AQUATIC RESOURCE DELINEATION REPORT

303.14-Acre Undeveloped Agricultural Property

Allred Family Property (SOA Investments, LTD) North 3600 West St. Lehi, Utah

June 15, 2016

Prepared for: Prepared by:

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EXECUTIVE SUMMARY

An aquatic resource delineation was conducted on an area of concern on a parcel of property approximately 303.14-acres in size located on North 3600 West Street in Lehi, Utah County, Utah (Section 11 & 12, Township 5 South, Range 1 West SLB&M).

This aquatic resource delineation was conducted according to the guidelines and procedures outlined in the U.S. Army Corps of Engineers' (ACOE) *Wetlands Delineation Manual* (*Technical Report Y-87-1*) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*, September, 2008.

In addition, this delineation was performed in accordance with the guidelines and procedures outlined in the U.S. Army Corps of Engineers' (ACOE) A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, August 2008.

The results of this investigation suggest the Project Area (PA) contains the following:

Wet meadow wetlands: 13.33-acres
Open Fresh water pond: 1.5-acres
Water courses: 2,123 linear feet

In addition there is approximately 0.12-acres of recently filled wetlands in the PA.

The dominant resource classification for the resource on the PA is wet meadow, palustrine emergent. The condition of the resources at the time of the field investigation would be considered fair to poor due mainly from livestock grazing.

The final determination of this investigation is subject to confirmation by representatives of the U.S. Army Corps of Engineers and/or other pertinent regulatory staff.

ACRONYMS AND ABBREVIATIONS

BMP best management practice cfs cubic feet per second

LIDAR Light Detection and Ranging

LWD large woody debris

MP Mile Post

NRCS Natural Resources Conservation Service

NWI National Wetland InventoryNWPL National Wetland Plant ListOHWM ordinary high water mark

PA Project Area

PEM palustrine emergent
PFO palustrine forested
PSS palustrine scrub-shrub

ROW right-of-way SR State Route

USACE U.S. Army Corps of Engineers USFWS U.S. Fish and Wildlife Service

UTM Universal Transverse Mercator coordinate system

WRIA Water Resource Inventory Area

[add or delete acronyms and abbreviations as needed]

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1.0 Introduction

A aquatic resource delineation was conducted on an undeveloped, agricultural parcel of property approximately 303.14-acres in size located on North 3600 West Street in Lehi, Utah.

This delineation was performed at the request of the D.R. Horton (applicant). Contact information for the applicant is as follows:

The property owner and applicant contact information is:

Property Owner: SOA Investments Address: 166 West 10 South

Lehi, Utah

Applicant: John Linton, DR Horton

Address: 12351 Gateway Park Place, Suite 100

Draper, Utah 84020

Phone: 385-225-0081

Email: jblinton@drhorton.com

The purpose of this report is to identify and describe aquatic resources and, to identify known possible sensitive plant, fish, wildlife species, and cultural/historic properties in the survey area. This report facilitates efforts to:

- 1. Avoid or minimize impacts to aquatic resources during the design process.
- 2. Document aquatic resource boundary determinations for review by regulatory authorities.
- 3. Provide early indications of known sensitive species and historic/cultural properties within the survey area.
- 4. Provide background information.

The U.S. Army Corps of Engineers (ACOE) and EPA define wetlands as areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Generally, saturated soil conditions are further described as saturated to the surface for at least two weeks during the normal growing season.

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2.0 LOCATION

The site is located in Lehi, Utah County, Utah. The property is bounded on the west by SR 68 (Redwood Road) and on the east by the Jordan River. North 3600 West St. transects the subject property in a north – south direction. The subject site is approximately 1.25-miles south of the west 2100 North Street/North 3600 West intersection.

The subject property is located in the city of Lehi, Utah. The address of the residence on the subject property is 8887 North 10400 West, Lehi, Utah. The subject property is located in Sections 11 & 12, Township 5 South, Range 1 West ,SLB&M. Latitude and Longitude coordinates for the subject property are UTM: Zone 12T, 422969.56 m E, 4471955.49 m N. Access to the subject property from the Bountiful ACOE office is as follows:

Head west on 2600 South St. to I-15 South. Continue on I-15 south for 33 miles to exit 282, 2100 North. Turn east on 2100 North and continue for approximately 2 miles. Turn south on N 3600 West Street. Continue on N 3600 West Street for approximately 1.25 miles. Subject property is located on both sides of the road.

A topographic map is presented in **Appendix B.**

Appendix A contains two figures that illustrate the PA with the data points depicted, the property boundary and includes the NWI map.

Land use in the surrounding area is agricultural; mainly pasture for livestock with some hay production. There are some residential uses in close proximity. The subject property is currently undeveloped.

Site photographs are presented in **Appendix C**.

2.1 Climatic Conditions

At the time of the field site investigation and data collection, April, 2016, climatic conditions at the PA were consistent with normal conditions for the area. The weather was clear, there was not recent history of precipitation. Much of the lower area that demonstrates aquatic resource characteristics is within the FEMA 100-year flood plain. This area is along the east boundary and adjacent to the Jordan River.

June 15, 2016

3.0 METHODS

This delineation was conducted according to the guidelines and procedures outlined in the US Army Corps of Engineers' in compliance with the *Wetlands Delineation Manual* (*Technical Report Y-87-1*) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*, September, 2008

Using this method, the upland areas are differentiated from wetland areas based on three parameters: vegetation, soils, and hydrologic features. At each data point, all of these parameters must exhibit wetland characteristics for that point to be within the wetland boundary. Dominant vegetation species at each data point were identified by visual estimation of coverage. Generally, any species with 20% cover or greater was considered a dominant species. However, the Wetland Delineation Manual specifies that for areas where only one layer of vegetation is present, five dominant species should be identified for each data point. Therefore, if five dominant species were not present at 20% cover, species with less cover were also noted, but not generally counted as dominants.

Soils were removed at each data point to depths ranging from 0 to 20 inches below ground surface. Soil moisture, texture, and color were observed, and any observations of organic content, mottles or gleyed soils were noted. Soils were moistened and compared to the Munsell Color Charts (Macbeth, 1990) for determination of value, chroma, and hue.

Hydrologic features were noted for each data point based primarily on depth to groundwater, surface water, soil moisture, and field observations for indications of hydrologic characteristics, such as water marks, drift lines, oxidized rhizospheres along living roots. Irrigation, seasonal influences, recent precipitation events, annual and long-term precipitation data, and historical information were also considered where available. As specified in the Wetlands Delineation Manual, information collected from each data point was recorded on data forms presented in **Appendix E**.

Ordinary High Water Mark identification was performed on April 4 and 22, 2016. Using US Army Corps of Engineers A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, August 2008 as a guide. Two onsite drainage features were evaluated for OHWM identification.

Drainage feature No. 1 is located along the north property boundary and consists of two segments. The source of the water in this feature is uncertain in that there is a buried tile pipe that originates west of the PA and collects water and transports it across the irrigated field on the PA. It is possible that this buried pipe has been constructed to collect groundwater from the fields and discharge it into the wetland area. This feature is perennial and flows continuously. The feature surfaces just west of the fence above the pasture area and discharges into the wetland area.

The second segement of this feature exits the wetland area and also flows easterly along the property boundary and discharges into the Jordan River. In addition to the flow from the wetland area, this segment also receives minor amounts of water from a stock-watering pond that is adjacent to the feature. The stock-watering pond is created from an artesian discharge into a piping system located away from the location. The control valve at this location is malfunctioning, which allows the water to flow continuously and pond in the low area. Photos 29 & 30 in the photo log illustrate this condition.

Drainage feature No. 2 originates from the constructed freshwater irrigation pond near the south PA property border. As previously noted, there are two outlets from the pond. One is a controlled discharge from the weir and the second is the overflow located at the top of the berm holding the pond water. The two discharge points come together downstream of the pond bank and proceed easterly discharging into the Jordan River. The location of the feature No. 2 is in the bottom of a ravine that has steep sides. In addition, there are two areas along the feature that indicate a source of groundwater may be entering the feature. This is evidenced by the presence of areas of seeps/springs with wetland characteristics. Dominant vegetation along this feature is *Phragmites australis* and *Phalaris arundinacea*.

Both features are located have vertical banks and located in soils that tend to demonstrate high capacity to erosion. The beds are semi-solid with some gravels, but are mainly soft clay material. The banks are vegetated to the edge of the OHWM with grasses. The feature bottoms are not vegetated. Water depth is less than four inches.

Appendix F contains OHWM data sheets for four transect areas on the Project Area.

4.0 EXISTING CONDITIONS

Complete documentation of vegetation, soils and hydrology is provided for 12 data points.

4.1 Landscape Setting

The topography on the PA generally slopes from west to east. The slope average slope across the PA is approximately 1.5%. Appendix 2 presents a surveyed topographic map that illustrates the topography of the site with two-foot contours and FEMA flood plain information.

There are no significant geological features on the PA other than the pond outlet area where there is a steep ravine with the drainage feature in the bottom.

The Jordan River forms the east boundary of the PA.

Included in the PA is a 1.5-acre freshwater impoundment that is used for irrigation. Water for this impoundment is from an adjacent well and a series of free flowing springs along 3600 West St.

Historical use of the PA has been for agricultural. The PA contains irrigated farmland, as well as an area used for livestock pasture and grazing. The area used for livestock activities is the eastern portion of the PA and contains aquatic resources. A portion is within the 100-year flood zone.

Plant communities within the PA and particularly in the livestock/pasture area are mainly Graminoids interspersed with tree/shrub communities in upland areas. The tree/shrub communities are mainly Russian olive and Tamarisk.

The total acreage within the PA is approximately 303-acres. The area that exhibits a predominance of wetland characteristics is approximately 44 acres.

The entire 303-acre PA was not field verified. A review of aerial photographs as well as visual observations during the field data collection indicate the area west of the lower area to the west property boundary that is being actively cultivated is upland.

The remaining area on the PA was field verified and the data is being presented in this report.

4.2 Aquatic Resources

4.2.1 Overview

The PA contains four distinct aquatic resources that may be subject to regulation under Section 404 of the Clean Water Act, 1974. The aquatic resources are as follows:

Palustrine Emergent Seasonally Flooded (PEMC), Palustrine Emergent Semipermanently Flooded (PEMF), Palustrine Forrested Temporary Flooded (PFOA), Palustrine Aquatic Bed Semipermanently Flooded Diked/Impounded, and Riverene, Lower Perennial, Unconsolidated Bottom, Permanently Flooded (R2UBh). These aquatic resources were identified on the National Wetlands Inventory Map. In addition, there are two small, linear water features/ditches that discharge into the Jordan River from aquatic resources.

Approximately 0.12-acres of the large, 10-acre, wetland area has recently been filled with soil. This activity occurred in the early spring of 2016 in an attempt to divert water from the wetland inlet from spreading laterally over the area. Photos 33 and 34 in the Photo Log found in Appendix C illustrate the fill area.

Table 1 provides technical data for all aquatic resources identified on the PA.

Table 1. Aquatic Resources within the Survey Area

| Aquatic Resource Name | Aquatic Resources Classification | | Aquatic Resource Size (acre) Required for all resources | Aquatic Resource Size (linear feet) Required for only stream channels |
|-----------------------------|----------------------------------|---------------------------|---|--|
| | Cowardin | Location (lat/long) | | |
| Freshwater Pond | PABFh | 40.393451 -111.907203 | 1.5 Acres | |
| Pond Outlet Wetland | PFOA | 40.393159, -111.905941 | 0.19 Acres | |
| Spring Wetland | PEMC | 40.393143 -111.904659 | 284 Ft ² | |

| Seep Wetland | PEMC | 40.393411 -111.903965 | 820 Ft ² | |
|-----------------------------|-------|--------------------------|---------------------|------------|
| Wetland | PEMC | 40.398491 -111.898683 | 10 Acres | |
| Artesian Pond Wetland | PEMC | 40.399129 -111.898484 | 0.02 Acres | |
| Riverbank Wetland | R1SB7 | 40.399213 -111.897361 | 3.1 Acres | |
| Wetland Inlet | RP1EM | 40.698603 -111.900861 | | 174 Feet |
| Wetland Drain | RP1EM | 40.399205 -111.898433 | | 496 Feet |
| Weir Discharge | RP1EM | 40.393154 -111.905836 | | 226 Feet |
| Overflow | RP1EM | 40.392899 -111.905075 | | 1,227 Feet |
| Total | | | 14.84 Acres | 2,123 Feet |

Site hydrology is from at least two sources. Elevated groundwater in the vicinity provides a source of water to the wetland area along the east boundary via a series of underground piping that transports water to the wetland area. In addition, because the PA is actively farmed and subject to flood irrigation, tailwater is discharged into the wetland area along the east.

There is a man-made irrigation pond in approximately the middle of the PA. This pond receives water from a drilled well along with natural sources along the west edge. Water from the pond is used for irrigation on the PA. The pond has a weir installed that can control a release from the pond to the east. According to the Owner the weir is rarely used. An overflow has been constructed that maintains the pond water elevation. Excess water is allowed to overflow and travel down a small watercourse ultimately discharging into the Jordan River a tributary to a navigable waterway.

The nearest "blue-line" waterway is the Jordan River, which forms the east boundary to the PA.

PA gradient is less than 1.5% slope to the east

According to a NRCS soil survey there are 12 defined soil series within the 300-acre PA. Because only a portion of the PA is considered potentially wetland the only series that is being used for this delineation is the Mixed Alluvium series. This series is considered hydric with a typical profile of the top six inches classified as loam and the remaining depth to 60 inches is classified as gravelly clay loam. This series is considered poorly drained with the depth to the water table ranging from 12-inches to 36-inches below ground surface.

Vegetation on the 300-acre PA can be divided into two basic communities. Community one would be those plants associated with the active farming activities, which encompasses the majority of the PA. Typical communities are barley, alfalfa, and grass hay.

The vegetation identified on the potential wetland area of the PA consist of graminoids, deciduous trees, and herbaceous plants. The area is intermixed with wetland and non-wetland plants. Appendix D provides a vegetation table complete with plant names and indicator status.

There are no activities associated with interstate or foreign commerce associated with potential wetlands on the PA.

4.3 Sensitive Plants, Fish, Wildlife and Cultural/Historic Properties

The PA does not contain any sensitive plants, fish, wildlife and cultural/historic properties that require additional investigation.

5.0 CONCLUSIONS

The data and field observations from delineation performed on the suggests that this 303.14-acre parcel contains approximately 13.34-acres of wet meadow wetlands, 1.5-acres of freshwater pond environment and 1,123 linear feet of running water that are discharged to the Jordan River.

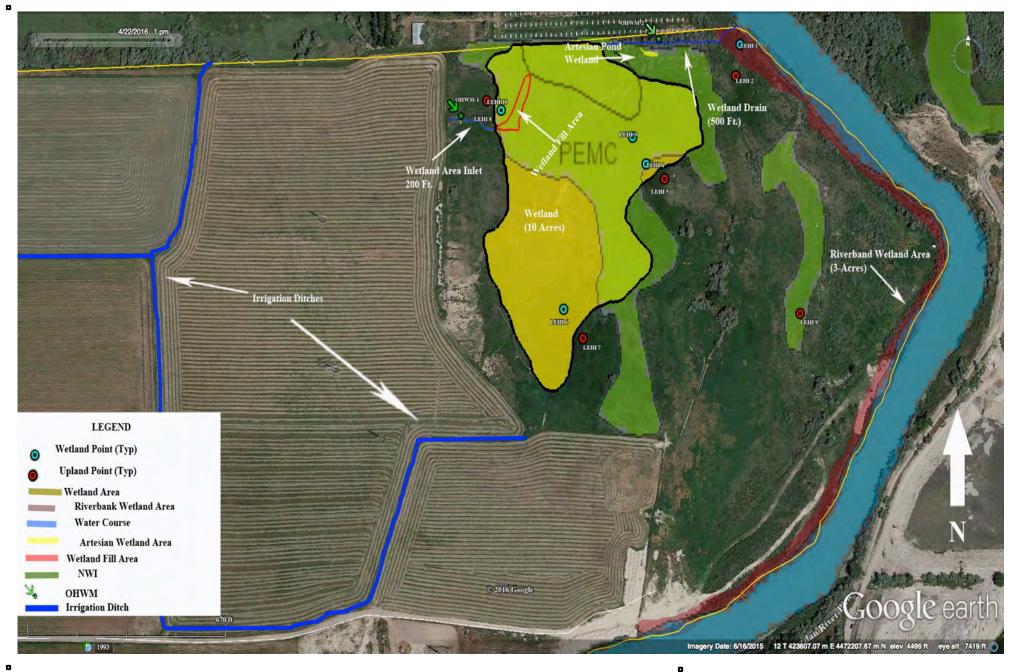
The final decision as to jurisdiction will be made by the ACOE after field verification of the site.

References

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- United States Department of Agriculture, Natural Resources Conservation Service, 2016. *Custom Soil Resource Report for Utah County, Utah – Central Part.* http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

APPENDIX A

Aquatic Resources Delineation Maps



Allred Property North 3600 West St. Lehi, Utah County, Utah

Aquatic Resources Delineation Map-WetlandArea

Project: LEI-DR Horton

Investigator: T. Hopkins

Date: 5/19/2016

Revision Date:



Allred Property North 3600 West St. Lehi, Utah County, Utah

Aquatic Resources Delineation Map-Pond Area

Project: LEI-DR Horton

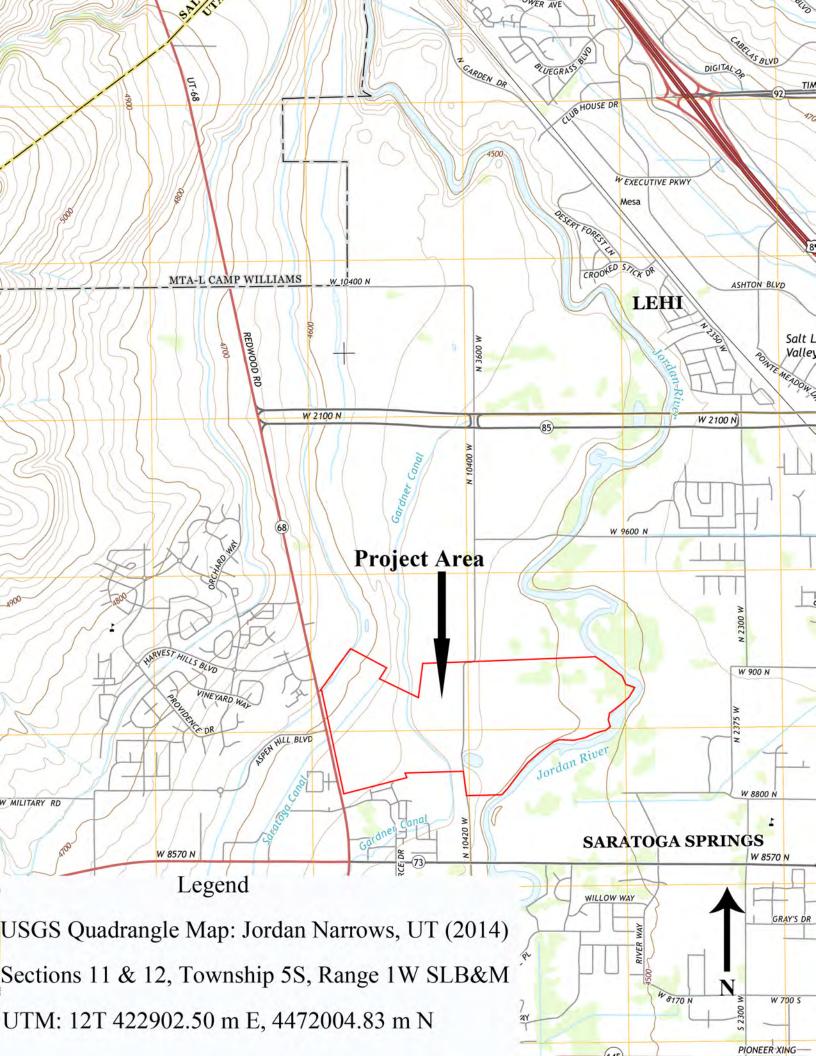
Investigator: T. Hopkins

Date: 5/19/2016

Revision Date:

APPENDIX B

Supporting Maps





Allred Property North 3600 West St. Lehi, Utah County, Utah

Figure: ALTA Survey of Project Area-Contours @ 2-Feet

Project: LEI-DR Horton

Investigator: T. Hopkins

Date: 6/14/2016

Revision Date:



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons



Soil Map Unit Lines



Soil Map Unit Points

Special Point Features

Blowout



Borrow Pit Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip Sodic Spot

Spoil Area



Stony Spot Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features

Streams and Canals

Transportation

Rails



Interstate Highways



US Routes Major Roads



Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Utah County, Utah - Central Part Survey Area Data: Version 8, Sep 23, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 31, 2012—Apr 28, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

| Utah County, Utah - Central Part (UT621) | | | | | | |
|--|---|--------------|----------------|--|--|--|
| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI | | | |
| Br | Bramwell silty clay loam | 21.1 | 6.8% | | | |
| Bs | Bramwell silty clay loam, drained | 6.8 | 2.2% | | | |
| DEF | Dry Creek extremely stony loam, stony subsoil variant, 6 to 30 percent slopes | 0.4 | 0.1% | | | |
| HmE | Hillfield silt loam, 10 to 20 percent slopes | 2.1 | 0.7% | | | |
| MU | Mixed alluvial land | 48.2 | 15.5% | | | |
| PK | Pits and dumps | 0.1 | 0.0% | | | |
| SgC | Sterling gravelly fine sandy loam, 3 to 6 percent slopes | 5.1 | 1.7% | | | |
| ТаА | Taylorsville silty clay loam, 0 to 1 percent slopes | 71.2 | 23.0% | | | |
| ТаВ | Taylorsville silty clay loam, 1 to 3 percent slopes | 64.9 | 21.0% | | | |
| TcC2 | Taylorsville silty clay loam, extended season, 3 to 6 percent slopes, eroded | 43.7 | 14.1% | | | |
| W | Water | 3.0 | 1.0% | | | |
| WbA | Welby silt loam, 0 to 1 percent slopes | 31.8 | 10.3% | | | |
| WbB | Welby silt loam, 1 to 3 percent slopes | 11.5 | 3.7% | | | |
| Totals for Area of Interest | | 309.9 | 100.0% | | | |

Map Unit Descriptions

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

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

Utah County, Utah - Central Part

Br—Bramwell silty clay loam

Map Unit Setting

National map unit symbol: j6wn Elevation: 4,320 to 4,600 feet

Mean annual precipitation: 12 to 16 inches Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 130 to 150 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Bramwell and similar soils: 85 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bramwell

Setting

Landform: Terraces

Landform position (three-dimensional): Tread

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

Parent material: Lacustrine deposits derived from mixed sources

Typical profile

Ap - 0 to 6 inches: silty clay loam
A1 - 6 to 11 inches: silty clay loam
C1 - 11 to 20 inches: silty clay loam
C2ca - 20 to 31 inches: silty clay loam
C3ca - 31 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches Natural drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 24 to 36 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 30 percent

Salinity, maximum in profile: Moderately saline to strongly saline (8.0 to 16.0

mmhos/cm)

Sodium adsorption ratio, maximum in profile: 30.0

Available water storage in profile: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 3w Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: D

Ecological site: Alkali Bottom (Alkali Sacaton) (R028AY001UT)

Minor Components

Chipman

Percent of map unit: 5 percent

Strongly saline soils

Percent of map unit: 3 percent

Taylorsville

Percent of map unit: 3 percent

Depressional soils

Percent of map unit: 2 percent

Landform: Depressions on lake terraces

Landform position (three-dimensional): Tread, dip

Down-slope shape: Linear, concave Across-slope shape: Linear, concave

Ecological site: Alkali Bottom (Alkali Sacaton) (R028AY001UT)

Hardpan soils

Percent of map unit: 2 percent

Bs—Bramwell silty clay loam, drained

Map Unit Setting

National map unit symbol: j6wp Elevation: 4,320 to 4,600 feet

Mean annual precipitation: 12 to 16 inches Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 130 to 150 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Bramwell and similar soils: 92 percent

Minor components: 8 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bramwell

Setting

Landform: Terraces

Landform position (three-dimensional): Tread

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

Parent material: Lacustrine deposits derived from mixed sources

Typical profile

Ap - 0 to 6 inches: silty clay loam
A1 - 6 to 11 inches: silty clay loam
C1 - 11 to 20 inches: silty clay loam
C2ca - 20 to 31 inches: silty clay loam

C3ca - 31 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches Natural drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 36 to 48 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 40 percent

Salinity, maximum in profile: Slightly saline to strongly saline (4.0 to 16.0 mmhos/

cm)

Sodium adsorption ratio, maximum in profile: 30.0

Available water storage in profile: Moderate (about 8.8 inches)

Interpretive groups

Land capability classification (irrigated): 3w Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: C

Ecological site: Alkali Bottom (Alkali Sacaton) (R028AY001UT)

Minor Components

Taylorsville

Percent of map unit: 5 percent

Depressional soils

Percent of map unit: 3 percent

Landform: Depressions on lake terraces

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave, linear Across-slope shape: Concave, linear

Ecological site: Alkali Bottom (Alkali Sacaton) (R028AY001UT)

DEF—Dry Creek extremely stony loam, stony subsoil variant, 6 to 30 percent slopes

Map Unit Setting

National map unit symbol: j6x3 Elevation: 5,200 to 6,000 feet

Mean annual precipitation: 14 to 18 inches Mean annual air temperature: 45 to 50 degrees F

Frost-free period: 130 to 150 days

Farmland classification: Not prime farmland

Map Unit Composition

Dry creek variant and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dry Creek Variant

Setting

Landform: Lake terraces

Landform position (three-dimensional): Riser

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

Parent material: Colluvium and/or slope alluvium derived from mixed sources

Typical profile

A1 - 0 to 4 inches: extremely stony loam B1 - 4 to 10 inches: very cobbly clay loam

B21t - 10 to 14 inches: extremely cobbly clay loam
B22t - 14 to 20 inches: extremely cobbly clay loam
B3 - 20 to 30 inches: extremely cobbly sandy clay loam
C1ca - 30 to 43 inches: extremely cobbly sandy loam
C2 - 43 to 60 inches: extremely cobbly sandy loam

Properties and qualities

Slope: 6 to 30 percent

Percent of area covered with surface fragments: 20.0 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20

to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 30 percent Available water storage in profile: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: C

Ecological site: Upland Gravelly Loam (Bonneville Big Sagebrush) (R028AY306UT)

HmE—Hillfield silt loam, 10 to 20 percent slopes

Map Unit Setting

National map unit symbol: j6xg Elevation: 4,700 to 5,200 feet

Mean annual precipitation: 12 to 14 inches Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 150 to 170 days

Farmland classification: Not prime farmland

Map Unit Composition

Hillfield and similar soils: 90 percent Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hillfield

Setting

Landform: Escarpments, lake terraces
Landform position (three-dimensional): Riser

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

Parent material: Lacustrine deposits derived from mixed sources

Typical profile

Ap - 0 to 4 inches: silt loam
AC - 4 to 12 inches: silt loam
C1ca - 12 to 26 inches: silt loam
C2ca - 26 to 35 inches: loam
C3ca - 35 to 40 inches: loam
IIC4 - 40 to 60 inches: sandy loam

Properties and qualities

Slope: 10 to 20 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20

to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 50 percent

Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 20.0

Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Ecological site: Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)

(028AY310UT)

Minor Components

Taylorsville

Percent of map unit: 5 percent

Welby

Percent of map unit: 5 percent

MU—Mixed alluvial land

Map Unit Setting

National map unit symbol: j6yf

Elevation: 4,450 to 4,550 feet

Mean annual precipitation: 12 to 14 inches Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 130 to 150 days

Farmland classification: Not prime farmland

Map Unit Composition

Mixed alluvial land and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mixed Alluvial Land

Setting

Landform: Channels, streams

Landform position (three-dimensional): Dip

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

Parent material: Alluvium derived from mixed sources

Typical profile

H1 - 0 to 6 inches: loam

H2 - 6 to 60 inches: gravelly clay loam

Properties and qualities

Slope: 0 to 10 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 36 inches

Frequency of flooding: Frequent Frequency of ponding: None

Calcium carbonate, maximum in profile: 40 percent

Salinity, maximum in profile: Moderately saline to strongly saline (8.0 to 32.0

mmhos/cm)

Sodium adsorption ratio, maximum in profile: 20.0 Available water storage in profile: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6w

Hydrologic Soil Group: D

Ecological site: Wet Fresh Streambank (R028AY022UT)

Minor Components

Depressional soils

Percent of map unit: 5 percent

Landform: Depressions

Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Concave

Ecological site: Alkali Bottom (Alkali Sacaton) (R028AY001UT)

PK—Pits and dumps

Map Unit Setting

National map unit symbol: j6ys Elevation: 4,490 to 4,900 feet

Farmland classification: Not prime farmland

Map Unit Composition

Pits: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

SgC—Sterling gravelly fine sandy loam, 3 to 6 percent slopes

Map Unit Setting

National map unit symbol: j6zw Elevation: 4,600 to 5,000 feet

Mean annual precipitation: 14 to 16 inches Mean annual air temperature: 47 to 50 degrees F

Frost-free period: 150 to 170 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Sterling and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sterling

Setting

Landform: Escarpments
Down-slope shape: Linear
Across-slope shape: Linear

Parent material: Lacustrine deposits derived from mixed sources

Typical profile

Ap - 0 to 5 inches: gravelly fine sandy loam
A1 - 5 to 11 inches: gravelly sandy loam
C1ca - 11 to 16 inches: gravelly sandy loam
C2ca - 16 to 21 inches: very gravelly sandy loam
C3ca - 21 to 60 inches: extremely gravelly sand

Properties and qualities

Slope: 3 to 6 percent

Depth to restrictive feature: More than 80 inches Natural drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 40 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 10.0

Available water storage in profile: Very low (about 2.8 inches)

Interpretive groups

Land capability classification (irrigated): 4s Land capability classification (nonirrigated): 4s

Hydrologic Soil Group: A

Ecological site: Upland Stony Loam (Wyoming Big Sagebrush) (R028AY334UT) Other vegetative classification: Upland Stony Loam (Mountain Big Sagebrush)

(028AY334UT)

TaA—Taylorsville silty clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j703 Elevation: 4,500 to 4,800 feet

Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 47 to 50 degrees F

Frost-free period: 130 to 170 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Taylorsville and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Taylorsville

Setting

Landform: Lake terraces

Landform position (three-dimensional): Tread

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

Parent material: Lacustrine deposits derived from limestone and shale

Typical profile

Ap - 0 to 7 inches: silty clay loam
AC - 7 to 13 inches: silty clay loam
C1,C2 - 13 to 36 inches: silty clay loam
C3ca - 36 to 56 inches: silty clay loam
C4 - 56 to 62 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 40 percent

Salinity, maximum in profile: Slightly saline to moderately saline (4.0 to 8.0 mmhos/

cm)

Sodium adsorption ratio, maximum in profile: 25.0

Available water storage in profile: High (about 10.1 inches)

Interpretive groups

Land capability classification (irrigated): 3s Land capability classification (nonirrigated): 4s

Hydrologic Soil Group: C

Ecological site: Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)

(028AY310UT)

Minor Components

Bramwell

Percent of map unit: 5 percent

TaB—Taylorsville silty clay loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: j704 Elevation: 4,500 to 4,800 feet

Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 47 to 50 degrees F

Frost-free period: 130 to 170 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Taylorsville and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Taylorsville

Setting

Landform: Lake terraces

Landform position (three-dimensional): Tread

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

Parent material: Lacustrine deposits derived from limestone and shale

Typical profile

Ap - 0 to 7 inches: silty clay loam
AC - 7 to 13 inches: silty clay loam
C1,C2 - 13 to 36 inches: silty clay loam
C3ca - 36 to 56 inches: silty clay loam
C4 - 56 to 62 inches: silty clay loam

Properties and qualities

Slope: 1 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 40 percent

Salinity, maximum in profile: Slightly saline to moderately saline (4.0 to 8.0 mmhos/

cm)

Sodium adsorption ratio, maximum in profile: 25.0 Available water storage in profile: High (about 10.1 inches)

Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)

(028AY310UT)

Minor Components

Bramwell

Percent of map unit: 5 percent

TcC2—Taylorsville silty clay loam, extended season, 3 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: j707 Elevation: 4,530 to 4,800 feet

Mean annual precipitation: 14 to 16 inches Mean annual air temperature: 47 to 50 degrees F

Frost-free period: 130 to 150 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Taylorsville and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Taylorsville

Setting

Landform: Lake terraces

Landform position (three-dimensional): Tread

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

Parent material: Lacustrine deposits derived from limestone and shale

Typical profile

Ap - 0 to 7 inches: silty clay loam
AC - 7 to 13 inches: silty clay loam
C,C2 - 13 to 36 inches: silty clay loam
C3ca - 36 to 56 inches: silty clay loam
C4 - 56 to 62 inches: silty clay loam

Properties and qualities

Slope: 3 to 6 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 40 percent

Salinity, maximum in profile: Slightly saline to moderately saline (4.0 to 8.0 mmhos/

cm)

Sodium adsorption ratio, maximum in profile: 25.0

Available water storage in profile: High (about 10.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)

(028AY310UT)

W-Water

Map Unit Setting

National map unit symbol: j70s Elevation: 4,470 to 4,720 feet

Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

WbA—Welby silt loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j70f Elevation: 4,500 to 5,200 feet

Mean annual precipitation: 14 to 16 inches

Mean annual air temperature: 47 to 50 degrees F

Frost-free period: 130 to 170 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Welby and similar soils: 90 percent Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Welby

Setting

Landform: Lake terraces

Landform position (three-dimensional): Tread

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

Parent material: Lacustrine deposits derived from limestone, sandstone, and shale

Typical profile

Ap - 0 to 7 inches: silt loam
A1 - 7 to 12 inches: loam
Ac - 12 to 22 inches: silt loam

C1ca, C2ca, C3 - 22 to 65 inches: silt loam

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 40 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 13.0

Available water storage in profile: High (about 10.1 inches)

Interpretive groups

Land capability classification (irrigated): 2c Land capability classification (nonirrigated): 3c

Hydrologic Soil Group: B

Ecological site: Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)

(028AY310UT)

Minor Components

Taylorsville

Percent of map unit: 5 percent

Vineyard

Percent of map unit: 5 percent

WbB—Welby silt loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: j70g Elevation: 4,500 to 5,200 feet

Mean annual precipitation: 14 to 16 inches Mean annual air temperature: 47 to 50 degrees F

Frost-free period: 130 to 170 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Welby and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Welby

Setting

Landform: Lake terraces

Landform position (three-dimensional): Tread

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

Parent material: Lacustrine deposits derived from limestone, sandstone, and shale

Typical profile

Ap - 0 to 7 inches: silt loam
A1 - 7 to 12 inches: loam
AC - 12 to 22 inches: silt loam

C1ca, C2ca, C3 - 22 to 65 inches: silt loam

Properties and qualities

Slope: 1 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 40 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 13.0

Available water storage in profile: High (about 10.1 inches)

Interpretive groups

Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Ecological site: Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)

Other vegetative classification: Upland Loam (Mountain Big Sagebrush)

(028AY310UT)

Appendix C

On-Site Photographs



Photograph 1
Test point LEHI-. Wetland point.



Photograph 2 LEHI-1 view to south from test point



Photograph 3View to south along Jordan River from NE property corner



Photograph 4
Test point LEHI-2. Upland point



Photograph 5View to north from test point LEHI-2



Photograph 6Test point LEHI-3. Wetland point



Photograph 7View to North from test point LEHI-3



Photograph 8
Test point LEHI-4. Wetland point.



Photograph 9 View to south from test point LEHI-4.



Photograph 10
Test point LEHI-5. Upland point.



Photograph 11View to south from test point LEHI-5



Photograph 12
Test point LEHI-6. Wetland point.



Photograph 13 View to south from test point LEHI-6



Photograph 14 Test point LEHI-7. Upland



Photograph 15View to south from test point LEHI-7



Photograph 16
Test point LEHI-8. Wetland point.



Photograph 17View to west from test point LEHI-8



Photograph 18 Test point LEHI-9. Upland



Photograph 19View to south from test point LEHI-9



Photograph 20 Test point LEHI-10. Upland point.



Photograph 21 View to north from test point LEHI-10.



Photograph 22
Test point LEHI-11. Wetland point.



Photograph 23 View to south from test point LEHI-11



Photograph 24
Test point LEHI-12. Upland



Photograph 25 View to north from test point LEHI-12



Photograph 26 OHWM-1 transect



Photograph 27 OHWM-3 transect



Photograph 28 OHWM-4 transect



Photograph 29 Artesian/irrigation wetland area



Photograph 30 Artesian/irrigation wetland area



Photograph 31 Pond discharge area below weir



Photograph 32 Storage pond for irrigation water



Photograph 33
Wetland fill area



Photograph 34
Wetland fill area

APPENDIX D

Plant List

Appendix D - Plant List

Plant species found within the survey area.

Use USDA Plants Database and National Wetland Plant List for the most up-to-date scientific name and Wetland Indicator Status.

| Genus | Species | Common Name | WIS* | |
|----------------|--------------|--------------------------|------|--|
| Phragmites | australis | Common Reed | FACW | |
| Distichlis | Spicata | Inland Salt Grass | FAC | |
| Sporobolus | Airoides | roides Alkali Sacaton | | |
| Agropyron | Cristatum | tatum Crested wheatgrass | | |
| Schoenoplectus | Acutus | Hardstem bulrush | OBL | |
| Schoenoplectus | Pungens | Common three square | OBL | |
| Juneus | Balticus | Baltic rush | FACW | |
| Elaegnaus | Angustifolia | Russian olive | FAC | |
| Tamarix | Ramosissima | Salt Cedar | FAC | |
| Elymus | Repens | Quack grass | FAC | |
| Medicago | Lupens | Alfalfa | FAC | |
| Taraxacum | Officinale | Dandelion | FACU | |
| Pascopyrum | smithii | Western wheatgrass | FAC | |

* Wetland Indicator Status (WIS):

OBL = occurs in aquatic resources > 99% of time FACW = occurs in aquatic resources 67-99% of time FAC = occurs in aquatic resources 34-66% of time FACU = occurs in aquatic resources 1-33% of time

UPL = occurs in uplands > 99% of time

NI = indicator status not known in this region

~ = unsure as to FAC or FAC

Appendix E

Aquatic Resources Delineation Data Sheets

| Project/Site: Allred | City/County: Lehi-Ut | ah | Sampling Date: 4-4-2016 |
|---|------------------------------------|---|---|
| Applicant/Owner: DR Horton | | State: Utah | Sampling Point: <u>LEHI-1</u> |
| Investigator(s): Tom Hopkins | Section, Township, Ra | ange: <u>S 11&12, T 5S, R1</u> | W SLB&M |
| Landform (hillslope, terrace, etc.): Terrace | Local relief (concave, | , convex, none): None | Slope (%):<1 |
| Subregion (LRR): LRRD | Lat: 40.39922 N | Long: <u>-11189735 W</u> | Datum: NAD-83 |
| Soil Map Unit Name: Mixed Alluvial Land | | NWI classific | ation: None |
| Are climatic / hydrologic conditions on the site typical fo | , | | |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? Are | "Normal Circumstances" p | oresent? Yes _ ✓ No |
| Are Vegetation, Soil, or Hydrology | | needed, explain any answe | rs in Remarks.) |
| SUMMARY OF FINDINGS – Attach site m | | | |
| Hydric Soil Present? Yes <u>✓</u> | No Is the Sample No within a Wetla | | No |
| Sample point is along the Jordan River. | | | |
| VEGETATION – Use scientific names of p | lants. | | |
| | Absolute Dominant Indicator | | sheet: |
| Tree Stratum (Plot size:) | <u>% Cover Species?</u> Status | Number of Dominant S | |
| 1 2 | | That Are OBL, FACW, | or FAC: (A) |
| 3. | | Total Number of Domin Species Across All Stra | |
| 4. | | | |
| | = Total Cover | Percent of Dominant Sp That Are OBL, FACW, | |
| Sapling/Shrub Stratum (Plot size:) | | Prevalence Index wor | |
| 1 | | - | Multiply by: |
| 2 3 | | · | x 1 = |
| 4 | | · | x 2 = |
| 5. | | ⁻ | x 3 = |
| | = Total Cover | • | x 4 = |
| Herb Stratum (Plot size:) | | | x 5 = |
| 1. Phragmites australis | | Oolullii Totals. | (A) (B) |
| 2. <u>Distichlis spicata</u> | | = | D/A |
| 3 | | | = B/A = |
| 4 | | Hydrophytic Vegetation ✓ Dominance Test is | |
| 5 | | · [—] _ | |
| 6 | | - 1 | ptations ¹ (Provide supporting |
| 7 8 | | | s or on a separate sheet) |
| 0. | = Total Cover | Problematic Hydro | phytic Vegetation ¹ (Explain) |
| Woody Vine Stratum (Plot size:) 1 | | ¹ Indicators of hydric soi | and wetland hydrology must |
| 2 | | be present, unless distu | urbed or problematic. |
| 9/ Para Cround in Harb Stratum | = Total Cover | Hydrophytic Vegetation | o / No |
| % Bare Ground in Herb Stratum % C Remarks: | over or diotic Clast | Present? Yes | s No |
| Inditial No. | | | |
| | | | |
| | | | |
| | | | |

SOIL Sampling Point: <u>LEHI-1</u>

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

| Depth | Matrix | | | x Features | 4 2 | | |
|---------------------------------------|-------------------------------|-----------------|-------------------------|------------------------------------|---------------------------------|-------------------------------|---|
| (inches) | Color (moist) | % | Color (moist) | %Typ | e ¹ Loc ² | <u>Texture</u> | Remarks |
| 0-4 | 10 YR 3/2 | 100 | | | | Silt Loam | |
| 4-18 | 10 YR 6/1 | 100 | | | | Clay | |
| | | | | · | | | |
| | - | · | | · —— — | | · | |
| | - | | | · | | · | |
| | | | | | | . <u></u> | |
| | | | | | | | |
| | | | | · | | | |
| | | _ · | | | | · | _ |
| | | | | · — — | | | |
| | | | Reduced Matrix, CS | | oated Sand G | | n: PL=Pore Lining, M=Matrix. |
| - | | icable to all I | LRRs, unless other | | | | Problematic Hydric Soils ³ : |
| Histosol | ` ' | | Sandy Redo | . , | | | (A9) (LRR C) |
| | pipedon (A2) | | Stripped Ma | | | | (A10) (LRR B) |
| | istic (A3) en Sulfide (A4) | | | ky Mineral (F1) red Matrix (F2) | | Reduced V | ertic (F18) t Material (TF2) |
| | d Layers (A5) (LRR | C) | Loanly Gley | | | | lain in Remarks) |
| · · · · · · · · · · · · · · · · · · · | uck (A9) (LRR D) | (0) | | Surface (F6) | | Other (Exp | iaiii iii iteiriaiks) |
| | d Below Dark Surfa | ace (A11) | ✓ Depleted Da | , , |) | | |
| | ark Surface (A12) | , | | ressions (F8) | ' | ³ Indicators of hy | ydrophytic vegetation and |
| | Mucky Mineral (S1) | | Vernal Pool | | | | ology must be present, |
| Sandy C | Gleyed Matrix (S4) | | | | | unless distur | bed or problematic. |
| Restrictive | Layer (if present): | | | | | | |
| Type: | | | | | | | |
| Depth (in | ches): | | | | | Hydric Soil Pres | sent? Yes <u>√</u> No |
| Remarks: | | | | | | | |
| | | | | | | | |
| IYDROLO | | | | | | | |
| _ | drology Indicators | | | | | | |
| Primary India | cators (minimum of | one required | ; check all that apply | y) | | Secondary | / Indicators (2 or more required) |
| Surface | Water (A1) | | Salt Crust | (B11) | | | Marks (B1) (Riverine) |
| _ ~ | ater Table (A2) | | Biotic Crus | ` ' | | | nent Deposits (B2) (Riverine) |
| Saturati | on (A3) | | ✓ Aquatic Inv | vertebrates (B13 | 3) | Drift D | Deposits (B3) (Riverine) |
| Water M | farks (B1) (Nonrive | erine) | Hydrogen | Sulfide Odor (C | 1) | Draina | age Patterns (B10) |
| Sedime | nt Deposits (B2) (N | onriverine) | Oxidized R | Rhizospheres ald | ong Living Ro | · / · | eason Water Table (C2) |
| Drift De | posits (B3) (Nonriv | rerine) | Presence | of Reduced Iron | (C4) | Crayfi | sh Burrows (C8) |
| Surface | Soil Cracks (B6) | | Recent Iro | n Reduction in 1 | Γilled Soils (C | 6) Satura | ation Visible on Aerial Imagery (C9) |
| Inundati | on Visible on Aeria | I Imagery (B7 |) Thin Muck | Surface (C7) | | | ow Aquitard (D3) |
| Water-S | Stained Leaves (B9) |) | Other (Exp | olain in Remarks | 5) | FAC-N | Neutral Test (D5) |
| Field Obser | vations: | | | | | | |
| Surface Wat | | | No <u>√</u> Depth (ind | | | | |
| Water Table | Present? | Yes N | No <u>√</u> Depth (ind | ches): | | | |
| Saturation P | resent? | Yes N | No <u>√</u> Depth (ind | ches): | Wet | land Hydrology Pre | esent? Yes <u>√</u> No |
| | pillary fringe) | | -: | -1 | · : | if a sallable. | |
| Describe Re | corded Data (strea | m gauge, mo | nitoring well, aerial p | onotos, previous | s inspections) | , if available: | |
| | | | | | | | |
| Remarks: | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| Project/Site: Allred | Cit | y/County: <u>Lehi-U</u> | Jtah | Sampling Date: _ | 4-4-2016 |
|--|----------------------|-------------------------|--|-----------------------------------|----------------------|
| Applicant/Owner: DR Horton | | | State: <u>Utah</u> | Sampling Point: _ | LEHI-2 |
| Investigator(s): Tom Hopkins | Se | ction, Township, I | Range: <u>S 11&12, T 5S, R1</u> | LW SLB&M | |
| Landform (hillslope, terrace, etc.): Terrace | Lo | cal relief (concav | e, convex, none): None | Slop | oe (%): <u><1</u> |
| Subregion (LRR): LRR D | Lat: <u>40.39</u> | 898 N | Long: -111.89742 W | Datur | n: NAD-83 |
| Soil Map Unit Name: Mixed Alluvial Land | | | | | |
| Are climatic / hydrologic conditions on the site typical for | | | | | |
| Are Vegetation, Soil, or Hydrology | | | re "Normal Circumstances" _l | | ' No |
| Are Vegetation, Soil, or Hydrology | | | needed, explain any answe | | |
| SUMMARY OF FINDINGS – Attach site m | | | | | aturos oto |
| SUMMART OF TINDINGS - Attach site in | iap silowing s | | | s, important lea | |
| | No | Is the Sampl | led Area | | |
| | _ No | within a Wet | land? Yes | No <u>√</u> | |
| Wetland Hydrology Present? Yes | _ No <u></u> | | | | |
| Nemarks. | | | | | |
| | | | | | |
| | | | | | |
| VEGETATION – Use scientific names of p | olants. | | | | |
| Tues Charles (Districe) | | ominant Indicato | | sheet: | |
| Tree Stratum (Plot size:) | | pecies? Status | Number of Dominant 3 | | (A) |
| 1 2 | | | That Are OBL, FACW, | OFFAC: 2 | (A) |
| 3 | | | Total Number of Domir Species Across All Stra | | (B) |
| 4 | | | | | (D) |
| | = | | Percent of Dominant SThat Are OBL, FACW, | | 0 (A/B) |
| Sapling/Shrub Stratum (Plot size:) | | | | | (,,,,) |
| 1 | | | | | . 1 |
| 2 | | | | | |
| 3 | | | OBL species FACW species | | |
| 5 | | | FAC species | | |
| o | = | | FACU species | | |
| Herb Stratum (Plot size:) | | | UPL species | | |
| Sporobolus airoides | | y FAC | Column Totals: | (A) | (B) |
| 2. Agropyron cristatum | | | — Drawalanaa lada | . – D/A – | |
| 3. <u>Distichlis spicata</u> | | Y FAC | | c = B/A = | |
| 4 | | | Hydrophytic Vegetati ✓ Dominance Test is | | |
| 5 | | | - - | | |
| 6 7 | | | - | aptations ¹ (Provide s | supporting |
| 8 | | | data in Remark | s or on a separate | sheet) |
| | | Total Cover | Problematic Hydro | phytic Vegetation ¹ | (Explain) |
| Woody Vine Stratum (Plot size:) | | | 1 | | |
| 1 | | | Indicators of hydric so be present, unless dist | | |
| 2 | | | _ | | |
| | <u> </u> | Total Cover | Hydrophytic Vegetation | | |
| % Bare Ground in Herb Stratum % C | Cover of Biotic Crus | t | Present? Ye | esNo | |
| Remarks: | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

SOIL Sampling Point: <u>LEHI-2</u>

| Profile Desc | ription: (Describe | to the dept | h needed to docur | nent the i | ndicator | or confirn | n the absence of indicate | ators.) |
|---------------|--|----------------|-------------------------|------------|-------------------|------------------|---------------------------|-------------------------------------|
| Depth | Matrix | | | x Feature: | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | <u>Texture</u> | Remarks |
| 0-2 | Root | | | | | | | |
| 2-16 | 10 YR 4/2 | 100 | | | | | Clay-loam | |
| | | | | | | | | _ |
| | | | | | | | | _ |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | | | Reduced Matrix, CS | | | d Sand G | | L=Pore Lining, M=Matrix. |
| _ | | cable to all L | RRs, unless other | | ed.) | | | lematic Hydric Soils ³ : |
| Histosol | ` ' | | Sandy Redo | . , | | | 1 cm Muck (A9) | |
| | ipedon (A2) | | Stripped Ma | ` , | | | 2 cm Muck (A1 | |
| Black His | | | Loamy Muc | | | | Reduced Vertic | |
| | n Sulfide (A4) | | Loamy Gley | | (F2) | | Red Parent Ma | |
| | Layers (A5) (LRR | C) | Depleted M | . , | (=a) | | Other (Explain i | n Remarks) |
| | ck (A9) (LRR D) | - (0.4.4) | Redox Dark | | , | | | |
| | Below Dark Surfac | ce (A11) | ✓ Depleted Da | | | | 31 | de die verstetien en d |
| | rk Surface (A12) | | Redox Depi | | -0) | | | phytic vegetation and |
| | ucky Mineral (S1) leyed Matrix (S4) | | vernai Pooi | S (F9) | | | unless disturbed | y must be present, |
| | ayer (if present): | | | | | | uniess distarbed | or problematic. |
| Type: | ayer (ii present). | | | | | | | |
| • • • | Ja = = \. | | | | | | Under Call Busses | O Van / Na |
| . , | :hes): | | | | | | Hydric Soil Present | ? Yes <u>√</u> No |
| Remarks: | | | | | | | | |
| Listed Hyd | dric soil | | | | | | | |
| Listed Trye | ar 10 3011 | | | | | | | |
| | | | | | | | | |
| HYDROLO | GV | | | | | | | |
| | Irology Indicators | | | | | | | |
| _ | | | | | | | 0 | (2 d) |
| - | • | one required | check all that appl | | | | | cators (2 or more required) |
| Surface \ | ` ' | | Salt Crust | ` ' | | | | ks (B1) (Riverine) |
| _ | ter Table (A2) | | Biotic Crus | | | | | Deposits (B2) (Riverine) |
| Saturatio | ` ' | | Aquatic In | | | | | sits (B3) (Riverine) |
| | arks (B1) (Nonrive | | Hydrogen | | | | _ | Patterns (B10) |
| | t Deposits (B2) (No | | | | _ | | ots (C3) Dry-Seaso | |
| | osits (B3) (Nonrive | erine) | Presence | | | | Crayfish B | |
| | Soil Cracks (B6) | | Recent Iro | n Reducti | on in Tille | d Soils (C | 6) Saturation | Visible on Aerial Imagery (C9) |
| Inundation | on Visible on Aerial | Imagery (B7 |) Thin Muck | Surface (| C7) | | Shallow A | quitard (D3) |
| Water-St | ained Leaves (B9) | | Other (Exp | lain in Re | marks) | | FAC-Neut | al Test (D5) |
| Field Observ | /ations: | | | | | | | |
| Surface Water | er Present? | Yes N | lo <u>√</u> Depth (ind | ches): | | | | |
| Water Table I | Present? | Yes N | lo <u>√</u> Depth (inc | ches): | | | | |
| Saturation Pr | esent? | res N | lo <u>✓</u> Depth (in | ches): | | Wetl | land Hvdrology Presen | t? Yes No <u>√</u> |
| (includes cap | illary fringe) | | | | | | | |
| Describe Rec | corded Data (strear | n gauge, moi | nitoring well, aerial ı | ohotos, pr | evious ins | pections), | if available: | |
| | | | | | | | | |
| Remarks: | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

| Project/Site: Allred | City/County: <u>Lehi-Uta</u> | ah | Sampling Date: _ | 4-4-2016 |
|--|------------------------------|--|--------------------------------|---------------------|
| Applicant/Owner: DR Horton | | State: <u>Utah</u> | Sampling Point: _ | LEHI-3 |
| Investigator(s): Tom Hopkins | Section, Township, Ra | ange: <u>S 11&12, T 5S, R1</u> | W SLB&M | |
| Landform (hillslope, terrace, etc.): Terrace | Local relief (concave, | convex, none): concave | Slop | e (%): <u><1</u> |
| Subregion (LRR): LRR D | Lat: 40.39850 N | _ Long: -111.89867 W | Datun | n: NAD-83 |
| Soil Map Unit Name: Mixed Alluvial Land | | | | |
| Are climatic / hydrologic conditions on the site typical for | | | | |
| Are Vegetation, Soil, or Hydrology | | "Normal Circumstances" p | | No |
| Are Vegetation, Soil, or Hydrology | | eeded, explain any answe | | |
| SUMMARY OF FINDINGS – Attach site ma | | | | sturos oto |
| SUMMART OF FINDINGS – Attach site ma | | —————————————————————————————————————— | , important lea | itures, etc. |
| | No Is the Sampled | d Area | | |
| | No within a Wetlan | | No | |
| | _ No | | | |
| Remarks: | | | | |
| | | | | |
| | | | | |
| VEGETATION – Use scientific names of pl | lants. | | | |
| | Absolute Dominant Indicator | Dominance Test work | sheet: | |
| Tree Stratum (Plot size:) | % Cover Species? Status | Number of Dominant Sp | | |
| 1 | | That Are OBL, FACW, o | or FAC:1 | (A) |
| 2 | | Total Number of Domin | | (5) |
| 3 | | Species Across All Stra | ta: <u> 1 </u> | (B) |
| 4 | = Total Cover | Percent of Dominant Sp | |) (A/D) |
| Sapling/Shrub Stratum (Plot size:) | = Total Gover | That Are OBL, FACW, o | or FAC: 100 | <u>J</u> (A/B) |
| 1 | | Prevalence Index worl | | |
| 2 | | Total % Cover of: | | |
| 3 | | OBL species | | |
| 4 | | FACW species | | |
| 5 | | FAC species | | |
| Herb Stratum (Plot size:) | = Total Cover | UPL species | | |
| 1. Schoenoplectus acutus | 10 N OBL | Column Totals: | | |
| 2. Schoenoplectus pungens | <u>90</u> Y OBL | | | |
| 3 | | | = B/A = | |
| 4 | | Hydrophytic Vegetation | | |
| 5 | | ✓ Dominance Test is | | |
| 6 | | Prevalence Index is Morphological Adap | | unnorting |
| 7 | | | s or on a separate : | |
| 8 | | Problematic Hydror | phytic Vegetation ¹ | (Explain) |
| Woody Vine Stratum (Plot size:) | = Total Cover | | | |
| 1. | | ¹ Indicators of hydric soil | | |
| 2 | | be present, unless distu | irbed or problemati | C. |
| | = Total Cover | Hydrophytic | | |
| % Bare Ground in Herb Stratum % Co | over of Biotic Crust | Vegetation Present? Yes | s <u> </u> | |
| Remarks: | | | | |
| | | | | |
| | | | | |
| | | | | |

SOIL Sampling Point: <u>LEHI-3</u>

| Profile Desc | ription: (Describe | to the dept | h needed to docui | nent the i | ndicator | or confirm | the absence of | indicators.) |
|-------------------------------|-------------------------------|----------------|--------------------------------------|-----------------|-------------------|------------------|----------------------------|---|
| Depth | Matrix | | | x Features | | | | _ |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0 | Root | | | | | | | |
| 0 | 0 | | | | | | | |
| | | | | - | | | | |
| | | | | | | | | _ |
| | | . | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | - | | | | | | |
| 1 | | | Deduced Matrice Of | | | 1010- | 21 1 | Di Dan Lista M Mati |
| | | | Reduced Matrix, CS -RRs, unless othe | | | d Sand Gr | | ion: PL=Pore Lining, M=Matrix. r Problematic Hydric Soils ³ : |
| _ | | cable to all i | | | su.) | | | • |
| Histosol | (AT) pipedon (A2) | | Sandy Red Stripped Ma | | | | | ck (A9) (LRR C) ck (A10) (LRR B) |
| Black His | | | Suipped Ma | | I (F1) | | | Vertic (F18) |
| | n Sulfide (A4) | | Loamy Gley | - | . , | | | ent Material (TF2) |
| | Layers (A5) (LRR | C) | Depleted M | | (- –/ | | | φlain in Remarks) |
| | ck (A9) (LRR D) | , | Redox Dark | | F6) | | | , |
| Depleted | l Below Dark Surfa | ce (A11) | ✓ Depleted D | ark Surfac | e (F7) | | | |
| | rk Surface (A12) | | Redox Dep | | - 8) | | ³ Indicators of | hydrophytic vegetation and |
| _ | lucky Mineral (S1) | | Vernal Poo | s (F9) | | | | drology must be present, |
| | leyed Matrix (S4) | | | | | | unless dist | urbed or problematic. |
| | ayer (if present): | | | | | | | |
| Type: Ro | | | | | | | | |
| Depth (inc | ches): <u>0</u> | | | | | | Hydric Soil Pr | resent? Yes <u>√</u> No |
| Remarks: | | | | | | | | |
| Listed Hyd | dric soil | | | | | | | |
| - | | noint due | to high densi | ty of ro | nt mate | rial | | |
| NOT able t | to mistan data | point due | to mgn densi | ty or ro | ot mate | ciiai. | | |
| HYDROLO | GY | | | | | | | |
| | drology Indicators | | | | | | | |
| _ | | | ; check all that appl | v) | | | Seconda | ary Indicators (2 or more required) |
| - | • | one required | | | | | | ary Indicators (2 or more required) |
| ✓ Surface | ` ' | | Salt Crust | | | | | er Marks (B1) (Riverine) |
| | ter Table (A2) | | Biotic Crus | | - (D40) | | | iment Deposits (B2) (Riverine) |
| ✓ Saturatio | ` , | w! m. m.) | Aquatic In | | | | | Deposits (B3) (Riverine) |
| | arks (B1) (Nonrive | | Hydrogen | | | Listan Dan | | nage Patterns (B10) |
| | nt Deposits (B2) (Ne | | | | _ | _ | | Season Water Table (C2) |
| - | oosits (B3) (Nonriv e | erine) | Presence | | • | , | | yfish Burrows (C8) |
| | Soil Cracks (B6) | Imagan, (D7 | Recent Iro | | | a Solis (Co | | uration Visible on Aerial Imagery (C9) |
| | on Visible on Aerial | | | | | | | llow Aquitard (D3) |
| | tained Leaves (B9) | | Other (Ex | Diain in Re | marks) | | FAC | C-Neutral Test (D5) |
| Field Observ | | | . 5 " " | | | | | |
| Surface Water | | | lo Depth (in | | | - | | |
| Water Table | | | No Depth (in | | | | | |
| Saturation Pr | | Yes <u>√</u> N | lo Depth (in | ches): <u>0</u> | | Wetla | and Hydrology P | Present? Yes <u>√</u> No |
| (includes cap Describe Red | | n gauge, mo | nitoring well, aerial | photos pro | evious ins | pections) | if available: | |
| | | J | | , 100, pi | | | | |
| Remarks: | | | | | | | | |
| | | _ | | | | | | |
| water was | s present at th | ne surface | . | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| Project/Site: Allred | | City/County: Lehi-Uta | h | Sampling Date: 4-4-2016 |
|--|--|----------------------------|---|---|
| Applicant/Owner: DR Horton | | | State: <u>Utah</u> | Sampling Point: <u>LEHI-4</u> |
| Investigator(s): Tom Hopkins | | Section, Township, Rai | nge: <u>S 11&12, T 5S, R1</u> | .W SLB&M |
| Landform (hillslope, terrace, etc.): <u>Terra</u> | ace | _ Local relief (concave, o | convex, none): concave | Slope (%):<1 |
| Subregion (LRR): LRR D | Lat: <u>4</u> 0 | 0.39829 N | Long: -111.89851 W | Datum: NAD-83 |
| Soil Map Unit Name: Mixed Alluvial La | and | | NWI classific | cation: PEMC |
| Are climatic / hydrologic conditions on th | e site typical for this time of y | vear? Yes <u>√</u> No _ | (If no, explain in R | Remarks.) |
| Are Vegetation, Soil, or I- | Hydrology significantl | y disturbed? Are " | Normal Circumstances" ¡ | oresent? Yes <u>√</u> No |
| Are Vegetation, Soil, or I | Hydrology naturally p | roblematic? (If ne | eded, explain any answe | ers in Remarks.) |
| SUMMARY OF FINDINGS - At | tach site map showin | g sampling point l | ocations, transects | s, important features, etc. |
| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: | Yes _ ✓ No Yes _ ✓ No Yes _ ✓ No | within a Wetlan | | No |
| Livestock grazing prevalent | | | | |
| VEGETATION – Use scientific | names of plants | | | |
| | Absolute | e Dominant Indicator | Dominance Test work | sheet: |
| Tree Stratum (Plot size: | | r Species? Status | Number of Dominant S That Are OBL, FACW, | |
| 2 | | | Total Number of Domir Species Across All Stra | |
| 4 | | = Total Cover | Percent of Dominant S That Are OBL, FACW, | |
| Sapling/Shrub Stratum (Plot size: | | | | |
| 1 | | | Prevalence Index wor | Ksneet: Multiply by: |
| 2 | | | | x 1 = |
| 3 | | | | x 2 = |
| 4 | | | | x 3 = |
| 5 | | = Total Cover | | x 4 = |
| Herb Stratum (Plot size: |) | = Total Cover | UPL species | |
| Juncus balticus Z | | | | (A) (B) |
| 3 | | | Prevalence Index | = B/A = |
| 4. | | | Hydrophytic Vegetation | |
| 5. | | | ✓ Dominance Test is | >50% |
| 6 | | | Prevalence Index i | s ≤3.0 ¹ |
| 7 | | | | ptations ¹ (Provide supporting s or on a separate sheet) |
| 8 | 100 | = Total Cover | Problematic Hydro | phytic Vegetation ¹ (Explain) |
| 1 | · | | ¹ Indicators of hydric so be present, unless dist | il and wetland hydrology must urbed or problematic. |
| 2 | | = Total Cover | Hydrophytic | |
| % Bare Ground in Herb Stratum | | | Vegetation | s/_ No |
| Remarks: | | | ı | |
| | | | | |
| | | | | |
| | | | | |

SOIL Sampling Point: <u>LEHI-4</u>

| Depth Color | Matrix r (moist) | % | Color | Redo (moist) | % | _Type ¹ | Loc ² | Texture | Remarks |
|---|--|--|----------------|---|--|---|------------------|--------------------------------|--|
| · | i (ilioist) | | <u> </u> | (IIIOISI) | | Туре | LUC | rexture | Remarks |
| 0-3 <u>Root</u> | | | | | | | - | | |
| 3-18 10YR 6 | 5/1 | 100 | | | - | | | <u>clay-loam</u> | _ |
| | | | | | | | | | |
| | | | | | | | - | - | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | - | | - | - | |
| | | | | | | | | | |
| | | | | | | | | . 2. | |
| Type: C=Concentrat Hydric Soil Indicator | | | | | | | d Sand G | | ocation: PL=Pore Lining, M=Matrix. rs for Problematic Hydric Soils ³ : |
| Histosol (A1) | s. (Applica | able to all | | | | eu.) | | | Muck (A9) (LRR C) |
| Histic Epipedon (| A2) | | | Sandy Redo Stripped Ma | | | | | Muck (A10) (LRR B) |
| Black Histic (A3) | (12) | | | Loamy Muc | | I (F1) | | | uced Vertic (F18) |
| Hydrogen Sulfide | (A4) | | | Loamy Gley | | | | | Parent Material (TF2) |
| Stratified Layers (| | C) | | Depleted M | | , | | | r (Explain in Remarks) |
| 1 cm Muck (A9) (| LRR D) | | ۱ | Redox Dark | Surface | (F6) | | | |
| Depleted Below [| Dark Surface | e (A11) | | Depleted Da | ark Surfac | e (F7) | | | |
| Thick Dark Surface | | | | Redox Dep | • | F8) | | | rs of hydrophytic vegetation and |
| Sandy Mucky Mir | | | — ` | Vernal Pool | s (F9) | | | | d hydrology must be present, |
| Sandy Gleyed Ma Restrictive Layer (if | | | | | | | | unless | disturbed or problematic. |
| _ | | | | | | | | | |
| Type: | | | | | | | | Usadaia Ca | Sil Draggart2 Vag / Na |
| Depth (inches): | | | | | | | | nyuric 30 | oil Present? Yes <u>√</u> No |
| Remarks: | | | | | | | | | |
| Listed Hydric so | il | | | | | | | | |
| Listed Hydric so | il | | | | | | | | |
| | il | | | | | | | | |
| YDROLOGY | | | | | | | | | |
| YDROLOGY Wetland Hydrology I | Indicators: | ne require | ed; check a | all that appl | y) | | | Sec | ondary Indicators (2 or more required) |
| YDROLOGY Wetland Hydrology I | Indicators: | ne require | ed; check a | all that appl Salt Crust | • | | | | ondary Indicators (2 or more required) Water Marks (B1) (Riverine) |
| YDROLOGY Wetland Hydrology I | Indicators: inimum of o | ne require | ed; check a | • | (B11) | | | | |
| IYDROLOGY Wetland Hydrology I Primary Indicators (mi | Indicators: inimum of o | ne require | _ | Salt Crust | (B11) st (B12) | s (B13) | | | Water Marks (B1) (Riverine) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table | Indicators: inimum of o .1) e (A2) | | | Salt Crust Biotic Crus | (B11) st (B12) vertebrate | , , | | | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) | Indicators: inimum of o 1) e (A2) (Nonriveri | ine) | _ _ _ | Salt Crust Biotic Crus Aquatic In | (B11) st (B12) vertebrate Sulfide O | dor (C1) | Living Ro | | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) | Indicators: inimum of o 1) e (A2)) (Nonriveri ts (B2) (Nor | ine) nriverine) | _ _ _ | Salt Crust Biotic Crust Aquatic In Hydrogen | (B11) st (B12) vertebrate Sulfide Oc Rhizosphe | dor (C1) res along | _ | ots (C3) | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table ✓ Saturation (A3) Water Marks (B1) Sediment Deposi | Indicators: inimum of o 1) e (A2)) (Nonriveri ts (B2) (Non | ine) nriverine) | _ _ _ | Salt Crust Biotic Crus Aquatic In Hydrogen Oxidized F | (B11) st (B12) vertebrate Sulfide Oc Rhizosphe of Reduce | dor (C1) res along ed Iron (C4 | 1) | ots (C3) | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposi Drift Deposits (B3) | Indicators: inimum of o .1) e (A2)) (Nonriveri ts (B2) (Nor B) (Nonriveri cks (B6) | ne) nriverine) rine) | | Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence | (B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce n Reducti | dor (C1) res along ed Iron (C4 on in Tille | 1) | ots (C3) | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposi Drift Deposits (B3) Surface Soil Crace | Indicators: inimum of o .1) e (A2) (Nonriveri ts (B2) (Non B) (Nonriveri cks (B6) e on Aerial II | ne) nriverine) rine) | | Salt Crust Biotic Crus Aquatic In Hydrogen Oxidized F Presence Recent Iro | (B11) st (B12) vertebrate Sulfide Or Rhizosphe of Reduce n Reducti | dor (C1) res along ed Iron (C4 on in Tille | 1) | ots (C3) | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposi Drift Deposits (B3) Surface Soil Crace Inundation Visible Water-Stained Le | Indicators: inimum of o .1) e (A2) (Nonriveri ts (B2) (Non B) (Nonriveri cks (B6) e on Aerial II | ne) nriverine) rine) | | Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck | (B11) st (B12) vertebrate Sulfide Or Rhizosphe of Reduce n Reducti | dor (C1) res along ed Iron (C4 on in Tille | 1) | ots (C3) | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS) Shallow Aquitard (D3) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposi Drift Deposits (B3) Surface Soil Crace Inundation Visible Water-Stained Le | Indicators: inimum of o 1) e (A2) (Nonriverits (B2) (Norivericks (B6) e on Aerial Indicators (B9) ent? | ine) nriverine) rine) magery (E | | Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp | (B11) st (B12) vertebrate Sulfide Oc Rhizosphe of Reduce in Reducti Surface (colain in Re ches): 0 | dor (C1) res along ed Iron (C4 on in Tille (C7) emarks) | 1) | ots (C3) | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS) Shallow Aquitard (D3) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table ✓ Saturation (A3) Water Marks (B1) Sediment Deposi Drift Deposits (B3 Surface Soil Crace Inundation Visible Water-Stained Le Field Observations: Surface Water Preser | Indicators: inimum of o 1) e (A2) (Nonriveri ts (B2) (Non B) (Nonriveri cks (B6) e on Aerial II eaves (B9) | ine) nriverine) rine) magery (E | | Salt Crust Biotic Crus Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp | (B11) st (B12) vertebrate Sulfide Oo Rhizosphe of Reduce in Reducti Surface (blain in Re ches): 0 | dor (C1) res along ed Iron (C4 on in Tille (C7) emarks) | 1) | ots (C3) | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS) Shallow Aquitard (D3) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table ✓ Saturation (A3) Water Marks (B1) Sediment Deposi Drift Deposits (B3 Surface Soil Crace Inundation Visible Water-Stained Le Field Observations: Surface Water Present? Saturation Present? | indicators: inimum of o 1) (A2) (Nonriveri ts (B2) (Norriveri sks (B6) e on Aerial Ineaves (B9) 11 12 13 14 15 16 17 17 17 17 18 18 19 19 19 19 19 19 19 19 | ine) nriverine) rine) magery (E | | Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp | (B11) st (B12) vertebrate Sulfide Oc Rhizosphe of Reduce in Reducti Surface (blain in Re ches): 0 ches): 18 | dor (C1) res along ed Iron (C4 on in Tille C7) emarks) | l) d Soils (C | ots (C3) 6) | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS) Shallow Aquitard (D3) |
| IYDROLOGY Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table ✓ Saturation (A3) Water Marks (B1) Sediment Deposit Drift Deposits (B3 Surface Soil Crace Inundation Visible | Indicators: inimum of o 1) (A2) (Nonriveri ts (B2) (Nor S) (Nonriveri cks (B6) e on Aerial II eaves (B9) nt? Y y ge) | ine) nriverine) magery (E es es/ | No _ ✓ No | Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp Depth (in Depth (in | (B11) st (B12) vertebrate Sulfide Oo Rhizosphe of Reduce in Reducti Surface (blain in Re ches): 0 ches): 12 | dor (C1) res along ed Iron (C4 on in Tille (C7) emarks) | d Soils (C | ots (C3) 6) Iand Hydrolo | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposi Drift Deposits (B3 Surface Soil Crace Inundation Visible Water-Stained Le Field Observations: Surface Water Present Water Table Present? (includes capillary frin | Indicators: inimum of o 1) (A2) (Nonriveri ts (B2) (Nor S) (Nonriveri cks (B6) e on Aerial II eaves (B9) nt? Y y ge) | ine) nriverine) magery (E es es/ | No _ ✓ No | Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp Depth (in Depth (in | (B11) st (B12) vertebrate Sulfide Oo Rhizosphe of Reduce in Reducti Surface (blain in Re ches): 0 ches): 12 | dor (C1) res along ed Iron (C4 on in Tille (C7) emarks) | d Soils (C | ots (C3) 6) Iand Hydrolo | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposi Drift Deposits (B3 Surface Soil Crace Inundation Visible Water-Stained Le Field Observations: Surface Water Present Water Table Present? (includes capillary frin | Indicators: inimum of o 1) (A2) (Nonriveri ts (B2) (Nor S) (Nonriveri cks (B6) e on Aerial II eaves (B9) nt? Y y ge) | ine) nriverine) magery (E es es/ | No _ ✓ No | Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp Depth (in Depth (in | (B11) st (B12) vertebrate Sulfide Oo Rhizosphe of Reduce in Reducti Surface (blain in Re ches): 0 ches): 12 | dor (C1) res along ed Iron (C4 on in Tille (C7) emarks) | d Soils (C | ots (C3) 6) Iand Hydrolo | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposi Drift Deposits (B3) Surface Soil Crace Inundation Visible Water-Stained Le Field Observations: Surface Water Present Water Table Present? Saturation Present? (includes capillary frind Describe Recorded D | Indicators: inimum of o 1) e (A2) (Nonriveri ts (B2) (Nor B) (Nonriver cks (B6) e on Aerial li eaves (B9) 11? Yo yo ge) ata (stream | ine) nriverine) rine) magery (E es es gauge, m | No No No | Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp Depth (in Depth (in well, aerial) | (B11) st (B12) vertebrate Sulfide Oo Rhizosphe of Reduce in Reducti Surface (blain in Re ches): 0 ches): 12 | dor (C1) res along ed Iron (C4 on in Tille (C7) emarks) | d Soils (C | ots (C3) 6) Iand Hydrolo | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table ✓ Saturation (A3) Water Marks (B1) Sediment Deposi Drift Deposits (B3 Surface Soil Crace Inundation Visible Water-Stained Le Field Observations: Surface Water Preser Water Table Present? Saturation Present? (includes capillary frin Describe Recorded D | Indicators: inimum of o 1) e (A2) (Nonriveri ts (B2) (Nor B) (Nonriver cks (B6) e on Aerial li eaves (B9) 11? Yo yo ge) ata (stream | ine) nriverine) rine) magery (E es es gauge, m | No No No | Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp Depth (in Depth (in well, aerial) | (B11) st (B12) vertebrate Sulfide Oo Rhizosphe of Reduce in Reducti Surface (blain in Re ches): 0 ches): 12 | dor (C1) res along ed Iron (C4 on in Tille (C7) emarks) | d Soils (C | ots (C3) 6) Iand Hydrolo | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) |

| Project/Site: Allred | Ci | ty/County: | Lehi-Utal | h | Sampling Date: _ | 4-4-2016 |
|--|-------------------------|----------------------|------------|---|---|--------------|
| Applicant/Owner: DR Horton | | | | State: <u>Utah</u> | Sampling Point: _ | LEHI-5 |
| Investigator(s): Tom Hopkins | S | ection, Tow | nship, Rar | nge: <u>S 11&12, T 5S, R1</u> | LW SLB&M | |
| Landform (hillslope, terrace, etc.): Terrace | L | ocal relief (| concave, c | convex, none): concave | Slop | e (%): <1 |
| Subregion (LRR): LRR D | Lat: 40.39 | 9817 N | | Long: -111.89828 W | Datun | n: NAD-83 |
| Soil Map Unit Name: Mixed Alluvial Land | | | | | | |
| Are climatic / hydrologic conditions on the site typical for | | | , | | | |
| Are Vegetation, soil, or Hydrology | | | | Normal Circumstances" | | No |
| Are Vegetation, Soil, or Hydrology | | | | eded, explain any answe | | |
| SUMMARY OF FINDINGS – Attach site ma | | | | | | aturos oto |
| SUMMART OF FINDINGS – Attach site ma | ip snowing s | | point it | ocations, transects | s, important lea | itures, etc. |
| | No | Is the | Sampled | Area | | |
| Hydric Soil Present? Yes | | withi | n a Wetlan | nd? Yes | No <u></u> ✓ | |
| Wetland Hydrology Present? Yes | No <u>▼</u> | | | | | |
| | | | | | | |
| Livestock grazing prevalent | | | | | | |
| | | | | | | |
| VEGETATION – Use scientific names of pl | | | | | | |
| Tree Stratum (Plot size:) | Absolute <u>% Cover</u> | Dominant Species? | | Dominance Test work Number of Dominant S | | |
| 1. | | | | That Are OBL, FACW, | • | (A) |
| 2 | | | | Total Number of Domir | ant | |
| 3 | | | | Species Across All Stra | | (B) |
| 4 | | | | Percent of Dominant S | pecies | |
| Sapling/Shrub Stratum (Plot size:) | = | Total Cov | er | That Are OBL, FACW, | | (A/B) |
| 1 | | | | Prevalence Index wor | rksheet: | |
| 2. | | | | Total % Cover of: | Multiply | by: |
| 3. | | | | OBL species | x 1 = | |
| 4 | | | | FACW species | x 2 = | |
| 5 | | | | FAC species | | |
| Herb Stratum (Plot size:) | = | Total Cov | er | FACU species | | |
| Herb Stratum (Plot size:) 1. Juncus balticus | 25 | Υ | FACW | UPL species | | |
| Sporobolus airoides | | Υ Υ | | Column Totals: | (A) | (B) |
| 3. Agropyron cristatum | | Υ | | Prevalence Index | c = B/A = | |
| 4 | | | | Hydrophytic Vegetati | on Indicators: | |
| 5 | | | | ✓ Dominance Test is | | |
| 6 | | | | Prevalence Index | | |
| 7 | | | | | aptations ¹ (Provide s s or on a separate s | |
| 8 | | | | Problematic Hydro | | , |
| Woody Vine Stratum (Plot size:) | 100= | Total Cov | er | | | |
| 1 | | | | ¹ Indicators of hydric so | | |
| 2 | | | | be present, unless dist | urbed or problemat | C. |
| | | Total Cov | | Hydrophytic | | |
| % Bare Ground in Herb Stratum % Co | ver of Biotic Cru | st | | Vegetation Present? Ye | esNo | |
| Remarks: | | | | I | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

SOIL Sampling Point: <u>LEHI-5</u>

| Depth | . , | | | | | | n the absence of i | , |
|--|---|--|---|--|--|-------------------|--|--|
| | Matrix | | | x Feature | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-2 | Root | | - | _ | | | | |
| 2-8 | 10YR 5/2 | 80 | 10 YR 6/1 | 20 | RM | M | loam | |
| 8-18 | 10 YR 6/1 | 100 | | | | | Clay-loam | |
| 8-18 | 10 11 0/1 | 100 | | | | | Clay-loaili | |
| | | | | | | | | |
| | | | | _ | | | <u> </u> | |
| | | | | | | | | |
| | | | | | | | | |
| | - | | | _ | | | | _ |
| 1 | | | | | | | | _ |
| | Concentration, D=Dep | | | | | d Sand G | | on: PL=Pore Lining, M=Matrix. |
| _ | Indicators: (Applic | able to all | | | ed.) | | | Problematic Hydric Soils ³ : |
| Histoso | ` ' | | Sandy Red | | | | | k (A9) (LRR C) |
| | pipedon (A2) | | Stripped M | | . (=4) | | | k (A10) (LRR B) |
| | listic (A3) | | Loamy Mu | - | . , | | | Vertic (F18) |
| | en Sulfide (A4) | C) | Loamy Gle | | (F2) | | | nt Material (TF2) |
| | d Layers (A5) (LRR outline (A9) (LRR D) | 5) | ✓ Depleted M Redox Dar | , , | (E6) | | Other (Exp | plain in Remarks) |
| | ed Below Dark Surfac | · (Δ11) | Redox Dar | | | | | |
| I — · | ark Surface (A12) | C (ATT) | Redox Dep | | . , | | ³ Indicators of h | nydrophytic vegetation and |
| | Mucky Mineral (S1) | | Vernal Poo | | . 0) | | | rology must be present, |
| | Gleyed Matrix (S4) | | | (. 0) | | | | rbed or problematic. |
| | Layer (if present): | | | | | | | |
| | , , | | | | | | | |
| | nches): | | | | | | Hydric Soil Pre | esent? Yes <u>√</u> No |
| Remarks: | | | | | | | - i yano con i io | |
| ixemaiks. | | | | | | | | |
| Listed Hy | dric soil | | | | | | | |
| 1 | | | | | | | | |
| | | | | | | | | |
| HYDROLO | GY | | | | | | | |
| | drology Indicators: | | | | | | | |
| 1 | cators (minimum of c | | t check all that ann | lv) | | | Soconda | ry Indicators (2 or more required) |
| | • | ine required | i. Check ali mai add | IY) | | | | v marcators (2 or more reduired) |
| Surface | vvater (A1) | | • | (D44) | | | | • |
| | | | Salt Crust | ` ' | | | Wate | er Marks (B1) (Riverine) |
| High Wa | ater Table (A2) | | Salt Crust | st (B12) | (D40) | | Wate | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) |
| High Wa | ater Table (A2) ion (A3) | | Salt Crust Biotic Cru Aquatic Ir | st (B12) vertebrate | | | Wate Sedir Drift | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) |
| High Water N | ater Table (A2) ion (A3) ⁄Jarks (B1) (Nonriver | • | Salt Crust Biotic Cru Aquatic Ir Hydrogen | st (B12) vertebrate Sulfide O | dor (C1) | | Wate Sedii Drift Drair | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) |
| High Ware Naturati Water Naturati | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No | nriverine) | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized | st (B12) overtebrate Sulfide O Rhizosphe | dor (C1) res along | _ | Wate Sedii Drift Drair ots (C3) Dry-8 | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) |
| High Ward Water No Sedime | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No posits (B3) (Nonrive | nriverine) | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence | st (B12) overtebrate Sulfide O Rhizosphe of Reduce | dor (C1) res along ed Iron (C4 | 1) | Wate Sedii Drift Drair Drair ots (C3) Dry-\$ Cray | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) |
| High Ward Naturati Sedime Drift De Surface | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No iposits (B3) (Nonrive is Soil Cracks (B6) | nriverine) rine) | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Iro | st (B12) overtebrate Sulfide O Rhizosphe of Reduce on Reduction | dor (C1) res along ed Iron (C ² on in Tille | 1) | Wate Sedin Drift Drain ots (C3) Dry-8 Cray 6) Satu | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) |
| High Ward Naturati Sedime Drift De Surface | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No posits (B3) (Nonrive | nriverine) rine) | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Iro | st (B12) overtebrate Sulfide O Rhizosphe of Reduce on Reduction | dor (C1) res along ed Iron (C ² on in Tille | 1) | Wate Sedir Drift Drair ots (C3) Dry-8 Cray 6) Satur Shall | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Geason Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ow Aquitard (D3) |
| High Waler Nater N | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No iposits (B3) (Nonrive is Soil Cracks (B6) | nriverine) rine) | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Iro | st (B12) evertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface | dor (C1) res along ed Iron (C4 on in Tille (C7) | 1) | Wate Sedir Drift Drair ots (C3) Dry-8 Cray 6) Satur Shall | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) |
| High Waler Nater N | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No posits (B3) (Nonriver e Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) | nriverine) rine) | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ird Thin Mucl | st (B12) evertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface | dor (C1) res along ed Iron (C4 on in Tille (C7) | 1) | Wate Sedir Drift Drair ots (C3) Dry-8 Cray 6) Satur Shall | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Geason Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ow Aquitard (D3) |
| High Warder Now Sedime Drift De Surface Inundat Water-S | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No iposits (B3) (Nonriver is Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: | nriverine) rrine) Imagery (B7 | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ird Thin Mucl | st (B12) Evertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface (plain in Re | dor (C1) res along ed Iron (C4 on in Tille (C7) | 1) | Wate Sedir Drift Drair ots (C3) Dry-8 Cray 6) Satur Shall | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Geason Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ow Aquitard (D3) |
| High Wider Notes and the second control of the second control | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No iposits (B3) (Nonrive e Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? | enriverine) erine) Imagery (B7 | Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ird Thin Mucl | st (B12) evertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface (plain in Re | dor (C1) res along ed Iron (C ² on in Tiller (C7) emarks) | l) d Soils (Co | Wate Sedir Drift Drair ots (C3) Dry-8 Cray 6) Satur Shall | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Geason Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ow Aquitard (D3) |
| High Warder Now Sedime Sedime Drift De Surface Inundat Water-S Field Obser | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No posits (B3) (Nonriver e Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Y | nriverine) Imagery (B7 /es 1 | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Mucl Other (Ex | st (B12) evertebrate Sulfide O Rhizosphe of Reducti c Surface plain in Re eches): 0 eches): 20 | dor (C1) res along ed Iron (C4 on in Tiller (C7) emarks) | l) d Soils (Co | Wate Sedir Drift Drair ots (C3) Dry-5 Cray 6) Satur Shall FAC- | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ow Aquitard (D3) Neutral Test (D5) |
| High Wall Saturati Saturati Sedime Drift De Surface Inundat Water-S Field Obser Surface Wall Water Table Saturation P | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No posits (B3) (Nonriver e Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? Y Present? Y Present? Y Present? Y | nriverine) Imagery (B7 /es 1 /es 1 /es 1 | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Other (Ex No ✓ Depth (ir No ✓ Depth (ir | st (B12) evertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface plain in Re eches): 0 eches): 20 eches): | dor (C1) res along ed Iron (C4 on in Tiller (C7) emarks) | d Soils (Co | Wate | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Geason Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ow Aquitard (D3) |
| High Wall Saturati Saturati Sedime Drift De Surface Inundat Water-S Field Obser Surface Wall Water Table Saturation P | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No posits (B3) (Nonriver is Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? Y | nriverine) Imagery (B7 /es 1 /es 1 /es 1 | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Other (Ex No ✓ Depth (ir No ✓ Depth (ir | st (B12) evertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface plain in Re eches): 0 eches): 20 eches): | dor (C1) res along ed Iron (C4 on in Tiller (C7) emarks) | d Soils (Co | Wate | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ow Aquitard (D3) Neutral Test (D5) |
| High Wall Saturati Saturati Sedime Drift De Surface Inundat Water-S Field Obser Surface Wall Water Table Saturation P | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No posits (B3) (Nonriver e Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? Y Present? Y Present? Y Present? Y | nriverine) Imagery (B7 /es 1 /es 1 /es 1 | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Other (Ex No ✓ Depth (ir No ✓ Depth (ir | st (B12) evertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface plain in Re eches): 0 eches): 20 eches): | dor (C1) res along ed Iron (C4 on in Tiller (C7) emarks) | d Soils (Co | Wate | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ow Aquitard (D3) Neutral Test (D5) |
| High Wall Saturati Saturati Sedime Drift De Surface Inundat Water-S Field Obser Surface Wall Water Table Saturation P | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No posits (B3) (Nonriver e Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? Y Present? Y Present? Y Present? Y | nriverine) Imagery (B7 /es 1 /es 1 /es 1 | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Other (Ex No ✓ Depth (ir No ✓ Depth (ir | st (B12) evertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface plain in Re eches): 0 eches): 20 eches): | dor (C1) res along ed Iron (C4 on in Tiller (C7) emarks) | d Soils (Co | Wate | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ow Aquitard (D3) Neutral Test (D5) |
| High Water Name Sedime Sedime Drift De Surface Inundat Water-S Field Obser Surface Water Table Saturation F (includes ca Describe Re | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No posits (B3) (Nonriver e Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? Present? Y Present? Y Present? Y pillary fringe) | rriverine) Imagery (B7 /es 1 /es 1 res 1 res 1 res 1 | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Mucl Other (Ex No ✓ Depth (ir No ✓ Depth (ir onitoring well, aerial | st (B12) evertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface plain in Re eches): 0 eches): 20 eches): | dor (C1) res along ed Iron (C4 on in Tiller (C7) emarks) | d Soils (Co | Wate | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ow Aquitard (D3) Neutral Test (D5) |
| High Water Name Sedime Sedime Drift De Surface Inundat Water-S Field Obser Surface Water Table Saturation F (includes ca Describe Re | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No posits (B3) (Nonriver e Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? Y Present? Y Present? Y Present? Y | rriverine) Imagery (B7 /es 1 /es 1 res 1 res 1 res 1 | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Mucl Other (Ex No ✓ Depth (ir No ✓ Depth (ir onitoring well, aerial | st (B12) evertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface plain in Re eches): 0 eches): 20 eches): | dor (C1) res along ed Iron (C4 on in Tiller (C7) emarks) | d Soils (Co | Wate | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ow Aquitard (D3) Neutral Test (D5) |
| High Water Name Sedime Sedime Drift De Surface Inundat Water-S Field Obser Surface Water Table Saturation F (includes ca Describe Re | ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (No posits (B3) (Nonriver e Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? Present? Y Present? Y Present? Y pillary fringe) | rriverine) Imagery (B7 /es 1 /es 1 res 1 res 1 res 1 | Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Mucl Other (Ex No ✓ Depth (ir No ✓ Depth (ir onitoring well, aerial | st (B12) evertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface plain in Re eches): 0 eches): 20 eches): | dor (C1) res along ed Iron (C4 on in Tiller (C7) emarks) | d Soils (Co | Wate | er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ow Aquitard (D3) Neutral Test (D5) |

| Project/Site: Allred | City/County: Lehi-Ut | tah | Sampling Date: 4-6-2016 | | | |
|--|---|--|--|--|--|--|
| Applicant/Owner: DR Horton | | State: Utah | Sampling Point: <u>LEHI-6</u> | | | |
| Investigator(s): Tom Hopkins | vestigator(s): Tom Hopkins Section, Township, Range: S 11&12, T 55, R1W SLB&M | | | | | |
| Landform (hillslope, terrace, etc.): Terrace | Local relief (concave | e, convex, none): <u>concave</u> | Slope (%):<1_ | | | |
| Subregion (LRR): LRR D | Lat: 40.39716 N | Long: <u>-111.89951 W</u> | Datum: NAD-83 | | | |
| Soil Map Unit Name: Mixed Alluvial Land | | NWI classific | cation: | | | |
| Are climatic / hydrologic conditions on the site typical for | r this time of year? Yes No | (If no, explain in R | Remarks.) | | | |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? Are | e "Normal Circumstances" r | present? Yes No _✓ | | | |
| Are Vegetation, Soil, or Hydrology | | needed, explain any answe | ers in Remarks.) | | | |
| SUMMARY OF FINDINGS – Attach site ma | | | | | | |
| Hydrophytic Vegetation Present? Yes _ ✓ | No Is the Sample | | <u>· </u> | | | |
| | No. | | / Na | | | |
| | No within a Wetl | and? Yes <u>v</u> | / No | | | |
| Remarks: | 1 | | | | | |
| Livestock grazing prevalent | | | | | | |
| | | | | | | |
| VEGETATION – Use scientific names of p | lants. | | | | | |
| | Absolute Dominant Indicator | | sheet: | | | |
| Tree Stratum (Plot size:) | % Cover Species? Status | - Number of Dominant S | | | | |
| 1 2 | | _ That Are OBL, FACW, | or FAC: 2 (A) | | | |
| 3. | | Total Number of DominSpecies Across All Stra | | | | |
| 4. | | | | | | |
| | = Total Cover | Percent of Dominant Specification That Are OBL, FACW, | | | | |
| Sapling/Shrub Stratum (Plot size:) | | | | | | |
| 1 | | | | | | |
| 2 | | _ | Multiply by: x 1 = | | | |
| 3 4 | | | x 2 = | | | |
| 5 | | - I | x 3 = | | | |
| | = Total Cover | - · · · · · · · · · · · · · · · · · · | x 4 = | | | |
| Herb Stratum (Plot size:) | | | x 5 = | | | |
| 1. Juncus balticus | | Oolulliii Totals. | (A) (B) | | | |
| 2. <u>Sporobolus airoides</u> | | | c = B/A = | | | |
| 3 | | Hydrophytic Vegetation | | | | |
| 4. | | Dominance Test is | | | | |
| 6 | | - — | | | | |
| 7. | | Morphological Ada | aptations ¹ (Provide supporting | | | |
| 8. | | | s or on a separate sheet) | | | |
| | 100 = Total Cover | Problematic Hydro | phytic Vegetation ¹ (Explain) | | | |
| Woody Vine Stratum (Plot size:) | | ¹ Indicators of hydric so | il and wetland hydrology must | | | |
| 1 | | be present, unless distr | urbed or problematic. | | | |
| 2 | = Total Cover | - Hydrophytic | | | | |
| N Pour Counting Host City | | Vegetation | - / No | | | |
| % Bare Ground in Herb Stratum % C | over of Biotic Crust | Present? Ye | es No | | | |
| Remarks: | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

SOIL Sampling Point: <u>LEHI-6</u>

| Profile Desci | ription: (Describe | to the depth | needed to docur | nent the i | ndicator | or confirm | the absence of indic | ators.) |
|-------------------|--|----------------|--------------------------|------------------|-------------------|------------------|----------------------------------|--------------------------------------|
| Depth | Matrix | | | x Features | | | | |
| (inches) | Color (moist) | | Color (moist) | % | Type ¹ | Loc ² | <u>Texture</u> | Remarks |
| 0-2 | Root | | | | | | | |
| 2-12 | 10YR 4/1 | 100 | | | | | clay-loam | |
| 12-18 | 10 YR 7/1 | 100 | | | | | Clay-loam | |
| 12 10 | 10 11(7/1 | 100 | | · | | - | Clay Ioaiii | _ |
| | | | | | | | | _ |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | · | | - | | _ |
| 1 | | | | | | | 2 | |
| | ncentration, D=Dep | | | | | ed Sand Gr | | PL=Pore Lining, M=Matrix. |
| - | ndicators: (Applic | able to all Li | | | ed.) | | | blematic Hydric Soils ³ : |
| Histosol (| , | | Sandy Red | | | | 1 cm Muck (A9 | |
| | ipedon (A2) | | Stripped Ma | ` ' | I (E4) | | 2 cm Muck (A1 | |
| Black His | . , | | Loamy Muc | | | | Reduced Verti | |
| | n Sulfide (A4) Layers (A5) (LRR (| •\ | Loamy Gley | | (FZ) | | Red Parent Ma | |
| | ck (A9) (LRR D) | •) | Depleted M Redox Dark | . , | E6) | | Other (Explain | in Remarks) |
| | Below Dark Surface | - (Δ11) | ✓ Depleted D | , | | | | |
| | rk Surface (A12) | <i>(</i> A11) | Redox Dep | | . , | | ³ Indicators of hydro | phytic vegetation and |
| | ucky Mineral (S1) | | Vernal Pool | • | 0) | | | y must be present, |
| | leyed Matrix (S4) | | | o (. o) | | | unless disturbed | |
| | ayer (if present): | | | | | | | The second second |
| Type: | | | | | | | | |
| | hes): | | | | | | Hydric Soil Presen | t? Yes √ No |
| Remarks: | | | | | | | 11,4110 0011 1100011 | 100 |
| Remarks. | | | | | | | | |
| Listed Hydri | c soil | | | | | | | |
| Soil moist fro | om top of data po | int to 12" b | gs | | | | | |
| | | | | | | | | |
| HYDROLOG | GΥ | | | | | | | |
| Wetland Hvd | rology Indicators: | | | | | | | |
| _ | ators (minimum of o | ne required: | chack all that anni | v) | | | Secondary Inc | licators (2 or more required) |
| | | ne required, | | | | | | |
| Surface \ | ` , | | Salt Crust | ` ' | | | | rks (B1) (Riverine) |
| _ | ter Table (A2) | | Biotic Crus | | · (D40) | | | Deposits (B2) (Riverine) |
| ✓ Saturatio | ` ' | , | Aquatic In | | | | | osits (B3) (Riverine) |
| | arks (B1) (Nonriveri | | Hydrogen | | | | _ | Patterns (B10) |
| | t Deposits (B2) (Noi | | | | | _ | ots (C3) Dry-Seas | |
| | osits (B3) (Nonrive | rine) | Presence | | | | Crayfish E | ` ' |
| · · | Soil Cracks (B6) | | Recent Iro | | | d Soils (C6 | | No Visible on Aerial Imagery (C9) |
| | n Visible on Aerial I | magery (B7) | | • | , | | Shallow A | |
| <u>√</u> Water-St | ained Leaves (B9) | | Other (Exp | olain in Re | marks) | | FAC-Neu | tral Test (D5) |
| Field Observ | | | | | | | | |
| Surface Wate | er Present? Y | es No | o <u>√</u> Depth (in | ches): <u>0</u> | | _ | | |
| Water Table F | Present? Y | es <u>√</u> No | Depth (in | ches): <u>16</u> | | _ | | |
| | | | | | | | and Hydrology Prese | nt? Yes <u>√</u> No |
| (includes capi | | would a mind | itoring | nh at : | andaria te | naction | if available: | |
| Describe Rec | orded Data (stream | gauge, mon | itoring well, aerial | pnotos, pre | evious ins | pections), | ır avallable: | |
| | | | | | | | | |
| Remarks: | | | | | | | | |
| Water tah | le at 18" equili | brates to | 12" BGS | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| Subregion (LRR): LRR D Lat: 40.39694 N Long: -111.89928 W Datum: NAD-83 Soil Map Unit Name: Mixed Alluvial Land NWI classification: PEMC Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation Are "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) | Project/Site: Allred | City/County: <u>Lehi-Uta</u> | ah | Sampling Date: _ | 4-6-2016 |
|--|--|------------------------------|--|---------------------|--------------|
| Landform (hilslope, terrace, etc.): | Applicant/Owner: DR Horton | | State: <u>Utah</u> | Sampling Point: _ | LEHI-7 |
| Note Committed Note | Investigator(s): Tom Hopkins | Section, Township, Ra | ange: <u>S 11&12, T 5S, R1</u> | W SLB&M | |
| Note Committed Note | Landform (hillslope, terrace, etc.): Terrace | Local relief (concave, | convex, none): concave | Slop | e (%): <1 |
| Note Continue Note Continue Note Continue Note Continue Con | Subregion (LRR): LRR D | Lat: 40.39694 N | _ Long: -111.89928 W | Datur | n: NAD-83 |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes | | | | | |
| Are Vegetation | | | | | |
| Are Vegetation Soil or Hydrologynaturally problematic? | | | | | No √ |
| SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes V No within a Wetland? Yes No Ves No Wetland Hydrology Present? Yes V No Ves No Wetland Present Hydrology Present? Yes No Ves Wetland Hydrology Present? Yes No Ves Wetland Hydrology Present? Yes No Ves No Ves Wetland Present? Yes No Ves No Ves Wetland Present? Yes Ves No Ves No Ves Wetland Present? Yes Ves No Ves No Ves Wetland Present Present of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: 2 (B) Species Across All Strate: 2 (B) Prevalence Index worksheet: Total % Cover of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B) Prevalence Index worksheet: Total % Cover of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B) Prevalence Index Strates No Ves | | | · | | |
| Hydrophytic Vegetation Present? Yes | | | | | aturas ata |
| Hydro Soil Present? Yes | SUMMART OF FINDINGS – Attach site in | | —————————————————————————————————————— | , important lea | atures, etc. |
| Hydrofolian Present? Yes | | | d Area | | |
| VEGETATION - Use scientific names of plants. | | No within a Wetlan | | No <u></u> ✓ | |
| VEGETATION - Use scientific names of plants. | | _ No | | | |
| Absolute | | | | | |
| Absolute | Livestock grazing prevalent | | | | |
| Absolute | | | | | |
| Number of Dominant Species | VEGETATION – Use scientific names of p | | | | |
| 1 | Tree Stratum (Plot size: | | | | |
| 2 | | | | | (A) |
| 3 | | | | | |
| Sapling/Shrub Stratum (Plot size: Prevalence Index worksheet: Total % Cover of: Multiply by: | 3 | | | | (B) |
| That Are OBL, FACW, or FAC:100 (A/B) | 4 | | Percent of Dominant St | necies | |
| 1. | Capling/Charle Ctratum / Diet size | = Total Cover | | | (A/B) |
| 2 | | | Prevalence Index wor | ksheet: | |
| 3. OBL species x 1 = 4. FACW species x 2 = 5. FAC species x 3 = FAC species x 4 = UPL species x 4 = UPL species x 5 = UPL species x 5 = Column Totals: (A) (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: ✓ Dominance Test is >50% — Prevalence Index is ≤ 3.0¹ Prevalence Index is ≤ 3.0¹ — Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) Moody Vine Stratum (Plot size:) 100 = Total Cover Woody Vine Stratum (Plot size:) 1/Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Wegetation Present? Yes ✓ No | | | | | bv: |
| 4 | | | | | |
| Herb Stratum (Plot size:) 1. Juncus balticus 75 Y FACW FAC | | | | | |
| Herb Stratum (Plot size:) 1. Juncus balticus | 5 | | FAC species | x 3 = | |
| 1. Juncus balticus 2. Sporobolus airoides 3. Sporobolus airoides 4. Sporobolus airoides 5. Sporobolus airoides 6. Sporobolus airoides 7. Sporobolus airoides 7. Sporobolus airoides 7. Sporobolus airoides 8. Sporobolus airoides 7. Sporobolus airoides 8. Sporobolus airoides 8. Sporobolus airoides 9 | | | FACU species | x 4 = | |
| 2. Sporobolus airoides 2. Sporobolus airoides 2. Sporobolus airoides 2. Prevalence Index = B/A = | | | | | |
| Prevalence Index = B/A = | \(\frac{1}{2}\) | | Column Totals: | (A) | (B) |
| Hydrophytic Vegetation Indicators: 5 | | | Prevalence Index | = B/A = | |
| 5 | | | | | |
| 6 Prevalence Index is ≤3.0¹ 7 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 ** Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. **Bare Ground in Herb Stratum** | | | ✓ Dominance Test is | >50% | |
| 7 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 ** Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. **Total Cover** **Bare Ground in Herb Stratum | | | Prevalence Index is | s ≤3.0 ¹ | |
| 100 | | | | | |
| Woody Vine Stratum (Plot size:) 1 = Total Cover 2 = Total Cover We Bare Ground in Herb Stratum % Cover of Biotic Crust Present? Yes✓ _ No | 8 | | | | , |
| 1 | Weedy Vine Stratum (Diet size) | = Total Cover | 1 Toblematic Hydrol | priytic vegetation | (Explair) |
| be present, unless disturbed or problematic. — = Total Cover Hydrophytic Vegetation Present? Yes No No No | | | ¹ Indicators of hydric soi | l and wetland hydro | ology must |
| = Total Cover Wegetation Present? Hydrophytic Vegetation Present? No No No No No No No No No N | | | | | |
| % Bare Ground in Herb Stratum % Cover of Biotic Crust Present? Yes ✓ No | | | | | |
| | % Bare Ground in Herh Stratum % Co | | | s √ No | |
| | | O.S. O. Diolio Olust | . 1000111: 16: | · 140 | |
| | | | | | |
| | | | | | |
| | | | | | |

SOIL Sampling Point: <u>LEHI-7</u>

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

| Depth | Matrix | | Redox | k Features | 3 | | | |
|---------------------------------------|--|-----------------|---------------------------|----------------|-------------------|------------------|----------------|--|
| (inches) | Color (moist) | <u></u> % | Color (moist) | % | Type ¹ | Loc ² | <u>Texture</u> | Remarks |
| 0-3 | Root | | | | | | | |
| 3-12 | 10YR 5/2 | 100 | | | | | clay | |
| 12-20 | 10 YR 7/2 | 100 | | | | | Clay | . <u> </u> |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | · |
| | | | | | | | - | |
| | oncentration, D=Dep | | | | | d Sand Gr | | ocation: PL=Pore Lining, M=Matrix. |
| Hydric Soil | Indicators: (Applic | able to all LR | Rs, unless other | wise note | ed.) | | Indicators | s for Problematic Hydric Soils ³ : |
| Histosol | | | Sandy Redo | , , | | | | Muck (A9) (LRR C) |
| | pipedon (A2) | | Stripped Ma Loamy Mucl | | I /E4\ | | | Muck (A10) (LRR B) |
| Black Hi | en Sulfide (A4) | | Loamy Muci | - | . , | | | ced Vertic (F18) Parent Material (TF2) |
| | d Layers (A5) (LRR (| C) | ✓ Depleted Ma | | (1 2) | | | (Explain in Remarks) |
| | ick (A9) (LRR D) | -, | Redox Dark | | F6) | | | (2.4.2) |
| Depleted | d Below Dark Surfac | e (A11) | Depleted Da | rk Surfac | e (F7) | | | |
| | ark Surface (A12) | | Redox Depr | | - 8) | | | s of hydrophytic vegetation and |
| | fucky Mineral (S1) | | Vernal Pools | s (F9) | | | | hydrology must be present, |
| | leyed Matrix (S4) ayer (if present): | | | | | | uniess | disturbed or problematic. |
| Type: | Layer (II present). | | | | | | | |
| Depth (inc | | | | | | | Hydric Soi | il Present? Yes ✓ No |
| Remarks: | | | <u> </u> | | | | Tiyane oo | Tesent: Tes V No |
| | | | | | | | | |
| Listed Hy | | | | | | | | |
| Clay soil a | at 12". Possible | e aquitard. | | | | | | |
| | O./ | | | | | | | |
| HYDROLO | | | | | | | | |
| _ | drology Indicators: | | | | | | | |
| | cators (minimum of o | ne required; o | | | | | | ondary Indicators (2 or more required) |
| | Water (A1) | | Salt Crust | , , | | | | Water Marks (B1) (Riverine) |
| | iter Table (A2) | | Biotic Crus | | (5.40) | | | Sediment Deposits (B2) (Riverine) |
| ✓ Saturation | | | Aquatic Inv | | | | | Drift Deposits (B3) (Riverine) |
| | arks (B1) (Nonriver | , | Hydrogen | | | Livina Doo | | Drainage Patterns (B10) |
| | nt Deposits (B2) (No posits (B3) (Nonrive | | Oxidized R | | _ | - | | Dry-Season Water Table (C2) Crayfish Burrows (C8) |
| | Soil Cracks (B6) | 11116) | Recent Iro | | | | | Saturation Visible on Aerial Imagery (C9) |
| · | on Visible on Aerial | Imagery (B7) | Thin Muck | | | 2 00110 (00 | | Shallow Aquitard (D3) |
| · · · · · · · · · · · · · · · · · · · | tained Leaves (B9) | 337() | Other (Exp | | | | | FAC-Neutral Test (D5) |
| Field Obser | vations: | | | | | | | · · · · · · · · · · · · · · · · · · · |
| Surface Water | er Present? Y | 'es No | Depth (inc | hes): <u>0</u> | | | | |
| Water Table | Present? Y | 'es <u>√</u> No | Depth (inc | hes): 20 | | | | |
| Saturation Pr | resent? Y | es No | Depth (inc | ches): | | Wetla | and Hydrolog | gy Present? Yes No✓ |
| (includes cap | oillary fringe) | | | | | | | |
| Describe Re | corded Data (stream | ı gauge, monii | oring well, aerial p | onotos, pre | evious ins | pections), | if available: | |
| Domestic | | | | | | | | |
| Remarks: | | | | | | | | |
| Water tak | ole at 20" equil | ibrates to | 18" BGS | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| Project/Site: Allred | (| City/County | y: <u>Lehi-Uta</u> | h | _ Sampling Date: _ | 4-6-2016 |
|--|-------------------|-------------|--------------------|--|---------------------------------|--------------|
| Applicant/Owner: DR Horton | | | | State: <u>Utah</u> | _ Sampling Point: _ | LEHI-8 |
| Investigator(s): Tom Hopkins | ; | Section, To | ownship, Ra | nge: <u>S 11&12, T 5S, R</u> | 1W SLB&M | |
| Landform (hillslope, terrace, etc.): Terrace | | Local relie | f (concave, | convex, none): None | Slop | oe (%): <1% |
| Subregion (LRR): LRR D | Lat: 40.3 | 39870 N | | Long: <u>-111.90029 W</u> | <i>l</i> Datur | n: NAD 83 |
| Soil Map Unit Name: Mixed Alluvium Land | | | | NWI classif | ication: | |
| Are climatic / hydrologic conditions on the site typical for | | | , | | | |
| Are Vegetation, Soil, or Hydrology | significantly | disturbed? | Are ' | 'Normal Circumstances" | present? Yes <u></u> ✓ | ′ No |
| Are Vegetation, Soil, or Hydrology | | | | eeded, explain any answ | ers in Remarks.) | |
| SUMMARY OF FINDINGS – Attach site ma | | | | | | atures, etc. |
| Hydrophytic Vegetation Present? Yes ✓ | No | | | | | |
| | No | | he Sampled | | ∕ No | |
| | No | Witi | nin a Wetlar | na? Yes | <u>/NO</u> | ı |
| Remarks: | | | | | | |
| | | | | | | |
| | | | | | | |
| VEGETATION – Use scientific names of pl | lants | | | | | |
| VEGETATION GGG GGIGHTHIO HAMIES OF PI | Absolute | Dominan | t Indicator | Dominance Test wor | ·ksheet· | |
| Tree Stratum (Plot size:) | % Cover | | | Number of Dominant S | | |
| 1 | | | | That Are OBL, FACW | | (A) |
| 2 | | | | Total Number of Domi | | |
| 3 | | | | Species Across All Str | ata: <u>1</u> | (B) |
| 4 | | | | Percent of Dominant S | | _ |
| Sapling/Shrub Stratum (Plot size:) | | = Total Co | over | That Are OBL, FACW | , or FAC:10 | 0 (A/B) |
| 1 | | | _ | Prevalence Index wo | rksheet: | |
| 2 | | | | Total % Cover of: | Multiply | / by: |
| 3 | | | | OBL species | | |
| 4 | | | | FACW species | | |
| 5 | | | | FACIL appoins | | |
| Herb Stratum (Plot size:) | | = Total Co | over | FACU species | | |
| 1. Distichlis spicata | 80 | Y | FAC | Column Totals: | | |
| 2. Schoenoplectus pungens | 10 | N | OBL | | | |
| 3. Agropyron cristatum | 10 | N | FAC | | x = B/A = | |
| 4 | | | | Hydrophytic Vegetat | | |
| 5 | | | | ✓ Dominance Test i | | |
| 6 | | | | Prevalence Index | aptations¹ (Provide : | supporting |
| 7 | | | | | ks or on a separate | |
| 8 | | = Total Co | | Problematic Hydro | ophytic Vegetation ¹ | (Explain) |
| Woody Vine Stratum (Plot size:) | | - Total Ci | ovei | | | |
| 1 | | | | ¹ Indicators of hydric so be present, unless dis | | |
| 2 | | | | be present, unless dis | turbed or problemat | IC. |
| | | = Total Co | over | Hydrophytic Vegetation | | |
| % Bare Ground in Herb Stratum % Co | over of Biotic Ci | ust | | _ | es No | |
| Remarks: | | | | 1 | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

SOIL Sampling Point: <u>LEHI-8</u>

| Profile Description: | (Describe | to the dept | n needed to docur | nent the i | ndicator | or confirm | the absence of ind | licators.) | | | |
|---|----------------------|---------------|-----------------------|------------------|-------------------|------------------|-------------------------------|---|-------------|--|--|
| Depth | Matrix | | | x Features | S1 | | | _ | | | |
| (inches) Colo | r (moist) | <u></u> % | Color (moist) | % | Type ¹ | Loc ² | <u>Texture</u> | Remarks | | | |
| <u>0-2</u> <u>Root</u> | | | | | | | | | | | |
| 2-12 10 YR | 4/1 | 100 | | | | | loam | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | · —— | | | | | | | |
| | | | | <u> </u> | | | | | | | |
| | | | | <u> </u> | | | | | | | |
| | | | | | | | | | | | |
| ¹ Type: C=Concentrat | ion. D=Depl | etion. RM=I | Reduced Matrix. CS | S=Covered | or Coate | ed Sand Gr | rains. ² Location: | PL=Pore Lining, M=I | Matrix. | | |
| Hydric Soil Indicator | | | | | | | | roblematic Hydric So | | | |
| Histosol (A1) | | | Sandy Red | ox (S5) | | | 1 cm Muck (/ | A9) (LRR C) | | | |
| Histic Epipedon (A2) Stripped Matrix (S6) | | | | | | | | A10) (LRR B) | | | |
| Black Histic (A3) | | | Loamy Muc | ky Minera | l (F1) | | Reduced Vertic (F18) | | | | |
| Hydrogen Sulfide | | | Loamy Gley | | (F2) | | | Material (TF2) | | | |
| Stratified Layers | | ;) | Depleted M | | | | Other (Expla | in in Remarks) | | | |
| 1 cm Muck (A9) (| , | (* 4 4) | Redox Dark | , | , | | | | | | |
| Depleted Below [| | e (A11) | ✓ Depleted D | | . , | | 31 | | al | | |
| Thick Dark Surface Sandy Mucky Mir | | | Redox Dep Vernal Pool | , | -8) | | | Irophytic vegetation and ogy must be present, | na | | |
| Sandy Mucky Mil | | | Verrial FOO | 5 (1-9) | | | - | ed or problematic. | | | |
| Restrictive Layer (if | | | | | | | unicoo diotarbe | a or problematio. | | | |
| _ | , | | | | | | | | | | |
| Depth (inches): | | | | | | | Hydric Soil Prese | ent? Yes ✓ | No | | |
| Remarks: | | | | | | | Tiyuno con i rese | | | | |
| remarks. | | | | | | | | | | | |
| Hydric listed soi | l | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| HYDROLOGY | | | | | | | | | | | |
| Wetland Hydrology | ndicators: | | | | | | | | | | |
| Primary Indicators (m | inimum of o | ne required; | check all that appl | y) | | | Secondary I | ndicators (2 or more r | required) | | |
| Surface Water (A | .1) | | Salt Crust | (B11) | | | Water N | Marks (B1) (Riverine) | | | |
| ✓ High Water Table | e (A2) | | Biotic Crus | st (B12) | | | Sedime | nt Deposits (B2) (Rive | erine) | | |
| ✓ Saturation (A3) | | | Aquatic In | vertebrate | s (B13) | | Drift De | posits (B3) (Riverine) |) | | |
| Water Marks (B1 | (Nonriveri | ne) | Hydrogen | Sulfide Od | dor (C1) | | Drainag | je Patterns (B10) | | | |
| Sediment Deposi | ts (B2) (Nor | nriverine) | Oxidized F | Rhizosphe | res along | Living Roo | ots (C3) Dry-Sea | ason Water Table (C2 | 2) | | |
| Drift Deposits (B3 | 3) (Nonriver | ine) | Presence | of Reduce | d Iron (C | 4) | Crayfish | n Burrows (C8) | | | |
| Surface Soil Crac | ks (B6) | | Recent Iro | n Reduction | on in Tille | d Soils (C6 | s) Saturati | ion Visible on Aerial Ir | magery (C9) | | |
| Inundation Visible | e on Aerial I | magery (B7 |) Thin Muck | Surface (| C7) | | Shallow | Aquitard (D3) | | | |
| Water-Stained Le | eaves (B9) | | Other (Exp | olain in Re | marks) | | FAC-Ne | eutral Test (D5) | | | |
| Field Observations: | | | | | | | | | | | |
| Surface Water Preser | nt? Ye | es N | o <u>√</u> Depth (in | ches): | | | | | | | |
| Water Table Present? | Y | es <u>√</u> N | o Depth (in | ches): <u>12</u> | | | | | | | |
| Saturation Present? Yes ✓ No Depth (inches): 10 Wetland Hydrology Present? Yes _ ✓ No Depth (inches): 10 Wetland Hydrology Present? | | | | | | | No | | | | |
| (includes capillary frin | ge) | | | | | | | | | | |
| Describe Recorded D | ata (stream | gauge, mor | nitoring well, aerial | photos, pro | evious ins | spections), | if available: | | | | |
| | | | | | | | | | | | |
| Remarks: | Remarks: | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
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| | | | | | | | | | | | |

| Project/Site: Allred | | City/County | : <u>Lehi-Uta</u> | h | Sampling Date: | 4-22-2016 |
|--|----------------|-------------|-------------------|--|--------------------------------|--------------|
| Applicant/Owner: DR Horton | | | | State: <u>Utah</u> | Sampling Point: | LEHI-9 |
| Investigator(s): Tom Hopkins | | Section, To | wnship, Ra | nge: <u>S 11&12, T 5S, R 1</u> | W SLB&M | |
| Landform (hillslope, terrace, etc.): Terrace | | Local relie | f (concave, | convex, none): None | Slo | pe (%): <1% |
| Subregion (LRR): LRR D | | | | | | |
| | | | | NWI classific | | |
| Are climatic / hydrologic conditions on the site typical for thi | | | | | | |
| Are Vegetation _ ✓ _, Soil, or Hydrology | | | | 'Normal Circumstances" p | | No. ✓ |
| Are Vegetation, Soil, or Hydrology | | | | eeded, explain any answe | | 140 |
| SUMMARY OF FINDINGS – Attach site map | | | | | | atures, etc. |
| Hydrophytic Vegetation Present? Yes <u>✓</u> N | Jo | | | | | |
| Hydric Soil Present? Yes ✓ N | 10 | | ne Sampled | | N / | |
| Wetland Hydrology Present? Yes N | √ ol | witr | in a Wetlar | 1a? Yes | No <u>√</u> | - |
| Remarks: | | <u> </u> | | | | |
| Livestock Grazing-Cattle are gone | | | | | | |
| | | | | | | |
| VEGETATION – Use scientific names of plar | nts. | | | | | |
| The second secon | Absolute | Dominant | Indicator | Dominance Test work | sheet: | |
| Tree Stratum (Plot size:) | % Cover | | | Number of Dominant Sp | | |
| 1. Elaegnus angustifolia | | | | That Are OBL, FACW, o | or FAC: 4 | (A) |
| 2. <u>Tamarix ramosissima</u> | | | | Total Number of Domin | ant | |
| 3 | | | | Species Across All Stra | ta: <u>4</u> | (B) |
| 4 | | | | Percent of Dominant Sp | oecies | |
| Sapling/Shrub Stratum (Plot size:) | 2 | = Total Co | over | That Are OBL, FACW, o | or FAC:10 | 00 (A/B) |
| 1 | | | | Prevalence Index worl | ksheet: | |
| 2. | | | | Total % Cover of: | Multipl | y by: |
| 3. | | | | OBL species | x 1 = | |
| 4 | | | | FACW species | x 2 = | |
| 5 | | | | FAC species | x 3 = | |
| | | = Total Co | over | FACU species | x 4 = | |
| Herb Stratum (Plot size:) | 20 | Υ | EAC | UPL species | | |
| Distichlis spicata Elymus repens | | | FAC FAC | Column Totals: | (A) | (B) |
| Elymus repens Juncus balticus | | | FACW | Prevalence Index | = B/A = | |
| Medicago lupulina | | | FAC | Hydrophytic Vegetation | | |
| 5. Taraxacum officinale | | | | ✓ Dominance Test is | | |
| 6. | | | | Prevalence Index is | s ≤3.0 ¹ | |
| 7. | | | | Morphological Adap | ptations ¹ (Provide | supporting |
| 8 | | | | | s or on a separate | |
| | 98 | = Total Co | ver | Problematic Hydrop | onytic Vegetation | (Explain) |
| Woody Vine Stratum (Plot size:) | | | | ¹ Indicators of hydric soil | l and watland hyd | rology must |
| 1 | | | | be present, unless distu | | |
| 2 | | = Total Co | | Hydrophytic | | |
| | | - | | Vegetation | | |
| % Bare Ground in Herb Stratum % Cove | er of Biotic C | rust | | Present? Yes | s <u>√</u> No _ | |
| Remarks: | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

SOIL Sampling Point: <u>LEHI-9</u>

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

| Depth | Matrix | | | ox Feature | | | | |
|---------------------------------------|---|--------------|-------------------------|------------|-------------------|--------------------|-------------------------------|--|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | _ Loc ² | Texture | Remarks |
| 0-2 | Root | | | | | _ | | |
| 2-10 | 10 YR 3/2 | 60 | 205 YR 6/1 | 40 | RM | M | Clay loam | |
| 10-20 | 2.5 YR 6/1 | 100 | | | | | Clay | |
| | | | | | _ | | | |
| | | | | | | - | <u> </u> | |
| | | | <u> </u> | | | | <u> </u> | |
| | | | <u> </u> | | | | | |
| | | | <u> </u> | | | | | |
| | | | | _ | _ | | | |
| ¹ Type: C=C | concentration, D=D | epletion, RN | M=Reduced Matrix, C | S=Covere | ed or Coat | ted Sand G | Grains. ² Location | : PL=Pore Lining, M=Matrix. |
| Hydric Soil | Indicators: (Appl | icable to a | II LRRs, unless othe | erwise no | ted.) | | Indicators for P | roblematic Hydric Soils ³ : |
| Histoso | I (A1) | | Sandy Red | | | | | (A9) (LRR C) |
| | pipedon (A2) | | Stripped M | | | | | (A10) (LRR B) |
| | istic (A3) | | Loamy Mu | | | | Reduced Ve | |
| | en Sulfide (A4) d Layers (A5) (LRF | C) | Loamy Gle ✓ Depleted N | | | | | Material (TF2) ain in Remarks) |
| | uck (A9) (LRR D) | (0) | Redox Dar | | | | Other (Expire | iii iii Neiliaiks) |
| | d Below Dark Surfa | ace (A11) | Depleted D | | ` ' | | | |
| | ark Surface (A12) | , , | Redox Dep | | | | ³ Indicators of hy | drophytic vegetation and |
| Sandy N | Mucky Mineral (S1) | | Vernal Poo | ols (F9) | | | wetland hydro | logy must be present, |
| | Gleyed Matrix (S4) | | | | | | unless disturb | ed or problematic. |
| | Layer (if present): | | | | | | | |
| Type: | | | | | | | | |
| Depth (in | iches): | | | | | | Hydric Soil Pres | ent? Yes <u>√</u> No |
| Remarks: | | | | | | | | |
| | | | | | | | | |
| HYDROLO | GY | | | | | | | |
| Wetland Hy | drology Indicator | s: | | | | | | |
| Primary Indi | cators (minimum o | fone require | ed; check all that app | ly) | | | Secondary | Indicators (2 or more required) |
| Surface | Water (A1) | | Salt Crus | t (B11) | | | Water | Marks (B1) (Riverine) |
| High Wa | ater Table (A2) | | Biotic Cru | ıst (B12) | | | | ent Deposits (B2) (Riverine) |
| Saturati | on (A3) | | Aquatic Ir | nvertebrat | es (B13) | | Drift De | eposits (B3) (Riverine) |
| Water N | Marks (B1) (Nonriv | erine) | Hydrogen | | ` ' | | | ge Patterns (B10) |
| · · · · · · · · · · · · · · · · · · · | nt Deposits (B2) (N | | | | | - | · / · | ason Water Table (C2) |
| | posits (B3) (Nonriv | rerine) | Presence | | | | | h Burrows (C8) |
| | Soil Cracks (B6) | | | | | ed Soils (C | , <u>—</u> | tion Visible on Aerial Imagery (C9) |
| | ion Visible on Aeria | | | | , , | | | v Aquitard (D3) |
| | Stained Leaves (B9 |) | Other (Ex | piain in R | emarks) | | FAC-N | eutral Test (D5) |
| Field Obser | | Vaa | No / Donth (in | aabaa\. | | | | |
| Surface Wat | | | No ✓ Depth (in | | | | | |
| Water Table | | | No ✓ Depth (ir | | | _ | I I II I | No. / |
| Saturation F (includes ca | resent? pillary fringe) | Yes | No <u>✓</u> Depth (ir | nches): 1 | U | vvet | land Hydrology Pre | sent? Yes No _✓ |
| | | m gauge, n | nonitoring well, aerial | photos, p | revious in | spections) | , if available: | |
| | | | | | | | | |
| Remarks: | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

| Project/Site: Allred | (| City/County | Lehi-Uta | h | _ Sampling Date: _ | 4-22-2016 |
|--|--------------------|--------------|--------------|--------------------------------------|---|----------------|
| Applicant/Owner: DR Horton | | | | State: <u>Utah</u> | Sampling Point: _ | LEHI-10 |
| Investigator(s): Tom Hopkins | | Section, To | wnship, Ra | nge: <u>S 11&12, T 5S, R</u> | 1W SLB&M | |
| Landform (hillslope, terrace, etc.): Terrace | | Local relief | (concave, | convex, none): None | Slop | pe (%): <1% |
| Subregion (LRR): LRR D | Lat: 40.3 | 89877 N | | _ Long: <u>-111.90047 W</u> | Datui | m: NAD 83 |
| Soil Map Unit Name: Mixed Alluvium Land | | | | NWI classifi | cation: | |
| Are climatic / hydrologic conditions on the site typical for | r this time of yea | r? Yes | √ No_ | (If no, explain in F | Remarks.) | |
| Are Vegetation, Soil, or Hydrology | significantly o | listurbed? | Are ' | 'Normal Circumstances" | present? Yes | No <u></u> |
| Are Vegetation, Soil, or Hydrology | naturally prob | olematic? | (If ne | eeded, explain any answe | ers in Remarks.) | |
| SUMMARY OF FINDINGS - Attach site ma | ap showing | samplin | g point l | ocations, transects | s, important fe | atures, etc. |
| Hydrophytic Vogetation Present? | No | | | | | |
| | No | | e Sampled | | / | |
| | No ✓ | with | in a Wetlar | ıd? Yes | No <u>√</u> | |
| Remarks: | | I | | | | |
| Livestock Grazing-Cattle are gone | | | | | | |
| | | | | | | |
| VEGETATION – Use scientific names of p | lants. | | | | | |
| | Absolute | | | Dominance Test worl | ksheet: | |
| Tree Stratum (Plot size:) | % Cover | | | Number of Dominant S | | |
| 1 | | | | That Are OBL, FACW, | or FAC:1 | (A) |
| 2 | | | | Total Number of Domin | | |
| 3 | | | | Species Across All Stra | ata: <u>1</u> | (B) |
| 4 | | | | Percent of Dominant S | | 10 (A/D) |
| Sapling/Shrub Stratum (Plot size:) | | - Total Co | vei | That Are OBL, FACW, | or FAC: 10 | <u>U</u> (A/B) |
| 1 | | | | Prevalence Index wo | | |
| 2 | | | | Total % Cover of: | | |
| 3 | | | | OBL species | | |
| 4 | | | | FACW species | | |
| 5 | | | | FACIL analisa | | |
| Herb Stratum (Plot size:) | | = Total Co | ver | FACU species | | |
| 1. Elymus repens | | Υ | FAC | Column Totals: | | |
| 2. Pascopyrum smithii | | N | FAC | Column Totals. | (^) | (D) |
| 3. Juncus balticus | 10 | N | FACW | Prevalence Index | x = B/A = | |
| 4. <u>Distichlis spicata</u> | 5 | N | FAC | Hydrophytic Vegetati | on Indicators: | |
| 5. Taraxacum officinale | 5 | N | FACU | ✓ Dominance Test is | | |
| 6 | | | | Prevalence Index | | |
| 7 | | | | | aptations ¹ (Provide ks or on a separate | |
| 8 | | | | Problematic Hydro | · | , |
| Woody Vine Stratum (Plot size:) | 100 | = Total Co | ver | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | (1 - 7 |
| 1 | | | | ¹ Indicators of hydric so | oil and wetland hydr | ology must |
| 2. | | | | be present, unless dist | urbed or problemat | tic. |
| | | = Total Co | ver | Hydrophytic | | |
| % Bare Ground in Herb Stratum % Co | over of Biotic Cr | ust | | Vegetation Present? Ye | es√ No | |
| Remarks: | | | | 1 | | |
| · · · · · · · · · · · · · · · · · · · | | | | | | |
| | | | | | | |
| | | | | | | |
| 1 | | | | | | |

SOIL Sampling Point: <u>LEHI-10</u>

| Depth | cription: (Describe Matrix | to the dep | | ment tne i x Feature: | | or contiri | m the absence o | f indicators.) |
|-------------------------------|-------------------------------|--------------|--------------------------|--------------------------|-------------------|------------------|----------------------------|--|
| (inches) | Color (moist) | % | Color (moist) | <u>%</u> | Type ¹ | Loc ² | Texture | Remarks |
| 0-4 | Root | | | | | | | |
| 4-22 | 10 YR 8/2 | 100 | | | | | Clay | |
| | | | | | | | | |
| | | | | | | | · | |
| | | | | | | | | |
| | | | | | | | · | |
| | | | | | | | · | |
| | | | | | | | · | |
| | | | | | | | | |
| | oncentration, D=Dep | | | | | d Sand G | | tion: PL=Pore Lining, M=Matrix. |
| - | Indicators: (Applic | able to all | | | ed.) | | | or Problematic Hydric Soils ³ : |
| Histosol | ` ' | | Sandy Red | | | | | ick (A9) (LRR C) |
| | oipedon (A2) istic (A3) | | Stripped Ma Loamy Mud | | I (E1) | | | ıck (A10) (LRR B) d Vertic (F18) |
| | en Sulfide (A4) | | Loamy Gle | - | . , | | | ent Material (TF2) |
| | d Layers (A5) (LRR | C) | ✓ Depleted M | | (1 2) | | | ent Material (11 2) Explain in Remarks) |
| | uck (A9) (LRR D) | -, | Redox Dark | | (F6) | | 00. (_ | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| Deplete | d Below Dark Surfac | e (A11) | Depleted D | | . , | | | |
| Thick Da | ark Surface (A12) | | Redox Dep | ressions (I | F8) | | ³ Indicators of | f hydrophytic vegetation and |
| | Mucky Mineral (S1) | | Vernal Poo | ls (F9) | | | | ydrology must be present, |
| | Gleyed Matrix (S4) | | | | | | unless dis | turbed or problematic. |
| | Layer (if present): | | | | | | | |
| , | -1 X- | | | | | | 11 -1-1 - 0 - 11 - 0 | No. of Co. No. |
| | ches): | | | | | | Hydric Soil P | resent? Yes <u>√</u> No |
| Remarks: | | | | | | | | |
| Hydric lis | ted soil | | | | | | | |
| • | | | | | | | | |
| | | | | | | | | |
| HYDROLO | GY | | | | | | | |
| Wetland Hy | drology Indicators | : | | | | | | |
| Primary India | cators (minimum of o | one required | l; check all that appl | у) | | | Second | ary Indicators (2 or more required) |
| | Water (A1) | | Salt Crust | (B11) | | | Wa | ter Marks (B1) (Riverine) |
| | ater Table (A2) | | Biotic Crus | | | | Sec | diment Deposits (B2) (Riverine) |
| Saturati | ` ' | | Aquatic In | | ` ' | | | ft Deposits (B3) (Riverine) |
| | larks (B1) (Nonrive i | | Hydrogen | | , , | | | inage Patterns (B10) |
| | nt Deposits (B2) (No | • | Oxidized F | | _ | _ | | -Season Water Table (C2) |
| | posits (B3) (Nonrive | erine) | Presence | | • | • | | ayfish Burrows (C8) |
| | Soil Cracks (B6) | | Recent Iro | | | d Soils (C | | turation Visible on Aerial Imagery (C9) |
| | on Visible on Aerial | Imagery (B | | , | , | | | allow Aquitard (D3) |
| | tained Leaves (B9) | | Other (Ex | piain in Re | emarks) | | FAI | C-Neutral Test (D5) |
| Field Obser | | / ! | Na / Danth (in | -1 | | | | |
| Surface Wat | | | No _ ✓ Depth (in | | | | | |
| Water Table | | | No Depth (in | | | — I | | |
| Saturation P (includes cap | | es <u></u> | No Depth (in | ches): <u>20</u> | | _ Wet | land Hydrology | Present? Yes No✓ |
| | corded Data (strean | n gauge, mo | nitoring well, aerial | photos, pr | evious ins | pections) | , if available: | |
| | | | | | | | | |
| Remarks: | | | | | | | | |
| Water or | uilibrates at 17 | 7" RGS | | | | | | |
| vvatel eq | מוווטומנכט מנ 17 | נטט | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| Project/Site: Allred | City/County: Lehi-Uta | ah | Sampling Date: 4-22-2016 |
|---|--|--|---|
| Applicant/Owner: DR Horton | | State: <u>Utah</u> | Sampling Point: <u>LEHI-11</u> |
| Investigator(s): Tom Hopkins | Section, Township, Ra | ange: <u>S 11&12, T 5S, R 1</u> | W SLB&M |
| Landform (hillslope, terrace, etc.): hillslope | Local relief (concave, | convex, none): None | Slope (%): <1% |
| Subregion (LRR): LRR D | Lat: 40.39314 N | _ Long: <u>-111.90467 W</u> | Datum: NAD 83 |
| Soil Map Unit Name: Mixed Alluvium Land | | NWI classifica | ation: PEMC |
| Are climatic / hydrologic conditions on the site typical fo | or this time of year? Yes No _ | (If no, explain in Re | emarks.) |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? Are | "Normal Circumstances" pi | resent? Yes No _ ✓ |
| Are Vegetation, Soil, or Hydrology | naturally problematic? (If n | eeded, explain any answer | s in Remarks.) |
| SUMMARY OF FINDINGS – Attach site m | ap showing sampling point | locations, transects, | important features, etc. |
| Hydric Soil Present? Yes <u>✓</u> | No Is the Sampleon within a Wetla | | No |
| Vegetation in area recently burned | | | |
| VEGETATION – Use scientific names of p | lants. | | |
| | Absolute Dominant Indicator | Dominance Test works | sheet: |
| Tree Stratum (Plot size:) | <u>% Cover</u> <u>Species?</u> <u>Status</u> | Number of Dominant Sp | |
| 1 2 | | That Are OBL, FACW, o | r FAC:1 (A) |
| 3. | | Total Number of Domina Species Across All Strat | |
| 4. | | | , , , |
| | = Total Cover | Percent of Dominant Sp That Are OBL, FACW, o | |
| Sapling/Shrub Stratum (Plot size:) | | Prevalence Index work | shoot |
| 1 2 | | | Multiply by: |
| 3. | | | x 1 = |
| 4 | | | x 2 = |
| 5 | | | x 3 = |
| | = Total Cover | | x 4 = |
| Herb Stratum (Plot size:) | | UPL species | |
| 1. Phragmites australis | | | (A) (B) |
| 2 | | Prevalence Index | = B/A = |
| 3 | | Hydrophytic Vegetatio | |
| 4 | | ✓ Dominance Test is | |
| 5 | | Prevalence Index is | |
| 6 | | | otations ¹ (Provide supporting |
| 7 8 | | data in Remarks | or on a separate sheet) |
| 0 | = Total Cover | Problematic Hydrop | hytic Vegetation ¹ (Explain) |
| Woody Vine Stratum (Plot size:) 1 | | | and wetland hydrology must |
| 2 | | be present, unless distu | rbed or problematic. |
| | = Total Cover | Hydrophytic Vegetation | |
| % Bare Ground in Herb Stratum % C | Sover of Biotic Crust | Present? Yes | No |
| Remarks: | | | |
| | | | |
| | | | |
| | | | |

SOIL Sampling Point: <u>LEHI-11</u>

| Profile Desc | ription: (Describe | to the dep | th needed to docu | ment the | indicator | or confirm | n the absence of indic | ators.) | | | |
|--|---|--------------|------------------------|------------------|-------------------|------------------|--|--------------------------------------|--|--|--|
| Depth | Matrix | | | x Feature | | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | <u>Texture</u> | Remarks | | | |
| 0-12 | 10 YR 5/3 | 90 | 10 YR 6/4 | 10 | RM | M | Clay | | | | |
| 12-14 | Gravel | | | | | | Gravel | | | | |
| | | | | | | | | | | | |
| | | | | | - | - | | | | | |
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| | | | | | - | | | | | | |
| | - | | - | | | - | | <u> </u> | | | |
| | | | =Reduced Matrix, C | | | ed Sand G | | L=Pore Lining, M=Matrix. | | | |
| _ | | cable to all | LRRs, unless othe | | ed.) | | | olematic Hydric Soils ³ : | | | |
| Histosol | | | Sandy Red | , , | | | 1 cm Muck (A9 | | | | |
| | pipedon (A2) | | Stripped M | | | | 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) | | | | |
| Black Hi | , , | | Loamy Mu | | | | | | | | |
| | n Sulfide (A4) | C \ | Loamy Gle | | ((F2) | | Red Parent Ma | • • | | | |
| | d Layers (A5) (LRR ick (A9) (LRR D) | C) | ✓ Depleted M Redox Dar | ` , | (E6) | | Other (Explain | n Remarks) | | | |
| | d Below Dark Surfa | ca (Δ11) | Redox Dar | | . , | | | | | | |
| | ark Surface (A12) | 00 (7111) | Redox Dep | | . , | | ³ Indicators of hydro | phytic vegetation and | | | |
| | fucky Mineral (S1) | | Vernal Poo | | . 0) | | | y must be present, | | | |
| - | Bleyed Matrix (S4) | | | - (-) | | | unless disturbed | • | | | |
| | _ayer (if present): | | | | | | | | | | |
| Type: Gr | avel | | | | | | | | | | |
| | ches): 12 | | | | | | Hydric Soil Present | ? Yes ✓ No | | | |
| Remarks: | , | | | | | | , | | | | |
| | | | | | | | | | | | |
| Hydric list | ted soil | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| HYDROLO | GY | | | | | | | | | | |
| Wetland Hyd | drology Indicators | : | | | | | | | | | |
| Primary Indic | cators (minimum of | one require | d; check all that app | ly) | | | Secondary Ind | icators (2 or more required) | | | |
| Surface | Water (A1) | • | Salt Crust | (B11) | | | | rks (B1) (Riverine) | | | |
| | iter Table (A2) | | Biotic Cru | | | | | Deposits (B2) (Riverine) | | | |
| ✓ Saturatio | | | Aquatic Ir | | es (B13) | | | sits (B3) (Riverine) | | | |
| | arks (B1) (Nonrive | rine) | Hydrogen | | | | Drainage I | | | | |
| | nt Deposits (B2) (N o | | - | | | Livina Ro | ots (C3) Dry-Seaso | | | | |
| | oosits (B3) (Nonrive | | Presence | | _ | | Crayfish B | | | | |
| _ | Soil Cracks (B6) | Jo, | Recent Iro | | | | | Visible on Aerial Imagery (C9) | | | |
| | on Visible on Aerial | Imagery (B | | | | u 000 (0. | Shallow A | | | | |
| | tained Leaves (B9) | | Other (Ex | | | | FAC-Neut | | | | |
| Field Observ | . , , | | 01101 (EX | piaiii iii i k | Jiliai Koj | | | u. 1661 (26) | | | |
| Surface Water | | Vac | No <u>✓</u> Depth (ir | ches). | | | | | | | |
| | | | | | | | | | | | |
| Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes _ ✓ No Depth (inches): 4 Wetland Hydrology Present? Yes _ ✓ No | | | | | | | 40 Vaa / Na | | | | |
| Saturation Proceed (includes cap | | Yes <u>▼</u> | No Depth (ir | icnes): <u>4</u> | | vveti | iand Hydrology Preser | t? Yes <u>v</u> No | | | |
| | | n gauge, m | onitoring well, aerial | photos, pi | revious ins | spections), | , if available: | | | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | | | | | | | | | |
| Remarks: | | | | | | | | | | | |
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| Project/Site: Allred | City/County: Lehi-Uta | ah Sampling Date: 4-22-2016 | | | | | |
|---|---|---|--|--|--|--|--|
| Applicant/Owner: DR Horton | State: <u>Utah</u> Sampling Point: <u>LEHI-12</u> | | | | | | |
| Investigator(s): Tom Hopkins | Section, Township, Ra | ange: <u>S 11&12, T 5S, R 1W SLB&M</u> | | | | | |
| Landform (hillslope, terrace, etc.): Terrace | Local relief (concave, | convex, none): <u>None</u> Slope (%): <u><1%</u> | | | | | |
| Subregion (LRR): LRR D | Lat: 40.393102 N | Long: -111.904726 W Datum: NAD 83 | | | | | |
| Soil Map Unit Name: Mixed Alluvium Land | | NWI classification: PEMC | | | | | |
| Are climatic / hydrologic conditions on the site typical fo | or this time of year? Yes No _ | (If no, explain in Remarks.) | | | | | |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? Are | "Normal Circumstances" present? Yes No | | | | | |
| Are Vegetation, Soil, or Hydrology | naturally problematic? (If n | eeded, explain any answers in Remarks.) | | | | | |
| SUMMARY OF FINDINGS – Attach site m | ap showing sampling point | locations, transects, important features, etc. | | | | | |
| Hydric Soil Present? Yes <u>✓</u> | No Is the Sample within a Wetla | | | | | | |
| Vegetation in area recently burned | | | | | | | |
| VEGETATION – Use scientific names of p | lants. | | | | | | |
| | Absolute Dominant Indicator | Dominance Test worksheet: | | | | | |
| Tree Stratum (Plot size:) | <u>% Cover Species? Status</u> | Number of Dominant Species | | | | | |
| 1 2 | | That Are OBL, FACW, or FAC:1 (A) | | | | | |
| 3. | | Total Number of Dominant Species Across All Strata:1 (B) | | | | | |
| 4. | | | | | | | |
| | = Total Cover | Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) | | | | | |
| Sapling/Shrub Stratum (Plot size:) 1 | | Prevalence Index worksheet: | | | | | |
| 2. | | Total % Cover of: Multiply by: | | | | | |
| 3. | | OBL species x 1 = | | | | | |
| 4 | | FACW species x 2 = | | | | | |
| 5 | | FAC species x 3 = | | | | | |
| Harb Stratum (Diataiza: | = Total Cover | FACU species x 4 = | | | | | |
| Herb Stratum (Plot size:) 1. Phragmites australis | | UPL species x 5 = | | | | | |
| 2 | | Column Totals: (A) (B) | | | | | |
| 3. | | Prevalence Index = B/A = | | | | | |
| 4 | | Hydrophytic Vegetation Indicators: | | | | | |
| 5 | | ✓ Dominance Test is >50% | | | | | |
| 6 | | Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting | | | | | |
| 7 | | Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) | | | | | |
| 8 | | Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | |
| Woody Vine Stratum (Plot size:) | | | | | | | |
| 1 | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | | |
| | = Total Cover | Hydrophytic Vegetation | | | | | |
| | Cover of Biotic Crust | Present? Yes <u>√</u> No | | | | | |
| Remarks: | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

SOIL Sampling Point: <u>LEHI-12</u>

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

| | Matrix | | Redox F | 4 | | | |
|---|---|----------------|--|---|------------------|-------------------------------|---------------------------------------|
| (inches) | Color (moist) | % | Color (moist) | % Type ¹ | Loc ² | Texture | Remarks |
| 0-4 | 10 YR 5/2 | 100 | | | | Clay | |
| 4-6 | Gravel | | | | | Gravel | |
| | | | | | | | |
| | | | _ | | | | |
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| | | | | | | | |
| | | | | | | | |
| ¹ Type: C=Co | oncentration, D=D | epletion RM= | Reduced Matrix, CS=0 | Covered or Coate | d Sand Gr | ains. ² I ocation: | PL=Pore Lining, M=Matrix. |
| | | | LRRs, unless otherwi | | | | oblematic Hydric Soils ³ : |
| Histosol | (A1) | | Sandy Redox | (S5) | | 1 cm Muck (A | 9) (LRR C) |
| | pipedon (A2) | | Stripped Matrix | . , | | 2 cm Muck (A | |
| Black Hi | | | Loamy Mucky | | | Reduced Vert | ic (F18) |
| | n Sulfide (A4) | | Loamy Gleyed | | | Red Parent M | ` ' |
| | Layers (A5) (LRI | R C) | ✓ Depleted Matri | , , | | Other (Explain | n in Remarks) |
| | ick (A9) (LRR D) | (Δ44) | Redox Dark St | | | | |
| | d Below Dark Surfark Surface (A12) | ace (ATT) | Depleted Dark Redox Depres | | | 3Indicators of hydr | ophytic vegetation and |
| | lucky Mineral (S1) | ı | Vernal Pools (| . , | | | gy must be present, |
| | leyed Matrix (S4) | | | 5 / | | | d or problematic. |
| | _ayer (if present) | | | | | | |
| Type: Gr | avel | | | | | | |
| Depth (inc | ches): <u>4</u> | | | | | Hydric Soil Presei | nt? Yes √ _ No |
| Remarks: | | | | | | | |
| | | | | | | | |
| Hydric list | tea soii | | | | | | |
| | | | | | | | |
| IVPPOL O | 0.7 | | | | | | |
| HYDROLO | | | | | | | |
| _ | drology Indicator | | | | | | |
| | | f one required | ; check all that apply) | | | | dicators (2 or more required) |
| | Water (A1) | | Salt Crust (B | | | | arks (B1) (Riverine) |
| | ter Table (A2) | | Biotic Crust (| | | | t Deposits (B2) (Riverine) |
| Saturation | ` ' | | Aquatic Inver | | | | osits (B3) (Riverine) |
| | arks (B1) (Nonriv | | Hydrogen Su | | | _ | Patterns (B10) |
| | nt Deposits (B2) (N | , | | - | - | | son Water Table (C2) |
| | oosits (B3) (Nonri | /erine) | | Reduced Iron (C4 | | | Burrows (C8) |
| | C -: C (DC) | | | | | | on Visible on Aerial Imagery (C9) |
| Surface | Soil Cracks (B6) | al Imagani (D7 | Recent Iron F | | 30115 (00 | , <u>—</u> | • • • • |
| Surface | on Visible on Aeria | | ') Thin Muck Su | ırface (C7) | 30115 (00 | Shallow | Aquitard (D3) |
| Surface Inundation Water-S | on Visible on Aeria tained Leaves (B9 | | ') Thin Muck Su | | 1 30115 (00 | Shallow | • • • • |
| Surface Inundatio Water-S Field Observ | on Visible on Aeria tained Leaves (B9 vations: |) | Thin Muck Su Other (Explai | urface (C7) n in Remarks) | | Shallow | Aquitard (D3) |
| Surface Inundatio Water-S Field Observ Surface Water | on Visible on Aeria tained Leaves (B9 vations: er Present? | Yes 1 | Thin Muck St. Other (Explain No ✓ Depth (inches) | urface (C7) n in Remarks) | _ | Shallow | Aquitard (D3) |
| Surface Inundation Water-S Field Observ Surface Water Water Table | on Visible on Aeria tained Leaves (B9 vations: er Present? Present? | Yes 1 Yes 1 | Thin Muck Su Other (Explain No ✓ Depth (inche | urface (C7) n in Remarks) es):es):es): | | Shallow FAC-Net | Aquitard (D3) utral Test (D5) |
| Surface Inundation Water-S Field Observ Surface Water Water Table Saturation Pro- | on Visible on Aeria tained Leaves (B9 vations: er Present? Present? resent? | Yes 1 Yes 1 | Thin Muck St. Other (Explain No ✓ Depth (inches) | urface (C7) n in Remarks) es):es):es): | | Shallow FAC-Net | Aquitard (D3) |
| Surface Inundation Water-S Field Observ Surface Water Water Table Saturation Profincludes cap | on Visible on Aeria tained Leaves (B9 vations: er Present? Present? resent? pillary fringe) | Yes N Yes N | Thin Muck Su Other (Explain No ✓ Depth (inche | erface (C7) n in Remarks) es):ess):ess(ess): | Wetla | Shallow FAC-Net | Aquitard (D3) utral Test (D5) |
| Surface Inundation Water-S Field Observ Surface Water Water Table Saturation Profincludes cap | on Visible on Aeria tained Leaves (B9 vations: er Present? Present? resent? pillary fringe) | Yes N Yes N | Thin Muck Su Other (Explain No Depth (inches No Depth (inches | erface (C7) n in Remarks) es):ess):ess(ess): | Wetla | Shallow FAC-Net | Aquitard (D3) utral Test (D5) |
| Surface Inundation Water-S Field Observ Surface Water Water Table Saturation Profincludes cap | on Visible on Aeria tained Leaves (B9 vations: er Present? Present? resent? pillary fringe) | Yes N Yes N | Thin Muck Su Other (Explain No Depth (inches No Depth (inches | erface (C7) n in Remarks) es):ess):ess(ess): | Wetla | Shallow FAC-Net | Aquitard (D3) utral Test (D5) |
| Surface Inundation Water-S Field Observ Surface Water Water Table Saturation Profincludes cap Describe Recommendation | on Visible on Aeria tained Leaves (B9 vations: er Present? Present? resent? pillary fringe) | Yes N Yes N | Thin Muck Su Other (Explain No Depth (inches No Depth (inches | erface (C7) n in Remarks) es):ess):ess(ess): | Wetla | Shallow FAC-Net | Aquitard (D3) utral Test (D5) |
| Surface Inundation Water-S Field Observ Surface Water Water Table Saturation Profincludes cap Describe Recommendation | on Visible on Aeria tained Leaves (B9 vations: er Present? Present? resent? pillary fringe) | Yes N Yes N | Thin Muck Su Other (Explain No Depth (inches No Depth (inches | erface (C7) n in Remarks) es):ess):ess(ess): | Wetla | Shallow FAC-Net | Aquitard (D3) utral Test (D5) |
| Surface Inundation Water-S Field Observ Surface Water Water Table Saturation Profincludes cap Describe Recommendation | on Visible on Aeria tained Leaves (B9 vations: er Present? Present? resent? pillary fringe) | Yes N Yes N | Thin Muck Su Other (Explain No Depth (inches No Depth (inches | erface (C7) n in Remarks) es):ess):ess(ess): | Wetla | Shallow FAC-Net | Aquitard (D3) utral Test (D5) |

Appendix F OHWM Delineation Data Sheets

| | OHWM Delineation Cover Sheet | Page _/_ of _ 2 |
|--|--|------------------------------|
| Project: ALLRED | Date: 4-4-2016 | |
| Location: LEHI UTAH | Investigator(s): Tom Hope | Kins |
| Land. There ARE Two | of 300 Acres of understoom & Small Discharges into the Jok a Storage Pond AND the Secon | com RIVIR. |
| There are Two Concret Course. The cultures Across the worth course | ACCOM The CURRING LIGHTS IN The Pond disc MECOM The CURRING LIGHTSWARD WE EXCLETE FORMAN. M. STRUCTURES IN The Westland D | 158 + 35 |
| Off-site Information | | 2) |
| locations of transects, OHWM, and any ot | Yes No [If yes, attach image(s) to datashed ther features of interest on the image(s); describe be that Depicts locations of Alignment | elow] Description: |
| Hydrologic/hydraulic information acquibelow.] Description: | ired? Yes No [If yes, attach information | to datasheet(s) and describe |
| List and describe any other supporting | information received/acquired: | |

Instructions: Complete one cover sheet and one or more datasheets for each project site. Each datasheet should capture the dominant characteristics of the OHWM along some length of a given stream. Complete enough datasheets to adequately document up- and/or downstream variability in OHWM indicators, stream conditions, etc. Transect locations can be marked on a recent aerial image or their GPS

| | - OHWM- | OHW | M Delineation | Datasheet | | Page Z of _ |
|---|---------------------------|---|------------------------------|--------------------|-----------------------------------|-----------------|
| Transect (cross-s some distance; lab | section) drawing the OHWM | g: (choose a locat and other features | of interest along | entative of the do | ominant stream ude an estimate | aharaatariatias |
| TRANSACT 40.3986 - 111.9008 TRANSECT L. | 03° N | | | 3'-0 | | |
| Break in Slope at Notes/Description: Sediment Texture | Estimate pero | Sharp (> 60°) [centages to describe Sand | e the general sedi Gravel | ment texture abo | | |
| Above OHWM | <0.05mm | 0.05 – 2mm | 2mm – 1cm | 1 – 10cm | >10cm | Horizons (Y/N) |
| | 100 | | | | | |
| | | | | | | A Pro- |
| Below OHWM | 100 Agricultu | 1016/ Surfa | ce/Spains | WATER | FROM SON | 143 |
| Below OHWM Notes/Description: Of GR WATER | Agnicultures That disc | Leasy Surfa Drains in harpes into | The warle | ounding Ma | stics above and | s 15 |
| Below OHWM Iotes/Description: Of GR WATER Gegetation: Estim | Agricultures That disc | horges into | The warle | ation characteris | stics above and | s 15 |
| Below OHWM otes/Description: of GR water | Agnicultures That disc | harges into | The warle | ounding Ma | stics above and | s 15 |

| | OHWM Delineation Cover Sheet | Page _/_ of _2_ |
|---|--|------------------------------|
| Project: ALLRED | Date: 4-6-2016 | |
| Location: ZEHE UFAH | Investigator(s): Tom Ho | ophins |
| Project Description: | OHM-1 FOR INFORMATION | |
| Describe the river or stream's cond | lition (disturbances, in-stream structures, etc.): | |
| Off-site Information | | |
| | ? Yes No [If yes, attach image(s) to datashe | et(c) and indicate annroy |
| locations of transects, OHWM, and a | ny other features of interest on the image(s); describe be | elow] Description: |
| Hydrologic/hydraulic information a below.] Description: | acquired? Yes No [If yes, attach information | to datasheet(s) and describe |
| List and describe any other suppor | ting information received/acquired: | |
| | | |

Instructions: Complete one cover sheet and one or more datasheets for each project site. Each datasheet should capture the dominant characteristics of the OHWM along some length of a given stream. Complete enough datasheets to adequately document up- and/or downstream variability in OHWM indicators, stream conditions, etc. Transect locations can be marked on a recent aerial image or their GPS

| Datasneet II 3 = | 01-1WM-2 | OHW | M Delineation Da | atasheet | | Page 2 of 3 |
|---|--------------------------------|-----------------------|----------------------|------------|------------------------------|-------------------------|
| Transect (cross-se | ection) drawing el the OHWM ar | and other features of | | | | |
| | | | < | 30" | > | |
| Notes/Description: | | | ☐ Moderate (30–6 | 60°) | | None |
| Break in Slope at Notes/Description: | : Estimate perc | entages to describ | pe the general sedir | 60°) | ove and below t | he OHWM |
| Notes/Description: | | | | 60°) | | |
| Notes/Description: | Estimate perc | entages to describ | pe the general sedin | 60°) Gen | ove and below to Boulders | he OHWM Developed Soil |

Vegetation: Estimate absolute percent cover to describe general vegetation characteristics above and below the OHWM

| | Tree (%) | Shrub (%) | Herb (%) | Bare (%) |
|------------|----------|-----------|----------|----------|
| Above OHWM | | | 10 | 90 |
| Below OHWM | | | 10 | 90 |

Notes/Description:

tes/Description:
This is a Drainage Direk From the Wetland AKEA

Other Evidence: List/describe any additional field evidence and/or lines of reasoning used to support your delineation

| ineation Cover Sheet | Page / of Z |
|--|--|
| Date: 4-6-2016 | |
| Investigator(s): Tom Hope | 5 1085 |
| For innigation. RIVER | d in |
| , in-stream structures, etc.): w TransPort of Equipm | od es F |
| | |
| [If yes, attach image(s) to datasheet(s) nterest on the image(s); describe below | |
| No [If yes, attach information to o | datasheet(s) and describe |
| ceived/acquired: | |
| | Investigator(s): Tom Hope white of wheren street for incipation. then River in-stream structures, etc.): If yes, attach image(s) to datasheet(s) nterest on the image(s); describe below 16-2015 No [If yes, attach information to a |

Instructions: Complete one cover sheet and one or more datasheets for each project site. Each datasheet should capture the dominant characteristics of the OHWM along some length of a given stream. Complete enough datasheets to adequately document up- and/or downstream variability in OHWM indicators, stream conditions, etc. Transect locations can be marked on a recent aerial image or their GPS

| Sediment Texture: Estin Clay <0.0 Above OHWM Below OHWM | | | | Datasheet | | Page Z of Z |
|--|----------------|--------------------|-------------------|---------------------|----------------|----------------------------------|
| Break in Slope at OHWM Notes/Description: Sediment Texture: Estim Clay <0.0 Above OHWM Below OHWM | it will ar | | | | | |
| Break in Slope at OHWM Notes/Description: Sediment Texture: Estim Clay <0.0 Above OHWM Below OHWM | arium: | 40.39351 | 4° N | K 12 | 8-0 | |
| Sediment Texture: Estim Clay <0.0 Above OHWM Below OHWM | TOPPL | : 1227 1 | 16 | | | o Dearh - 2" |
| Clay <0.0 Above OHWM Below OHWM | | | | -60°) | | None |
| Above OHWM /0 Below OHWM | | | | | | |
| Below OHWM | y/Silt)5mm | Sand 0.05 – 2mm | Gravel 2mm – 1cm | Cobbles 1 – 10cm | Boulders >10cm | Developed Soil Horizons (Y/N) |
| | 00 | | / | | | N |
| | 75 | | 5 | | | N |
| Notes/Description: Vegetation: Estimate abs | | eent gever to des | oribo conorol vec | otation abaroatoris | ties shave and | below the OHWA |

| | 1166 (70) | Sili u0 (76) | HeIU (70) | Date (76) |
|------------|-----------|--------------|-----------|-----------|
| Above OHWM | | | 60 | 40 |
| Below OHWM | | \$ | | 100 |

Notes/Description: SEE Photo IN Log.

Other Evidence: List/describe any additional field evidence and/or lines of reasoning used to support your delineation This Transect LOCATION is NEAR The discharge Point INTO The Jordan River. The channel is wide And Fairly Flat. The Smace Channel in the bottom is considered the OHWM.

| OHWM Del | ineation Cover Sheet | Page of |
|--|---|-------------------------|
| Project: ALLED | Date: 4-6-2016 | |
| Location: LEMI, UTAH | Investigator(s): T. Hopkins | |
| Project Description: See Darashar | OHWM-3 | |
| | | |
| | | |
| Describe the river or stream's condition (disturbances, | in-stream structures, etc.): | |
| | | |
| | | |
| Off-site Information | | |
| Remotely sensed image(s) acquired? Yes No | If was attach image(s) to datasheat(s) of | nd indicate approx |
| locations of transects, OHWM, and any other features of in | | |
| Hydrologic/hydraulic information acquired? Yes below.] Description: | ■ No [If yes, attach information to day | tasheet(s) and describe |
| | | |
| List and describe any other supporting information rec | eived/acquired: | |
| | | |
| | | |
| | | |

Instructions: Complete one cover sheet and one or more datasheets for each project site. Each datasheet should capture the dominant characteristics of the OHWM along some length of a given stream. Complete enough datasheets to adequately document up- and/or

downstream variability in OHWM indicators, stream conditions, etc. Transect locations can be marked on a recent aerial image or their GPS

| Datasneet # 4 | HWM-4 | OHW | M Delineation Dat | tasheet | | Page Z of Z |
|---|---------------------------------------|---|---|--|---------------------------------|---|
| | | | ion that is representa of interest along the | | | |
| region po and a star a second | 1 | 40 0 | | | | |
| TRANSECT | LOCATION. | 40, 398826 | 2 15 | | | |
| | | | P 1 | | | |
| | | Sharp (> 60°) | Moderate (30–60 | o) Gent | le (< 30°) [|] None |
| Notes/Description: | | | Moderate (30–60 | | | |
| Break in Slope at Notes/Description: Sediment Texture | | | | | | |
| Notes/Description: | Estimate perc | entages to describ | be the general sedime Gravel | ent texture abo | ve and below the Boulders | he OHWM Developed Soil |
| Notes/Description: Sediment Texture Above OHWM Below OHWM | Estimate perc Clay/Silt <0.05mm | entages to describ | be the general sedime Gravel | ent texture abo | ve and below the Boulders | he OHWM Developed Soil Horizons (Y/N) |
| Sediment Texture Above OHWM Below OHWM Notes/Description: | Estimate perc Clay/Silt <0.05mm | Sand 0.05 – 2mm | oe the general sedime Gravel 2mm – 1cm | ent texture abo Cobbles 1 – 10cm | ve and below the Boulders >10cm | he OHWM Developed Soil Horizons (Y/N) |
| Sediment Texture Above OHWM Below OHWM Notes/Description: | Estimate perc Clay/Silt <0.05mm | Sand 0.05 – 2mm | oe the general sedime Gravel 2mm – 1cm | ent texture abo Cobbles 1 – 10cm | ve and below the Boulders >10cm | he OHWM Developed Soil Horizons (Y/N) |
| Sediment Texture Above OHWM Below OHWM Notes/Description: | Estimate perc Clay/Silt <0.05mm | Sand 0.05 – 2mm | oribe general vegetat Herb (%) | ent texture abo Cobbles 1 – 10cm | ve and below the Boulders >10cm | he OHWM Developed Soil Horizons (Y/N) |
| Notes/Description: Sediment Texture Above OHWM Below OHWM Notes/Description: Vegetation: Estim | Clay/Silt <0.05mm 100 90 Tree (%) | Sand 0.05 – 2mm recent cover to describe | oe the general sedime Gravel 2mm – 1cm | ent texture abo Cobbles 1 – 10cm ion characteris Bare (%) | Boulders >10cm | he OHWM Developed Soil Horizons (Y/N) |

Other Evidence: List/describe any additional field evidence and/or lines of reasoning used to support your delineation

Appendix G

Property Owner Access Statement

APPENDIX G

ACCESS STATEMENT FROM PROPERTY OWNER

To Whom It May Concern:

The undersigned is the property owner and/or authorized representative of the Property Owner for the property located at 8887 South 3600 West, Lehi, Utah County, Utah.

As the Property Owner or authorized representative I hereby give permission to representatives of the U.S. Army Corps of Engineers (ACOE), Utah-Nevada Regulatory Office, Bountiful, Utah to enter the aforementioned property during normal business hours for the purpose of verifying and validating submitted Aquatic Resources Delineation Reports and collect necessary samples as needed.

This access permission statement does not authorize representatives of the ACOE to perform any other activities on the property except as otherwise provided above.

Furthermore, representatives of the ACOE enter the property at their own risk and the property owner and/or its employees or agents are not liable for any injuries incurred by ACOE representatives while on the property.

Property Owner/Authorized Representative

Robert Allred

Date

Name (Printed)

Appendix H

Aquatic Resource Excel Sheet

APPENDIX H

AQUATIC RESOURCE EXCEL SHEET

| Waters_Name | State Cowardin_Code HGM_Co | de Meas_Type | Amount Units | Waters_Type | Latitude | Longitude | Local_Waterway |
|------------------------|----------------------------|--------------|--------------|-------------|-----------|-------------|----------------|
| LEHI 3 (Sample Point) | Utah PEM | Area | 10 ACRE | DELINEATE | 40.398491 | -111.898683 | Jordan River |
| LEHI 1 | Utah R1SB7 | Area | 3.1 ACRE | DELINEATE | 40.399213 | -111.897361 | Jordan River |
| OHWM-1 (Wetland Inlet) | Utah RP1EM | Linear | 174 FOOT | RPW | 40.698603 | -111.900861 | Jordan River |
| OHWM-2 (Wetland Drain) | Utah RP1EM | Linear | 496 FOOT | RPW | 40.399205 | -111.898433 | Jordan River |
| Weir Discharge | Utah RP1EM | Linear | 226 FOOT | RPW | 40.393154 | -111.905836 | Jordan River |
| Overflow Water Course | Utah RP1EM | Linear | 1227 FOOT | RPW | 40.392899 | -111.905075 | Jordan River |
| Freshwater Pond | Utah PAB | Area | 1.5 ACRE | IMPNDMNT | 40.393451 | -111.907203 | |
| Pond Outlet Wetland | Utah PFO | Area | 0.19 ACRE | DELINEATE | 40.393159 | -111.905941 | |
| Spring Wetland | Utah PEM | Area | 284 SQ_FT | DELINEATE | 40.393143 | -111.904659 | |
| Seep Wetland | Utah PEM | Area | 820 SQ_FT | DELINEATE | 40.393411 | -111.903965 | |
| Artesian Pond Wetland | Utah PEM | Area | 0.02 ACRE | DELINEATE | 40.399129 | -111.898484 | |



DEPARTMENT OF THE ARMY

U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT 1325 J STREET SACRAMENTO CA 95814-2922

November 14, 2016

Regulatory Division (SPK-2016-00489)

DR Horton Attn: John Linton 12351 Gateway Park Place, Suite 100 Draper, Utah 84020

Dear Mr. Linton:

We are responding to your September 17, 2016 request for a preliminary jurisdictional determination (JD), in accordance with our Regulatory Guidance Letter (RGL) 08-02, for the SOA Investments Lehi Property site. The approximately 303.81-acre project site is located at 700 North 3600 West, Latitude 40.3958°, Longitude -111.9074°, Lehi, Utah County, Utah (enclosure 1).

Based on available information, we concur with the amount and location of wetlands and other water bodies on the site as depicted on the enclosed September 12, 2016 and September 15, 2016 Allred Property drawings, prepared by Tom Hopkins (enclosure 2). The approximately 13.81 acres of palustrine emergent wetlands, 1.5 acres of open water pond and 2,153 linear feet of intermittent channel present within the survey area are potential waters of the United States regulated under Section 404 of the Clean Water Act.

We have enclosed a copy of the *Preliminary Jurisdictional Determination Form* for this site (enclosure 3). Please sign and return a copy of the completed form to this office, but keep the original for your records. Once we receive a copy of the form with your signature we can accept and process a Pre-Construction Notification or permit application for your proposed project.

You should not start any work in potentially jurisdictional waters of the United States unless you have Department of the Army permit authorization for the activity. You may request an approved JD for this site at any time prior to starting work within waters. In certain circumstances, as described in RGL 08-02, an approved JD may later be necessary.

You should provide a copy of this letter and notice to all other affected parties, including any individual who has an identifiable and substantial legal interest in the property.

This preliminary determination has been conducted to identify the potential limits of wetlands and other water bodies which may be subject to Corps of Engineers' jurisdiction for the particular site identified in this request. A Notification of Appeal Process and

Request for Appeal form is enclosed to notify you of your options with this determination (enclosure 4). This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are U.S. Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

We appreciate your feedback. At your earliest convenience, please tell us how we are doing by completing the Customer Survey from the link on our website listed below..

Please refer to identification number SPK-2016-00489 in any correspondence concerning this project. If you have any questions, please contact Michael Pectol at the Bountiful Regulatory Office, 533 West 2600 South, Suite 150, Bountiful, Utah 84010, by email at *Michael.A.Pectol@usace.army.mil*, or telephone at 801-295-8380, extension 15. For more information regarding our program, please visit our website at the following link: www.spk.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

Craig Brown

Senior Project Manager, Utah-Nevada Branch

Craig J. Brown

Regulatory Division

Enclosures

CC:

Tom Hopkins (birdog638@msn.com)