1%$ $10%$ $1.$ $10%$ $1%$ $1%$ $1%$ $1%$ $1%$ $1.$ $10%$ $1%$ $1%$ $1%$ $1%$ $1%$ $1.$ $10%$ $1%$ $1%$ $1%$ $1%$ $1%$ $1.$ $10%$ $1%$ $1%$ $1%$ $1%$ $1%$ $1.$ $10%$ $1%$ $1%$ $1%$ $1%$ $1%$ $1.$ $10%$ $1%$ $1%$ $1%$ $1%$ $1.$ $10%$ $1%$ $1%$ $1%$ $1%$ $1.$ $10%$ $1%$ $1%$ $1%$ $1%$ $1.$ $10%$ $1%$ $1%$ $1%$ $1%$ $1.$   | •                      |                          |               |                  |                       |   |
| 0       = Total Cover       across all strata:       1       (B)         1.       Percent of dominant species that are OBL, FACW, or FAC:       100% (A/B)         2.       Total % cover of:       Multiply by:         3.       OBL species       0       x 1       0         4.       FACW species       20       x 2       40         5.       FAC species       70       x 3       210         6       FAC species       0       x 4       0         UPL species       0       x 5       0         60       Y       FAC       Prevalence Index:       2.8 (B/A)         1.       Rumex crispus       60       Y       FAC       Prevalence Index:       2.8 (B/A)         2.       Pot size: r= 5'       Column Total 90       (A)       2.50       (B)         1.       Rumex crispus       60       Y       FAC       Prevalence Index:       2.8 (B/A)         2.       Pot size: r= 5'       Column Total 90       (A)       2.50       (B)         2.       Pot size: r= 5'       No       Column Total 90       (A)       2.50       (B)         3.       Hordeum jubatum       10       N       FAC       <  | 4.                     |                          |               |                  |                       | Total number of dominant species          |
| Jiling/Shrub Stratum       Plot size: r= 30'       OBL, FACW, or FAC: 100% (A/B)         1.       Prevalence Index Worksheet         2.       OBL species       0 x 1       0         3.       OBL species       0 x 1       0         4.       Second Stratum       FACW species       20 x 2       40         5.       Second Stratum       FAC species       70 x 3       210         60       FAC species       0 x 4       0         UPL species       0 x 5       0         2.       Potentilla supina       15       N       FACW         1.       Rumex crispus       60       Y       FAC       Prevalence Index: 2.8 (B/A)         2.       Potentilla supina       15       N       FACW       Hydrophytic Vegetation Indicators:         3.       Hordeum jubatum       10       N       FAC       1 - Rapid Test for Hydrophytic Vegetation         4.       Polypogon monspeliensis       5       N       FACW       X 2 - Dominance Test is >50%         5.       S       S       Problematic Hydrophytic   |                        |                          | 0             | = Total Cover    |                       | •   |
| aling/Shrub Stratum       Plot size: r= 30'       OBL, FACW, or FAC:       100% (A/B)         1.       Prevalence Index Worksheet         2.       OBL, Species       0       x 1       0         3.       OBL, Species       0       x 1       0         4.       Species       0       x 1       0         5.       Species       0       x 1       0         6.       FAC species       70       x 3       210         FAS species       0       x 4       0       0         0       = Total Cover       FAC species       0       x 4       0         UPL species       0       x 5       0       Column Total       90       (A)       250       (B)         1.       Rumex crispus       60       Y       FAC       Prevalence Index: 2.8       (B/A)         2.       Potentilla supina       15       N       FACW       Hydrophytic Vegetation Indicators:         3.       Hordeum jubatum       10       N       FAC       1       Rapid Test for Hydrophytic Vegetation         4.       Polypogon monspeliensis       5       N       FACW       X 2       2       Dominance Test is >50%   |                        |                          |               |                  |                       | Percent of dominant species that are      |
| 2.   | oling/Shrub Stratum    | Plot size: r= 30'        |               |                  |                       |   |
| 3.   | 1                      |                          |               |                  |                       | Prevalence Index Worksheet                |
| 4.   | 2.                     |                          |               |                  |                       | Total % cover of: Multiply by:            |
| 5. $\bigcirc$ $\bigcirc$ FAC species $\boxed{70}$ x       3 $210$ b $\bigcirc$ $\bigcirc$ FAC species $\boxed{0}$ x       4 $\boxed{0}$ b       Stratum       Plot size: r= 5' $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ 1.       Rumex crispus $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ 2.       Potentilla supina       15       N       FAC       Prevalence Index:       2.8       (B/A)         3.       Hordeum jubatum       10       N       FAC       1 - Rapid Test for Hydrophytic Vegetation         4.       Polypogon monspeliensis       5       N       FACW       X       2 - Dominance Test is >50%         5.  | 3                      |                          |               |                  |                       | OBL species <u>0</u> x 1 <u>0</u>         |
| 0         = Total Cover         FACU species         0         x         4         0           b Stratum         Plot size: r= 5'         0         x         5         0           1.         Rumex crispus         60         Y         FAC         Prevalence Index:         2.8         (B/A)           2.         Potentilla supina         15         N         FACW         Hydrophytic Vegetation Indicators:           3.         Hordeum jubatum         10         N         FAC         1 - Rapid Test for Hydrophytic Vegetation           4.         Polypogon monspeliensis         5         N         FACW         X         2 - Dominance Test is >50%           5.  | 4                      |                          |               |                  |                       | FACW species 20 x 2 40                    |
| b Stratum       Plot size: r= 5'       UPL species       0       x 5       0         1.       Rumex crispus       60       Y       FAC       Prevalence Index: 2.8 (B/A)         2.       Potentilla supina       15       N       FACW       Hydrophytic Vegetation Indicators:         3.       Hordeum jubatum       10       N       FAC       1 - Rapid Test for Hydrophytic Vegetation         4.       Polypogon monspeliensis       5       N       FACW       X 2 - Dominance Test is >50%         5.   | 5                      |                          |               |                  |                       | FAC species <u>70</u> x 3 <u>210</u>      |
| b Stratum       Plot size: $r=5'$ Column Total       90       (A)       250       (B)         1.       Rumex crispus       60       Y       FAC       Prevalence Index:       2.8       (B/A)         2.       Potentilla supina       15       N       FACW       Hydrophytic Vegetation Indicators:         3.       Hordeum jubatum       10       N       FAC       1 - Rapid Test for Hydrophytic Vegetation         4.       Polypogon monspeliensis       5       N       FACW       X       2 - Dominance Test is >50%         5.  |                        |                          | 0             | = Total Cover    |                       | FACU species 0 x 4 0                      |
| Rumex crispus       60       Y       FAC       Prevalence Index:       2.8       (B/A)         2.       Potentilla supina       15       N       FACW       Hydrophytic Vegetation Indicators:         3.       Hordeum jubatum       10       N       FAC       1 - Rapid Test for Hydrophytic Vegetation         4.       Polypogon monspeliensis       5       N       FACW       X       2 - Dominance Test is >50%         5.   |                        |                          |               |                  |                       | UPL species <u>0</u> x 5 <u>0</u>         |
| 2.       Potentilla supina       15       N       FACW       Hydrophytic Vegetation Indicators:         3.       Hordeum jubatum       10       N       FAC       1 - Rapid Test for Hydrophytic Vegetation         4.       Polypogon monspeliensis       5       N       FACW       X       2 - Dominance Test is >50%         5.  | b Stratum              | Plot size: r= 5'         |               |                  |                       | Column Total <u>90</u> (A) <u>250</u> (B) |
| 3.       Hordeum jubatum       10       N       FAC       1 - Rapid Test for Hydrophytic Vegetation         4.       Polypogon monspeliensis       5       N       FACW       X       2 - Dominance Test is >50%         5.  | 1. Rumex crispu        | IS                       | 60            | Y                | FAC                   | Prevalence Index: 2.8 (B/A)               |
| 4.       Polypogon monspeliensis       5       N       FACW       X       2 - Dominance Test is >50%         5.       X       3 - Prevalence Index is ≤3.0*         6.       Problematic Hydrophytic Vegetation* (Explain)         7.       *Indicators of hydric soil and wetland hydrology must be preser         8.       90       = Total Cover         Hydrophytic Vegetation Present?       Yes_X         1.       No         2.       No  | 2. Potentilla sup      | pina                     | 15            | N                | FACW                  | Hydrophytic Vegetation Indicators:        |
| 5.       X       3 - Prevalence Index is $\leq 3.0^*$ 6.       Problematic Hydrophytic Vegetation* (Explain)         7.       *Indicators of hydric soil and wetland hydrology must be preser         8.       90         90       = Total Cover         Hydrophytic Vegetation Present?         Yes X         No         1.   |                        |                          |               | N                |                       |   |
| 33.       Problematic Hydrophytic Vegetation* (Explain)         7.       *Indicators of hydric soil and wetland hydrology must be preser         38.       unless disturbed or problematic         90       = Total Cover         Hydrophytic Vegetation Present?         bdy Vine Stratum       Plot size: r= 30'         2.  | 4. Polypogon m         | onspeliensis             | 5             | N                | FACW                  |   |
| 7.       *Indicators of hydric soil and wetland hydrology must be preser unless disturbed or problematic         8.       90       = Total Cover         90       = Total Cover       Hydrophytic Vegetation Present?         ody Vine Stratum       Plot size: r= 30'       Yes X         1.  | 5                      |                          |               | ·                |                       |   |
| 7.   |                        |                          |               | ·                | - <u></u>             |   |
| 8.   |                        |                          |               | ·                | - <u></u>             | ,   |
| ody Vine Stratum         Plot size:         r= 30'         Yes_X         No           1.   | 8                      |                          |               | ·                | - <u></u>             |   |
| 1.           2.  |                        |                          | 90            | = Total Cover    |                       | Hydrophytic Vegetation Present?           |
| 1.           2.  |                        |                          |               |                  |                       |   |
| 2.   | ody Vine Stratum       | Plot size: r= 30'        |               |                  |                       | YesXNo                                    |
|  | 1                      |                          |               |                  |                       | 4   |
| 0 = Total Cover  | <b>a</b>               |                          |               |                  | ·                     | 4   |
|  | 2.                     |                          | 0             | = Total Cover    |                       |   |
| % Bare Ground in Herb Stratum % Cover of Biotic Crust  | 2                      |                          |               |                  |                       |   |

|          | Depth           | Matri          | ix         |         |      | Redox F                  | eatures  |            |                     |                           |  |                       |  |
|----------|-----------------|----------------|------------|---------|------|--------------------------|----------|------------|---------------------|---------------------------|--|-----------------------|--|
|          | (inches)        | Color          | %          | Colo    |      | %                        | Type*    | Loc**      | Texture             |                           | Remarks  |                       |  |
|          | 0-17            | 2.5Y 4/1       | 90         | 10yr 5  | 5/6  | 10                       | С        | Both       | Loam / Clay         |                           |  |                       |  |
|          |                 |                |            |         |      |                          |          |            |                     |                           |  |                       |  |
|          |                 |                |            |         |      |                          |          |            |                     |                           |  |                       |  |
|          |                 |                |            |         |      |                          |          |            |                     |                           |  |                       |  |
|          |                 |                |            |         |      |                          |          |            |                     |                           |  |                       |  |
|          |                 |                |            |         |      |                          |          |            |                     |                           |  |                       |  |
|          |                 |                |            |         |      |                          |          |            |                     |                           |  |                       |  |
|          |                 |                |            |         |      |                          |          |            |                     |                           |  |                       |  |
| Туре: С  | =Concentratio   | n, D=Depletio  | on, RM=    | Reduce  | d M  | atrix, MS                | S=Maske  | ed Sand g  | rains **Location: P | L=Pore                    | e Lining, M=Matrix                             |                       |  |
| ydric \$ | Soil Indicators | : (Applicable  | e to all L | .RRs, u | nles | ss other                 | wise no  | ted)       |                     |                           | Indicators for Problematic Hy                  | /dric Soils ***       |  |
|          | Histosol (A1)   | · · · ·        |            |         |      |                          |          | S5)        |                     |                           | 1 cm Muck (A9) (LRR C)                         |                       |  |
|          | Histic Epiped   | on (A2)        |            |         |      |                          | d Matrix |            |                     |                           | 2 cm Muck (A10) (LRR B)                        |                       |  |
|          | Black Histic (/ | A3)            |            |         |      | Loamy Mucky Mineral (F1) |          |            |                     |                           | Reduced Vertic (F18)                           |                       |  |
|          | Hydrogen Sul    | fide (A4)      |            |         |      | Loamy Gleyed Matirx (F2) |          |            |                     | Red Parent Material (TF2) |  |                       |  |
|          | Stratified Lay  | ers (A5) (LRR  | C)         |         | Х    | Deplete                  | d Matrix | : (F3)     |                     |                           | Other (Explain in Remarks)                     |                       |  |
|          | 1 cm Muck (A    | .9) (LRR D)    |            |         |      | Redox                    | Dark Su  | rface (F6) |                     |                           |  |                       |  |
|          | Depleted Below  | v Dark Surface | e (A11)    |         |      | Deplete                  | d Dark S | Surface (F | 7)                  |                           |  |                       |  |
|          | Thick Dark Su   | urface (A12)   |            |         |      | Redox                    | Depress  | ions (F8)  |                     |                           |  |                       |  |
|          | Sandy Mucky     | Mineral (S1)   |            |         |      | Vernal                   | Pools (F | 9)         |                     |                           | *** Indicators of hydrophytic veget            | ation and wetland     |  |
|          | Sandy Gleyed    | d Matrix (S4)  |            |         |      |                          |          |            |                     | hyd                       | Irology must be present, unless dist           | urbed or problemation |  |
| estrict  | ive Layer (if o | bserved)       |            |         |      |                          |          |            |                     |                           |  |                       |  |
|          | Type:           |                |            |         |      |                          |          |            |                     |                           |  |                       |  |
| -        | th (inches):    |                |            |         |      |                          |          | lydric So  | il Present?         | Yes                       | <u>    X         No                       </u> |                       |  |
| Dep      |                 | -              |            |         |      |                          | -        |            |                     |                           |  |                       |  |

## HYDROLOGY

|                    | Primary Indicators (r                | minimum of o | ne is require; | check all that apply)             |                                | Secondary Indicators (2 or more required) |  |  |
|--------------------|--------------------------------------|--------------|----------------|-----------------------------------|--------------------------------|---|--|--|
|                    | Surface Water (A1)                   |              | Salt Crust     | t (B11)                           |                                | Water Marks (B1) (Riverine)               |  |  |
|                    | High Water Table (A2)                |              | Biotic Cru     | st (B12)                          |                                | Sediment Deposits (B2) (Riverine)         |  |  |
|                    | Saturation (A3)                      |              | Aquatic F      |                                   | Drift Deposits (B3) (Riverine) |   |  |  |
| Х                  | Water Marks (B1) (Nonri              | verine)      | Hydrogen       | Sulfide Odor (C1)                 |                                | Drainage Patterns (B10)                   |  |  |
|                    | Sediment Deposits (B2) (Nor          | nriverine)   | Oxidized F     | Rhizospheres on Living Roots (C3) |                                | Dry-Season Water Table (C2)               |  |  |
| Х                  | Drift Deposits (B3) (Nonr            | iverine)     | Presence       | of Reduced Iron (C4)              |                                | Crayfish Burrows (C8)                     |  |  |
| Х                  | Surface Soil Cracks (B6)             | )            | Recent Irc     | on Reduction in Tilled Soil (C6)  |                                | Saturation Visible on Aerial Imagery (C9) |  |  |
| x                  | Inundation Visible on Aerial In      | magery (B7)  | Thin Muc       | k Surface (C7)                    |                                | Shallow Aquitard (D3)                     |  |  |
|                    | Water Stained Leaves (B              | 39)          | Other (Ex      | plain in Remarks)                 | Х                              | FAC-Neutral Test (D5)                     |  |  |
| Field C            | bservations:                         |              |                |                                   |                                |   |  |  |
| Surface            | Water Present?                       | Yes          | No >           | C Depth (inches):                 | _                              | Wetland Hydrology Present?                |  |  |
| Water <sup>·</sup> | Table Present?                       | Yes          | No >           | C Depth (inches):                 |                                | Yes X No                                  |  |  |
| Saturat            | ion Present?                         | Yes          | No >           | C Depth (inches):                 |                                |   |  |  |
|                    | ion Present?<br>es capillary fringe) | Yes          | No             | C Depth (inches):                 | _                              |   |  |  |

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

#### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Project/Site:           | Utah Lake  |              | City/County: L | Jtah Co.               | Sampling Date: 7/6/2021   |
|-------------------------|--|--------------|----------------|------------------------|---|
| Applicant/Owner:        | LRS  |              |                |                        | State: Utah Sampling Point: Ground02                                  |
| Investigator(s):        | E.Casper, L.Wilder   |              |                | Section, Township,     | Range: 0  |
| Landform: (hillslope, t | errace, etc.):   | fringe       | I              | _ocal relief (concave, | convex, none): None Slope (%): <u>2-10%</u>                           |
| Subregion (LRR):        | MLRA 28  | A; LRR D     | Lat.           | 40.141803              | Long111.801029 Datum: WGS84   |
| Soil Map Unit Name:     |  |              | Water          |                        | NWI Classification: L2ABF   |
| Are climatic/hydrologi  | c conditions on the site   | typical for  | time of year?  | Yes                    | No X (If no, explain in the Remarks)                                  |
| Are Vegetation          | X,Soil   | ,or H        | ydrology       | significantly disturbe | d?  |
| Are Vegetation          | ,Soil  | ,or H        | ydrology       | naturally problemation | ?   |
| Are Normal Circumsta    |  |              |                | _                      | ny answers in Remarks)  |
|                         |  | -            |                |                        | tions, transects, important features, etc.                            |
| Hydrophyt               | ic Vegetation Present?   | -            |                |                        | pled Area within a Wetland?   |
|                         | Hydric Soil Present?   |              |                | -                      | <u>X</u> No   |
| Wetlai                  | nd Hydrology Present?  | Yes <u>X</u> | No             | -                      |   |
| Remarks:                |  |              |                |                        |   |
|                         | here. Originally L2 Dro  | -            |                | agement of invasives   | has occurred. Native plants and PHAU returning to site.               |
| VEGETATION - 0          |  | Absolute     | Dominant       |                        |   |
| Tree Stratum            | Plot size: r= 30'  | % Cover      | Species?       | Indicator Status       | Dominance Test Worksheet  |
| 1.                      |  |              |                |                        | -   |
| 2.                      |  |              |                |                        | Number of dominant species that are                                   |
| 3.                      |  |              |                |                        | OBL, FACW, or FAC: <u>1</u> (A)                                       |
| 4.                      |  |              |                |                        | Total number of dominant species                                      |
|                         |  | 0            | = Total Cover  |                        | across all strata: <u>1</u> (B)                                       |
| Sapling/Shrub Stratun   | n_ Plot size: <u>r= 30'</u>  |              |                |                        | Percent of dominant species that are<br>OBL, FACW, or FAC: 100% (A/B) |
| 1.                      |  |              |                |                        | Prevalence Index Worksheet  |
| 2.                      |  |              |                |                        | Total % cover of: Multiply by:  |
| 3.                      |  |              |                |                        | OBL species <u>35</u> x 1 <u>35</u>                                   |
| 4.                      |  |              |                |                        | FACW species 0 x 2 0  |
| 5.                      |  |              |                |                        | FAC species <u>5</u> x 3 <u>15</u>                                    |
|                         |  | 0            | = Total Cover  |                        | FACU species 0 x 4 0  |
|                         |  |              |                |                        | UPL species 0 x 5 0   |
| Herb Stratum            | Plot size: r= 5'   |              |                |                        | Column Total <u>40</u> (A) <u>50</u> (B)                              |
| 1. Typha latifol        | ia   | 30           | Y              | OBL                    | Prevalence Index: 1.3 (B/A)   |
| 2. Schoenopled          | ctus maritimus   | 5            | N              | OBL                    | Hydrophytic Vegetation Indicators:                                    |
| 3. Rumex crisp          | us   | 5            | N              | FAC                    | X 1 - Rapid Test for Hydrophytic Vegetation                           |
| 4.                      |  |              |                |                        | X 2 - Dominance Test is >50%  |
| 5.                      |  |              |                |                        | X 3 - Prevalence Index is <3.0*                                       |
| 6.                      |  |              |                |                        | Problematic Hydrophytic Vegetation* (Explain)                         |
| 7.                      |  |              |                |                        | *Indicators of hydric soil and wetland hydrology must be present,     |
| 8.                      |  |              |                |                        | unless disturbed or problematic                                       |
|                         |  | 40           | = Total Cover  |                        | Hydrophytic Vegetation Present?                                       |
| Woody Vine Stratum      | Plot size: r= 20'  |              |                |                        | Yes X No  |
| 1                       |  |              |                |                        | Yes <u>X</u> No   |
| 1<br>2.                 |  |              |                |                        | 4   |
| Ζ                       |  | 0            | - Total Cauar  |                        | 4   |
| % Bara Oracia Li        | Llash Strature   |              | = Total Cover  |                        |   |
|                         |  |              |                | L                      |   |
|                         | Herb Stratum<br>d, list morphological ad<br>nrag treatment. Cattails | aptations b  | ,              |                        |   |

| SOIL     |   |  |            |              |                         |             |             |                   |          | Sampling Point:                         | Ground02          |  |
|----------|---|--|------------|--------------|-------------------------|-------------|-------------|-------------------|----------|---|-------------------|--|
| Profile  | Description: (  | Describe to                                    | depth n    | eeded to     | docume                  | nt the in   | dicator o   | or confirm absen  | ce of in | dicators.)                              |                   |  |
|          | Depth   | Matr   | ix         |              | Redox                   | Features    | ;           |                   |          | · · · ·                                 |                   |  |
|          | (inches)  | Color  | %          | Color        | %                       | Type*       | Loc**       | Texture           |          | Remarks                                 |                   |  |
|          | 0-4   | 2.5Y 4/3                                       | 90         | 7.5YR 5/     | 6 10                    | RM          | М           | Loam / Clay       | v        |   |                   |  |
|          | 4-6   | 5y 5/1   | 100        |              |                         |             |             | Loam / Clay       | v        |   |                   |  |
|          |   |  |            |              |                         |             |             |                   | ,        |   |                   |  |
|          |   |  |            |              |                         |             |             |                   |          |   |                   |  |
|          |   |  |            |              |                         |             |             |                   |          |   |                   |  |
|          |   |  |            |              |                         |             |             |                   |          |   |                   |  |
|          |   |  |            |              |                         |             |             |                   |          |   |                   |  |
|          |   |  |            |              |                         |             |             |                   |          |   |                   |  |
| *Type: ( | C=Concentratio  | n, D=Depleti                                   | on, RM=    | Reduced I    | Jatrix, N               | 1S=Mask     | ed Sand     | grains **Locatior | n: PL=P  | ore Lining, M=Matrix                    |                   |  |
| Hydric   | Soil Indicators   | · (Applicabl                                   | e to all I | RRs unl      | ess othe                | erwise n    | oted)       |                   |          | Indicators for Problematic Hy           | dric Soils ***    |  |
|          | Histosol (A1)   |  |            |              |                         | Redox (     |             |                   |          | 1 cm Muck (A9) <b>(LRR C)</b>           |                   |  |
|          | Histic Epiped   | on (A2)  |            |              | -                       | ed Matrix   |             |                   |          | 2 cm Muck (A10) (LRR B)                 |                   |  |
|          | Black Histic (/   |  |            |              |                         |             | Mineral (F  | =1)               |          | Reduced Vertic (F18)                    |                   |  |
|          | Hydrogen Sul  |  |            |              |                         |             | Matirx (F   |                   |          | Red Parent Material (TF2)               |                   |  |
|          | Stratified Lay  | . ,  | C) S       | X            |                         | ted Matri   |             | -)                |          | Other (Explain in Remarks)              |                   |  |
|          | 1 cm Muck (A  |  | ,          |              | Redox Dark Surface (F6) |             |             |                   |          |   |                   |  |
|          | Depleted Belov  | / /  | e (A11)    |              |                         |             | Surface (   | /                 |          |   |                   |  |
|          | Thick Dark Su   |  | - ()       |              |                         |             | sions (F8)  |                   |          |   |                   |  |
|          | Sandy Mucky   | . ,  | )          |              |                         | l Pools (F  |             | /                 |          | *** Indicators of hydrophytic vegeta    | ation and wetland |  |
|          | Sandy Gleyed  |  |            |              | 1                       |             | - /         |                   | h        | ydrology must be present, unless dist   |                   |  |
| Restric  | tive Layer (if o  |  |            | •            |                         |             |             |                   |          |   |                   |  |
|          | Туре:   |  | ye         | es           |                         |             |             |                   |          |   |                   |  |
| Dep      | oth (inches):   |  |            |              |                         | _           | Hydric S    | oil Present?      | Ye       | es X No                                 |                   |  |
|          | ( )   |  |            |              |                         | _           | -           |                   |          |   |                   |  |
| Remark   | is:   |  |            |              |                         |             |             |                   |          |   |                   |  |
| Bottom   | layer likely exte   | ends below. A                                  | Assumed    | deplted m    | atrix pre               | sent. Co    | bbley bel   | ow 4 inches       |          |   |                   |  |
|          |   |  |            |              |                         |             |             |                   |          |   |                   |  |
|          |   |  |            |              |                         |             |             |                   |          |   |                   |  |
| HYDR     | OLOGY   |  |            |              |                         |             |             |                   |          |   |                   |  |
|          |   |  |            |              |                         |             |             |                   |          |   |                   |  |
| Wetlan   | d Hydrology In  | idicators:                                     |            |              |                         |             |             |                   |          |   |                   |  |
|          | Primary I   | ndicators (mi                                  | inimum c   | of one is re | quire; cł               | neck all th | nat apply)  | )                 |          | Secondary Indicators (2 or more re      | equired)          |  |
|          | Surface Wate  | er (A1)  |            | Salt         | Crust (I                | 311)        |             |                   | W        | ater Marks (B1) (Riverine)              |                   |  |
|          | High Water T  | able (A2)                                      |            | Biot         | ic Crust                | (B12)       |             |                   | Se       | ediment Deposits (B2) (Riverine)        |                   |  |
| Х        | Saturation (A3) Aquatic Fauna (B <sup>2</sup>             |  |            |              |                         |             |             |                   | Dr       | ift Deposits (B3) (Riverine)            |                   |  |
| Х        | Water Marks   | er Marks (B1) (Nonriverine) Hydrogen Sulfide ( |            |              |                         |             | lor (C1)    |                   | Dr       | ainage Patterns (B10)                   |                   |  |
| Х        | X Sediment Deposits (B2) (Nonriverine) Oxidized Rhizosphe |  |            |              |                         | zosphere    | s on Living | Roots (C3)        | Dr       | y-Season Water Table (C2)               |                   |  |
| Х        | Drift Deposits  | (B3) (Nonriv                                   | erine)     | Pre          | sence of                | Reduce      | d Iron (C4  | 4)                | Cr       | ayfish Burrows (C8)                     |                   |  |
| Х        | Surface Soil (  | Cracks (B6)                                    |            | Rec          | ent Iron                | Reductio    | n in Tilled | Soil (C6)         | Sa       | aturation Visible on Aerial Imagery (CS | ə)                |  |
| х        | Inundation Visit  | ole on Aerial Ima                              | agery (B7) | Thir         | n Muck S                | Surface (   | C7)         |                   | Sh       | allow Aquitard (D3)                     |                   |  |
|          | Water Stainer   | d Leaves (RO                                   | )          |              |                         | · ·         |             |                   | -        |   |                   |  |

|           | Water Stained Leaves (B9) |     |   | Other ( | (Explai | n in Remarks)     | FAC-Neutral Test (D5) |                            |  |
|-----------|---------------------------|-----|---|---------|---------|-------------------|-----------------------|----------------------------|--|
| Field Ob  | servations:               |     |   |         |         |                   |                       |                            |  |
| Surface V | Vater Present?            | Yes |   | No      | х       | Depth (inches):   |                       | Wetland Hydrology Present? |  |
| Water Ta  | ble Present?              | Yes |   | No      | Х       | Depth (inches):   |                       | Yes <u>X</u> No            |  |
| Saturatio | n Present?                | Yes | Х | No      |         | Depth (inches): 1 |                       |                            |  |
| (includes | capillary fringe)         |     |   |         |         |                   |                       |                            |  |

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

#### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Ground table likely present below cobbles of restrictive layer.

| Project/ | Site:              | Utah Lake                |                     | City/County:                      | Utah Co.                              |  | Sampling Date:                                     | 7/7/2021                 |
|----------|--------------------|--------------------------|---------------------|-----------------------------------|---------------------------------------|--|--|--------------------------|
| Applicar | nt/Owner:          | LRS                      |                     |                                   |                                       | State: Utah  | Sampling Point:                                    | Ground 03                |
| nvestig  | ator(s):           | E.Casper, L.Wilder       |                     |                                   | Section, Township,                    | Range: <u>0</u>                                      |  |                          |
| andfor   | m: (hillslope, ter | race, etc.):             | fringe              |                                   | Local relief (concave,                | convex, none):                                       | None   | Slope (%): <u>2-10%</u>  |
| Subregi  | on (LRR):          | MLRA 28                  | BA; LRR D           | Lat.                              | 40.330713                             | Long111.764  | 4511 Datum: <u>V</u>                               | VGS84                    |
| Soil Ma  | p Unit Name:       |                          |                     | Water                             |                                       | N  | IWI Classification: <u>F</u>                       | PEM1F                    |
| re clim  | atic/hydrologic    | conditions on the site   | typical for ti      | me of year?                       | Yes                                   | No <u></u> (If n                                     | o, explain in the Re                               | marks)                   |
| re Veg   | etation            | X ,Soil                  | or Hy,              | drology                           | _significantly disturbe               | ed?  |  |                          |
| re Veg   | etation            |                          |                     |                                   | naturally problemation                |  |  |                          |
| re Nor   | mal Circumstan     | ces Present?             | Yes <u>X</u>        | No                                | (If needed, explain a                 | any answers in Remark                                | s)   |                          |
|          | IARY OF FIN        | DINGS - Attach           | site man s          | showing sa                        | mpling point loca                     | ations, transects, i                                 | mportant featu                                     | res. etc.                |
|          |                    | Vegetation Present?      |                     |                                   |                                       | npled Area within a W                                |  |                          |
|          |                    | Hydric Soil Present?     |                     |                                   | _                                     | X No   |  |                          |
|          |                    | I Hydrology Present?     |                     |                                   |                                       |  |  |                          |
|          |                    | , ,,                     |                     |                                   | _                                     |  |  |                          |
| lemark   | s:                 |                          |                     |                                   |                                       |  |  |                          |
| Jrough   | t conditions Sor   | ne management of in      | vasives has         | occurred.                         |                                       |  |  |                          |
|          |                    |                          |                     |                                   |                                       |  |  |                          |
| EGE      | TATION - Us        | e scientific nam         |                     |                                   |                                       | 1  |  |                          |
| ree Str  | ratum              | Plot size: r= 30'        | Absolute<br>% Cover | Dominant<br>Species?              | Indicator Status                      | Dominar  | nce Test Workshee                                  | t                        |
| 1.       |                    |                          |                     | •                                 |                                       |  |  | •                        |
| 2.       |                    |                          |                     |                                   |                                       | Number of dominant                                   | t analian that are                                 |                          |
| 3.       |                    |                          |                     |                                   |                                       | <ul> <li>Number of dominant<br/>OBL, FACW</li> </ul> | •  | 3 (A)                    |
| 4.       |                    |                          |                     |                                   |                                       | Total number of do                                   |  | ( )                      |
|          |                    |                          | 0                   | = Total Cover                     |                                       | across all   | •  | 3 (B)                    |
|          |                    |                          |                     |                                   |                                       | Percent of dominant                                  | t species that are                                 |                          |
| apling/  | Shrub Stratum      | Plot size: r= 30'        |                     |                                   |                                       | OBL, FACW  | •  | 100% (A/B)               |
| 1.       | Tamarix chine      | nsis                     | 40                  | Y                                 | FAC                                   | Prevalence Index W                                   | orksheet   |                          |
| 2.       |                    |                          |                     |                                   |                                       | Total % cover of:                                    | Multipl  | y by:                    |
| 3.       |                    |                          |                     |                                   |                                       | OBL species 5  | 5 x 1  | 5                        |
| 4.       |                    |                          |                     |                                   |                                       | FACW species 4                                       | 5 x 2  | 90                       |
| 5.       |                    |                          |                     |                                   |                                       | FAC species 8  | 5 x 3 _  | 255                      |
|          |                    |                          | 40                  | = Total Cover                     |                                       | FACU species 1                                       | 0 x 4  | 40                       |
|          |                    |                          |                     |                                   |                                       | UPL species 0  | ) x 5  | 0                        |
| erb St   | ratum              | Plot size: r= 5'         |                     |                                   |                                       | Column Total 14                                      | <u>15 (</u> A)                                     | <u>390</u> (B)           |
| 1.       | Rumex fuegin       | us                       | 30                  | Y                                 | FACW                                  |  | Prevalence Index:                                  | 2.7 (B/A)                |
| 2.       | Bassia scopar      |                          | 30                  | <u> </u>                          | FAC                                   | Hydrophytic Vegeta                                   |  |                          |
| 3.       | Polypogon mo       |                          | 15                  | <u> </u>                          | FACW                                  |  | st for Hydrophytic V                               | egetation                |
| 4.       | Hordeum juba       |                          |                     | <u>N</u>                          | FAC                                   | X 2 - Dominan  |  |                          |
| 5.<br>c  | Lythrum salica     |                          | 5                   | <u>N</u>                          | OBL                                   | X 3 - Prevalence<br>Problematic                      | ce Index is <u>&lt;</u> 3.0*<br>Hydrophytic Vegeta | tion* (Explain)          |
| 6.<br>7  | Lepidium latifo    |                          | 5                   | <u>N</u>                          | FAC                                   |  |  | lrology must be present, |
| 7.<br>8  | Lactuca serrio     |                          | <u>5</u>            | <u> </u>                          | FACU                                  | unless disturbed or p                                |  | . ,                      |
| 8.       | Xanthium spin      | 030111                   |                     | N<br>Total Cover                  | FACU                                  | Hydrophytic Vocate                                   | tion Present?                                      |                          |
|          |                    |                          | 105                 |                                   |                                       | Hydrophytic Vegeta                                   | IIII FIESEIIL!                                     |                          |
|          | Vine Stratum       | Plot size: r= 30'        |                     |                                   |                                       | Yes  | X No   |                          |
| 'oodv'   |                    | 1 IOL 3126. <u>1- 30</u> |                     |                                   |                                       | 165  | <u></u> NU_  |                          |
|          |                    |                          |                     |                                   |                                       | 1  |  |                          |
| 1.       |                    |                          |                     |                                   | · · · · · · · · · · · · · · · · · · · |  |  |                          |
|          |                    |                          | 0                   | = Total Cover                     |                                       |  |  |                          |
| 1.<br>2. | are Ground in H    | erh Stratum              |                     | = Total Cover<br>er of Biotic Cru | st                                    |  |  |                          |

|          | Depth           | Matr           | ix         |        | F                | Redox F                    | eatures  |            |                     |                                |   |
|----------|-----------------|----------------|------------|--------|------------------|----------------------------|----------|------------|---------------------|--------------------------------|---|
|          | (inches)        | Color          | %          | Colo   | or               | %                          | Type*    | Loc**      | Texture             |                                | Remarks   |
|          | 0-6             | 2.5y 4/2       | 90         | 7.5yr  | 5/6              | 10                         | RM       | Both       | Loam / Clay         |                                |   |
|          | 6-16            | 3.5y 5/2       | 90         | 7.5yr  | 5/6              | 10                         | RM       | Both       | Loam / Clay         |                                |   |
|          |                 |                |            |        |                  |                            |          |            |                     |                                |   |
|          |                 |                |            |        |                  |                            |          |            |                     |                                |   |
|          |                 |                |            |        |                  |                            |          |            |                     |                                |   |
| Туре: С  | C=Concentratio  | n, D=Depletio  | on, RM=    | Reduce | d Ma             | atrix, MS                  | S=Mask   | ed Sand g  | rains **Location: P | L=Pore                         | e Lining, M=Matrix                                    |
| lydric S | Soil Indicators | : (Applicable  | e to all L | RRs, u | nles             | s other                    | wise no  | oted)      |                     |                                | Indicators for Problematic Hydric Soils ***           |
|          | Histosol (A1)   |                |            |        | Sandy Redox (S5) |                            |          |            |                     | 1 cm Muck (A9) <b>(LRR C)</b>  |   |
|          | Histic Epipedo  | on (A2)        |            |        | Strippe          | d Matrix                   | (S6)     |            |                     | 2 cm Muck (A10) <b>(LRR B)</b> |   |
|          | Black Histic (A | A3)            |            |        |                  | Loamy                      | Mucky N  | Mineral (F | 1)                  |                                | Reduced Vertic (F18)                                  |
|          | Hydrogen Sul    | fide (A4)      |            |        |                  | Loamy                      | Gleyed   | Matirx (F2 | )                   |                                | Red Parent Material (TF2)                             |
|          | Stratified Laye | ers (A5) (LRF  | R C)       |        | х                | Depleted Matrix (F3)       |          |            |                     |                                | Other (Explain in Remarks)                            |
|          | 1 cm Muck (A    | .9) (LRR D)    |            |        |                  | Redox Dark Surface (F6)    |          |            |                     |                                |   |
|          | Depleted Below  | v Dark Surface | e (A11)    |        |                  | Depleted Dark Surface (F7) |          |            |                     |                                |   |
|          | Thick Dark Su   | urface (A12)   |            |        |                  | Redox Depressions (F8)     |          |            |                     |                                |   |
|          | Sandy Mucky     | Mineral (S1)   |            |        |                  | Vernal I                   | Pools (F | 9)         |                     |                                | *** Indicators of hydrophytic vegetation and wetland  |
|          | Sandy Gleyed    | d Matrix (S4)  |            |        |                  |                            |          |            |                     | hyd                            | rology must be present, unless disturbed or problemat |
| Restrict | ive Layer (if o | bserved)       |            |        |                  |                            |          |            |                     |                                |   |
|          | Туре:           |                |            |        |                  |                            | _        |            |                     |                                |   |
| Dep      | th (inches):    |                |            |        |                  |                            | -        | Hydric So  | il Present?         | Yes                            | X No  |
| Remarks  | S:              |                |            |        |                  |                            |          |            |                     |                                |   |
| Sand pre | esent in soil   |                |            |        |                  |                            |          |            |                     |                                |   |
| '        |                 |                |            |        |                  |                            |          |            |                     |                                |   |
|          |                 |                |            |        |                  |                            |          |            |                     |                                |   |

|         | Primary Indicators (minimum o             | f one | is require; check all that apply)          | Secondary Indicators (2 or more required)                          |  |  |
|---------|---|-------|--|--|--|--|
|         | Surface Water (A1)                        | Х     | Salt Crust (B11)                           | Water Marks (B1) (Riverine)  |  |  |
|         | High Water Table (A2)                     |       | Biotic Crust (B12)                         | Sediment Deposits (B2) (Riverine)                                  |  |  |
|         | Saturation (A3)                           |       | Aquatic Fauna (B13)                        | Drift Deposits (B3) (Riverine)                                     |  |  |
| Х       | Water Marks (B1) (Nonriverine)            |       | Hydrogen Sulfide Odor (C1)                 | Drainage Patterns (B10)  |  |  |
| Х       | Sediment Deposits (B2) (Nonriverine)      |       | Oxidized Rhizospheres on Living Roots (C3) | Dry-Season Water Table (C2)  |  |  |
|         | Drift Deposits (B3) (Nonriverine)         |       | Presence of Reduced Iron (C4)              | Crayfish Burrows (C8)  |  |  |
|         | Surface Soil Cracks (B6)                  |       | Recent Iron Reduction in Tilled Soil (C6)  | Saturation Visible on Aerial Imagery (C9)<br>Shallow Aquitard (D3) |  |  |
|         | Inundation Visible on Aerial Imagery (B7) |       | Thin Muck Surface (C7)                     |  |  |  |
|         | Water Stained Leaves (B9)                 |       | Other (Explain in Remarks)                 | FAC-Neutral Test (D5)  |  |  |
| ield C  | Observations:                             |       |  |  |  |  |
| Surface | e Water Present? Yes                      |       | No X Depth (inches):                       | Wetland Hydrology Present?   |  |  |
| Vater   | Table Present? Yes                        |       | No X Depth (inches):                       | Yes X No   |  |  |
| Satura  | tion Present? Yes                         |       | No X Depth (inches):                       |  |  |  |
| includ  | es capillary fringe)                      |       |  |  |  |  |

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

## --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Project/ | Site <sup>.</sup>    | Utah Lake               |                     | City/County:         | Litah Co                |  | Sampling Date:               | 7/7/2021                 |
|----------|----------------------|-------------------------|---------------------|----------------------|-------------------------|--|------------------------------|--------------------------|
|          | nt/Owner:            | LRS                     |                     | ony/county.          |                         | State: Utah  |                              | Ground05                 |
| Investig |                      | E.Casper, L.Wilder      |                     |                      | Section, Township, I    |  | Sampling Fount.              | Cloundos                 |
| -        |                      |                         | fringo              |                      | -                       | convex, none):                                       | Nono                         | Slana (%): 2 10%         |
|          |                      | rrace, etc.):           |                     |                      |                         |  |                              |                          |
| 0        | on (LRR):            | MLRA 28                 | A; LRR D            |                      | 40.343762               | _ Long. <u>-111.802</u>                              |                              |                          |
|          | o Unit Name:         |                         |                     | Water                | X                       |  | IWI Classification: <u>F</u> |                          |
|          |                      | conditions on the site  |                     |                      |                         |  | o, explain in the Re         | marks)                   |
| Are Veg  |                      |                         |                     |                      | _significantly disturbe |  |                              |                          |
| Are Veg  |                      |                         |                     |                      | _naturally problematic  |  |                              |                          |
| Are Nor  | mal Circumstar       | ices Present?           | Yes <u>X</u>        | No                   | _(If needed, explain a  | ny answers in Remark                                 | s)                           |                          |
| CLIMAN   |                      | IDINCS Attach           | ito mon d           | howing oo            | maling point loss       | tiono tronocoto i                                    | mnortant footu               | raa ata                  |
| 301111   |                      |                         |                     |                      |                         | tions, transects, i                                  |                              | res, etc.                |
|          | Hydrophytic          | vegetation Present?     |                     |                      |                         | pled Area within a W                                 |                              |                          |
|          |                      | Hydric Soil Present?    |                     |                      |                         | <u>    X   </u> No <u> </u>                          |                              |                          |
|          | Wetlan               | d Hydrology Present?    | Yes <u>X</u>        | No                   | _                       |  |                              |                          |
| Demerle  |                      |                         |                     |                      |                         |  |                              |                          |
| Remark   |                      | atland Watland transi   | oitiona fran        |                      | t high water mark M/a   | tland likely resistor by                             | drology during high          | water veere Drevent      |
| conditio |                      | eliano. Weliano transi  | suons nom           | PEM IO PFO a         | t nigh water mark. we   | tland likely recieves hy                             | arology during high          | water years. Drought     |
|          |                      |                         |                     |                      |                         |  |                              |                          |
| VEGE     | TATION - Us          | se scientific name      |                     |                      |                         | T  |                              |                          |
| Tree Str | atum                 | Plot size: r= 30'       | Absolute<br>% Cover | Dominant<br>Species? | Indicator Status        | Dominar  | nce Test Workshee            | t                        |
| 1.       |                      | istifolia               |                     | Y                    | FACW                    | Dominar  |                              |                          |
| 2.       | Populus delto        |                         | 5                   | N                    | FAC                     | _  |                              |                          |
| 3.       | <u>Fopulus dello</u> |                         | 5                   |                      | TAC                     | <ul> <li>Number of dominant<br/>OBL, FACW</li> </ul> |                              | 4 (A)                    |
| 3.<br>4. |                      |                         |                     |                      |                         |  | , 01 FAC                     | (A)                      |
| 4.       |                      |                         | 05                  | Tatal Oaven          |                         | - Total number of do                                 |                              |                          |
|          |                      |                         | 65 :                | = Total Cover        |                         | across all   | strata:                      | (B)                      |
|          |                      |                         |                     |                      |                         | Percent of dominant                                  |                              | ·····                    |
|          | Shrub Stratum        | Plot size: r= 30'       |                     |                      |                         | OBL, FACW  | •                            | 100% (A/B)               |
| 1.       |                      |                         |                     |                      |                         | Prevalence Index W                                   |                              |                          |
| 2.       |                      |                         |                     |                      |                         | Total % cover of:                                    | •                            | y by:                    |
| 3.       |                      |                         |                     |                      |                         |  | ) x 1                        | 0                        |
| 4.       |                      |                         |                     |                      |                         | FACW species 8                                       |                              | 160                      |
| 5.       |                      |                         |                     |                      |                         | FAC species 1  | 0 x 3                        | 30                       |
|          |                      |                         | 0 :                 | = Total Cover        |                         | FACU species 0                                       | ) x 4                        | 0                        |
|          |                      |                         |                     |                      |                         | UPL species 0  | ) x 5                        | 0                        |
| Herb St  | ratum                | Plot size: r= 5'        |                     |                      |                         | Column Total 9                                       | 0 (A)                        | 190 (B)                  |
| 1.       | Phalaris arun        | dinacea                 | 15                  | Y                    | FACW                    |  | Prevalence Index:            | 2.1 (B/A)                |
| 2.       | Phragmites a         | ustralis                | 5                   | Y                    | FACW                    | Hydrophytic Vegeta                                   | tion Indicators:             |                          |
| 3.       | Solanum dulo         | amara                   | 5                   | Y                    | FAC                     | 1 - Rapid Te   | st for Hydrophytic V         | egetation                |
| 4.       |                      |                         |                     |                      |                         | X 2 - Dominan  | ce Test is >50%              |                          |
| 5.       |                      |                         |                     |                      |                         | X 3 - Prevalence                                     | ce Index is <u>&lt;</u> 3.0* |                          |
| 6.       |                      |                         |                     |                      |                         |  | Hydrophytic Vegeta           |                          |
| 7.       |                      |                         |                     |                      |                         |  |                              | Irology must be present, |
| 8.       |                      |                         |                     |                      |                         | unless disturbed or p                                | robiematic                   |                          |
|          | _                    |                         | 25 :                | = Total Cover        |                         | Hydrophytic Vegeta                                   | tion Present?                |                          |
|          |                      |                         |                     |                      |                         |  |                              |                          |
| Woodv    | Vine Stratum         | Plot size: r= 30'       |                     |                      |                         | Yes  | X No                         |                          |
| 1.       |                      |                         |                     |                      |                         |  |                              |                          |
| 2.       |                      |                         |                     |                      |                         | 1  |                              |                          |
| ۷.       |                      |                         |                     | = Total Cover        |                         | 1  |                              |                          |
|          | oro Crourdin I       | Jorh Stratum            |                     |                      | •                       |  |                              |                          |
|          |                      | lerb Stratum            |                     | r of Biotic Crus     | t                       |  |                              |                          |
| Remark   | s: (it observed      | , list morphological ad | aptations be        | low).                |                         |  |                              |                          |
|          |                      |                         |                     |                      |                         |  |                              |                          |
|          |                      |                         |                     |                      |                         |  |                              |                          |

|         | Depth           | Matri        | ix         |         | F   | Redox F  | eatures  |            |                      |           |   |
|---------|-----------------|--------------|------------|---------|-----|--|----------|------------|----------------------|-----------|---|
|         | (inches)        | Color        | %          | Color   | r   | %  | Type*    | Loc**      | Texture              |           | Remarks   |
|         | 0-9             | 10yr 4/2     | 98         | 7.5yr 5 | 6/6 | 2  | С        | М          | Loam / Clay          |           |   |
|         | 9-16            | 2.5Y 4/2     | 98         | 7.5YR 5 | 5/6 | 2  | MS       | M          | Sandy                |           |   |
|         |                 |              |            |         |     |  |          |            |                      |           |   |
|         |                 |              |            |         |     |  |          |            |                      |           |   |
|         |                 |              |            |         |     |  |          |            |                      | -         |   |
|         | -Concontratio   | n D-Doplotic | n PM-      | Poducod |     | atrix MS   | S-Mack   | od Sand (  | grains **Location: F | PI - Porc | a Lining M-Matrix   |
|         |                 | · ·          |            |         |     |  |          |            | grains Location. P   |           | 5,  |
|         | boil Indicators |              | e to all i |         |     |  | Redox (  |            |                      |           | Indicators for Problematic Hydric Soils ***<br>1 cm Muck (A9) (LRR C) |
|         | Histic Epipedo  | on (A2)      |            | -       | -   |  | d Matrix |            |                      | _         | 2 cm Muck (A10) (LRR B)   |
|         | Black Histic (A |              |            |         |     |  |          |            | 1)                   | _         | Reduced Vertic (F18)  |
|         | Hydrogen Sul    |              |            |         |     | Loamy Mucky Mineral (F1)<br>Loamy Gleyed Matirx (F2) |          |            |                      | _         | Red Parent Material (TF2)   |
|         | Stratified Lave |              | 2 (1)      | >       |     | Depleted Matrix (F3)                                 |          |            |                      |           | Other (Explain in Remarks)  |
|         | 1 cm Muck (A    |              | . 0/       |         |     | Redox Dark Surface (F6)                              |          |            |                      |           |   |
|         | Depleted Below  | ,, ,         | (A11)      |         |     |  |          | Surface (I |                      |           |   |
|         | Thick Dark Su   |              | , (411)    |         |     |  |          | ions (F8)  | 1                    |           |   |
|         | Sandy Mucky     |              |            |         |     |  | Pools (F | . ,        |                      |           | *** Indicators of hydrophytic vegetation and wetland                  |
|         | Sandy Gleved    |              |            |         |     | Vollia   | 1 010 (1 | 0)         |                      |           | rology must be present, unless disturbed or problemat                 |
| estrict | ive Layer (if o |              |            |         |     |  |          |            |                      |           |   |
|         | Type:           | ,            |            |         |     |  |          |            |                      |           |   |
|         | h (inches):     |              |            |         |     |  |          | Hydric So  | oil Present?         | Yes       | X No  |
|         |                 |              |            |         |     |  |          |            |                      |           |   |

## HYDROLOGY

|           | Primary Indicators          | s (minimum of o | ne is require; c | heck all that apply)            |   | Secondary Indicators (2 or more required) |  |  |
|-----------|-----------------------------|-----------------|------------------|---------------------------------|---|---|--|--|
|           | Surface Water (A1)          |                 | Salt Crust (     | B11)                            |   | Water Marks (B1) (Riverine)               |  |  |
|           | High Water Table (A2)       | )               | Biotic Crust     | : (B12)                         |   | Sediment Deposits (B2) (Riverine)         |  |  |
|           | Saturation (A3)             |                 | Aquatic Fau      | una (B13)                       |   | Drift Deposits (B3) (Riverine)            |  |  |
|           | Water Marks (B1) (No        | nriverine)      | Hydrogen S       | Sulfide Odor (C1)               |   | Drainage Patterns (B10)                   |  |  |
|           | Sediment Deposits (B2) (I   | Nonriverine)    | Oxidized Rh      | izospheres on Living Roots (C3) |   | Dry-Season Water Table (C2)               |  |  |
| Х         | Drift Deposits (B3) (No     | onriverine)     | Presence o       | f Reduced Iron (C4)             |   | Crayfish Burrows (C8)                     |  |  |
|           | Surface Soil Cracks (E      | 36)             | Recent Iron      | Reduction in Tilled Soil (C6)   |   | Saturation Visible on Aerial Imagery (C9) |  |  |
|           | Inundation Visible on Aeria | al Imagery (B7) | Thin Muck        | Surface (C7)                    |   | Shallow Aquitard (D3)                     |  |  |
|           | Water Stained Leaves        | (B9)            | Other (Expl      | ain in Remarks)                 | Х | FAC-Neutral Test (D5)                     |  |  |
| Field Ob  | servations:                 |                 |                  |                                 |   |   |  |  |
| Surface   | Water Present?              | Yes             | No X             | Depth (inches):                 | _ | Wetland Hydrology Present?                |  |  |
| Nater Ta  | able Present?               | Yes             | No X             | Depth (inches):                 | _ | Yes X No                                  |  |  |
| Saturatio | on Present?                 | Yes             | No X             | Depth (inches):                 |   |   |  |  |
| (includes | capillary fringe)           |                 |                  |                                 | - |   |  |  |

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

## --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.10.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Lots of sticks and logs. Likely drift debris from high water years.

| Project/Site:        | Utah Lake                         |                     | City/County:         | Utah Co.               | Sampling Date:  | 7/7/2021                |
|----------------------|-----------------------------------|---------------------|----------------------|------------------------|---|-------------------------|
| Applicant/Owner:     | LRS                               |                     |                      |                        | State: Utah Sampling Point:   | Ground 08               |
| Investigator(s):     | E.Casper, L.Wilder                |                     |                      | Section, Township,     | Range: 0  |                         |
| Landform: (hillslope | e, terrace, etc.):                | fringe              |                      | Local relief (concave, | convex, none): None   | Slope (%): <u>0-2%</u>  |
| Subregion (LRR):     | MLRA 28                           | BA; LRR D           | Lat.                 |                        | _ Long. <u>-111.865912</u> Datum: <u>\</u>                                      |                         |
| Soil Map Unit Name   | e:                                |                     | Beaches              |                        | NWI Classification:   | PEM1F                   |
| Are climatic/hydrolo | ogic conditions on the site       | typical for ti      | me of year?          | Yes                    | NoX(If no, explain in the Re  | marks)                  |
| Are Vegetation       | ,Soil                             | ,or Hy              | drology              | significantly disturbe | d?  |                         |
| Are Vegetation       | ,Soil                             | ,or Hy              | drology              | naturally problemation | ??  |                         |
| Are Normal Circum    | stances Present?                  | Yes <u>X</u>        | No                   | (If needed, explain a  | ny answers in Remarks)  |                         |
| SUMMARY OF           | FINDINGS - Attach                 | site map s          | showing sa           | mpling point loca      | tions, transects, important featu   | res, etc.               |
| Hydrop               | hytic Vegetation Present?         | Yes X               | No                   | Is the Sam             | pled Area within a Wetland?   |                         |
|                      | Hydric Soil Present?              | Yes X               |                      |                        | <u>X</u> No   |                         |
| We                   | tland Hydrology Present?          | Yes X               | No                   | _                      |   |                         |
|                      |                                   |                     |                      |                        |   |                         |
| Remarks:             |                                   |                     |                      |                        |   |                         |
| Drought conditions   | 5                                 |                     |                      |                        |   |                         |
| VEGETATION ·         | - Use scientific nam              | es of plan          | ts                   |                        |   |                         |
| Tree Stratum         | Plot size: r= 30'                 | Absolute<br>% Cover | Dominant<br>Species? | Indicator Status       | Dominance Test Workshee   | at                      |
|                      |                                   |                     | •                    |                        | Dominance Test Workshee   |                         |
| 2                    |                                   |                     |                      |                        |   |                         |
|                      |                                   |                     |                      |                        | - Number of dominant species that are<br>OBL, FACW, or FAC:                     | 2 (A)                   |
| 4.                   |                                   |                     |                      |                        |   | ('')                    |
|                      |                                   | 0 :                 | = Total Cover        |                        | <ul> <li>Total number of dominant species<br/>across all strata:</li> </ul>     | 2 (B)                   |
|                      |                                   |                     |                      |                        | -   | ( ,                     |
| Sapling/Shrub Stra   | tum Plot size: r= 5'              |                     |                      |                        | Percent of dominant species that are<br>OBL, FACW, or FAC:                      | 100% (A/B)              |
| 1.                   |                                   |                     |                      |                        | Prevalence Index Worksheet  |                         |
| 2.                   |                                   |                     |                      |                        | Total % cover of: Multipl   | y by:                   |
| -                    |                                   |                     |                      |                        | OBL species <u>55</u> x 1   | 55                      |
| 4.                   |                                   |                     |                      |                        | FACW species <u>45</u> x 2  | 90                      |
| 5.                   |                                   |                     |                      |                        | FAC species <u>0</u> x 3  | 0                       |
|                      |                                   | 0 :                 | = Total Cover        |                        | FACU species 0 x 4  | 0                       |
|                      |                                   |                     |                      |                        | UPL species <u>0</u> x 5  | 0                       |
| Herb Stratum         | Plot size: r= 5'                  |                     |                      |                        | Column Total <u>100</u> (A)   | 145 (B)                 |
| 1. <u>Schoenop</u>   | plectus pungens                   | 40                  | Y                    | OBL                    | Prevalence Index:   | 1.5 (B/A)               |
| 2. <u>Polypogo</u> i | n monspeliensis                   | 20                  | Y                    | FACW                   | Hydrophytic Vegetation Indicators:  |                         |
| 3. <u>Typha lati</u> | ifolia                            | 15                  | N                    | OBL                    | X 1 - Rapid Test for Hydrophytic V  | egetation               |
| 4. Rumex fu          | eginus                            | 10                  | N                    | FACW                   | X 2 - Dominance Test is >50%  |                         |
| 5. Juncus to         | rreyi                             | 5                   | N                    | FACW                   | X 3 - Prevalence Index is <3.0*   | tiont (Funl-in)         |
| 6. <u>Juncus ac</u>  |                                   | 5                   | N                    | FACW                   | Problematic Hydrophytic Vegeta<br>*Indicators of hydric soil and wetland hydric |                         |
|                      | es australis                      | 5                   | N                    | FACW                   | unless disturbed or problematic   | alongy must be present, |
| 8                    |                                   | 100 :               | = Total Cover        |                        | Hydrophytic Vegetation Present?   |                         |
|                      |                                   |                     |                      |                        |   |                         |
| Woody Vine Stratur   | <u>m</u> Plot size: <u>r= 30'</u> |                     |                      |                        | Yes <u>X</u> No_  |                         |
| 1                    |                                   |                     |                      |                        | 4   |                         |
| 2.                   |                                   |                     |                      |                        | 4   |                         |
|                      |                                   | 0 :                 | = Total Cover        |                        |   |                         |
| % Bare Ground        | in Herb Stratum                   | % Cove              | r of Biotic Cru      | st                     |   |                         |
| Remarks: (if obser   | ved, list morphological ad        | aptations be        | low).                |                        | •   |                         |
|                      |                                   |                     |                      |                        |   |                         |
|                      |                                   |                     |                      |                        |   |                         |

|        | Depth            | Matri                   | x        |       |       | Redox    | Features                 |                 |                       |                                |  |  |  |
|--------|------------------|-------------------------|----------|-------|-------|----------|--------------------------|-----------------|-----------------------|--------------------------------|--|--|--|
|        | (inches)         | Color                   | %        | Co    | lor   | %        | Type*                    | * Loc** Texture |                       | Remarks                        |  |  |  |
|        | 0-4              | 2.5y 2.5/1              | 100      |       |       |          |                          |                 | Mucky Loam / Clay     |                                |  |  |  |
|        | 4-12             | Gley1 3/10y             | 100      |       |       |          |                          |                 | Sandy                 |                                |  |  |  |
|        | 12-18            | 12-18 Gley1 5/10y 99 7. |          |       | r 5/6 | 1        | RM                       | PI              | Sandy                 |                                |  |  |  |
|        |                  |                         |          |       |       |          |                          |                 |                       |                                |  |  |  |
|        |                  |                         |          |       |       |          |                          |                 |                       |                                |  |  |  |
|        |                  |                         |          |       |       |          |                          |                 |                       |                                |  |  |  |
| ype: ( | C=Concentratio   | on, D=Depletio          | n, RM=   | Reduc | ed M  | atrix, N | IS=Maske                 | ed Sand         | grains **Location: PL | =Pore                          | e Lining, M=Matrix                                   |  |  |
| dric   | Soil Indicators  | s: (Applicable          | to all L | .RRs, | unles | ss othe  | erwise no                | oted)           |                       |                                | Indicators for Problematic Hydric Soils ***          |  |  |
|        | Histosol (A1)    |                         |          |       |       | Sandy    | Redox (                  | ox (S5)         |                       |                                | 1 cm Muck (A9) <b>(LRR C)</b>                        |  |  |
|        | Histic Epiped    | on (A2)                 |          |       |       | Stripp   | ed Matrix                | (S6)            |                       | 2 cm Muck (A10) <b>(LRR B)</b> |  |  |  |
|        | Black Histic (   | A3)                     |          |       | Х     | Loam     | / Mucky N                | /lineral (l     | =1)                   |                                | Reduced Vertic (F18)                                 |  |  |
| Х      | Hydrogen Su      | lfide (A4)              |          |       |       |          | .oamy Gleyed Matirx (F2) |                 |                       |                                | Red Parent Material (TF2)                            |  |  |
|        | Stratified Lay   | ers (A5) (LRR           | C)       |       |       | Deple    | ted Matrix               | (F3)            |                       |                                | Other (Explain in Remarks)                           |  |  |
|        | 1 cm Muck (A     | (LRR D)                 |          |       |       | Redox    | Dark Su                  | rface (F6       | š)                    |                                |  |  |  |
|        | Depleted Below   | w Dark Surface          | (A11)    |       |       | Deple    | ted Dark                 | Surface         | (F7)                  |                                |  |  |  |
|        | Thick Dark S     | urface (A12)            |          |       |       | Redox    | Depress                  | ions (F8        | )                     |                                |  |  |  |
|        | Sandy Mucky      | Mineral (S1)            |          |       |       | Verna    | l Pools (F               | 9)              |                       |                                | *** Indicators of hydrophytic vegetation and wetland |  |  |
| Х      | Sandy Gleye      | d Matrix (S4)           |          |       |       |          |                          |                 |                       | hydi                           | rology must be present, unless disturbed or problem  |  |  |
| stric  | tive Layer (if c | bserved)                |          |       |       |          |                          |                 |                       |                                |  |  |  |
|        | Туре:            |                         |          |       |       |          | _                        |                 |                       |                                |  |  |  |
| Dep    | th (inches):     |                         |          |       |       |          | _ '                      | lydric S        | oil Present?          | Yes                            | X No   |  |  |
| mark   |                  |                         |          |       |       |          |                          |                 |                       |                                |  |  |  |

## HYDROLOGY

| Wetlan   | d Hydrology Indicators:                   |      |  |   |   |  |  |
|----------|---|------|--|---|---|--|--|
|          | Primary Indicators (minimum c             | fone | is require; check all that apply)          |   | Secondary Indicators (2 or more required) |  |  |
|          | Surface Water (A1)                        |      | Salt Crust (B11)                           |   | Water Marks (B1) (Riverine)               |  |  |
| Х        | High Water Table (A2)                     |      | Biotic Crust (B12)                         |   | Sediment Deposits (B2) (Riverine)         |  |  |
| Х        | Saturation (A3)                           |      | Aquatic Fauna (B13)                        |   | Drift Deposits (B3) (Riverine)            |  |  |
| Х        | Water Marks (B1) (Nonriverine)            |      | Hydrogen Sulfide Odor (C1)                 |   | Drainage Patterns (B10)                   |  |  |
| Х        | Sediment Deposits (B2) (Nonriverine)      |      | Oxidized Rhizospheres on Living Roots (C3) |   | Dry-Season Water Table (C2)               |  |  |
| Х        | Drift Deposits (B3) (Nonriverine)         |      | Presence of Reduced Iron (C4)              |   | Crayfish Burrows (C8)                     |  |  |
|          | Surface Soil Cracks (B6)                  |      | Recent Iron Reduction in Tilled Soil (C6)  | Х | Saturation Visible on Aerial Imagery (C9) |  |  |
| Х        | Inundation Visible on Aerial Imagery (B7) |      | Thin Muck Surface (C7)                     |   | Shallow Aquitard (D3)                     |  |  |
|          | Water Stained Leaves (B9)                 |      | Other (Explain in Remarks)                 | Х | FAC-Neutral Test (D5)                     |  |  |
| Field O  | bservations:                              |      | ·  |   |   |  |  |
| Surface  | Water Present? Yes                        |      | No X Depth (inches):                       |   | Wetland Hydrology Present?                |  |  |
| Water T  | -<br>able Present? Yes                    | Х    | No Depth (inches): 9                       | - | Yes X No                                  |  |  |
| Saturati | on Present? Yes                           | Х    | No Depth (inches): 0                       | - |   |  |  |
| (include | s capillary fringe)                       |      |  | - |   |  |  |
| 1        |   |      |  |   |   |  |  |

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

#### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Project/S | Site:             | Utah Lake                                   |                     | City/County:         | Utah Co.               |                        | Sampling Date:               | 7/7/2021                 |
|-----------|-------------------|---|---------------------|----------------------|------------------------|------------------------|------------------------------|--------------------------|
| Applican  | nt/Owner:         | LRS   |                     |                      |                        | State: Utah            | Sampling Point:              | Ground 10                |
| Investiga | ator(s):          | E.Casper, L.Wilder                          |                     |                      | Section, Township, I   | Range: <u>0</u>        |                              |                          |
| Landforr  | m: (hillslope, te | rrace, etc.):                               | fringe              |                      | Local relief (concave, | convex, none):         | None                         | Slope (%): <u>0-2%</u>   |
| Subregio  | on (LRR):         | MLRA 28                                     | A; LRR D            | Lat.                 | 40.361046              | Long111.864            | 4072 Datum: <u>\</u>         | WGS84                    |
| Soil Map  | o Unit Name:      |   | Chi                 | pman-McBeth          | complex                | N                      | WI Classification: F         | PSSC                     |
| Are clim  | atic/hydrologic   | conditions on the site                      | typical for ti      | ime of year?         | Yes                    | No <u>X</u> (If n      | no, explain in the Re        | emarks)                  |
| Are Veg   | etation           | ,Soil                                       | ,or Hy              | /drology             | significantly disturbe | d?                     |                              |                          |
| Are Veg   | etation           |   |                     |                      | naturally problematio  |                        |                              |                          |
| Are Norr  | mal Circumstar    | nces Present?                               | Yes X               | No                   | (If needed, explain a  | ny answers in Remark   | is)                          |                          |
| SUMM      |                   | NDINGS - Attach                             | site map s          | showing sa           | mpling point loca      | tions, transects, i    | important featu              | res, etc.                |
|           |                   | c Vegetation Present?                       | -                   |                      |                        | pled Area within a W   | -                            |                          |
| 1         | , , ,             | Hydric Soil Present?                        | -                   |                      |                        | No X                   |                              |                          |
|           | Wetland           | d Hydrology Present?                        |                     | _                    |                        |                        |                              |                          |
|           |                   |   |                     |                      | _                      |                        |                              |                          |
| Remarks   | s:                |   |                     |                      |                        |                        |                              |                          |
|           |                   | area is a PFO wetland<br>Drought conditions | l. Adjacent to      | o PEM and PA         | B wetlands. Seep obse  | erved in wetland. Tech | nically did not meet         | wetland soil indicators. |
| VEGE      | TATION - Us       | se scientific name                          |                     |                      |                        | 1                      |                              |                          |
| Tree Stra | atum              | Plot size: r= 30'                           | Absolute<br>% Cover | Dominant<br>Species? | Indicator Status       | Dominor                | nce Test Workshee            | at                       |
|           |                   |   |                     | Species?<br>Y        | FACW                   | Dominar                | ice rest workshee            | ÷l                       |
| 1.        |                   | istifolia                                   |                     |                      | -                      | -                      |                              |                          |
| 2.        | Populus delto     | ndes  | 10                  | N                    | FAC                    | - Number of dominant   |                              | 0 (4)                    |
| 3.        |                   |   |                     |                      |                        | OBL, FACW              | , or FAC:                    | (A)                      |
| 4.        |                   |   |                     |                      |                        | Total number of do     |                              |                          |
|           |                   |   | 60                  | = Total Cover        |                        | across all             | strata:                      | <u>3</u> (B)             |
|           |                   |   |                     |                      |                        | Percent of dominant    |                              |                          |
|           | Shrub Stratum     | Plot size: r= 5'                            |                     |                      |                        | OBL, FACW              |                              | 67% (A/B)                |
| 1.        |                   |   |                     |                      |                        | Prevalence Index W     |                              |                          |
| 2.        |                   |   | <u> </u>            |                      |                        | Total % cover of:      | Multipl                      | y by:                    |
| 3.        |                   |   |                     |                      |                        |                        | <u>)</u> x 1                 | 0                        |
| 4.        |                   |   | <u> </u>            |                      |                        | FACW species 5         | <u>8</u> x 2                 | 116                      |
| 5.        |                   |   |                     |                      |                        | FAC species 1          | <u>5</u> x 3                 | 45                       |
|           |                   |   | 0                   | = Total Cover        |                        | FACU species 1         | <u>5</u> x 4 _               | 60                       |
|           |                   |   |                     |                      |                        | UPL species 0          | ) x 5                        | 0                        |
| Herb Str  | ratum             | Plot size: r= 5'                            |                     |                      |                        | Column Total 8         | <u>8</u> (A)                 | 221 (B)                  |
| 1.        | Sonchus arve      | ensis                                       | 15                  | Y                    | FACU                   |                        | Prevalence Index:            | 2.5 (B/A)                |
| 2.        | Phalaris arun     | dinacea                                     | 8                   | Y                    | FACW                   | Hydrophytic Vegeta     | tion Indicators:             |                          |
| 3.        | Solanum dulc      | amara                                       | 5                   | Ν                    | FAC                    | 1 - Rapid Te           | est for Hydrophytic V        | /egetation               |
| 4.        |                   |   |                     |                      |                        | X 2 - Dominan          | ce Test is >50%              |                          |
| 5.        |                   |   |                     |                      |                        | X 3 - Prevalence       | ce Index is <u>&lt;</u> 3.0* |                          |
| 6.        |                   |   |                     |                      |                        |                        | Hydrophytic Vegeta           |                          |
| 7.        |                   |   |                     |                      |                        |                        |                              | drology must be present, |
| 8.        | _                 |   |                     |                      |                        | unless disturbed or p  | ropiematic                   |                          |
|           |                   |   | 28                  | = Total Cover        |                        | Hydrophytic Vegeta     | ition Present?               |                          |
|           |                   |   |                     |                      |                        |                        |                              |                          |
| Woody \   | Vine Stratum      | Plot size: r= 30'                           |                     |                      |                        | Yes                    | <u>X</u> No                  |                          |
| 1.        |                   |   |                     |                      |                        | 4                      |                              |                          |
| 2.        |                   |   |                     |                      |                        | 1                      |                              |                          |
|           |                   |   | 0                   | = Total Cover        |                        |                        |                              |                          |
| % Ba      | are Ground in H   | lerb Stratum                                | % Cove              | er of Biotic Crus    | st                     |                        |                              |                          |
|           |                   | , list morphological ad                     |                     | elow).               |                        | 1                      |                              |                          |
|           |                   |   |                     | -                    |                        |                        |                              |                          |

|   | Depth  | Matr   |  |   |   | eatures  |  | r confirm absen                 |                                       | indicato   | 13./   |            |                   |        |
|---|--|--|--|---|---|--|--|---------------------------------|---------------------------------------|--|--|------------|-------------------|--------|
|   | (inches)   | Color  | %  | Color   | %   | Type*  | Loc**  | Texture                         |                                       |  |  | Remar      | ke                |        |
|   | 0-1  | 10yr 3/3   | 100                                      | 00101   | 70  | туре   | LUC  | Loam / Clav                     |                                       |  |  | Remai      | N3                |        |
|   | 1-16   | 5y 3/1   | 100                                      |   |   |  |  | Loam / Cla                      |                                       |  |  |            |                   |        |
|   | 1-10   | 5y 5/ 1  | 100                                      |   |   |  |  | LUant / Cla                     | y                                     |  |  |            |                   |        |
|   |  |  |  |   |   |  |  |                                 |                                       |  |  |            |                   |        |
|   |  |  |  |   |   |  |  |                                 |                                       |  |  |            |                   |        |
|   |  |  |  |   |   |  |  |                                 |                                       |  |  |            |                   |        |
|   |  |  |  |   |   |  |  |                                 |                                       |  |  |            |                   |        |
|   |  |  |  |   |   |  |  |                                 |                                       |  |  |            |                   |        |
| ype: (                                  | C=Concentratio   | on, D=Depletio   | on, RM=                                  | Reduced N   | /atrix, M   | S=Maske  | ed Sand g  | grains **Locatio                | n: PL=I                               | Pore Lin   | ing, M=Matrix  |            |                   |        |
|   | Soil Indicators  |  |  |   |   |  |  | 5                               |                                       |  | -  |            | atic Hydric Soils | ***    |
|   | Histosol (A1)  |  |  |   |   | Redox (S   |  |                                 |                                       |  | m Muck (A9) (  |            |                   |        |
|   | Histic Epiped  | on (A2)  |  |   |   | d Matrix   |  |                                 |                                       | 2 ci   | m Muck (A10)   | (LRR B)    |                   |        |
|   | Black Histic (   | × 4  |  |   |   |  | /ineral (F   | -1)                             |                                       | Red  | duced Vertic (   | F18)       |                   |        |
|   | Hydrogen Su  | ,  |  |   | -   | -  | Matirx (F  | -                               |                                       | Red  | d Parent Mate  | rial (TF2) |                   |        |
|   | Stratified Lay   |  | R C)                                     |   | -   | ed Matrix  |  | _/                              |                                       | Oth  | er (Explain in   | Remarks)   |                   |        |
|   | 1 cm Muck (A   |  | ,  |   |   |  | rface (F6  | i)                              |                                       |  |  |            |                   |        |
|   | Depleted Belov   |  | e (A11)                                  |   |   |  | Surface (  | /                               |                                       |  |  |            |                   |        |
|   | Thick Dark Su  |  | ( )                                      |   |   |  | ions (F8)  | /                               |                                       |  |  |            |                   |        |
|   | Sandy Mucky  | . ,  | )  |   |   | Pools (F   | . ,  |                                 |                                       | ***  | Indicators of h  | vdrophytic | vegetation and w  | etland |
|   | Sandy Gleyed   |  |  |   |   |  |  |                                 |                                       |  | gy must be pre   |            | •                 |        |
| estric                                  | tive Layer (if o   |  |  |   |   | _  |  |                                 |                                       | <u> </u>   |  | ·          |                   |        |
| Dep<br>emark                            | tive Layer (if o<br>Type:<br>th (inches):<br>s:  | bserved)   | 56 indica                                | ator. Howe  | ver wetla   | -  | -  | oil Present?<br>d seep observed | Y                                     | /es  | pint likely wetla  | No         | X                 |        |
| Dep<br>emark<br>edox r                  | tive Layer (if o<br>Type:<br>th (inches):<br>s:<br>not observed do   | bes not meet   | 56 indica                                | ator. Howe  | ver wetla   | -  | -  |                                 | Y                                     | /es  |  | No         | X                 |        |
| Dep<br>emark<br>edox r                  | tive Layer (if o<br>Type:<br>th (inches):<br>s:<br>not observed do<br>OLOGY  | bes not meet   |  |   |   | nd vege  | tation and   | d seep observed                 | Y                                     | data po  | int likely weth  | No         | X                 |        |
| Dep<br>emark<br>edox r                  | tive Layer (if o<br>Type:<br>th (inches):<br>s:<br>not observed do<br>OLOGY<br>d Hydrology Ir<br>Primary I   | bes not meet   |  | f one is rea  | quire; ch   | nd vege  | tation and   | d seep observed                 | Y<br>next to                          | data po  | int likely weth  | No         | X                 |        |
| Dep<br>emark<br>edox r                  | tive Layer (if o<br>Type:<br>th (inches):<br>s:<br>not observed do<br>OLOGY<br>d Hydrology Ir<br>Primary I<br>Surface Wate   | bbserved)  |  | f one is rea  | quire; cho<br>Crust (B  | nd veger   | tation and   | d seep observed                 | Y<br>next to                          | data po  | oint likely weth   | No         | X                 |        |
| Dep<br>emark<br>edox r                  | tive Layer (if o<br>Type:<br>th (inches):<br>s:<br>tot observed do<br>OLOGY<br>d Hydrology Ir<br>Primary I<br>Surface Wate<br>High Water T   | bes not meet   |  | f one is rea<br>Salt<br>Biot  | quire; ch<br>Crust (B<br>ic Crust (   | eck all th<br>11)<br>B12)  | tation and   | d seep observed                 | Y<br>next to                          | Yes<br>data po<br>Sec<br>Vater Ma<br>Sedimen   | oint likely weth<br>condary Indica<br>arks (B1) (Riv<br>t Deposits (B2   | No         | X                 |        |
| Dep<br>mark<br>dox r<br>YDR             | tive Layer (if o<br>Type:<br>th (inches):<br>s:<br>not observed do<br>OLOGY<br>d Hydrology Ir<br>Primary I<br>Surface Wate<br>High Water T<br>Saturation (A  | bes not meet<br>ndicators:<br>Indicators (mi<br>pr (A1)<br>able (A2)<br>3)   | inimum o                                 | f one is ree<br>Salt<br>Biot<br>Aqu                                       | quire; cho<br>Crust (B  |  | tation and   | d seep observed                 | Y<br>next to                          | data po<br>data po<br>Sec<br>Vater Ma<br>Sedimen<br>Drift Dep  | oint likely weth<br>condary Indica<br>arks (B1) (Riv<br>t Deposits (B2<br>osits (B3) (Riv  | No         | X                 |        |
| Dep<br>mark<br>dox r<br>YDR             | tive Layer (if o<br>Type:<br>th (inches):<br>s:<br>not observed do<br>OLOGY<br>d Hydrology Ir<br>Primary I<br>Surface Wate<br>High Water T<br>Saturation (Ai<br>Water Marks  | bbserved)<br>bes not meet<br>indicators:<br>Indicators (mi<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonrive  | inimum o                                 | f one is re<br>Salt<br>Biot<br>Aqu<br>Hyd                                 | quire; ch<br>Crust (B<br>ic Crust (<br>atic Faur<br>rogen Su  | nd vegel<br>eck all th<br>11)<br>B12)<br>na (B13)<br>ilfide Od                         | at apply)  | d seep observed                 | Y<br>next to                          | /es<br>data po<br>data po<br>Sec<br>Vater Ma<br>Sedimen<br>Drift Dep<br>Drainage   | condary Indica<br>condary Indica<br>arks (B1) (Riv<br>t Deposits (B2<br>osits (B3) (Riv<br>Patterns (B1  | No         | X                 |        |
| Dep<br>mark<br>dox r<br>YDR             | tive Layer (if o<br>Type:<br>th (inches):<br>s:<br>not observed do<br>OLOGY<br>d Hydrology Ir<br>Primary I<br>Surface Wate<br>High Water T<br>Saturation (A<br>Water Marks<br>Sediment Depo                                      | bbserved)<br>bbserved)<br>bes not meet<br>indicators:<br>indicators (mi<br>r (A1)<br>able (A2)<br>3)<br>(B1) (Nonrive<br>sits (B2) (Nonri                                      | inimum o<br>erine)<br>iverine)           | f one is rea<br>Salt<br>Biot<br>Aqu<br>Hyd<br>Oxid                        | quire; cho<br>Crust (B<br>ic Crust (<br>atic Faur<br>rogen Su<br>ized Rhiz                          | eck all th<br>11)<br>B12)<br>na (B13)<br>Ilfide Oddospheres                            | at apply)  | d seep observed                 | Y<br>next to<br>V<br>S<br>C<br>C<br>C | data po<br>data po<br>Sec<br>Vater Ma<br>Sedimen<br>Drift Dep<br>Drainage  | condary Indica<br>arks (B1) (Riv<br>t Deposits (B2)<br>osits (B3) (Riv<br>Patterns (B1)<br>con Water Tat   | No         | X                 |        |
| Dep<br>emark<br>edox r<br>YDR<br>etlanc | tive Layer (if o<br>Type:<br>th (inches):<br>s:<br>not observed do<br>OLOGY<br>d Hydrology Ir<br>Primary I<br>Surface Wate<br>High Water T<br>Saturation (Ai<br>Water Marks<br>Sediment Depo<br>Drift Deposits                   | bbserved)<br>bbserved)<br>bes not meet<br>indicators:<br>indicators (mi<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonrive<br>sits (B2) (Nonriv                                    | inimum o<br>erine)<br>iverine)           | f one is red<br>Salt<br>Biot<br>Aqu<br>Hyd<br>Oxid<br>Pres                | quire; chi<br>Crust (B<br>ic Crust (<br>atic Faur<br>rogen Su<br>ized Rhiz<br>sence of              | eck all th<br>11)<br>B12)<br>a (B13)<br>ulfide Od<br>ospheres<br>Reducec               | at apply)<br>or (C1)<br>on Living  | d seep observed                 | Y<br>next to                          | Yes<br>data po<br>data po<br>Sec<br>Vater Ma<br>Sedimen<br>Drift Dep<br>Drainage<br>Dry-Seas<br>Crayfish   | condary Indica<br>arks (B1) (Riv<br>t Deposits (B2)<br>osits (B3) (Riv<br>Patterns (B1<br>con Water Tat<br>Burrows (C8)  | No         | X                 |        |
| Dep<br>mark<br>dox r<br>YDR             | tive Layer (if o<br>Type:<br>th (inches):<br>s:<br>not observed do<br>OLOGY<br>d Hydrology Ir<br>Primary I<br>Surface Wate<br>High Water T<br>Saturation (Ai<br>Water Marks<br>Sediment Depo<br>Drift Deposits<br>Surface Soil ( | bbserved)<br>bbserved)<br>bes not meet<br>indicators:<br>indicators (mi<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonrive<br>sits (B2) (Nonriv                                    | inimum o<br>erine)<br>iverine)<br>erine) | f one is red<br>Salt<br>Biot<br>Aqu<br>Hyd<br>Oxid<br>Pres<br>Rec         | quire; chi<br>Crust (B<br>ic Crust (<br>atic Faur<br>rogen Su<br>ized Rhiz<br>sence of              | eck all th<br>11)<br>B12)<br>na (B13)<br>Ilfide Odd<br>ospheres<br>Reduced<br>Reduced  | at apply)<br>or (C1)<br>on Living<br>I Iron (C2<br>in Tilled             | d seep observed                 | Y<br>next to                          | Yes<br>data po<br>data po<br>Sec<br>Vater Ma<br>Sedimen<br>Drift Dep<br>Drainage<br>Dry-Seas<br>Dry-Seas<br>Dry-Seas<br>Dry-Seas<br>Dry-Seas<br>Dry-Seas<br>Dry-Seas<br>Dry-Seas<br>Dry-Seas<br>Dry-Seas<br>Dry-Seas<br>Dry-Seas<br>Dry-Seas | oint likely weth<br>condary Indica<br>arks (B1) (Riv<br>t Deposits (B2)<br>osits (B3) (Riv<br>Patterns (B1)<br>son Water Tat<br>Burrows (C8)<br>n Visible on A | No         | X                 |        |
| Dep<br>mark<br>dox r<br>YDR             | tive Layer (if o<br>Type:<br>th (inches):<br>s:<br>not observed do<br>OLOGY<br>d Hydrology Ir<br>Primary I<br>Surface Wate<br>High Water T<br>Saturation (Ai<br>Water Marks<br>Sediment Depo<br>Drift Deposits<br>Surface Soil ( | bbserved)<br>bbserved)<br>bes not meet<br>ndicators:<br>Indicators (mi<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonrive<br>sits (B2) (Nonriv<br>Cracks (B6)<br>ble on Aerial Ima | inimum o<br>erine)<br>erine)<br>erine)   | f one is rea<br>Salt<br>Biot<br>Aqu<br>Hyd<br>Oxid<br>Pres<br>Rec<br>Thin | quire; ch<br>Crust (B<br>ic Crust (<br>atic Faur<br>rogen Su<br>ized Rhiz<br>sence of<br>ent Iron F | eck all th<br>11)<br>B12)<br>na (B13)<br>Ilfide Od<br>ospheres<br>Reduceoc<br>Reduceoc | at apply)<br>or (C1)<br>on Living<br>f Iron (C <sup>2</sup><br>in Tilled | d seep observed                 | Y<br>next to                          | Yes<br>data po<br>data po<br>Sec<br>Vater Ma<br>Sedimen<br>prift Dep<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Shallow /   | condary Indica<br>arks (B1) (Riv<br>t Deposits (B2)<br>osits (B3) (Riv<br>Patterns (B1<br>con Water Tat<br>Burrows (C8)  | No         | X                 |        |

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

No

Yes X

#### --See Climatic Summary Below--

Saturation Present?

(includes capillary fringe)

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Ulah Water Conservancy District the lake elevation was 4.485.346 which is -3.695" below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the central of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Saturation observed at small seep. Seep not present in data form.

0

Depth (inches):

|   | Likely Lates  |   | 0:1.10                               | 14-6-0-   |  | O a man line or D a tax  | 7/0/0004  |
|---|---|---|--------------------------------------|---|--|--|---|
| Project/Site:   |   |   | City/County:                         | Utan Co.  | State: Utab  | Sampling Date:   |   |
| pplicant/Owner:   | LRS<br>E Cooper L Wilder  |   |                                      | Section Township  | State: <u>Utah</u>   | Sampling Point.  | 0708ground01  |
| nvestigator(s):   | E.Casper, L.Wilder<br>errace, etc.):  |   |                                      |   | convex, none):   | None   | Slope (%): 0-2%   |
|   | -   |   |                                      |   |  |  |   |
| Subregion (LRR):<br>Soil Map Unit Name:   | MLRA 20   | A, LKK D                                    | Water                                |   | Long111.747  | IWI Classification: L  |   |
| ·   | conditions on the site  | tunical for t                               |                                      |   |  | o, explain in the Re   |   |
| Are Vegetation  |   |   |                                      | significantly disturbe                                  |  |  | ilidiks)  |
| Are Vegetation  |   |   |                                      |   |  |  |   |
| Are Normal Circumsta  |   |   |                                      |   | any answers in Remark  | c)   |   |
|   |   |   |                                      |   | itions, transects, i   |  | ros otc   |
|   | c Vegetation Present?   |   | •                                    |   | pled Area within a W   | •  | 103, 010.   |
| nyaropnya   | Hydric Soil Present?  |   |                                      |   | <u> </u>   |  |   |
| W/etlar   | id Hydrology Present?   |   |                                      |   |  |  |   |
| Wellar  | a nyalology i resent.   | 103 /                                       |                                      |   |  |  |   |
| Remarks:  |   |   |                                      |   |  |  |   |
| Drought conditions  |   |   |                                      |   |  |  |   |
|   |   |   |                                      |   |  |  |   |
| FGETATION - U   | se scientific name  | es of plar                                  | nts                                  |   |  |  |   |
|   |   | Absolute                                    | Dominant                             |   |  |  |   |
| Free Stratum  | Plot size: r= 30'   | % Cover                                     | Species?                             | Indicator Status  | Dominar  | nce Test Workshee  | et  |
| 1.  |   |   |                                      |   | _  |  |   |
| 2.  |   |   | . <u></u>                            | _   | Number of dominant   | t species that are   |   |
| 3.  |   |   |                                      |   | OBL, FACW  | •  | 2 (A)   |
| 4.  |   |   |                                      |   | Total number of do   | minant species   |   |
|   |   | 0   | = Total Cover                        |   | across all   |  | 2 (B)   |
|   |   |   |                                      |   | Percent of dominant  | species that are   |   |
| apling/Shrub Stratum  | Plot size: r= 30'   |   |                                      |   | OBL, FACW  | •  | 100% (A/B)  |
| 1. Tamarix chin   | ensis   | 5   | Y                                    | FAC   | Prevalence Index W   | orksheet   |   |
| 2.  |   |   |                                      |   | Total % cover of:  | Multipl  | y by:   |
| 3.  |   |   |                                      |   | OBL species 2  | 5 x 1  | 25  |
| 4.  |   |   |                                      |   | FACW species 6   | 5 x 2  | 130   |
| 5.  |   |   |                                      |   | FAC species 1  | 5 x 3  | 45  |
|   |   |   |                                      |   |  |  | 20  |
|   |   | 5   | = Total Cover                        |   | FACU species 5   | <u>x 4</u>   | =0  |
|   |   | 5   | = Total Cover                        |   |  | ) x 4 _<br>) x 5 _   | 0   |
| Herb Stratum_   | Plot size: r= 5'  | 5   | = Total Cover                        |   | UPL species 0  | ) x 5  | 0   |
| lerb Stratum  |   | 5   | = Total Cover                        | FACW  | UPL species 0<br>Column Total 11   | ) x 5  | 0   |
|   | nus   |   |                                      |   | UPL species 0<br>Column Total 11   | ) x 5<br>10 (A)<br>Prevalence Index:   | 0<br>220 (B)  |
| 1. Rumex fuegi  | alustris  | 60  | Y                                    | FACW  | UPL species 0<br>Column Total 11<br>Hydrophytic Vegeta   | ) x 5<br>10 (A)<br>Prevalence Index:   | 0<br>220 (B)<br>2.0 (B/A)                                 |
| 1. <u>Rumex fuegi</u><br>2. <u>Eleocharis pa</u>  | nus<br>alustris<br>tus acutus   | <u>    60     </u> <u>    10    </u>        | Y<br>N                               | FACW<br>OBL   | UPL species 0<br>Column Total 11<br>Hydrophytic Vegeta   | ) x 5<br>10 (A)<br>Prevalence Index:<br>tion Indicators:<br>st for Hydrophytic V   | 0<br>220 (B)<br>2.0 (B/A)                                 |
| <ol> <li><u>Rumex fuegi</u></li> <li><u>Eleocharis pa</u></li> <li><u>Schoenoplec</u></li> <li><u>Elymus elym</u></li> </ol>  | nus<br>alustris<br>tus acutus   | 60<br>10<br>10                              | Y<br>N<br>N                          | FACW<br>OBL<br>OBL                                      | UPL species 0<br>Column Total 11<br>Hydrophytic Vegeta<br>1 - Rapid Ter  | ) x 5<br>(0 (A)<br>Prevalence Index:<br>tion Indicators:<br>st for Hydrophytic V<br>ce Test is >50%  | 0<br>220 (B)<br>2.0 (B/A)                                 |
| <ol> <li><u>Rumex fuegi</u></li> <li><u>Eleocharis pa</u></li> <li><u>Schoenoplec</u></li> <li><u>Elymus elym</u></li> </ol>  | nus<br>alustris<br>tus acutus<br>oides<br>tus maritimus   | 60<br>10<br>10<br>5                         | Y<br>N<br>N<br>N                     | FACW<br>OBL<br>OBL<br>FACU                              | UPL species 0<br>Column Total 11<br>Hydrophytic Vegeta<br>1 - Rapid Te:<br>X 2 - Dominand<br>X 3 - Prevalend   | ) x 5<br>(0 (A)<br>Prevalence Index:<br>tion Indicators:<br>st for Hydrophytic V<br>ce Test is >50%  | 0<br>220 (B)<br>2.0 (B/A)                                 |
| <ol> <li><u>Rumex fuegi</u></li> <li><u>Eleocharis pa</u></li> <li><u>Schoenoplec</u></li> <li><u>Elymus elym</u></li> <li><u>Schoenoplec</u></li> </ol>  | nus<br>alustris<br>tus acutus<br>oides<br>tus maritimus<br>nustralis  | 60<br>10<br>10<br>5<br>5                    | Y<br>N<br>N<br>N<br>N                | FACW<br>OBL<br>OBL<br>FACU<br>OBL                       | UPL species 0<br>Column Total 11<br>Hydrophytic Vegeta<br>1 - Rapid Te<br>X 2 - Dominand<br>X 3 - Prevalend<br>Problematic<br>*Indicators of hydric s                            | ) x 5<br>0 (A)<br>Prevalence Index:<br>tion Indicators:<br>st for Hydrophytic V<br>ce Test is >50%<br>ce Index is ≤3.0*<br>Hydrophytic Vegeta<br>soil and wetland hydrophytic Vegeta             | 0<br>220 (B)<br>2.0 (B/A)                                 |
| <ol> <li><u>Rumex fuegi</u></li> <li><u>Eleocharis pa</u></li> <li><u>Schoenoplea</u></li> <li><u>Elymus elym</u></li> <li><u>Schoenoplea</u></li> <li><u>Schoenoplea</u></li> <li><u>Phragmites a</u></li> </ol>   | nus<br>alustris<br>tus acutus<br>oides<br>tus maritimus<br>nustralis<br>m glaucum                                     | 60<br>10<br>10<br>5<br>5<br>5<br>5          | Y<br>N<br>N<br>N<br>N                | FACW<br>OBL<br>OBL<br>FACU<br>OBL<br>FACW               | UPL species 0<br>Column Total 11<br>Hydrophytic Vegeta<br>1 - Rapid Tet<br>X 2 - Dominand<br>X 3 - Prevalend<br>Problematic  | ) x 5<br>0 (A)<br>Prevalence Index:<br>tion Indicators:<br>st for Hydrophytic V<br>ce Test is >50%<br>ce Index is ≤3.0*<br>Hydrophytic Vegeta<br>soil and wetland hydrophytic Vegeta             | 0<br>220 (B)<br>2.0 (B/A)<br>egetation<br>tion* (Explain) |
| Rumex fuegi       2.     Eleocharis particular       3.     Schoenoplec       4.     Elymus elym       5.     Schoenoplec       6.     Phragmites are       7.     Chenopodium  | nus<br>alustris<br>tus acutus<br>oides<br>tus maritimus<br>nustralis<br>m glaucum                                     | 60<br>10<br>5<br>5<br>5<br>5<br>5<br>5<br>5 | Y<br>N<br>N<br>N<br>N<br>N           | FACW<br>OBL<br>OBL<br>FACU<br>OBL<br>FACW<br>FAC<br>FAC | UPL species 0<br>Column Total 11<br>Hydrophytic Vegeta<br>1 - Rapid Te<br>X 2 - Dominand<br>X 3 - Prevalend<br>Problematic<br>*Indicators of hydric s                            | ) x 5<br>0 (A)<br>Prevalence Index:<br>tion Indicators:<br>st for Hydrophytic V<br>ce Test is >50%<br>ce Index is ≤3.0*<br>Hydrophytic Vegeta<br>soil and wetland hydrophytic<br>roblematic      | 0<br>220 (B)<br>2.0 (B/A)<br>egetation<br>tion* (Explain) |
| Rumex fuegi       2.     Eleocharis particular       3.     Schoenoplec       4.     Elymus elym       5.     Schoenoplec       6.     Phragmites are       7.     Chenopodium  | nus<br>alustris<br>tus acutus<br>oides<br>tus maritimus<br>nustralis<br>m glaucum                                     | 60<br>10<br>5<br>5<br>5<br>5<br>5<br>5<br>5 | Y<br>N<br>N<br>N<br>N<br>N<br>N      | FACW<br>OBL<br>OBL<br>FACU<br>OBL<br>FACW<br>FAC<br>FAC | UPL species 0<br>Column Total 11<br>Hydrophytic Vegeta<br>1 - Rapid Tex<br>X 2 - Dominand<br>X 3 - Prevalend<br>Problematic<br>*Indicators of hydric s<br>unless disturbed or pr | ) x 5<br>0 (A)<br>Prevalence Index:<br>tion Indicators:<br>st for Hydrophytic V<br>ce Test is >50%<br>ce Index is ≤3.0*<br>Hydrophytic Vegeta<br>soil and wetland hydrophytic<br>roblematic      | 0<br>220 (B)<br>2.0 (B/A)<br>egetation<br>tion* (Explain) |
| <ol> <li><u>Rumex fuegi</u></li> <li><u>Eleocharis pa</u></li> <li><u>Schoenoplec</u></li> <li><u>Elymus elym</u></li> <li><u>Schoenoplec</u></li> <li><u>Schoenoplec</u></li> <li><u>Phragmites a</u></li> <li><u>Chenopodiur</u></li> <li><u>Hordeum jub</u></li> </ol> | nus<br>alustris<br>tus acutus<br>oides<br>tus maritimus<br>nustralis<br>n glaucum<br>atum                             | 60<br>10<br>5<br>5<br>5<br>5<br>5<br>5<br>5 | Y<br>N<br>N<br>N<br>N<br>N<br>N      | FACW<br>OBL<br>OBL<br>FACU<br>OBL<br>FACW<br>FAC<br>FAC | UPL species 0<br>Column Total 11<br>Hydrophytic Vegeta<br>1 - Rapid Ter<br>X 2 - Dominand<br>X 3 - Prevalend<br>Problematic<br>*Indicators of hydric s<br>unless disturbed or pu | ) x 5<br>0 (A)<br>Prevalence Index:<br>tion Indicators:<br>st for Hydrophytic V<br>ce Test is >50%<br>ce Index is ≤3.0*<br>Hydrophytic Vegeta<br>soil and wetland hydroblematic<br>tion Present? | 0<br>220 (B)<br>2.0 (B/A)<br>egetation<br>tion* (Explain) |
| Rumex fuegi         2.       Eleocharis particular         3.       Schoenoplec         4.       Elymus elym         5.       Schoenoplec         6.       Phragmites ar         7.       Chenopodiur         8.       Hordeum jub  | nus<br>alustris<br>tus acutus<br>oides<br>tus maritimus<br>nustralis<br>n glaucum<br>atum<br>Plot size: <u>r= 30'</u> | 60<br>10<br>5<br>5<br>5<br>5<br>5<br>105    | Y<br>N<br>N<br>N<br>N<br>Total Cover | FACW<br>OBL<br>OBL<br>FACU<br>OBL<br>FACW<br>FAC<br>FAC | UPL species 0<br>Column Total 11<br>Hydrophytic Vegeta<br>1 - Rapid Tex<br>X 2 - Dominand<br>X 3 - Prevalend<br>Problematic<br>*Indicators of hydric s<br>unless disturbed or pr | ) x 5<br>0 (A)<br>Prevalence Index:<br>tion Indicators:<br>st for Hydrophytic V<br>ce Test is >50%<br>ce Index is ≤3.0*<br>Hydrophytic Vegeta<br>soil and wetland hydrophytic<br>roblematic      | 0<br>220 (B)<br>2.0 (B/A)<br>egetation<br>tion* (Explain) |
| Rumex fuegi         2.       Eleocharis particular         3.       Schoenoplect         4.       Elymus elym         5.       Schoenoplect         6.       Phragmites art         7.       Chenopodiur         8.       Hordeum jub         Voody Vine Stratum       1. | nus<br>alustris<br>tus acutus<br>oides<br>tus maritimus<br>nustralis<br>n glaucum<br>atum                             | 60<br>10<br>5<br>5<br>5<br>5<br>5<br>105    | Y<br>N<br>N<br>N<br>N<br>Total Cover | FACW<br>OBL<br>OBL<br>FACU<br>OBL<br>FACW<br>FAC<br>FAC | UPL species 0<br>Column Total 11<br>Hydrophytic Vegeta<br>1 - Rapid Ter<br>X 2 - Dominand<br>X 3 - Prevalend<br>Problematic<br>*Indicators of hydric s<br>unless disturbed or pu | ) x 5<br>0 (A)<br>Prevalence Index:<br>tion Indicators:<br>st for Hydrophytic V<br>ce Test is >50%<br>ce Index is ≤3.0*<br>Hydrophytic Vegeta<br>soil and wetland hydroblematic<br>tion Present? | 0<br>220 (B)<br>2.0 (B/A)<br>egetation<br>tion* (Explain) |
| 2. <u>Eleocharis pa</u> 3. <u>Schoenoplec</u> 4. <u>Elymus elym</u> 5. <u>Schoenoplec</u> 6. <u>Phragmites a</u> 7. <u>Chenopodiur</u> 8. <u>Hordeum jub</u> <u>Woody Vine Stratum</u>  | nus alustris tus acutus oides tus maritimus nustralis n glaucum atum Plot size: <u>r= 30'</u>                         | 60<br>10<br>5<br>5<br>5<br>5<br>5<br>105    | Y<br>N<br>N<br>N<br>N<br>Total Cover | FACW<br>OBL<br>OBL<br>FACU<br>OBL<br>FACW<br>FAC<br>FAC | UPL species 0<br>Column Total 11<br>Hydrophytic Vegeta<br>1 - Rapid Ter<br>X 2 - Dominand<br>X 3 - Prevalend<br>Problematic<br>*Indicators of hydric s<br>unless disturbed or pu | ) x 5<br>0 (A)<br>Prevalence Index:<br>tion Indicators:<br>st for Hydrophytic V<br>ce Test is >50%<br>ce Index is ≤3.0*<br>Hydrophytic Vegeta<br>soil and wetland hydroblematic<br>tion Present? | 0<br>220 (B)<br>2.0 (B/A)<br>egetation<br>tion* (Explain) |
| Rumex fuegi         2.       Eleocharis particular         3.       Schoenoplect         4.       Elymus elym         5.       Schoenoplect         6.       Phragmites art         7.       Chenopodiur         8.       Hordeum jub         Moody Vine Stratum       1. | nus alustris tus acutus oides tus maritimus ustralis n glaucum atum Plot size: <u>r= 30'</u>                          | 60<br>10<br>5<br>5<br>5<br>5<br>5<br>105    | Y<br>N<br>N<br>N<br>N<br>Total Cover | FACW<br>OBL<br>FACU<br>OBL<br>FACW<br>FAC<br>FAC        | UPL species 0<br>Column Total 11<br>Hydrophytic Vegeta<br>1 - Rapid Ter<br>X 2 - Dominand<br>X 3 - Prevalend<br>Problematic<br>*Indicators of hydric s<br>unless disturbed or pu | ) x 5<br>0 (A)<br>Prevalence Index:<br>tion Indicators:<br>st for Hydrophytic V<br>ce Test is >50%<br>ce Index is ≤3.0*<br>Hydrophytic Vegeta<br>soil and wetland hydroblematic<br>tion Present? | 0<br>220 (B)<br>2.0 (B/A)<br>egetation<br>tion* (Explain) |

|        | D <u>escription:</u> (   | Describe to de  | epth ne         | eeded t               | o doc  | ument the i  | ndicator   | or confirm absenc  | e of in        | ndicators.)  |
|--------|--|---|-----------------|-----------------------|--|--|--|--------------------|----------------|--|
|        | Depth  | Matrix  | [               |                       | Re   | edox Feature   | s  |                    |                |  |
|        | (inches)   | Color   | %               | Colo                  | r  | % Туре   | e* Loc**   | Texture            |                | Remarks  |
|        | 0-5  | 10YR 4/2  | 95              | 7.5YR                 | 5/6  | 5 RM   | М  | Sandy              |                |  |
|        | 5-11   | 10YR 3/2  | 100             |                       |  |  |  | Mucky Loam / C     | lay            |  |
|        | 11-15  | 10YR 4/2  | 90              | 7.5 YR                | 5/6  | 10 RM  | М  | Sandy              |                |  |
|        |  |   |                 |                       |  |  |  |                    |                |  |
|        |  |   |                 |                       |  |  |  |                    |                |  |
|        |  |   |                 |                       |  |  |  |                    |                |  |
|        |  |   |                 |                       |  |  |  |                    |                |  |
|        |  |   |                 |                       |  |  |  |                    |                |  |
| /pe: ( | C=Concentratio   | n, D=Depletior  | n, RM=          | Reduce                | d Mati                                       | rix, MS=Mas  | ked Sand   | grains **Location: | PL=P           | Pore Lining, M=Matrix  |
| dric   | Soil Indicators  | : (Applicable   | to all L        | .RRs. u               | nless  | otherwise  | noted)   |                    |                | Indicators for Problematic Hydric Soils ***                                  |
|        | Histosol (A1)  |   |                 |                       | ~  | andy Redox   |  |                    |                | 1 cm Muck (A9) (LRR C)   |
|        | Histic Epipede   | on (A2)   |                 |                       |  | tripped Matr   | · · ·  |                    |                | 2 cm Muck (A10) <b>(LRR B)</b>   |
|        | Black Histic (/  |   |                 |                       |  | oamy Mucky   |  | F1)                |                | Reduced Vertic (F18)   |
|        | Hydrogen Sul   | fide (A4)   |                 |                       |  | oamy Gleye   |  | •                  |                | Red Parent Material (TF2)  |
|        |  | ers (A5) (LRR (   | C)              |                       |  | epleted Mat  |  | /                  |                | Other (Explain in Remarks)   |
|        | 1 cm Muck (A   |   | - /             |                       |  | edox Dark S  |  | 6)                 |                |  |
|        | 1  | v Dark Surface (  | (A11)           |                       |  | epleted Dar  |  |                    |                |  |
|        | Thick Dark Su  | ,   | ()              |                       |  | edox Depre   |  | . ,                |                |  |
|        | Sandy Mucky  | · · ·   |                 |                       |  | ernal Pools  |  | ·)                 |                | *** Indicators of hydrophytic vegetation and wetland                         |
|        | Sandy Gleyed   |   |                 |                       | !`   | ornari obio  | (  |                    | h              | ydrology must be present, unless disturbed or problem                        |
| stric  | tive Layer (if o   |   |                 |                       |  |  |  |                    |                |  |
|        | Туре:  | ,   |                 |                       |  |  |  |                    |                |  |
| Dep    | oth (inches):  |   |                 |                       |  |  | Hvdric S   | Soil Present?      | Ye             | es <u>X</u> No   |
|        | ( )  |   |                 |                       |  |  |  |                    |                |  |
| mark   | S:   |   |                 |                       |  |  | •  |                    |                |  |
| ddle I | ayer was orgar   | iic but dry; assi   | umed to         | o be old              | muck   | (  |  |                    |                |  |
|        |  |   |                 |                       |  |  |  |                    |                |  |
|        |  |   |                 |                       |  |  |  |                    |                |  |
| /DR    | OLOGY  |   |                 |                       |  |  |  |                    |                |  |
|        |  |   |                 |                       |  |  |  |                    |                |  |
| etlan  | d Hydrology In   | dicators:   |                 |                       |  |  |  |                    |                |  |
|        |  | ndicators (mini   |                 |                       | _  |  | that apply   | ')                 |                | Secondary Indicators (2 or more required)                                    |
|        | Surface Wate   | r (A1)  |                 | S                     | alt Cr                                       | ust (B11)  |  |                    | W              | ater Marks (B1) (Riverine)   |
|        | High Water T   | able (A2)   |                 | B                     | iotic C                                      | Crust (B12)  |  |                    | Se             | ediment Deposits (B2) (Riverine)   |
|        |  |   |                 | D                     |  |  |  |                    |                |  |
|        | Saturation (A  |   |                 | А                     | quatic                                       | c Fauna (B1  | ,  |                    | Dr             | rift Deposits (B3) (Riverine)  |
|        | · ·  |   | ine)            | А                     | quatic                                       |  | ,  |                    |                | rift Deposits (B3) (Riverine)<br>rainage Patterns (B10)                      |
| X      | Water Marks  | 3)  |                 | A<br>H                | quatic<br>ydrog                              | c Fauna (B1  | dor (C1)   | g Roots (C3)       | Dr             |  |
| X      | Water Marks<br>Sediment Depo                                     | 3)<br>(B1) (Nonriveri   | erine)          | A<br>H<br>O           | quatic<br>ydrog<br>xidizee                   | c Fauna (B1:<br>Jen Sulfide C                                | dor (C1)<br>es on Livin                                | • · · /            | Dr<br>Dr       | rainage Patterns (B10)   |
| x      | Water Marks<br>Sediment Depo                                     | 3)<br>(B1) (Nonriveri<br>sits (B2) (Nonrive<br>(B3) (Nonriver | erine)          | А<br>Н<br>О<br>Р      | quatic<br>ydrog<br>xidizeo<br>resen          | c Fauna (B13<br>Jen Sulfide C<br>d Rhizospher                | )dor (C1)<br>es on Livin<br>ed Iron (C                 | (4)                | Dr<br>Dr<br>Cr | rainage Patterns (B10)<br>ry-Season Water Table (C2)                         |
| X      | Water Marks<br>Sediment Depo<br>Drift Deposits<br>Surface Soil ( | 3)<br>(B1) (Nonriveri<br>sits (B2) (Nonrive<br>(B3) (Nonriver | erine)<br>rine) | A<br>H<br>O<br>P<br>R | quatic<br>ydrog<br>xidized<br>resen<br>ecent | c Fauna (B13<br>len Sulfide C<br>d Rhizospher<br>ce of Reduc | odor (C1)<br>es on Livin<br>ed Iron (C<br>on in Tilled | 4)                 | Dr<br>Dr<br>Cr | rainage Patterns (B10)<br>ry-Season Water Table (C2)<br>rayfish Burrows (C8) |

|           | Water Stallied Leaves (D3) |    | Other (E) | xpiair | n in Remarks)   | ^ | FAC-Neutral Test (D5)      |
|-----------|----------------------------|----|-----------|--------|-----------------|---|----------------------------|
| Field Ob  | servations:                |    |           |        |                 |   |                            |
| Surface \ | Nater Present? Y           | es | No        | Х      | Depth (inches): |   | Wetland Hydrology Present? |
| Water Ta  | ble Present? Y             | es | No        | Х      | Depth (inches): |   | YesX No                    |
| Saturatio | n Present? Y               | es | No        | Х      | Depth (inches): |   |                            |
| (includes | capillary fringe)          |    |           |        |                 |   |                            |

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

--See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Project/Site:                         | Utah Lake              |                  | City/County:     | Utah Co               | Sampling Date: 7/8/2021  |
|---------------------------------------|------------------------|------------------|------------------|-----------------------|--|
| pplicant/Owner:                       | LRS                    |                  | eng, eeung.      |                       | State: Utah Sampling Point: 0708ground0  |
| nvestigator(s):                       | E.Casper, L.Wilder     |                  |                  | Section, Township, I  |  |
| andform: (hillslope, te               |                        |                  |                  |                       | convex, none): <u>None</u> Slope (%): <u>10-25</u> %   |
| Subregion (LRR):                      | · · ·                  |                  | Lat.             |                       | Long111.898518 Datum: WGS84  |
| Soil Map Unit Name:                   |                        |                  | Water            |                       | NWI Classification: PSSC   |
| re climatic/hydrologic                | conditions on the site | e typical for ti |                  | Yes                   | No X (If no, explain in the Remarks)   |
| re Vegetation                         | ,Soil                  |                  |                  |                       |  |
| re Vegetation                         |                        |                  |                  | naturally problematic |  |
| re Normal Circumstar                  |                        |                  |                  |                       | ny answers in Remarks)   |
| UMMARY OF FIN                         |                        |                  |                  |                       | tions, transects, important features, etc.   |
|                                       | Vegetation Present     |                  |                  |                       | pled Area within a Wetland?  |
| , , , ,                               | Hydric Soil Present?   |                  |                  |                       | XNo  |
| Wetlan                                | d Hydrology Present?   |                  |                  |                       |  |
|                                       |                        |                  |                  |                       |  |
| emarks:                               |                        |                  |                  |                       |  |
| Prought conditions                    |                        |                  |                  |                       |  |
| EGETATION - Us                        | se scientific nam      | es of plan       | nts              |                       |  |
|                                       |                        | Absolute         | Dominant         |                       |  |
| ee Stratum                            | Plot size: r= 30'      | % Cover          | Species?         | Indicator Status      | Dominance Test Worksheet   |
|                                       |                        |                  |                  |                       | -  |
|                                       |                        |                  |                  |                       | Number of dominant species that are  |
|                                       |                        |                  |                  |                       | OBL, FACW, or FAC: <u>2</u> (A)  |
| 4.                                    |                        |                  | - Total Cavar    |                       | Total number of dominant species   |
|                                       |                        | 0                | = Total Cover    |                       | across all strata: <u>2</u> (B)  |
| apling/Shrub Stratum                  | Diot aiza: r= 5'       |                  |                  |                       | Percent of dominant species that are<br>OBL, FACW, or FAC: 100% (A/B)  |
| 1                                     |                        |                  |                  |                       | Prevalence Index Worksheet   |
| 2.                                    |                        |                  |                  |                       | Total % cover of: Multiply by:   |
| <u> </u>                              |                        |                  |                  |                       | OBL species 0 x 1 0  |
|                                       |                        |                  |                  |                       | FACW species 45 x 2 90   |
| 5.                                    |                        |                  |                  |                       | FAC species 45 x 3 135   |
| · · · · · · · · · · · · · · · · · · · |                        | 0                | = Total Cover    | ·                     | FACU species 15 x 4 60   |
|                                       |                        | Ū                |                  |                       | $\frac{1}{1} \frac{1}{1} \frac{1}$ |
| erb Stratum_                          | Plot size: r= 5'       |                  |                  |                       | Column Total 105 (A) 285 (B)   |
| 1. Dipsacus fullo                     |                        | 40               | Y                | FAC                   | Prevalence Index: 2.7 (B/A)  |
| 2. Phragmites a                       |                        | 40               | Y                | FACW                  | Hydrophytic Vegetation Indicators:   |
| 3. Nepeta catari                      |                        | 5                | N                | FACU                  | 1 - Rapid Test for Hydrophytic Vegetation  |
| 4. Lepidium latif                     |                        | 5                | N                | FAC                   | X 2 - Dominance Test is >50%   |
| 5. Cirsium arver                      |                        | 5                | N                | FACU                  | X 3 - Prevalence Index is $\leq 3.0^*$   |
| 6. Sisyrinchium                       |                        | 5                | N                | FACW                  | Problematic Hydrophytic Vegetation* (Explain)  |
| 7. Lactuca serrio                     |                        | 5                | N                | FACU                  | *Indicators of hydric soil and wetland hydrology must be pres  |
| 8.                                    |                        |                  |                  |                       | unless disturbed or problematic  |
|                                       |                        | 105              | = Total Cover    |                       | Hydrophytic Vegetation Present?  |
|                                       |                        |                  |                  |                       |  |
| oody Vine Stratum                     | Plot size: r= 5'       |                  |                  |                       | Yes <u>X</u> No  |
|                                       |                        |                  |                  |                       | 4  |
| 2.                                    |                        |                  |                  | ·                     | 4  |
| Ζ.                                    |                        | 0                | = Total Cover    |                       |  |
| Z                                     |                        |                  |                  |                       |  |
|                                       | lerb Stratum           | % Cove           | er of Biotic Cru | st                    |  |

|        | Depth           | Matri          | ix         |         | I              | Redox I              | eatures   |                     |                     |        |   |  |  |  |
|--------|-----------------|----------------|------------|---------|----------------|----------------------|-----------|---------------------|---------------------|--------|---|--|--|--|
|        | (inches)        | Color          | %          | Col     | or             | %                    | Type*     | Loc**               | Texture             |        | Remarks   |  |  |  |
|        | 0-16            | 10YR 4/2       | 95         | 7.5YR   | R 5/6          | 5                    | RM        | Both                | Loam / Clay         |        |   |  |  |  |
|        |                 |                |            |         |                |                      |           | <u> </u>            |                     |        |   |  |  |  |
|        |                 |                |            |         |                |                      |           |                     |                     |        |   |  |  |  |
|        |                 |                |            |         |                |                      |           |                     |                     |        |   |  |  |  |
|        |                 |                |            |         |                |                      |           |                     |                     |        |   |  |  |  |
|        |                 |                |            |         |                |                      |           |                     |                     |        |   |  |  |  |
| ype: C | =Concentratio   | n, D=Depletic  | on, RM=    | Reduce  | ed M           | atrix, M             | S=Maske   | ed Sand g           | rains **Location: P | L=Pore | re Lining, M=Matrix                                   |  |  |  |
| dric S | Soil Indicators | : (Applicable  | e to all I | LRRs, ι | unles          | ss othe              | rwise no  | oted)               |                     |        | Indicators for Problematic Hydric Soils ***           |  |  |  |
|        | Histosol (A1)   |                |            |         |                | Sandy                | Redox (S  | x (S5)              |                     |        | 1 cm Muck (A9) <b>(LRR C)</b>                         |  |  |  |
|        | Histic Epipedo  | on (A2)        |            |         |                | Stripped Matrix (S6) |           |                     |                     |        | 2 cm Muck (A10) <b>(LRR B)</b>                        |  |  |  |
|        | Black Histic (A | A3)            |            |         |                | Loamy                | Mucky N   | / Mineral (F1)      |                     |        | Reduced Vertic (F18)                                  |  |  |  |
|        | Hydrogen Sul    | fide (A4)      |            |         | Loamy Gleyed N |                      |           | Matirx (F2)         |                     |        | Red Parent Material (TF2)                             |  |  |  |
|        | Stratified Laye | ers (A5) (LRR  | C)         |         | Х              | Depleted Matrix (F3) |           |                     |                     |        | Other (Explain in Remarks)                            |  |  |  |
|        | 1 cm Muck (A    | .9) (LRR D)    |            |         |                | Redox                | Dark Su   | Surface (F6)        |                     |        |   |  |  |  |
|        | Depleted Below  | v Dark Surface | e (A11)    |         |                | Deplet               | ed Dark S | Surface (F          | 7)                  |        |   |  |  |  |
|        | Thick Dark Su   | urface (A12)   |            |         |                | Redox                | Depress   | ions (F8)           |                     |        |   |  |  |  |
|        | Sandy Mucky     | Mineral (S1)   |            |         |                | Vernal               | Pools (F  | 9)                  |                     |        | *** Indicators of hydrophytic vegetation and wetland  |  |  |  |
|        | Sandy Gleyed    | d Matrix (S4)  |            |         |                |                      |           |                     |                     | hydi   | drology must be present, unless disturbed or problema |  |  |  |
| strict | ive Layer (if o | bserved)       |            |         |                |                      |           |                     |                     |        |   |  |  |  |
|        | Туре:           |                |            |         |                |                      |           |                     |                     |        |   |  |  |  |
| Dep    | th (inches):    |                |            |         |                |                      | ŀ         | -<br>-<br>Hydric So | il Present?         | Yes    | <u>X</u> No   |  |  |  |
|        |                 |                |            |         |                |                      | _         | -                   |                     |        |   |  |  |  |

## HYDROLOGY

| Primary Indicators          | (minimum of o   | ne is require; ch | neck all that apply)           | Secondary Indicators (2 or more r         | equired) |  |  |
|-----------------------------|-----------------|-------------------|--------------------------------|---|----------|--|--|
| Surface Water (A1)          |                 | Salt Crust (F     | B11)                           | Water Marks (B1) (Riverine)               |          |  |  |
| High Water Table (A2)       |                 | Biotic Crust      | (B12)                          | Sediment Deposits (B2) (Riverine)         |          |  |  |
| Saturation (A3)             |                 | Aquatic Fau       | ına (B13)                      | Drift Deposits (B3) (Riverine)            |          |  |  |
| Water Marks (B1) (No        | nriverine)      | Hydrogen S        | Sulfide Odor (C1)              | Drainage Patterns (B10)                   |          |  |  |
| Sediment Deposits (B2) (I   | lonriverine)    | Oxidized Rhi      | zospheres on Living Roots (C3) | Dry-Season Water Table (C2)               |          |  |  |
| Drift Deposits (B3) (No     | nriverine)      | Presence of       | f Reduced Iron (C4)            | Crayfish Burrows (C8)                     |          |  |  |
| Surface Soil Cracks (E      | 6)              | Recent Iron       | Reduction in Tilled Soil (C6)  | Saturation Visible on Aerial Imagery (C9) |          |  |  |
| Inundation Visible on Aeria | al Imagery (B7) | Thin Muck S       | Surface (C7)                   | Shallow Aquitard (D3)                     |          |  |  |
| Water Stained Leaves        | (B9)            | Other (Expla      | ain in Remarks)                | FAC-Neutral Test (D5)                     |          |  |  |
| ield Observations:          |                 |                   |                                |   |          |  |  |
| urface Water Present?       | Yes             | No X              | Depth (inches):                | Wetland Hydrology Present?                |          |  |  |
| Vater Table Present?        | Yes             | No X              | Depth (inches):                | Yes X                                     | No       |  |  |
| Saturation Present?         | Yes             | No X              | Depth (inches):                |   |          |  |  |
| ncludes capillary fringe)   |                 |                   |                                |   |          |  |  |

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

#### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Project/Site:                     | Utah Lake              |                     | City/County:         | Utah Co                | Sampling Da  | ate: 7/8/2021     |
|-----------------------------------|------------------------|---------------------|----------------------|------------------------|--|-------------------|
| Applicant/Owner:                  | LRS                    |                     |                      |                        |  | int: 0708ground03 |
| ivestigator(s):                   | E.Casper, L.Wilder     |                     |                      | Section, Township,     |  |                   |
| andform: (hillslope, te           |                        |                     |                      |                        | convex, none): None  | Slope (%): 2-10%  |
| ubregion (LRR):                   |                        |                     | Lat.                 |                        | Long111.887297 Date  |                   |
| oil Map Unit Name:                |                        |                     | Mellor silt lo       |                        | NWI Classificati   |                   |
| e climatic/hydrologic             | conditions on the site | e typical for ti    | me of year?          | Yes                    | No X (If no, explain in th   | e Remarks)        |
| e Vegetation                      | ,Soil                  | ,or Hy              | drology              | significantly disturbe | d?   |                   |
| e Vegetation                      |                        |                     |                      | naturally problemation | o?   |                   |
| e Normal Circumstar               |                        |                     |                      |                        | ny answers in Remarks)   |                   |
|                                   | IDINGS - Attach        | site man s          | showing sa           | mpling point loca      | tions, transects, important fe   | atures, etc.      |
|                                   | Vegetation Present     | -                   | -                    |                        | pled Area within a Wetland?  |                   |
|                                   | Hydric Soil Present?   |                     |                      |                        | <u>X</u> No  |                   |
| Wetland                           | d Hydrology Present?   |                     |                      |                        |  |                   |
|                                   | , ,,                   |                     |                      | _                      |  |                   |
| emarks:                           |                        |                     |                      |                        |  |                   |
| rought conditions                 |                        |                     |                      |                        |  |                   |
|                                   |                        |                     |                      |                        |  |                   |
| EGETATION - Us                    | e scientific nam       |                     |                      |                        | 1  |                   |
| ee Stratum                        | Plot size: r= 30'      | Absolute<br>% Cover | Dominant<br>Species? | Indicator Status       | Dominance Test Work  | shoot             |
| 4                                 |                        |                     | •                    |                        | Dominance rest work  | 511001            |
|                                   |                        |                     |                      |                        |  |                   |
|                                   |                        |                     |                      |                        | <ul> <li>Number of dominant species that a<br/>OBL, FACW, or FAC:</li> </ul> | re<br>2 (A)       |
| 4                                 |                        |                     |                      |                        |  | ( )               |
|                                   |                        |                     | = Total Cover        |                        | <ul> <li>Total number of dominant specie<br/>across all strata:</li> </ul>   | s<br>2 (B)        |
|                                   |                        | Ū                   |                      |                        |  |                   |
| pling/Shrub Stratum               | Plot size: r= 30'      |                     |                      |                        | Percent of dominant species that a<br>OBL, FACW, or FAC:                     | re<br>100% (A/B)  |
| 1. Tamarix chine                  |                        | 10                  | Y                    | FAC                    | Prevalence Index Worksheet   | 10070 (702)       |
| 2.                                |                        |                     | ·                    |                        | -  | ultiply by:       |
| 3.                                |                        |                     |                      |                        | OBL species 5 x 1  | 5                 |
| 4.                                |                        |                     |                      |                        | FACW species 90 x 2  | 180               |
| 5.                                |                        |                     |                      |                        | FAC species 15 x 3   | 45                |
|                                   |                        | 10 =                | = Total Cover        |                        | FACU species 0 x 4   | 0                 |
|                                   |                        | 10                  |                      |                        | UPL species 0 x 5  | 0                 |
| rb Stratum_                       | Plot size: r= 5'       |                     |                      |                        | Column Total <u>110</u> (A)  | <br>(B)           |
| 1. Phragmites a                   |                        | 90                  | Y                    | FACW                   | Prevalence Inc   |                   |
| 2. Chenopodium                    |                        | 5                   | <br>N                | FAC                    | Hydrophytic Vegetation Indicator   |                   |
| <ol> <li>Eleocharis pa</li> </ol> |                        | 5                   | N                    | OBL                    | 1 - Rapid Test for Hydrophy  |                   |
|                                   |                        |                     |                      |                        | X 2 - Dominance Test is >50  | •                 |
|                                   |                        |                     |                      |                        | X 3 - Prevalence Index is <3.0   |                   |
| •                                 |                        |                     |                      |                        | Problematic Hydrophytic Ve   |                   |
| _                                 |                        |                     |                      |                        | *Indicators of hydric soil and wetlan  |                   |
| 8.                                |                        |                     |                      |                        | unless disturbed or problematic  |                   |
|                                   |                        | 100 =               | = Total Cover        |                        | Hydrophytic Vegetation Present?  |                   |
|                                   |                        |                     |                      |                        | , , , , , , , , , , , , , , , , , , ,  |                   |
| oody Vine Stratum                 | Plot size: r= 30'      |                     |                      |                        | Yes X  | No                |
|                                   |                        |                     |                      |                        |  |                   |
| 2.                                |                        |                     |                      |                        | 1  |                   |
|                                   |                        | 0 =                 | = Total Cover        |                        | 1  |                   |
|                                   |                        |                     |                      |                        |  |                   |
| % Bare Ground in F                | lerb Stratum           | % Cove              | r of Biotic Cru      | st                     |  |                   |

| SOIL     |                  |                |            |         |       |                         |                           |                |                      |         | Sampling Point:               | 0708ground03                 |
|----------|------------------|----------------|------------|---------|-------|-------------------------|---------------------------|----------------|----------------------|---------|-------------------------------|------------------------------|
| Profile  | Description: (   | Describe to    | depth n    | eeded t | to do | ocumen                  | t the in                  | dicator o      | or confirm absence   | of indi | cators.)                      |                              |
|          | Depth            | Matr           | rix        |         | F     | Redox F                 | eatures                   |                |                      |         |                               |                              |
|          | (inches)         | Color          | %          | Colo    | or    | %                       | Type*                     | Loc**          | Texture              |         | Remark                        | (S                           |
|          | 0-4              | 5Y 4/2         | 98         | 7.5YR   | 8 5/6 | 2                       | RM                        | М              | Loam / Clay          |         |                               |                              |
|          |                  |                |            |         |       |                         |                           |                |                      |         |                               |                              |
|          |                  |                |            |         |       |                         |                           |                |                      |         |                               |                              |
|          |                  |                |            |         |       |                         |                           |                |                      |         |                               |                              |
|          |                  |                |            |         |       |                         |                           |                |                      |         |                               |                              |
|          |                  |                |            |         |       |                         |                           |                |                      |         |                               |                              |
|          |                  |                |            |         |       |                         |                           |                |                      |         |                               |                              |
|          |                  |                |            |         |       |                         |                           |                |                      |         |                               |                              |
| *Type: 0 | C=Concentratio   | n, D=Depleti   | on, RM=    | Reduce  | ed Ma | atrix, MS               | S=Mask                    | ed Sand        | grains **Location: F | PL=Pore | e Lining, M=Matrix            |                              |
| Hydric   | Soil Indicators  | : (Applicabl   | e to all I | LRRs, u | Inles | s other                 | wise no                   | oted)          |                      |         | Indicators for Problema       | tic Hydric Soils ***         |
|          | Histosol (A1)    |                |            |         |       | Sandy I                 | Redox (                   |                |                      |         | 1 cm Muck (A9) (LRR C)        |                              |
|          | Histic Epipedo   | on (A2)        |            |         |       | Strippe                 | d Matrix                  | ix (S6)        |                      |         | 2 cm Muck (A10) (LRR B)       |                              |
|          | Black Histic (A  | 43)            |            |         |       | Loamy                   | Mucky N                   | y Mineral (F1) |                      |         | Reduced Vertic (F18)          |                              |
|          | Hydrogen Sul     | fide (A4)      |            |         |       | Loamy                   | Gleyed                    | Matirx (F      | 2)                   |         | Red Parent Material (TF2)     |                              |
|          | Stratified Laye  | ers (A5) (LRF  | RC)        |         | Х     | Depleted Matrix (F3)    |                           |                |                      |         | Other (Explain in Remarks)    |                              |
|          | 1 cm Muck (A     | 9) (LRR D)     |            |         |       | Redox Dark Surface (F6) |                           |                |                      |         |                               |                              |
|          | Depleted Below   | v Dark Surface | e (A11)    |         |       | Deplete                 | epleted Dark Surface (F7) |                |                      |         |                               |                              |
|          | Thick Dark Su    | Irface (A12)   |            |         |       | Redox                   | Depress                   | sions (F8)     | 1                    |         |                               |                              |
|          | Sandy Mucky      | Mineral (S1)   | )          |         |       | Vernal                  | Pools (F                  | -9)            |                      |         | *** Indicators of hydrophytic |                              |
|          | Sandy Gleyed     | I Matrix (S4)  |            |         |       |                         | r                         |                |                      | hyd     | rology must be present, unles | ss disturbed or problematic. |
| Restric  | tive Layer (if o | bserved)       |            |         |       |                         |                           |                |                      |         |                               |                              |
|          | Туре:            |                | ye         | es      |       |                         | _                         |                |                      |         |                               |                              |
| Dep      | oth (inches):    |                |            |         |       |                         | - 1                       | Hydric S       | oil Present?         | Yes     | <u>X</u> No                   |                              |
| Remark   | s:               |                |            |         |       |                         |                           |                |                      |         |                               |                              |
|          |                  |                |            |         |       |                         |                           |                |                      |         |                               |                              |
|          |                  |                |            |         |       |                         |                           |                |                      |         |                               |                              |
|          |                  |                |            |         |       |                         |                           |                |                      |         |                               |                              |

## HYDROLOGY

| Wetland  | Hydrology Indicators:                     |       |  |   |
|----------|---|-------|--|---|
|          | Primary Indicators (minimum o             | f one | is require; check all that apply)          | Secondary Indicators (2 or more required) |
|          | Surface Water (A1)                        |       | Salt Crust (B11)                           | Water Marks (B1) (Riverine)               |
|          | High Water Table (A2)                     |       | Biotic Crust (B12)                         | Sediment Deposits (B2) (Riverine)         |
| Х        | Saturation (A3)                           |       | Aquatic Fauna (B13)                        | Drift Deposits (B3) (Riverine)            |
| Х        | Water Marks (B1) (Nonriverine)            |       | Hydrogen Sulfide Odor (C1)                 | Drainage Patterns (B10)                   |
| Х        | Sediment Deposits (B2) (Nonriverine)      |       | Oxidized Rhizospheres on Living Roots (C3) | Dry-Season Water Table (C2)               |
| Х        | Drift Deposits (B3) (Nonriverine)         |       | Presence of Reduced Iron (C4)              | Crayfish Burrows (C8)                     |
|          | Surface Soil Cracks (B6)                  |       | Recent Iron Reduction in Tilled Soil (C6)  | Saturation Visible on Aerial Imagery (C9) |
| Х        | Inundation Visible on Aerial Imagery (B7) |       | Thin Muck Surface (C7)                     | Shallow Aquitard (D3)                     |
|          | Water Stained Leaves (B9)                 |       | Other (Explain in Remarks)                 | FAC-Neutral Test (D5)                     |
| Field O  | oservations:                              |       |  |   |
| Surface  | Water Present? Yes                        |       | No X Depth (inches):                       | Wetland Hydrology Present?                |
| Water T  | able Present? Yes                         |       | No X Depth (inches):                       | Yes X No                                  |
| Saturati | on Present? Yes                           | Х     | No Depth (inches): 0                       |   |
| (include | s capillary fringe)                       |       |  |   |

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

#### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Project/Site:         | Utah Lake                |                     | City/County:         | Utah Co.               |                         | Sampling Date:       | 7/8/2021                |
|-----------------------|--------------------------|---------------------|----------------------|------------------------|-------------------------|----------------------|-------------------------|
| pplicant/Owner:       | LRS                      |                     | - , - ,              |                        | State: Utah             |                      | 0708ground05            |
| vestigator(s):        |                          |                     |                      | Section, Township,     |                         |                      | 0                       |
|                       | rrace, etc.):            |                     |                      |                        | convex, none):          | None                 | Slope (%): 2-10%        |
| bregion (LRR):        |                          |                     |                      |                        | Long111.938             |                      |                         |
| il Map Unit Name:     |                          |                     | _                    |                        |                         | WI Classification: F |                         |
| e climatic/hydrologic | conditions on the site   | e typical for ti    | me of year?          | Yes                    | No X (If no             | , explain in the Re  | marks)                  |
| e Vegetation          | ,Soil                    | ,or Hy              | drology              |                        | d?                      |                      |                         |
| e Vegetation          |                          |                     |                      | naturally problemation |                         |                      |                         |
| e Normal Circumstar   |                          |                     |                      |                        | iny answers in Remarks  | )                    |                         |
| JMMARY OF FI          | NDINGS - Attach          | site map            | showing sa           | mpling point loca      | itions, transects, ir   | nportant featu       | res, etc.               |
|                       | c Vegetation Present     |                     |                      |                        | pled Area within a We   |                      |                         |
|                       | Hydric Soil Present?     | Yes X               | No                   | Yes                    | <u>     X    </u> No    |                      |                         |
| Wetlan                | d Hydrology Present?     | Yes <u>X</u>        | No                   | _                      |                         |                      |                         |
| marks:                |                          |                     |                      |                        |                         |                      |                         |
| ought conditions      |                          |                     |                      |                        |                         |                      |                         |
|                       |                          |                     |                      |                        |                         |                      |                         |
| GETATION - U          | se scientific nam        |                     |                      |                        |                         |                      |                         |
| e Stratum             | Plot size: r= 30'        | Absolute<br>% Cover | Dominant<br>Species? | Indicator Status       | Dominan                 | ce Test Workshee     | t                       |
| 1.                    |                          |                     |                      |                        |                         |                      |                         |
| 2.                    |                          |                     |                      |                        | Number of dominant      | species that are     |                         |
| 0                     |                          |                     |                      |                        | OBL, FACW,              | •                    | 2 (A)                   |
| 4.                    |                          |                     |                      |                        | Total number of dor     | minant species       |                         |
|                       |                          | 0                   | = Total Cover        |                        | across all s            |                      | <u>2</u> (B)            |
|                       |                          |                     |                      |                        | Percent of dominant     | species that are     |                         |
| oling/Shrub Stratum   | Plot size: r= 30'        |                     |                      |                        | OBL, FACW,              | •                    | 100% (A/B)              |
| 1. Tamarix chine      | ənsis                    | 40                  | Y                    | FAC                    | Prevalence Index Wo     | orksheet             |                         |
| 2.                    |                          |                     |                      |                        | Total % cover of:       | Multipl              | / by:                   |
| 3                     |                          |                     |                      |                        | OBL species 0           | x 1                  | 0                       |
| 4.                    |                          |                     |                      |                        | FACW species 5          | x 2                  | 10                      |
| 5                     |                          |                     |                      |                        | FAC species 11          | 5 x 3                | 345                     |
|                       |                          | 40                  | = Total Cover        |                        | FACU species 0          | x 4                  | 0                       |
|                       |                          |                     |                      |                        | UPL species 0           | x 5                  | 0                       |
| <u>b Stratum</u>      | Plot size: r= 5'         |                     |                      |                        | Column Total 120        | )_(A)                | 355 (B)                 |
| 1. Distichlis spic    | ata                      | 70                  | Y                    | FAC                    | F                       | Prevalence Index:    | 3.0 (B/A)               |
| 2. Juncus baltice     | us                       | 5                   | N                    | FACW                   | Hydrophytic Vegetat     | ion Indicators:      |                         |
| 3. Lepidium latif     | olium                    | 5                   | Ν                    | FAC                    | 1 - Rapid Tes           | t for Hydrophytic V  | egetation               |
| 4.                    |                          |                     |                      |                        | X 2 - Dominanc          | e Test is >50%       |                         |
| 5                     |                          |                     |                      |                        | X 3 - Prevalence        | _                    |                         |
| 0                     |                          |                     |                      |                        |                         | lydrophytic Vegeta   |                         |
| 7.                    |                          |                     |                      |                        |                         | ,                    | rology must be present, |
| 8.                    |                          |                     |                      |                        | unless disturbed or pro | obiematic            |                         |
|                       |                          | 80                  | = Total Cover        |                        | Hydrophytic Vegetat     | ion Present?         |                         |
| adu Vina Ottur        |                          |                     |                      |                        |                         | × ••                 |                         |
|                       | Plot size: <u>r= 30'</u> |                     |                      |                        | Yes                     | <u>X</u> No_         |                         |
|                       |                          |                     |                      |                        | -                       |                      |                         |
| 2.                    |                          |                     |                      |                        | 4                       |                      |                         |
| <b>-</b> .            |                          | 0                   | = Total Cover        |                        |                         |                      |                         |
|                       | lerb Stratum             |                     | r of Biotic Cru      |                        |                         |                      |                         |

| rofile Description: (  | (Describe to   | depth n  | eeded to d  | ocumer  | it the inc  | dicator or   | r confirm absenc | e of in  | dicators.)   |                        |
|--|--|--|---|---|---|--|------------------|--|--|------------------------|
| Depth  | Matri  | ix   |   | Redox F   |   |  |                  |  |  |                        |
| (inches)   | Color  | %  | Color   | %   | Type*   | Loc**  | Texture          |  | Remarks  | 5                      |
| 0-4  | 10YR 3/3   | 100  |   |   |   |  | Loam / Clay      | _  |  |                        |
| 4-16   | 5Y 5/2   | 95   | 5YR 5/6   | 5   | RM  | Both   | Loam / Clay      |  |  |                        |
|  |  |  |   |   |   |  |                  |  |  |                        |
|  |  |  |   |   |   |  |                  |  |  |                        |
|  |  |  |   |   |   |  |                  |  |  |                        |
|  |  |  |   |   |   |  |                  |  |  |                        |
|  |  |  |   |   |   |  |                  |  |  |                        |
|  |  |  |   |   |   |  |                  |  |  |                        |
| ype: C=Concentratio  | on, D=Depletio   | on, RM=  | Reduced M   | latrix, M   | S=Maske   | ed Sand g  | rains **Location | PL=Pc  | ore Lining, M=Matrix   |                        |
| dric Soil Indicators   | s: (Applicable   | e to all L   | .RRs, unle  | ss othei  | wise no   | ted)   |                  |  | Indicators for Problemat   | ic Hydric Soils ***    |
| Histosol (A1)  |  |  |   | Sandy   | Redox (S  | 65)  |                  |  | 1 cm Muck (A9) <b>(LRR C)</b>  |                        |
| Histic Epiped  | on (A2)  |  |   | Strippe   | d Matrix  | (S6)   |                  |  | 2 cm Muck (A10) (LRR B)  |                        |
| Black Histic (   |  |  |   |   |   | lineral (F   | 1)               |  | Reduced Vertic (F18)   |                        |
| Hydrogen Su  | /  |  |   |   | ,   | Matirx (F2   |                  |  | Red Parent Material (TF2)  |                        |
|  | ers (A5) (LRR  | R C)   | Х   |   | ed Matrix   |  | ,                |  | Other (Explain in Remarks)   |                        |
| 1 cm Muck (A   | . , , ,  | /  |   |   |   | face (F6)  |                  |  |  |                        |
|  | w Dark Surface   | e (A11)  |   |   |   | Surface (F   |                  |  |  |                        |
| Thick Dark S   |  | ,,,,,,   |   | · ·   |   | ions (F8)  | • /              |  |  |                        |
|  | / Mineral (S1)   |  |   |   | Pools (F  | ( )  |                  |  | *** Indicators of hydrophytic v  | regetation and wetland |
| Sandy Mucky  |  |  |   | veniai  | 1 0013 (1   | 3)   |                  | h  | /drology must be present, unles  | •                      |
| Type:<br>Depth (inches):   |  |  |   |   | -<br>-  | lydric So  | il Present?      | Ye   | s <u>X</u> No  |                        |
| Type:<br>Depth (inches):<br>marks:   |  |  |   |   | -<br>- P  | łydric So  | il Present?      | Ye   | s <u>X</u> No  |                        |
| Depth (inches):<br>emarks:<br>Ilt intrusions in soil p<br>YDROLOGY<br>etland Hydrology Ir  | rofile   | nimum o  | f one is red  | uire: che   | -   |  | il Present?      | Ye   |  |                        |
| Type:<br>Depth (inches):<br>marks:<br>It intrusions in soil p<br>YDROLOGY<br>etland Hydrology Ir<br>Primary  | ndicators:   | nimum o  |   |   | eck all th  |  | il Present?      |  | Secondary Indicators (2 or m   |                        |
| Type:<br>Depth (inches):<br>emarks:<br>alt intrusions in soil p<br>YDROLOGY<br>etland Hydrology Ir<br>Primary  | ndicators:<br>Indicators (min  | nimum o  | Salt  | Crust (B  | eck all th  |  | il Present?      | We   | Secondary Indicators (2 or m<br>ater Marks (B1) (Riverine)   | ore required)          |
| Type:<br>Depth (inches):<br>emarks:<br>It intrusions in soil p<br>YDROLOGY<br>etland Hydrology Ir<br>Primary<br>Surface Wate<br>High Water T   | ndicators:<br>Indicators (min<br>er (A1)<br>Table (A2)   | nimum o  | Salt<br>Bioti   | Crust (B<br>c Crust (   | -<br>eck all th<br>11)<br>B12)  |  | il Present?      | Wa<br>Se   | Secondary Indicators (2 or m<br>ater Marks (B1) (Riverine)<br>diment Deposits (B2) (Riverine)  | ore required)          |
| Type:<br>Depth (inches):<br>amarks:<br>It intrusions in soil p<br>YDROLOGY<br>etland Hydrology Ir<br>Primary<br>Surface Wate<br>High Water T<br>Saturation (A  | ndicators:<br>Indicators (min<br>er (A1)<br>able (A2)<br>3)  |  | Salt<br>Bioti<br>Aqua   | Crust (B<br>c Crust (<br>atic Faur  | -<br>eck all th<br>11)<br>B12)<br>ia (B13)  | at apply)  | il Present?      | Wa<br>Se<br>Dri                                  | Secondary Indicators (2 or m<br>ater Marks (B1) (Riverine)<br>diment Deposits (B2) (Riverine)<br>ft Deposits (B3) (Riverine)   | ore required)          |
| Type:<br>Depth (inches):<br>marks:<br>It intrusions in soil p<br>YDROLOGY<br>etland Hydrology Ir<br>Primary<br>Surface Wate<br>High Water T<br>Saturation (A<br>Water Marks  | rofile<br>ndicators:<br>Indicators (min<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonrive   | erine)   | Salt<br>Bioti<br>Aqua<br>Hydr   | Crust (B<br>c Crust (<br>atic Faur<br>ogen Su   | eck all th<br>11)<br>B12)<br>Ifide Odd  | at apply)  |                  | Wa<br>Se<br>Dri<br>Dra                           | Secondary Indicators (2 or m<br>ater Marks (B1) (Riverine)<br>diment Deposits (B2) (Riverine)<br>ft Deposits (B3) (Riverine)<br>ainage Patterns (B10)  | ore required)          |
| Type:<br>Depth (inches):<br>marks:<br>It intrusions in soil p<br>YDROLOGY<br>etland Hydrology Ir<br>Primary<br>Surface Wate<br>High Water T<br>Saturation (A<br>Water Marks<br>Sediment Depo   | ndicators:<br>Indicators (min<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonrive<br>psits (B2) (Nonrive  | erine)<br>verine)                                      | Salt<br>Bioti<br>Aqua<br>Hydi<br>Oxid                                 | Crust (B<br>c Crust (<br>atic Faur<br>ogen Su<br>zed Rhiz   | eck all th<br>11)<br>B12)<br>Ifide Odd<br>ospheres  | at apply)<br>or (C1)<br>on Living  | Roots (C3)       | Wa<br>Se<br>Dri<br>Dra                           | Secondary Indicators (2 or m<br>ater Marks (B1) (Riverine)<br>diment Deposits (B2) (Riverine)<br>ft Deposits (B3) (Riverine)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)   | ore required)          |
| Type:<br>Depth (inches):<br>marks:<br>It intrusions in soil p<br>YDROLOGY<br>etland Hydrology Ir<br>Primary<br>Surface Wate<br>High Water T<br>Saturation (A<br>Water Marks<br>Sediment Depo<br>Drift Deposits   | ndicators:<br>Indicators (min<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonrive<br>s (B3) (Nonrive  | erine)<br>verine)                                      | Salt<br>Bioti<br>Aqua<br>Hydi<br>Oxid<br>Pres                         | Crust (B<br>c Crust (<br>atic Faur<br>ogen Su<br>zed Rhiz<br>ence of                                      | eck all th<br>11)<br>B12)<br>ifide Od<br>ospheres<br>Reduced  | at apply)<br>or (C1)<br>on Living<br>I Iron (C4  | Roots (C3)       | Wa<br>Se<br>Dri<br>Dra<br>Dro<br>Cra             | Secondary Indicators (2 or m<br>ater Marks (B1) (Riverine)<br>diment Deposits (B2) (Riverine)<br>ft Deposits (B3) (Riverine)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)  | ore required)          |
| Type:<br>Depth (inches):<br>marks:<br>It intrusions in soil p<br>YDROLOGY<br>etland Hydrology Ir<br>Primary<br>Surface Wate<br>High Water T<br>Saturation (A<br>Water Marks<br>Sediment Depo<br>Drift Deposits<br>Surface Soil (   | rofile<br>ndicators:<br>Indicators (min<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonrive<br>sits (B2) (Nonrive<br>cracks (B6)  | erine)<br>verine)<br>erine)                            | Salt<br>Bioti<br>Aqui<br>Hydi<br>Oxid<br>Pres<br>Reco                 | Crust (B<br>c Crust (<br>atic Faur<br>ogen Su<br>zed Rhiz<br>ence of<br>ent Iron R                        | eck all th<br>11)<br>B12)<br>Ifide Odd<br>ospheres<br>Reduced<br>reduction                                      | at apply)<br>or (C1)<br>on Living<br>I Iron (C4<br>in Tilled S                               | Roots (C3)       | Wa<br>See<br>Dri<br>Dra<br>Cra<br>Sa             | Secondary Indicators (2 or m<br>ater Marks (B1) (Riverine)<br>diment Deposits (B2) (Riverine)<br>ft Deposits (B3) (Riverine)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)<br>turation Visible on Aerial Imager   | ore required)          |
| Type:<br>Depth (inches):<br>marks:<br>It intrusions in soil p<br>YDROLOGY<br>etland Hydrology Ir<br>Primary<br>Surface Wate<br>High Water T<br>Saturation (A<br>Water Marks<br>Sediment Depo<br>Drift Deposits<br>Surface Soil (<br>Inundation Visi                                      | rofile<br>Indicators:<br>Indicators (min<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonrive<br>sits (B2) (Nonrive<br>cracks (B6)<br>ble on Aerial Ima  | erine)<br>verine)<br>erine)<br>ngery (B7)              | Salt<br>Bioti<br>Aqua<br>Hydu<br>Oxid<br>Pres<br>Reco<br>Thin         | Crust (B<br>c Crust (<br>atic Faur<br>ogen Su<br>zed Rhiz<br>ence of<br>ent Iron R<br>Muck Si             | eck all th<br>11)<br>B12)<br>Ifide Odd<br>ospheres<br>Reduced<br>reduction<br>urface (C                         | at apply)<br>or (C1)<br>on Living<br>I Iron (C4<br>in Tilled S<br>7)                         | Roots (C3)       | Wa<br>Se<br>Dri<br>Dra<br>Dry<br>Cra<br>Sa<br>Sh | Secondary Indicators (2 or m<br>ater Marks (B1) (Riverine)<br>diment Deposits (B2) (Riverine)<br>ft Deposits (B3) (Riverine)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)<br>turation Visible on Aerial Imager<br>allow Aquitard (D3)                        | ore required)          |
| Type:<br>Depth (inches):<br>marks:<br>It intrusions in soil p<br>YDROLOGY<br>etland Hydrology Ir<br>Primary<br>Surface Wate<br>High Water T<br>Saturation (A<br>Water Marks<br>Sediment Depo<br>Drift Deposits<br>Surface Soil (<br>Inundation Visi<br>Water Staine                      | rofile<br>ndicators:<br>Indicators (min<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonrive<br>sits (B2) (Nonrive<br>cracks (B6)  | erine)<br>verine)<br>erine)<br>ngery (B7)              | Salt<br>Bioti<br>Aqua<br>Hydu<br>Oxid<br>Pres<br>Reco<br>Thin         | Crust (B<br>c Crust (<br>atic Faur<br>ogen Su<br>zed Rhiz<br>ence of<br>ent Iron R<br>Muck Si             | eck all th<br>11)<br>B12)<br>Ifide Odd<br>ospheres<br>Reduced<br>reduction                                      | at apply)<br>or (C1)<br>on Living<br>I Iron (C4<br>in Tilled S<br>7)                         | Roots (C3)       | Wa<br>Se<br>Dri<br>Dra<br>Dry<br>Cra<br>Sa<br>Sh | Secondary Indicators (2 or m<br>ater Marks (B1) (Riverine)<br>diment Deposits (B2) (Riverine)<br>ft Deposits (B3) (Riverine)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)<br>turation Visible on Aerial Imager   | ore required)          |
| Type:<br>Depth (inches):<br>marks:<br>It intrusions in soil p<br>YDROLOGY<br>etland Hydrology Ir<br>Primary<br>Surface Wate<br>High Water T<br>Saturation (A<br>Water Marks<br>Sediment Depo<br>Drift Deposits<br>Surface Soil (<br>Inundation Visi<br>Water Staine<br>eld Observations: | rofile<br>Indicators:<br>Indicators (min<br>er (A1)<br>Table (A2)<br>3)<br>(B1) (Nonrive<br>ssits (B2) (Nonrive<br>ssits (B2) (Nonrive<br>(B3) (Nonrive<br>Cracks (B6)<br>ble on Aerial Ima<br>d Leaves (B9) | erine)<br>verine)<br>erine)<br>igery (B7)              | Salt<br>Bioti<br>Aqua<br>Hydr<br>Oxid<br>Pres<br>Rece<br>Thin<br>Othe | Crust (B<br>c Crust (<br>atic Faur<br>ogen Su<br>zed Rhiz<br>ence of<br>ent Iron R<br>Muck So<br>r (Expla | eck all th<br>11)<br>B12)<br>Ifide Odd<br>ospheres<br>Reduced<br>teduction<br>urface (C<br>in in Ren            | at apply)<br>or (C1)<br>on Living<br>I Iron (C4<br>in Tilled S<br>27)<br>narks)              | Roots (C3)       | Wa<br>Se<br>Dri<br>Dri<br>Cri<br>Sa<br>Sh<br>FA  | Secondary Indicators (2 or m<br>ater Marks (B1) (Riverine)<br>diment Deposits (B2) (Riverine)<br>ft Deposits (B3) (Riverine)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)<br>turation Visible on Aerial Imager<br>allow Aquitard (D3)<br>C-Neutral Test (D5) | ore required)          |
| Type:<br>Depth (inches):<br>marks:<br>It intrusions in soil p<br>YDROLOGY<br>etland Hydrology Ir<br>Primary<br>Surface Wate<br>High Water T<br>Saturation (A<br>Water Marks<br>Sediment Depo<br>Drift Deposits<br>Surface Soil (<br>Inundation Visi                                      | rofile<br>Indicators:<br>Indicators (min<br>er (A1)<br>Table (A2)<br>3)<br>(B1) (Nonrive<br>ssits (B2) (Nonrive<br>ssits (B2) (Nonrive<br>(B3) (Nonrive<br>Cracks (B6)<br>ble on Aerial Ima<br>d Leaves (B9) | erine)<br>verine)<br>erine)<br>igery (B7)<br>)<br>Yes_ | Salt<br>Bioti<br>Aqua<br>Hydr<br>Oxid<br>Pres<br>Reco<br>Thin<br>Othe | Crust (B<br>c Crust (<br>atic Faur<br>ogen Su<br>zed Rhiz<br>ence of<br>ent Iron R<br>Muck So<br>r (Expla | eck all th<br>11)<br>B12)<br>Ifide Odd<br>ospheres<br>Reduced<br>reduction<br>urface (C<br>in in Ren<br>_ Depth | at apply)<br>or (C1)<br>on Living<br>I Iron (C4<br>in Tilled S<br>27)<br>narks)<br>(inches): | Roots (C3)       | Wa<br>Se<br>Dri<br>Dri<br>Cri<br>Sa<br>Sh<br>FA  | Secondary Indicators (2 or m<br>ater Marks (B1) (Riverine)<br>diment Deposits (B2) (Riverine)<br>ft Deposits (B3) (Riverine)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)<br>turation Visible on Aerial Imager<br>allow Aquitard (D3)                        | ore required)          |

Saturation Present?

(includes capillary fringe)

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

Yes \_\_\_\_ No \_ X \_ Depth (inches): \_\_\_\_\_

--See Climatic Summary Below--The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value

| Project/Site:                                | Utah Lake                 |                | City/County:    | Utah Co.               |                                    | Sampling Date:        | 7/8/2021                 |
|--|---------------------------|----------------|-----------------|------------------------|------------------------------------|-----------------------|--------------------------|
| Applicant/Owner:                             | LRS                       |                |                 |                        | State: Utah                        | Sampling Point:       | 0708ground06             |
| nvestigator(s):                              | E.Casper, L.Wilder        |                |                 | Section, Township,     | Range: 0                           |                       | -                        |
| andform: (hillslope, te                      | rrace, etc.):             | fringe         |                 | Local relief (concave, | convex, none):                     | None                  | Slope (%): <u>0-2%</u>   |
| Subregion (LRR):                             | MLRA 28                   | BA; LRR D      |                 |                        | Long111.936                        |                       |                          |
| Soil Map Unit Name:                          |                           |                | Beaches         |                        | N                                  | IWI Classification: F | PEM1F                    |
| Are climatic/hydrologic                      | conditions on the site    | typical for ti | me of year?     | Yes                    | No <u>X</u> (If n                  | o, explain in the Re  | marks)                   |
| Are Vegetation                               | X,Soil                    | ,or Hy         | drology         | significantly disturbe | d?                                 |                       |                          |
| Are Vegetation                               | ,Soil                     | ,or Hy         | drology         | naturally problemation | c?                                 |                       |                          |
| Are Normal Circumstar                        | nces Present?             | Yes            | No <u>X</u>     | (If needed, explain a  | iny answers in Remark              | s)                    |                          |
| SUMMARY OF FIN                               | IDINGS - Attach           | site man «     | showing sa      | mpling point loca      | itions, transects, i               | mnortant featu        | res etc                  |
|  | Vegetation Present?       | -              | _               |                        | pled Area within a W               | -                     |                          |
|  | Hydric Soil Present?      | Yes X          | No              | Yes                    | <u>X</u> No                        |                       |                          |
| Wetlan                                       | d Hydrology Present?      |                |                 |                        |                                    |                       |                          |
|  |                           |                |                 |                        |                                    |                       |                          |
| Remarks:                                     |                           |                |                 |                        |                                    |                       |                          |
| Drought conditions So                        | me management of in       | ivasives has   | occurred.       |                        |                                    |                       |                          |
| EGETATION - U                                | se scientific nam         | es of plan     | its             |                        |                                    |                       |                          |
|  |                           | Absolute       | Dominant        |                        |                                    |                       |                          |
| ree Stratum                                  | Plot size: r= 30'         | % Cover        | Species?        | Indicator Status       | Dominar                            | ice Test Workshee     | t                        |
|  | <u> </u>                  |                |                 |                        | _                                  |                       |                          |
|  |                           |                |                 |                        | Number of dominant                 |                       |                          |
|  |                           |                |                 |                        | OBL, FACW                          | , or FAC:             | <u> </u>                 |
| 4.   |                           |                |                 |                        | Total number of do                 | •                     |                          |
|  |                           | 0 :            | = Total Cover   |                        | across all                         | strata:               | <u>1</u> (B)             |
|  |                           |                |                 |                        | Percent of dominant                | •                     | 4000/ (A/D)              |
| apling/Shrub Stratum                         | Plot size: $r=30^{\circ}$ |                |                 |                        | OBL, FACW                          |                       | 100% (A/B)               |
| 1.   | <u> </u>                  |                |                 |                        | Prevalence Index W                 |                       | . h                      |
| 2  |                           |                |                 |                        | Total % cover of:<br>OBL species 5 |                       | <u> </u>                 |
|  |                           |                |                 |                        | FACW species 9                     | <u> </u>              | <u> </u>                 |
| 4<br>5.                                      |                           |                |                 |                        | FAC species 5                      |                       | 15                       |
| 5.   | <u>.</u>                  | 0              | = Total Cover   |                        | FACU species 5                     |                       | 20                       |
|  |                           | 0              |                 |                        |                                    | ) x 5                 | 0                        |
| erb Stratum                                  | Plot size: r= 5'          |                |                 |                        | Column Total 10                    |                       | 220 (B)                  |
| 1. Phragmites a                              |                           | 90             | Y               | FACW                   |                                    | Prevalence Index:     | 2.1 (B/A)                |
| 2. Schoenoplect                              |                           | 5              | N               | OBL                    | Hydrophytic Vegeta                 |                       | 2.1 (0/74)               |
| 3. Chenopodium                               |                           | 5              | N               | FAC                    |                                    | st for Hydrophytic V  | egetation                |
| 4. Chenopodium                               | 0                         | 5              | N               | FACU                   | X 2 - Dominan                      |                       | J                        |
| 5.   |                           |                |                 |                        | X 3 - Prevalence                   |                       |                          |
| 6.   |                           |                |                 |                        |                                    | Hydrophytic Vegeta    | tion* (Explain)          |
| 7.   |                           |                |                 |                        | ,                                  | ,                     | lrology must be present, |
| 8.   |                           |                |                 |                        | unless disturbed or p              | roblematic            |                          |
|  |                           | 105 :          | = Total Cover   |                        | Hydrophytic Vegeta                 | tion Present?         |                          |
|  |                           |                |                 |                        |                                    |                       |                          |
| Voody Vine Stratum                           | Plot size: <u>r= 30'</u>  |                |                 |                        | Yes                                | <u>X</u> No_          |                          |
|  |                           |                |                 |                        | 4                                  |                       |                          |
| 2.   | <u> </u>                  |                |                 |                        | 4                                  |                       |                          |
|  |                           |                | = Total Cover   |                        |                                    |                       |                          |
|  | lerb Stratum              | % Cove         | r of Biotic Cru | st                     |                                    |                       |                          |
| % Bare Ground in H<br>Remarks: (if observed, |                           | -              |                 |                        |                                    |                       |                          |

|                            |  |  |                                   |  |   |  |   | confirm absence   | orma  | icators.)   |
|----------------------------|--|--|-----------------------------------|--|---|--|---|-------------------|---|---|
|                            | Depth  | Matrix   |                                   |  | Redox F   |  | 1   |                   |   |   |
|                            | (inches)   | Color  | %                                 | Color  | %   | Type*  | Loc**   | Texture           |   | Remarks   |
|                            | 0-9  | 5Y 6/2   | 95                                | 7.5YY 7/6  | 5   | RM   | Both  | Loam / Clay       |   |   |
|                            | 9-17   | Gley1 6/5G\  | 85                                | 7.5YR 7/6  | 15  | RM   | Both  | Loam / Clay       |   |   |
|                            |  |  |                                   |  |   |  |   |                   |   |   |
|                            |  |  |                                   |  |   |  |   |                   |   |   |
|                            |  |  |                                   |  |   |  |   |                   |   |   |
| pe: (                      | C=Concentratio   | on, D=Depletion  | n, RM=I                           | Reduced M  | atrix, MS   | S=Maske  | d Sand g  | rains **Location: | PL=Por  | e Lining, M=Matrix  |
| dric                       | Soil Indicators  | s: (Applicable   | to all L                          | RRs, unle  | ss other  | wise no  | ted)  |                   |   | Indicators for Problematic Hydric Soils ***   |
|                            | Histosol (A1)  |  |                                   |  | Sandy   | Redox (S   | \$5)  |                   |   | 1 cm Muck (A9) <b>(LRR C)</b>   |
|                            | Histic Epiped  | on (A2)  |                                   |  | Strippe   | d Matrix   | (S6)  |                   |   | 2 cm Muck (A10) <b>(LRR B)</b>  |
|                            | Black Histic (   | A3)  |                                   |  | Loamy   | Mucky N  | lineral (F                                      | 1)                |   | Reduced Vertic (F18)  |
|                            | Hydrogen Su  | lfide (A4)   |                                   |  | Loamy   | Gleyed I   | Matirx (F2                                      | )                 |   | Red Parent Material (TF2)   |
|                            | Stratified Lay   | ers (A5) (LRR  | C)                                | х  | Deplete   | d Matrix   | (F3)  |                   |   | Other (Explain in Remarks)  |
|                            | 1 cm Muck (A9) (LRR D)   |  |                                   |  | Redox Dark Surface (F6)   |  |   |                   |   |   |
|                            | Depleted Belo  | ted Below Dark Surface (A11)   |                                   |  | Deplete   | d Dark S   | Surface (F                                      | 7)                |   |   |
|                            | Thick Dark S   | urface (A12)   |                                   |  | Redox   | Depress  | ons (F8)  |                   |   |   |
|                            | Sandy Mucky  | / Mineral (S1)   |                                   |  | Vernal  | Pools (F   | 9)  |                   |   | *** Indicators of hydrophytic vegetation and wetland  |
|                            | Sandy Gleye  | d Matrix (S4)  |                                   |  |   |  |   |                   | hyc   | Irology must be present, unless disturbed or problem  |
|                            | Туре:  |  |                                   |  |   | F  | lydric So                                       | il Present?       | Vac   | XNo   |
|                            | oth (inches):  |  |                                   |  |   | -  |   |                   | 163   |   |
| mark<br>s of               |  | and various co   | oncentra                          | tions of all   | black m   |  |   |                   | 165   |   |
| mark<br>s of<br><b>′DR</b> | ks:<br>organic matter  |  | oncentra                          | tions of all   | black m   |  |   |                   |   |   |
| mark<br>s of<br><b>′DR</b> | cs:<br>organic matter<br>COLOGY<br>d Hydrology Ir  | ndicators:   |                                   |  |   | aterial  | at apply)                                       |                   |   |   |
| mark<br>s of<br><b>′DR</b> | cs:<br>organic matter<br>COLOGY<br>d Hydrology Ir<br>Primary   | ndicators:<br>Indicators (min  | imum o                            | f one is rec   | uire; che   | aterial  | at apply)                                       |                   |   | Secondary Indicators (2 or more required)   |
| mark<br>s of<br><b>′DR</b> | cs:<br>organic matter<br>COLOGY<br>d Hydrology Ir<br>Primary   | ndicators:<br>Indicators (min<br>er (A1)   | imum o                            | f one is req<br>Salt   | uire; che   | aterial  | at apply)                                       |                   | Wat   |   |
| mark<br>s of f             | cs:<br>organic matter<br>COLOGY<br>d Hydrology Ir<br>Primary<br>Surface Wate   | ndicators:<br>Indicators (min<br>er (A1)<br>able (A2)  | imum o                            | f one is rec<br>Salt<br>Bioti  | uire; che<br>Crust (B   | aterial<br>eck all the<br>11)<br>B12)  | at apply)                                       |                   | Wat   | Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)   |
| mark<br>s of <i>t</i>      | (S:<br>organic matter<br>COLOGY<br>d Hydrology In<br>Primary<br>Surface Wate<br>High Water T<br>Saturation (A  | ndicators:<br>Indicators (min<br>er (A1)<br>able (A2)  | imum o                            | f one is req<br>Salt<br>Bioti<br>Aqua                                  | uire; che<br>Crust (B<br>crust (<br>tic Faur  | aterial<br>eck all the<br>11)<br>B12)  |   |                   | Wate<br>Sed   | Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)<br>iment Deposits (B2) (Riverine)   |
| mark<br>s of <i>t</i>      | (s:<br>organic matter<br>COLOGY<br>d Hydrology Ir<br>Primary<br>Surface Wate<br>High Water T<br>Saturation (A<br>Water Marks   | ndicators:<br>Indicators (min<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonriveri   | imum o                            | f one is req<br>Salt<br>Bioti<br>Aqua<br>Hydr                          | uire; che<br>Crust (B<br>c Crust (<br>tic Faur<br>ogen Su                                     | aterial<br>eck all th<br>11)<br>B12)<br>a (B13)<br>Ifide Odd                         | or (C1)   | Roots (C3)        | Wate<br>Sedi<br>Drift<br>Drai                         | Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)<br>iment Deposits (B2) (Riverine)<br>Deposits (B3) (Riverine)   |
| mark<br>s of <i>t</i>      | CLOGY<br>COLOGY<br>d Hydrology Ir<br>Primary<br>Surface Wate<br>High Water T<br>Saturation (A<br>Water Marks<br>Sediment Depc  | ndicators:<br>Indicators (min<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonriveri<br>usits (B2) (Nonrive                  | imum o                            | f one is req<br>Salt<br>Biotic<br>Aqua<br>Hydr<br>Oxidi                | uire; che<br>Crust (B<br>c Crust (<br>tic Faur<br>ogen Su<br>zed Rhiz                         | aterial<br>eck all th<br>11)<br>B12)<br>a (B13)<br>Ifide Odd<br>ospheres             | or (C1)   | . ,               | Wate<br>Sed<br>Drift<br>Drai<br>Dry-                  | Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)<br>iment Deposits (B2) (Riverine)<br>Deposits (B3) (Riverine)<br>nage Patterns (B10)  |
| mark<br>s of <i>t</i>      | Cology<br>Cology<br>d Hydrology II<br>Primary<br>Surface Wate<br>High Water T<br>Saturation (A<br>Water Marks<br>Sediment Deposits   | ndicators:<br>Indicators (min<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonriver<br>sits (B2) (Nonrive<br>s (B3) (Nonrive | imum o                            | f one is req<br>Salt<br>Biotio<br>Aqua<br>Hydr<br>Oxidi<br>Pres        | uire; che<br>Crust (B<br>Crust (<br>tic Faur<br>ogen Su<br>zed Rhiz<br>ence of                | aterial<br>eck all the<br>11)<br>B12)<br>a (B13)<br>Ifide Odd<br>pspheres<br>Reduced | or (C1)   |                   | Wate<br>Sed<br>Drift<br>Drai<br>Dry-<br>Cray          | Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)<br>iment Deposits (B2) (Riverine)<br>Deposits (B3) (Riverine)<br>nage Patterns (B10)<br>Season Water Table (C2)                       |
| mark<br>s of <i>t</i>      | Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology<br>Cology | ndicators:<br>Indicators (min<br>er (A1)<br>able (A2)<br>3)<br>(B1) (Nonriver<br>sits (B2) (Nonrive<br>s (B3) (Nonrive | imum o<br>ine)<br>erine)<br>rine) | f one is req<br>Salt<br>Bioti<br>Aqua<br>Hydr<br>Oxidi<br>Pres<br>Rece | uire; che<br>Crust (B<br>c Crust (<br>tic Faur<br>ogen Su<br>zed Rhiz<br>ence of<br>nt Iron R | aterial<br>eck all the<br>11)<br>B12)<br>a (B13)<br>Ifide Odd<br>pspheres<br>Reduced | or (C1)<br>on Living<br>Iron (C4<br>in Tilled S |                   | Wate<br>Sedi<br>Drift<br>Drai<br>Dry-<br>Cray<br>Sate | Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)<br>iment Deposits (B2) (Riverine)<br>Deposits (B3) (Riverine)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>/fish Burrows (C8) |

| Field Observations:         |       |    |   |                 |    |                     |         |    |  |
|-----------------------------|-------|----|---|-----------------|----|---------------------|---------|----|--|
| Surface Water Present?      | Yes   | No | х | Depth (inches): |    | Wetland Hydrology P | resent? |    |  |
| Water Table Present?        | Yes   | No | х | Depth (inches): |    | Yes                 | Х       | No |  |
| Saturation Present?         | Yes X | No |   | Depth (inches): | 10 |                     |         |    |  |
| (includes capillary fringe) |       |    |   |                 |    |                     |         |    |  |

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

#### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.10.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range. Ground water table not observed but likely deeper down

| Project/                   | Site: Utah Lake  |                         | City/County:  | Utah Co.               | Sampling Date: 7/9/2021   |
|----------------------------|--|-------------------------|---------------|------------------------|---|
|                            | nt/Owner: LRS  |                         | •             | -<br>                  | State: Utah Sampling Point: 0709ground03  |
| nvestig                    | ator(s): E.Casper,   | L.Wilder                |               | Section, Township,     |   |
| andfor                     | m: (hillslope, terrace, etc.):   | floodplain              |               | Local relief (concave, | convex, none): Concave Slope (%): 0-2%  |
|                            | on (LRR):  | MLRA 28A; LRR D         |               |                        | Long111.745829 Datum: WGS84   |
| Soil Ma                    | p Unit Name:   |                         | Riverwash     |                        | NWI Classification: PSSA  |
| Are clim                   | natic/hydrologic conditions of   | on the site typical for | time of year? | Yes                    | No X (If no, explain in the Remarks)  |
| Are Veg                    | getation   | ,Soil,or H              | ydrology      | significantly disturbe |   |
| Are Veg                    |  |                         |               | naturally problemation |   |
| Are Nor                    | mal Circumstances Presen   | t? Yes                  | No X          | _(If needed, explain a | any answers in Remarks)   |
| SUMM                       | IARY OF FINDINGS -   | Attach site map         | showing sa    | mpling point loca      | itions, transects, important features, etc.   |
|                            | Hydrophytic Vegetation   |                         |               |                        | pled Area within a Wetland?   |
|                            | Hydric Soil  | Present? Yes            | No X          | Yes                    | NoX   |
|                            | Wetland Hydrology  | Present? Yes            | No X          | _                      |   |
| Remark                     |  |                         |               |                        |   |
| vetland                    | vood mature are dominate r<br>for desktop verification. Ma<br>TATION - Use scienti | apping as PFO due to    | mature cotton |                        | wetland hydrology but NWI mapped at PSS but Lewving mapped as tions   |
| /EGE                       | TATION - Use scienti   | Absolute                | Dominant      |                        |   |
| Tree Str                   | ratum Plot size  | : <u>r= 30' % Cover</u> |               | Indicator Status       | Dominance Test Worksheet  |
| 1.                         | Populus angustifolia   | 40                      | Y             | FACW                   |   |
| 2.                         | Acer negundo   | 20                      | Υ             | FACW                   | Number of dominant species that are   |
| 3.                         | Populus deltoides  | 5                       | N             | FAC                    | OBL, FACW, or FAC:(A)   |
| 4.                         |  | 65                      | = Total Cover |                        | Total number of dominant species<br>across all strata: 5 (B)  |
|                            |  | 05                      |               |                        | across all strata: <u>5</u> (B)   |
| Sapling/                   | /Shrub Stratum Plot size   | : r= 30'                |               |                        | Percent of dominant species that are<br>OBL, FACW, or FAC: 80% (A/B)  |
| 1.                         | Tamarix chinensis  | 5                       | Y             | FAC                    | Prevalence Index Worksheet  |
| 2.                         |  |                         | ·             |                        | Total % cover of: Multiply by:  |
| 3.                         |  |                         |               |                        | OBL species <u>0</u> x 1 <u>0</u>   |
| 4.                         |  |                         |               |                        | FACW species 60 x 2 120   |
| 5.                         |  |                         |               |                        | FAC species <u>15</u> x 3 <u>45</u>   |
|                            |  | 5                       | = Total Cover |                        | FACU species <u>65</u> x 4 <u>260</u>   |
|                            |  |                         |               |                        | UPL species <u>0</u> x 5 <u>0</u>   |
| Herb St                    | ratum Plot size  | : <u>r= 5'</u>          |               |                        | Column Total <u>140</u> (A) <u>425</u> (B)  |
| 1.                         | Chenopodium album  | 60                      | Y             | FACU                   | Prevalence Index: 3.0 (B/A)   |
| 2.                         | Cirsium arvense  | 5                       | N             | FACU                   | Hydrophytic Vegetation Indicators:  |
| 3.                         |  |                         |               |                        | 1 - Rapid Test for Hydrophytic Vegetation   |
| 4.                         |  |                         |               |                        | X 2 - Dominance Test is >50%  |
| 5.                         |  |                         |               |                        | 3 - Prevalence Index is $\leq 3.0^*$  |
| 6.                         |  |                         |               |                        | Problematic Hydrophytic Vegetation* (Explain) *Indicators of hydric soil and wetland hydrology must be present, |
| 7.                         |  |                         |               |                        | unless disturbed or problematic   |
| 8.                         |  | 65                      | = Total Cover |                        | Hydrophytic Vegetation Present?   |
|                            |  | 00                      |               |                        |   |
|                            |  | r= 5'                   |               |                        | YesX No   |
| <u>Woody</u>               | Vine Stratum Plot size:  |                         | Y             | FAC                    |   |
|                            |  | 5                       |               |                        |   |
| <u>Woody '</u><br>1.<br>2. | Vine Stratum_ Plot size:<br>Vitis girdiana   | 5                       | ·!            |                        |   |
| 1.                         |  | <u>5</u><br><br>5       | = Total Cover |                        |   |
| 1.<br>2.                   |  | 5                       | <u></u>       |                        | -   |

|        | Depth           | Matri          | x          |            | Redox    | Features  | ;           |                     |         |   |
|--------|-----------------|----------------|------------|------------|----------|-----------|-------------|---------------------|---------|---|
|        | (inches)        | Color          | %          | Color      | %        | Type*     | Loc**       | Texture             |         | Remarks   |
|        | 0-7             | 10YR 3/2       | 100        |            |          |           |             | Loam / Clay         |         |   |
|        | 7-15            | 10YR 4/3       | 99         | 7.5 YR 5/6 | 1        |           |             |                     |         |   |
|        |                 |                |            |            |          |           |             |                     |         |   |
|        |                 |                |            |            |          |           |             |                     |         |   |
|        |                 |                |            |            |          |           |             |                     | _       |   |
| vpe: C | =Concentratio   | n, D=Depletic  | on, RM=    | Reduced M  | atrix, M | S=Mask    | ed Sand g   | rains **Location: F | PL=Pore | e Lining, M=Matrix                                    |
| dric S | Soil Indicators | : (Applicable  | e to all l | RRs, unles | ss othe  | rwise no  | oted)       |                     |         | Indicators for Problematic Hydric Soils ***           |
|        | Histosol (A1)   |                |            |            | Sandy    | Redox (   | S5)         |                     |         | 1 cm Muck (A9) <b>(LRR C)</b>                         |
|        | Histic Epipede  | on (A2)        |            |            | Strippe  | ed Matrix | (S6)        |                     |         | 2 cm Muck (A10) <b>(LRR B)</b>                        |
|        | Black Histic (A | 43)            |            |            | Loamy    | Mucky I   | Mineral (F  | 1)                  |         | Reduced Vertic (F18)                                  |
|        | Hydrogen Sul    | fide (A4)      |            |            | Loamy    | Gleyed    | Matirx (F2  | 2)                  |         | Red Parent Material (TF2)                             |
|        | Stratified Laye | ers (A5) (LRR  | (C)        |            | Deplet   | ed Matrix | x (F3)      |                     |         | Other (Explain in Remarks)                            |
|        | 1 cm Muck (A    | .9) (LRR D)    |            |            | Redox    | Dark Su   | urface (F6) | )                   |         |   |
|        | Depleted Below  | v Dark Surface | e (A11)    |            | Deplet   | ed Dark   | Surface (I  | =7)                 |         |   |
|        | Thick Dark Su   | urface (A12)   |            |            | Redox    | Depress   | sions (F8)  |                     |         |   |
|        | Sandy Mucky     | Mineral (S1)   |            |            | Vernal   | Pools (F  | -9)         |                     |         | *** Indicators of hydrophytic vegetation and wetland  |
|        | Sandy Gleyed    | d Matrix (S4)  |            |            |          |           |             |                     | hyd     | Irology must be present, unless disturbed or problema |
| strict | ive Layer (if o | bserved)       |            |            |          |           |             |                     |         |   |
|        | Туре:           |                |            |            |          |           |             |                     |         |   |
| Dept   | th (inches):    |                |            |            |          | _         | Hydric So   | oil Present?        | Yes     | NoX   |
|        |                 |                |            |            |          |           |             |                     |         |   |

## HYDROLOGY

| Primary Indicators (minimum of            | one is require; check all that apply)      |   | Secondary Indicators (2 or more required) |
|---|--|---|---|
| Surface Water (A1)                        | Salt Crust (B11)                           |   | Water Marks (B1) (Riverine)               |
| High Water Table (A2)                     | Biotic Crust (B12)                         |   | Sediment Deposits (B2) (Riverine)         |
| Saturation (A3)                           | Aquatic Fauna (B13)                        |   | Drift Deposits (B3) (Riverine)            |
| Water Marks (B1) (Nonriverine)            | Hydrogen Sulfide Odor (C1)                 |   | Drainage Patterns (B10)                   |
| Sediment Deposits (B2) (Nonriverine)      | Oxidized Rhizospheres on Living Roots (C3) |   | Dry-Season Water Table (C2)               |
| Drift Deposits (B3) (Nonriverine)         | Presence of Reduced Iron (C4)              |   | Crayfish Burrows (C8)                     |
| Surface Soil Cracks (B6)                  | Recent Iron Reduction in Tilled Soil (C6)  |   | Saturation Visible on Aerial Imagery (C9) |
| Inundation Visible on Aerial Imagery (B7) | Thin Muck Surface (C7)                     |   | Shallow Aquitard (D3)                     |
| Water Stained Leaves (B9)                 | Other (Explain in Remarks)                 | х | FAC-Neutral Test (D5)                     |
| ield Observations:                        |  |   |   |
| Surface Water Present? Yes                | No X Depth (inches):                       | _ | Wetland Hydrology Present?                |
| Vater Table Present? Yes                  | No X Depth (inches):                       | _ | Yes NoX                                   |
| Saturation Present? Yes                   | No X Depth (inches):                       |   |   |

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

#### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4.485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| roject/Site:             | Utah Lake                |                      | City/County:      | Utah Co.                 |   | Sampling Date:              | 7/9/2021                 |
|--------------------------|--------------------------|----------------------|-------------------|--------------------------|---|-----------------------------|--------------------------|
|                          | LRS                      |                      |                   |                          | State: Utah                                       | Sampling Point:             | 0709ground06             |
| vestigator(s):           | E.Casper, L.Wilder       |                      |                   |                          | Range: <u>0</u>                                   |                             |                          |
| andform: (hillslope, ter |                          |                      |                   |                          | convex, none):                                    |                             |                          |
| ubregion (LRR):          | MLRA 28                  | BA; LRR D            | _                 |                          | Long111.721                                       | 884 Datum: <u>\</u>         | VGS84                    |
| oil Map Unit Name:       |                          |                      | Beaches           |                          | N   | WI Classification: <u>I</u> | PEM1F                    |
| re climatic/hydrologic   | conditions on the site   | typical for ti       | ime of year?      | Yes                      | No X (If no                                       | o, explain in the Re        | marks)                   |
| re Vegetation            | ,Soil                    | ,or Hy               | /drology          | significantly disturbe   | ed?   |                             |                          |
| re Vegetation            | ,Soil                    | or Hy,               | /drology          | _naturally problemation  | c?  |                             |                          |
| re Normal Circumstan     | ces Present?             | Yes                  | No <u>X</u>       | _(If needed, explain a   | any answers in Remarks                            | 5)                          |                          |
| UMMARY OF FIN            | DINGS - Attach           | site map             | showing sa        | mpling point loca        | itions, transects, i                              | mportant featu              | res, etc.                |
| Hydrophytic              | Vegetation Present?      | Yes X                | No                | Is the Sam               | pled Area within a We                             | etland?                     |                          |
|                          | Hydric Soil Present?     | Yes X                | No                | Yes                      | <u>No X</u>                                       |                             |                          |
| Wetland                  | Hydrology Present?       | Yes                  | No <u>X</u>       |                          |   |                             |                          |
|                          |                          |                      |                   |                          |   |                             |                          |
| emarks:                  |                          |                      |                   |                          |   |                             |                          |
| lapped as PEM chang      | ed to PFO. Drought of    | conditions           |                   |                          |   |                             |                          |
|                          |                          |                      |                   |                          |   |                             |                          |
| EGETATION - Us           | e scientific nam         |                      |                   |                          | 1   |                             |                          |
| ree Stratum              | Plot size: r= 20'        | Absolute<br>% Cover  | Dominant          | Indicator Status         | Dominar   | co Tost Worksho             | .+                       |
| <u>ree Stratum</u>       | Plot size: <u>r= 30'</u> | <u>% Cover</u><br>40 | Species?          | Indicator Status<br>FACW | Dominan   | ce Test Workshee            | r.                       |
| 1. <u>Populus angu</u>   | SuiOlla                  | 40                   | Y                 | FACW                     | -   |                             |                          |
| 2.                       |                          |                      |                   |                          | Number of dominant                                | •                           | 2 (A)                    |
| 3.                       |                          |                      |                   |                          | OBL, FACW,  | or FAC:                     | <u>3</u> (A)             |
| 4.                       |                          |                      |                   |                          | Total number of do                                |                             |                          |
|                          |                          | 40                   | = Total Cover     |                          | across all  | strata:                     | <u>3</u> (B)             |
|                          |                          |                      |                   |                          | Percent of dominant                               | •                           |                          |
| apling/Shrub Stratum     |                          | _                    |                   | 51014                    | OBL, FACW,  |                             | 100% (A/B)               |
| 1. Populus angu          | stifolia                 | 5                    | Y                 | FACW                     | Prevalence Index We                               |                             |                          |
|                          |                          |                      |                   |                          | Total % cover of:                                 | •                           | <u> </u>                 |
|                          |                          |                      |                   |                          |   | x 1                         | 0                        |
| 4.                       |                          |                      |                   |                          | FACW species 85                                   |                             | 170                      |
| 5                        |                          |                      |                   |                          |   | x 3                         | 0                        |
|                          |                          | 5                    | = Total Cover     |                          | FACU species 0                                    |                             | 0                        |
|                          |                          |                      |                   |                          |   | x 5                         | 0                        |
| erb Stratum_             | Plot size: r= 5'         |                      |                   |                          | Column Total 85                                   | 5_(A)                       | <u>170</u> (B)           |
| 1. Phragmites au         | Istralis                 | 40                   | Y                 | FACW                     |   | Prevalence Index:           | 2.0 (B/A)                |
| 2.                       | <u> </u>                 |                      |                   |                          | Hydrophytic Vegetat                               | tion Indicators:            |                          |
| 3.                       | <u> </u>                 |                      |                   |                          | X 1 - Rapid Tes                                   |                             | egetation                |
| 4.                       | <u> </u>                 |                      |                   |                          | X 2 - Dominanc                                    |                             |                          |
| 5                        |                          |                      |                   |                          | X 3 - Prevalence                                  | _                           |                          |
| 6.                       |                          |                      |                   |                          |   | Hydrophytic Vegeta          | ,                        |
| 7                        |                          |                      |                   |                          | *Indicators of hydric s<br>unless disturbed or pr |                             | Irology must be present, |
| 8.                       |                          |                      |                   |                          |   |                             |                          |
|                          |                          | 40                   | = Total Cover     |                          | Hydrophytic Vegetat                               | tion Present?               |                          |
|                          |                          |                      |                   |                          |   |                             |                          |
| oody Vine Stratum        | Plot size: r= 30'        |                      |                   |                          | Yes   | <u>X</u> No                 |                          |
|                          |                          |                      |                   |                          |   |                             |                          |
|                          |                          |                      |                   |                          |   |                             |                          |
|                          |                          |                      | = Total Cover     |                          |   |                             |                          |
| 1.                       |                          | 0                    |                   |                          |   |                             |                          |
| 1<br>2                   | erb Stratum              |                      | er of Biotic Crus | st                       |   |                             |                          |

|          | Depth           | Matri          | ix         |            | Redox F   | eatures   |            |                     |        |  |
|----------|-----------------|----------------|------------|------------|-----------|-----------|------------|---------------------|--------|--|
|          | (inches)        | Color          | %          | Color      | %         | Type*     | Loc**      | Texture             |        | Remarks  |
|          | 0-10            | 10YR2/2        | 95         | 7x.5YR 4/6 | 5 5       | RM        | Both       | Loam / Clay         |        |  |
|          | 10-17           | 2.5Y 5/2       | 90         | 7.5YR 5/8  | 10        | RM        | Both       | Loam / Clay         |        |  |
|          |                 |                |            |            |           |           |            |                     |        |  |
|          |                 |                |            |            |           |           |            |                     |        |  |
|          |                 |                |            |            |           |           |            |                     |        |  |
| ype: C   | =Concentratio   | n, D=Depletic  | on, RM=    | Reduced M  | latrix, M | S=Mask    | ed Sand g  | rains **Location: P | L=Pore | e Lining, M=Matrix                                       |
| ydric S  | oil Indicators  | : (Applicable  | e to all I | LRRs, unle | ss othe   | wise no   | oted)      |                     |        | Indicators for Problematic Hydric Soils ***              |
|          | Histosol (A1)   |                |            | Í          |           | Redox (   |            |                     |        | 1 cm Muck (A9) (LRR C)                                   |
|          | Histic Epipedo  | on (A2)        |            |            | Strippe   | d Matrix  | (S6)       |                     |        | 2 cm Muck (A10) <b>(LRR B)</b>                           |
|          | Black Histic (A | 43)            |            |            | Loamy     | Mucky N   | Mineral (F | 1)                  |        | Reduced Vertic (F18)                                     |
|          | Hydrogen Sul    | fide (A4)      |            |            | Loamy     | Gleyed    | Matirx (F2 | ?)                  |        | Red Parent Material (TF2)                                |
|          | Stratified Laye | ers (A5) (LRR  | RC)        | Х          | Deplete   | ed Matrix | k (F3)     |                     |        | Other (Explain in Remarks)                               |
|          | 1 cm Muck (A    | 9) (LRR D)     |            |            |           |           | rface (F6) |                     |        |  |
|          | Depleted Below  | v Dark Surface | e (A11)    |            | Deplete   | ed Dark   | Surface (F | 7)                  |        |  |
|          | Thick Dark Su   | urface (A12)   |            |            | Redox     | Depress   | sions (F8) |                     |        |  |
|          | Sandy Mucky     | Mineral (S1)   |            |            | Vernal    | Pools (F  | 9)         |                     |        | *** Indicators of hydrophytic vegetation and wetland     |
|          | Sandy Gleyed    | d Matrix (S4)  |            |            |           |           |            |                     | hyd    | rology must be present, unless disturbed or problemation |
| estricti | ive Layer (if o | bserved)       |            |            |           |           |            |                     |        |  |
|          | Туре:           |                |            |            |           |           |            |                     |        |  |
| Dept     | h (inches):     |                |            |            |           | _         | Hydric So  | il Present?         | Yes    | X No   |
|          |                 |                |            |            |           |           |            |                     |        |  |

## HYDROLOGY

| Primary Indicators (minimum               | f one is require; check all that apply)    | Secondary Indicators (2 or more required) |  |  |
|---|--|---|--|--|
| Surface Water (A1)                        | Salt Crust (B11)                           | Water Marks (B1) (Riverine)               |  |  |
| High Water Table (A2)                     | Biotic Crust (B12)                         | Sediment Deposits (B2) (Riverine)         |  |  |
| Saturation (A3)                           | Aquatic Fauna (B13)                        | Drift Deposits (B3) (Riverine)            |  |  |
| Water Marks (B1) (Nonriverine)            | Hydrogen Sulfide Odor (C1)                 | Drainage Patterns (B10)                   |  |  |
| Sediment Deposits (B2) (Nonriverine)      | Oxidized Rhizospheres on Living Roots (C3) | Dry-Season Water Table (C2)               |  |  |
| Drift Deposits (B3) (Nonriverine)         | Presence of Reduced Iron (C4)              | Crayfish Burrows (C8)                     |  |  |
| Surface Soil Cracks (B6)                  | Recent Iron Reduction in Tilled Soil (C6)  | Saturation Visible on Aerial Imagery (C9) |  |  |
| Inundation Visible on Aerial Imagery (B7) | Thin Muck Surface (C7)                     | Shallow Aquitard (D3)                     |  |  |
| Water Stained Leaves (B9)                 | Other (Explain in Remarks)                 | FAC-Neutral Test (D5)                     |  |  |
| ield Observations:                        |  |   |  |  |
| Surface Water Present? Yes                | No X Depth (inches):                       | Wetland Hydrology Present?                |  |  |
| Vater Table Present? Yes                  | No X Depth (inches):                       | Yes NoX                                   |  |  |
| Saturation Present? Yes                   | No X Depth (inches):                       |   |  |  |

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

#### --See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4,485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the results of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day Rolling Total was located at the below the 30-Year Normal Range.

| Project/S | ite <sup>.</sup> | Utah Lake                |                     | City/County:         | Utah Co                |   | Sampling Date:        | 7/9/2021                 |
|-----------|------------------|--------------------------|---------------------|----------------------|------------------------|---|-----------------------|--------------------------|
| Applicant |                  | LRS                      | ,                   | ony/oounty.          |                        | State: Utah   | -                     | 0709ground07             |
| nvestiga  |                  | E.Casper, L.Wilder       |                     |                      | Section, Township,     |   |                       | oroogroundor             |
| 0         | ( )              | rrace, etc.):            |                     |                      |                        | convex, none):  | None                  | Slope (%): 10-25%        |
|           | n (LRR):         |                          |                     |                      |                        | Long111.742   |                       |                          |
| -         | Unit Name:       |                          |                     |                      | eat                    |   | IWI Classification: F |                          |
| •         |                  | conditions on the site   | typical for ti      |                      |                        |   | o, explain in the Re  |                          |
| Are Vege  | , ,              |                          |                     |                      | significantly disturbe |   | , I                   | ,                        |
| Are Vege  |                  |                          |                     |                      | naturally problemation |   |                       |                          |
| Are Norm  | al Circumstar    |                          |                     |                      |                        | ny answers in Remark                                  | s)                    |                          |
| SUMMA     | ARY OF FIN       |                          |                     |                      |                        | tions, transects, i                                   |                       | res. etc.                |
|           |                  | Vegetation Present?      |                     |                      |                        | pled Area within a W                                  |                       | ,                        |
|           |                  | Hydric Soil Present?     |                     |                      |                        | NoX   |                       |                          |
|           | Wetland          | d Hydrology Present?     |                     |                      |                        |   |                       |                          |
|           |                  |                          |                     |                      | _                      |   |                       |                          |
| Remarks   | :                |                          |                     |                      |                        |   |                       |                          |
| Drought   | conditions       |                          |                     |                      |                        |   |                       |                          |
|           |                  |                          |                     |                      |                        |   |                       |                          |
| VEGET     | ATION - Us       | se scientific name       | es of plan          | its                  |                        | 1   |                       |                          |
| Tree Stra | tum              | Plot size: r= 30'        | Absolute<br>% Cover | Dominant<br>Species? | Indicator Status       | Dominar   | nce Test Workshee     | st                       |
| 1.        |                  |                          |                     | •                    |                        | Dominar   | ice rest workshee     | FL                       |
| 2.        |                  |                          |                     |                      |                        |   |                       |                          |
| 3.        |                  |                          |                     |                      |                        | <ul> <li>Number of dominant<br/>OBL, FACW</li> </ul>  |                       | 2 (A)                    |
| 4.        |                  |                          |                     |                      |                        |   | · _                   | (7)                      |
| •         |                  |                          | 0                   | = Total Cover        |                        | <ul> <li>Total number of do<br/>across all</li> </ul> |                       | 2 (B)                    |
|           |                  |                          |                     |                      |                        |   | -                     | ( )                      |
| Sapling/S | hrub Stratum     | Plot size: r= 30'        |                     |                      |                        | Percent of dominant<br>OBL, FACW                      |                       | 100% (A/B)               |
| 1.        |                  |                          |                     |                      |                        | Prevalence Index W                                    |                       |                          |
| 2.        |                  |                          |                     |                      |                        | Total % cover of:                                     | Multipl               | y by:                    |
| 3.        |                  |                          |                     |                      |                        | OBL species 6   | 0 x 1                 | 60                       |
| 4.        |                  |                          |                     |                      |                        | FACW species 2  | 5 x 2                 | 50                       |
| 5.        |                  |                          |                     |                      |                        | FAC species 1   | 5 x 3                 | 45                       |
|           |                  |                          | 0                   | = Total Cover        |                        | FACU species 5  | 5 x 4                 | 20                       |
|           |                  |                          |                     |                      |                        | UPL species 0   | ) x 5                 | 0                        |
| Herb Stra | <u>itum</u>      | Plot size: r= 5'         |                     |                      |                        | Column Total 10                                       | <u>)5 (</u> A)        | <u>175</u> (B)           |
| 1.        | Typha angust     | ifolia                   | 40                  | Y                    | OBL                    |   | Prevalence Index:     | 1.7 (B/A)                |
| 2.        | Schoenoplect     | us acutus                | 20                  | Y                    | OBL                    | Hydrophytic Vegeta                                    | tion Indicators:      |                          |
| 3.        | Polypogon m      | onspeliensis             | 15                  | N                    | FACW                   | X 1 - Rapid Te  | st for Hydrophytic V  | egetation                |
| 4.        | Urtica dioica    |                          | 10                  | N                    | FAC                    | X 2 - Dominan   | ce Test is >50%       |                          |
| 5.        | Mentha arven     | sis                      | 10                  | N                    | FACW                   | X 3 - Prevalence                                      | —                     |                          |
| 6.        | Chenopodium      | n album                  | 5                   | N                    | FACU                   |   | Hydrophytic Vegeta    |                          |
| 7.        | Lepidium latif   | olium                    | 5                   | <u>N</u>             | FAC                    | *Indicators of hydric s<br>unless disturbed or p      |                       | frology must be present, |
| 8.        |                  | <u> </u>                 |                     |                      |                        |   |                       |                          |
|           |                  |                          | 105                 | = Total Cover        |                        | Hydrophytic Vegeta                                    | tion Present?         |                          |
|           |                  |                          |                     |                      |                        |   |                       |                          |
| Noody V   | ine Stratum      | Plot size: <u>r= 30'</u> |                     |                      |                        | Yes   | <u>X</u> No           |                          |
| 1.        |                  |                          |                     |                      |                        | 4   |                       |                          |
| 2.        |                  |                          |                     |                      |                        | 4   |                       |                          |
|           |                  |                          |                     | = Total Cover        |                        |   |                       |                          |
| % Bai     | re Ground in H   | lerb Stratum             | % Cove              | er of Biotic Crus    | st                     |   |                       |                          |
|           |                  | list morphological ad    | aptations be        | low).                |                        |   |                       |                          |
| .arge sta | nds of PHAU      | present in wetland       |                     |                      |                        |   |                       |                          |
|           |                  |                          |                     |                      |                        |   |                       |                          |

| onie Description  | : (Describe to  | depth ne  | eded to  | locumer   | t the in   | dicator o   | r confirm absence              | e of indi   | cators.)  |  |  |
|---|---|---|--|---|--|---|--------------------------------|---|---|--|--|
| Depth   | Matr  | rix   |  | Redox F   | eatures  | -   |                                |   |   |  |  |
| (inches   | ) Color   | %   | Color  | %   | Type*  | Loc**   | Texture                        |   | Remarks   |  |  |
| 0-20  | 2,5Y 3/2  | 100   |  |   |  |   | Loam / Clay                    |   |   |  |  |
|   |   |   |  |   |  |   |                                |   |   |  |  |
|   |   |   |  |   |  |   |                                |   |   |  |  |
|   |   |   |  |   |  |   |                                |   |   |  |  |
|   |   |   |  |   |  |   |                                |   |   |  |  |
|   |   |   |  |   |  |   |                                | _   |   |  |  |
|   |   |   |  |   |  |   |                                | _   |   |  |  |
|   | tion D-Douloti  |   |  | A - Anite - 10.44   | 2-141-   | d O and a   | **!                            |   | - Lining NA-NA-Arity  |  |  |
|   |   |   |  |   |  |   | grains **Location:             | PL=Por  | e Lining, M=Matrix  |  |  |
| dric Soil Indicat   |   | le to all L   | .RRs, unle   |   |  |   |                                | _   | Indicators for Problematic Hydric Soils ***   |  |  |
| Histosol (A   |   |   |  |   | Redox (  |   |                                |   | 1 cm Muck (A9) (LRR C)  |  |  |
|   | edon (A2)   |   |  |   | d Matrix   | ( )   | 0                              |   | 2 cm Muck (A10) <b>(LRR B)</b><br>Reduced Vertic (F18)  |  |  |
| Black Histi   | . ,   |   |  | -   | -  | /lineral (F   |                                |   | Red Parent Material (TF2)   |  |  |
| · · · ·   | Sulfide (A4)  |   |  | -   |  | Matirx (F:  | 2)                             |   | Other (Explain in Remarks)  |  |  |
|   | ayers (A5) (LRF   | KC)   |  |   | ed Matrix  | . ,   | <u>,</u>                       |   |   |  |  |
|   | (A9) (LRR D)  | (8.4.4)   |  |   |  | rface (F6   |                                | _   |   |  |  |
|   | Depleted Below Dark Surface (A11)         Depleted D           Thick Dark Surface (A12)         Redox Dep           Sandy Mucky Mineral (S1)         Vernal Poo   |   |  |   |  |   | -7)                            | _   |   |  |  |
|   |   |   |  |   |  | . ,   |                                |   | *** Indicators of hydrophytic vegetation and wetland<br>hydrology must be present, unless disturbed or problema   |  |  |
| Sandy wu  |   |   |  |   |  | 9)  |                                | byd   |   |  |  |
|   |   |   |  |   | -  | lydric So   | bil Present?                   |   | NoX   |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:   | if observed)  |   | ninated by   | wetland   | -  | Hydric So   | bil Present?                   |   |   |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>chnically soils no   | if observed)  |   | ninated by   | wetland   | -  | Hydric Se   | bil Present?                   |   |   |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>echnically soils no<br>YDROLOGY  | t present but we  |   | ninated by   | wetland   | -  | Hydric So   | bil Present?                   |   |   |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>echnically soils no<br>YDROLOGY<br>etland Hydrology  | t present but we  | atland dor  |  |   | plants   |   | bil Present?                   |   | NoX   |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>echnically soils no<br>YDROLOGY<br>etland Hydrology<br>Prima   | t present but we  | atland dor  | f one is re  | quire; che  | plants   |   | bil Present?                   | Yes   | No X  |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>achnically soils no<br>YDROLOGY<br>etland Hydrology<br>Prima<br>Surface W  | t present but we y Indicators: ry Indicators (mi fater (A1)   | atland dor  | f one is re  | quire; cho<br>Crust (B  | plants<br>eck all th   |   | bil Present?                   | Yes   | No X  |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>echnically soils no<br>YDROLOGY<br>etland Hydrology<br>Prima<br>Surface W<br>High Wate   | t present but we y Indicators: ry Indicators (mi 'ater (A1) r Table (A2)  | atland dor  | f one is re<br>Salt<br>Biot  | quire; che<br>Crust (B<br>ic Crust (  | plants<br>eck all th<br>11)<br>B12)  | at apply)   | bil Present?                   | Yes<br>Wate<br>Sedi   | NoX<br>Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)<br>ment Deposits (B2) (Riverine)   |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>echnically soils no<br>YDROLOGY<br>etland Hydrology<br>Prima<br>Surface W<br>High Wate<br>Saturation   | t present but we y Indicators: ry Indicators (mi later (A1) r Table (A2) (A3)   | inimum o  | f one is re<br>Salt<br>Biot  | quire; che<br>Crust (B<br>ic Crust (<br>atic Faur   | plants<br>eck all th<br>11)<br>B12)<br>a (B13)   | at apply)   | bil Present?                   | Yes<br>Watu<br>Sedi   | NoX<br>Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)<br>ment Deposits (B2) (Riverine)<br>Deposits (B3) (Riverine)   |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>echnically soils no<br>YDROLOGY<br>fetland Hydrology<br>Prima<br>Surface W<br>High Wate<br>Saturation<br>Water Mar   | t present but we y Indicators: ry Indicators (mi 'ater (A1) r Table (A2) (A3) 'ks (B1) (Nonrive   | inimum o  | f one is re<br>Salt<br>Biot<br>Aqu<br>Hyd                                      | quire; che<br>Crust (B<br>ic Crust (<br>atic Faur<br>rogen Su   | plants<br>eck all th<br>11)<br>B12)<br>na (B13)<br>ilfide Od   | at apply)   |                                | Yes<br>Wate<br>Sedi<br>Drift<br>Drai  | NoX<br>Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)<br>ment Deposits (B2) (Riverine)<br>Deposits (B3) (Riverine)<br>nage Patterns (B10)  |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>echnically soils no<br>YDROLOGY<br>etland Hydrology<br>Prima<br>Surface W<br>High Wate<br>Saturation<br>Water Mar<br>Sediment D  | t present but we y Indicators: ry Indicators (mi 'ater (A1) r Table (A2) (A3) rks (B1) (Nonrive eposits (B2) (Nonri   | inimum o  | f one is re<br>Salt<br>Biot<br>Aqu<br>Hyd<br>Oxid                              | quire; cho<br>Crust (B<br>ic Crust (<br>atic Faur<br>rogen Su<br>ized Rhiz  | plants<br>eck all th<br>11)<br>B12)<br>na (B13)<br>Ilfide Od<br>ospheres   | at apply)<br>or (C1)<br>on Living   | Roots (C3)                     | Yes<br>Wate<br>Sedi<br>Drift<br>Draii<br>Dry-                               | NoX<br>Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)<br>ment Deposits (B2) (Riverine)<br>Deposits (B3) (Riverine)<br>nage Patterns (B10)<br>Season Water Table (C2)   |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>echnically soils no<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>High Water Mar<br>Saturation<br>Water Mar<br>Sediment D<br>Drift Depo   | t present but we<br>y Indicators:<br>ry Indicators (mi<br>'ater (A1)<br>r Table (A2)<br>(A3)<br>'ks (B1) (Nonrive<br>eposits (B2) (Nonri  | inimum o  | f one is re<br>Salt<br>Biot<br>Aqu<br>Hyd<br>Oxic<br>Pre                       | quire; cho<br>Crust (B<br>ic Crust (<br>atic Faur<br>rogen Su<br>ized Rhiz<br>sence of                                      | plants<br>eck all th<br>11)<br>B12)<br>na (B13)<br>lifide Od<br>ospheres<br>Reduced                                      | at apply)   | Roots (C3)                     | Yes<br>Wate<br>Sedi<br>Drift<br>Drai<br>Dry-<br>Cray                        | NoX<br>NoX<br>  |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>echnically soils no<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>YDROLOGY<br>Surface W<br>High Water Mar<br>Sediment D<br>Drift Depo<br>Surface So | t present but we y Indicators: ry Indicators (mi 'ater (A1) r Table (A2) (A3) rks (B1) (Nonrive eposits (B2) (Nonri   | etland dor<br>inimum o<br>erine)<br>iverine)<br>rerine)               | f one is re<br>Salt<br>Biot<br>Aqu<br>Hyc<br>Oxic<br>Pre<br>Rec                | quire; cho<br>Crust (B<br>ic Crust (<br>atic Faur<br>rogen Su<br>ized Rhiz<br>sence of                                      | plants<br>eck all th<br>11)<br>B12)<br>na (B13)<br>Ilfide Od<br>ospheres<br>Reduced                                      | at apply)<br>or (C1)<br>on Living<br>I Iron (C4<br>in Tilled                  | Roots (C3)                     | Yes<br>Wate<br>Sedi<br>Drift<br>Draii<br>Dry-<br>Cray<br>Satu               | NoX<br>NoX<br>Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)<br>ment Deposits (B2) (Riverine)<br>Deposits (B3) (Riverine)<br>Deposits (B3) (Riverine)<br>mage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>rration Visible on Aerial Imagery (C9) |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>echnically soils no<br>YDROLOGY<br>etland Hydrology<br>Prima<br>Surface W<br>High Water<br>Saturation<br>Water Mar<br>Sediment D<br>Drift Depo<br>Surface Se<br>Inundation   | t present but we<br>y Indicators:<br>ry Indicators (mi<br>'ater (A1)<br>r Table (A2)<br>(A3)<br>'ks (B1) (Nonrive<br>eposits (B2) (Nonriv<br>sits (B3) (Nonriv  | etland dor<br>inimum o<br>erine)<br>iverine)<br>rerine)               | f one is re<br>Salt<br>Biot<br>Aqu<br>Hyd<br>Oxio<br>Pre<br>Rec<br>Thir        | quire; che<br>Crust (B<br>ic Crust (<br>atic Faur<br>rogen Su<br>ized Rhiz<br>sence of<br>ent Iron R<br>Muck Si             | plants<br>eck all th<br>11)<br>B12)<br>na (B13)<br>Ilfide Od<br>ospheres<br>Reduced<br>Reduced                           | at apply)<br>or (C1)<br>on Living<br>d Iron (C4<br>in Tilled                  | Roots (C3)                     | Yes<br>Wate<br>Sedi<br>Drift<br>Drain<br>Dry-<br>Cray<br>Satu<br>Shat       | NoX<br>NoX<br>Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)<br>ment Deposits (B2) (Riverine)<br>Deposits (B3) (Riverine)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>irration Visible on Aerial Imagery (C9)<br>low Aquitard (D3)       |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>echnically soils no<br>YDROLOGY<br>Yetland Hydrology<br>Prima<br>Surface W<br>High Wate<br>Saturation<br>Water Mar<br>Sediment D<br>Drift Depo<br>Surface Sc<br>Inundation   | t present but we<br>y Indicators:<br>ry Indicators (mi<br>ater (A1)<br>r Table (A2)<br>(A3)<br>(ks (B1) (Nonrive<br>eposits (B2) (Nonriv<br>sits (B3) (Nonriv<br>bil Cracks (B6)<br>Visible on Aerial Ima<br>ined Leaves (B9)       | etland dor<br>inimum o<br>erine)<br>iverine)<br>rerine)               | f one is re<br>Salt<br>Biot<br>Aqu<br>Hyd<br>Oxio<br>Pre<br>Rec<br>Thir        | quire; che<br>Crust (B<br>ic Crust (<br>atic Faur<br>rogen Su<br>ized Rhiz<br>sence of<br>ent Iron R                        | plants<br>eck all th<br>11)<br>B12)<br>na (B13)<br>Ilfide Od<br>ospheres<br>Reduced<br>Reduced                           | at apply)<br>or (C1)<br>on Living<br>d Iron (C4<br>in Tilled                  | Roots (C3)<br>)<br>Soil (C6) X | Yes<br>Wate<br>Sedi<br>Drift<br>Drain<br>Dry-<br>Cray<br>Satu<br>Shat       | NoX<br>NoX<br>Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)<br>ment Deposits (B2) (Riverine)<br>Deposits (B3) (Riverine)<br>Deposits (B3) (Riverine)<br>mage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>rration Visible on Aerial Imagery (C9) |  |  |
| estrictive Layer (<br>Type:<br>Depth (inches):<br>emarks:<br>echnically soils no<br>YDROLOGY<br>etland Hydrology<br>Prima<br>Surface W<br>High Water<br>Saturation<br>Water Mar<br>Sediment D<br>Drift Depo<br>Surface Se<br>Inundation   | t present but we<br>y Indicators:<br>ry Indicators (mi<br>'ater (A1)<br>r Table (A2)<br>(A3)<br>'ks (B1) (Nonrive<br>eposits (B2) (Nonriv<br>sits (B3) (Nonriv<br>bil Cracks (B6)<br>Visible on Aerial Ima<br>ined Leaves (B9<br>s: | etland dor<br>inimum o<br>erine)<br>iverine)<br>rerine)<br>agery (B7) | f one is re<br>Salt<br>Biot<br>Aqu<br>Hyd<br>Oxic<br>Pre<br>Rec<br>Thir<br>Oth | quire; che<br>Crust (B<br>ic Crust (<br>atic Faur<br>rogen Su<br>ized Rhiz<br>sence of<br>ent Iron R<br>Muck S<br>er (Expla | plants<br>eck all th<br>11)<br>B12)<br>a (B13)<br>lifide Od<br>ospheres<br>Reduced<br>Reductor<br>urface (C<br>in in Rer | at apply)<br>or (C1)<br>on Living<br>d Iron (C4<br>in Tilled<br>C7)<br>narks) | Roots (C3)<br>)<br>Soil (C6) X | Yes<br>Wate<br>Sedi<br>Drift<br>Drai<br>Dry-<br>Cray<br>Satu<br>Shal<br>FAC | NoX<br>NoX<br>Secondary Indicators (2 or more required)<br>er Marks (B1) (Riverine)<br>ment Deposits (B2) (Riverine)<br>Deposits (B3) (Riverine)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>irration Visible on Aerial Imagery (C9)<br>low Aquitard (D3)       |  |  |

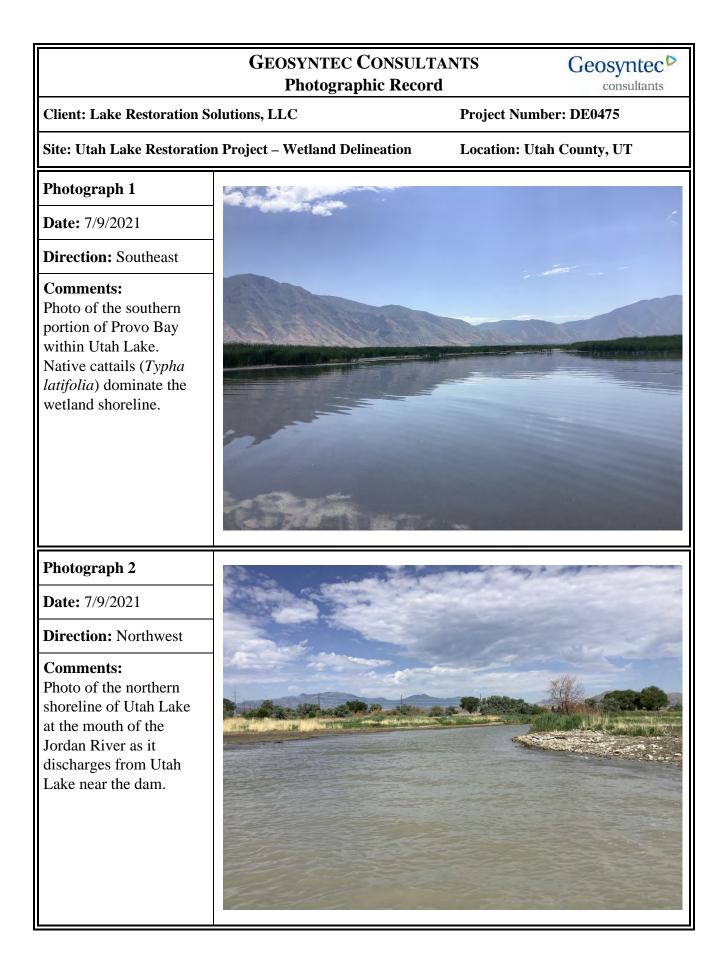
(includes capillary fringe)

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

--See Climatic Summary Below--

The field surveys were conducted during July 6-11, 2021 during a period in which the region had received significantly less than normal rainfall amounts with a June month-to-date (a 0.00" deficit from a 0.08" normal value). In fact, only a single 0.07" rainfall event (on 06/24/21) was recorded between 05/25 through the end of the survey date. The observed Year-to-Date amount was 6.64" which is a -3.36" deficient according to the National Weather Service PROVO BYU, UT climate station. Based on the Central Utah Water Conservancy District the lake elevation was 4,485.346 which is -3.6995' below the Compromise Line elevation. A review of regional drought conditions from the website droughtmonitor.gov indicated drought conditions existed for the survey area and the county was classified as D4 - Exceptional Drought. Furthermore, based on the result of the climate analysis using the Antecedent Precipitation Tool (Deter, USACE v.1.0.13) the calculated output for the project area was experiencing "Drier than Normal - 6" value with the graphic indicating the 30-day ROMING as located at the below the 30-Year Normal Range.

APPENDIX C Photographic Log



# **GEOSYNTEC CONSULTANTS Photographic Record**



**Client: Lake Restoration Solutions, LLC** 

## **Project Number: DE0475**

Site: Utah Lake Restoration Project – Wetland Delineation

Location: Utah County, UT

## Photograph 3

Date: 7/9/2021

**Direction:** West

## **Comments:**

Photo of the heavily developed north-western portion of Utah Lake near Saratoga Springs.



## Photograph 4

Date: 7/8/2021

**Direction:** Southeast

## **Comments:**

Photo of mouth of Spanish Fork as it discharges into Utah Lake.



# GEOSYNTEC CONSULTANTS Photographic Record



consultants

**Client: Lake Restoration Solutions, LLC** 

## **Project Number: DE0475**

Site: Utah Lake Restoration Project – Wetland Delineation

Location: Utah County, UT

## Photograph 5

Date: 7/10/2021

**Direction:** Southeast

## **Comments:**

Photo of upper Goshen Bay within Utah Lake that is little developed with the exception of agricultural orchard growers. Note, the highly invasive weed Phragmites (*Phragmites australis*) along the shoreline has been recently treated. The West Mountains can be seen in the background.

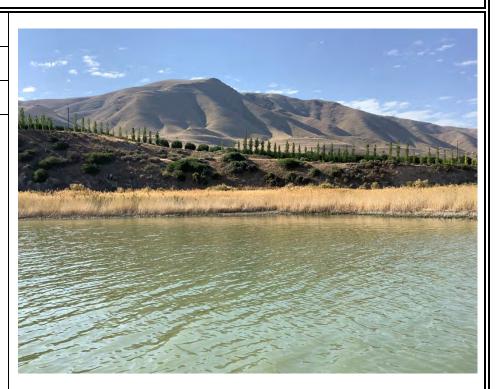
## Photograph 6

Date: 7/11/2021

**Direction:** N/A

## **Comments:**

Photo of treated Phragmites along the upper shoreline of the western portion of Goshen Bay.

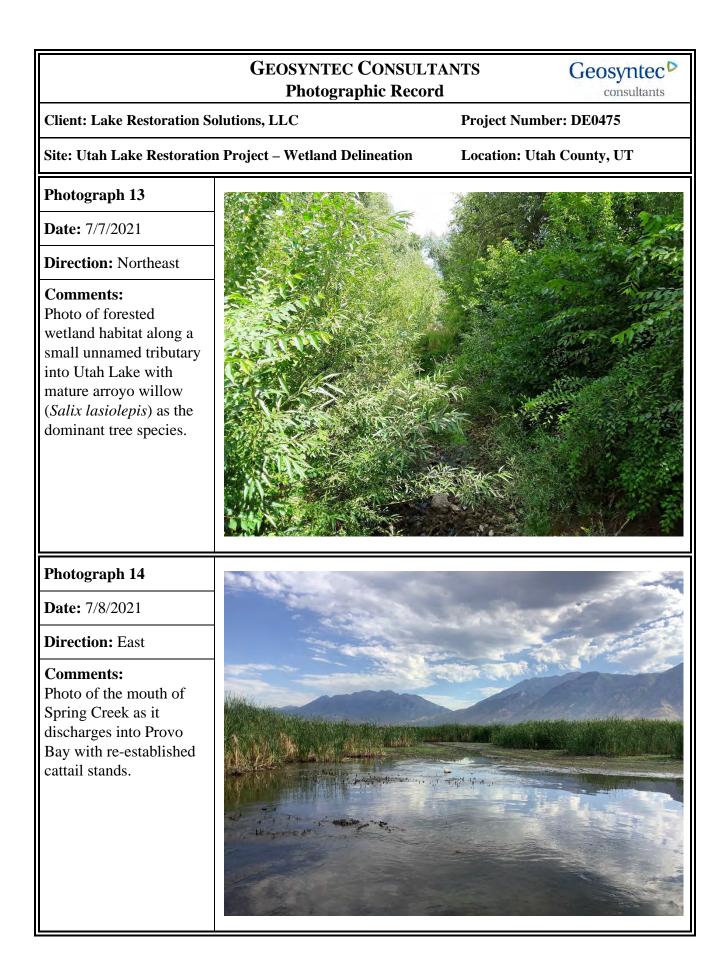


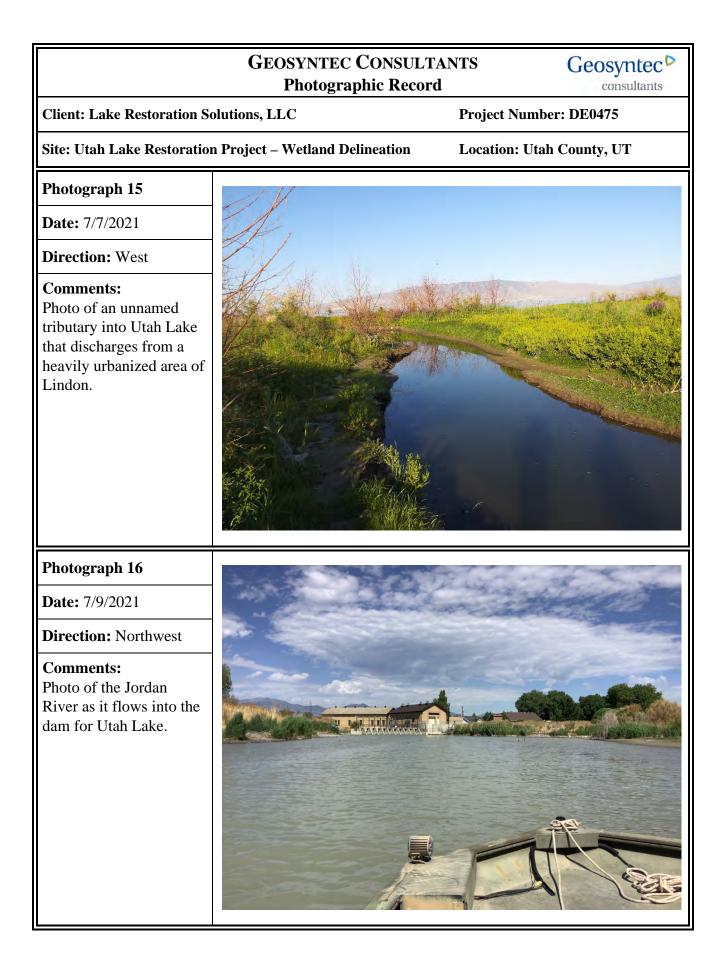


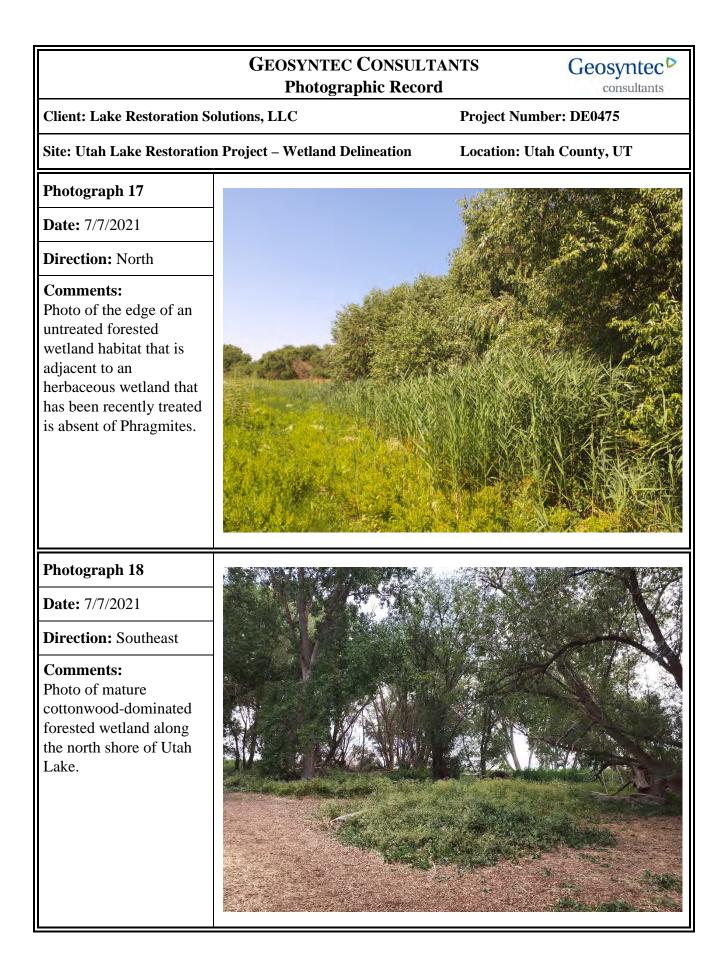
# **GEOSYNTEC CONSULTANTS** Geosyntec<sup>▷</sup> **Photographic Record** consultants **Client: Lake Restoration Solutions, LLC Project Number: DE0475** Site: Utah Lake Restoration Project – Wetland Delineation Location: Utah County, UT Photograph 7 Date: 7/8/2021 **Direction:** West **Comments:** Photo of large areas of treated Phragmites within the shallows of Provo Bay. Photograph 8 Date: 7/10/2021 **Direction:** N/A **Comments:** Photo of the rocky shoreline and narrow forested wetland habitat along the western shoreline of Utah Lake. Dominate trees include cottonwood (Populus angustifolia), saltcedar (Tamarix sp.), and Russian olive (Elaeagnus angustifolia).

# **GEOSYNTEC CONSULTANTS** Geosyntec<sup>▷</sup> **Photographic Record** consultants **Client: Lake Restoration Solutions, LLC Project Number: DE0475** Site: Utah Lake Restoration Project – Wetland Delineation Location: Utah County, UT **Photograph 9** Date: 7/8/2021 **Direction:** West **Comments:** Photo of the western shoreline of Utah Lake with narrow forested wetland habitat along the shoreline. Phragmites has been treated in this area and the native hardstem club rush (Schoenoplectus actus) is becoming the dominant herbaceous species. Photograph 10 **Date:** 7/8/2021 **Direction:** Northeast **Comments:** Photo of a shoreline that has been recently treated for Phragmites and the standing stems have been removed by chopping.

# Geosyntec Consultants **GEOSYNTEC CONSULTANTS Photographic Record Client: Lake Restoration Solutions, LLC Project Number: DE0475** Site: Utah Lake Restoration Project – Wetland Delineation Location: Utah County, UT Photograph 11 Date: 7/8/2021 **Direction:** North **Comments:** Photo of fully reestablished native stands of hard-stem club rush following past treatment of Phragmites. Photograph 12 Date: 7/8/2021 **Direction:** South **Comments:** Photo of fully reestablished native stands of cattail within Provo Bay following Phragmites treatment.







# **GEOSYNTEC CONSULTANTS Photographic Record**

Geosyntec Consultants

**Client: Lake Restoration Solutions, LLC** 

## **Project Number: DE0475**

Site: Utah Lake Restoration Project – Wetland Delineation

Location: Utah County, UT

## Photograph 19

Date: 7/7/2021

**Direction:** Northeast

## **Comments:**

Photo of small unnamed tributary and adjacent forested wetland habitat along the north shore of Utah Lake.

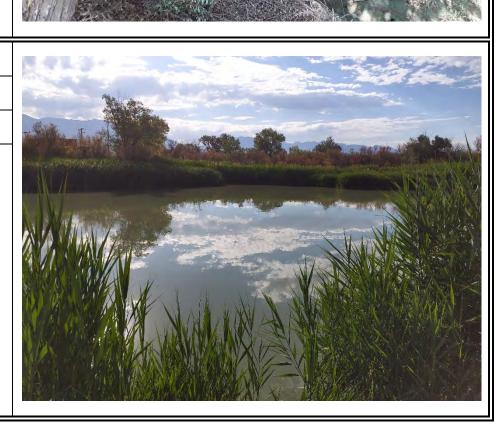
# Photograph 20

**Date:** 7/8/2021

**Direction:** West

## **Comments:**

Photo of shallow pond that is invaded by stands of Phragmites.



# **GEOSYNTEC CONSULTANTS** Geosyntec<sup>D</sup> **Photographic Record** consultants **Client: Lake Restoration Solutions, LLC Project Number: DE0475 Site: Utah Lake Restoration Project – Wetland Delineation** Location: Utah County, UT Photograph 21 Date: 7/9/2021 **Direction:** East **Comments:** Photo from the western shoreline of Utah Lake showing the saltcedarand Russian olivedominated forested wetland habitat along the shoreline. Photograph 22 **Date:** 7/9/2021 **Direction:** Northeast **Comments:** Photo of a dry saltflat in the Goshen Valley that is typically of shallow habitats affected by the drought climatic conditions.