# BURKE CREEK/RABE MEADOWS STREAM RESTORATION PROJECT DOUGLAS COUNTY, NEVADA WETLAND DELINEATION AND WATERS OF THE U.S. INVENTORY



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# 1.0 INTRODUCTION

#### **1.1 PURPOSE**

On behalf of Nevada Tahoe Conservation District (NTCD), a routine, on-site wetland delineation was conducted in spring 2012 by Wood Rodgers, Inc. to assess the location and extent of Waters of the United States, including wetlands that may be present within the project area to determine the USACE permitting requirements for proposed activities.

This Wetland Delineation and Waters of the United States (U.S.) Inventory report presents the results of the 2011-2012 field investigation for these resources for the Burke Creek/Rabe Meadows Restoration Project, located in Stateline, Nevada, on the east shore of Lake Tahoe (Figure 1). The report identifies potential jurisdictional wetlands and waters of the U.S. within the project area.

All Figures referenced in this report are contained in Appendix A.

#### 1.2 SURVEY AREA

The proposed project (Figure 2) is located in Stateline, Nevada, in portions of Sections 22 and 23, Township 13 North Range 18 East South Lake Tahoe (1982), U.S. Geological Survey 7.5-minute topographic quadrangle. The project area consists of approximately 12 acres located in proximity to Burke Creek, east and west of U.S. Highway 50, and just north of the intersection of Kahle Drive with U.S. Highway 50. Access to the west portion of Burke Creek is gained by turning west on Kahle Drive, and parking in the defined parking lot. Access to the east portion of Burke Creek is gained by turning east on Kahle Drive and parking to the north in the adjacent commercial development parking area. The project area slopes from east to west, with Burke Creek draining to Lake Tahoe.

Stateline inclusive of the project area has been subjected to human-induced influences, which have resulted in changes to hydrologic and vegetative attributes. Influences are associated with timber extraction dating back to the Comstock era, and accelerated residential and commercial development from the 20th century to the present that altered the historic alignment of Burke Creek. Vegetation within the project area is distributed along an elevational gradient reflecting current area hydrology and soils. The surrounding uplands are characterized by second growth Jeffrey pine (*Pinus jeffreyi*) forest, while the riparian corridor is dominated by quaking aspen (*Populus tremuloides*), willow species (*Salix spp.*) and mountain alder (*Alnus incana ssp. tenuifolia*). Potential wetlands are found as freshwater emergent, herbaceous wetlands and forested/shrub wetlands adjacent to Burke Creek, or within roadside ditches.

#### **1.3 APPLICANT CONTACT INFORMATION**

Nevada Tahoe Conservation District 400 Dorla Court/P.O. Box 915 Zephyr Cove, Nevada 89448

Contact: Michael Pook Phone: (775) 586-1610 (ext. 34)

#### 2.0 **DEFINITIONS**

#### 2.1 WETLANDS

As used in this report, the term "wetlands " has a regulatory definition as defined in Chapter 33, Part 328, Section 7(b) of the Code of Federal Regulations (33 CFR 328, 7(b)). The term "wetlands" means "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marches, bogs and similar areas." Note that the frequency and duration of saturation may vary by geographical region, and is largely dependent upon local climatic conditions.

The USACE *Corps of Engineers Wetlands Delineation Manual* (1987) describes delineating wetlands as a three-parameter approach. An area cannot be considered a jurisdictional wetland if one of these three parameters (hydric soil, wetland vegetation, and wetland hydrology) cannot be documented.

#### 2.2 WATERS OF THE UNITED STATES

Additionally, waters of the U. S. (WOUS) are defined in Chapter 33, Part 328, Section 3 of the Code of Federal Regulations, (33 CFR 328, 3) and include all non-tidal waters that are currently, or were used in the past, or may be susceptible to interstate commerce; all interstate waters including wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate commerce; and all impoundments of waters otherwise defined as WOUS under this definition.

The limits of jurisdiction in non-tidal waters are defined according to 33 CFR Part 328, Section 4 (33 CFR 328, 4). In the absence of adjacent wetlands, jurisdiction extends to the ordinary high water mark; when adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands; and when the WOUS consists only of wetlands, the jurisdiction extends to the limit of the wetland.

Criteria used to determine whether a drainage constitutes a WOUS include presence of a defined bed (a linear bed in a topographic depression which would transport surface water from a watershed), presence of defined banks (near vertical or steep-sided banks formed by erosion from flowing water), and evidence of an ordinary high water mark (some indicator(s) that the drainage is subject to surface water flows on an average annual basis; such indicators include a scoured bed, shelving, an absence of terrestrial vegetation [particularly perennia]], and recent alluvial or litter deposition).

## 3.0 METHODOLOGY

## 3.1 PRE-FIELD DATA REVIEW

Prior to the field investigation, aerial photographs, and topographic map tools were reviewed for indications of open water, springs, and ephemeral, intermittent and perennial drainages. The *Soil Survey of the Tahoe Basin Area, California and Nevada* (USDA, NCSS 2007) was reviewed before visiting the site.

The project area boundary was superimposed on to the corresponding digital National Wetland Inventory (NWI) shape files (Figure 3). Given that wetland identification criteria differ between the United States Fish and Wildlife Service (USFWS) and the USACE, and because most NWI wetlands have not been field verified and are mainly air photograph interpretation, wetlands shown on the NWI map may not be under the jurisdiction of the USACE. Similarly, jurisdictional wetlands often are not included on these maps. Consequently, wetlands abundance based on NWI maps cannot be assumed to be an accurate assessment of jurisdictional wetlands.

A review of the *Minimum Standards for Acceptance of Preliminary Wetland Delineations*, as prepared by the USACE (2001), was also completed to insure the field investigation and subsequent reporting would meet all appropriate guidelines and criteria.

This delineation was completed in accordance with the methodology outlined in the USACE *Corps of Engineers Wetlands Delineation Manual*, and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (USACE 2010). The data forms provided in the later document were used to compile wetland data during the investigation as applicable to the Sierra Nevada Mountains (MLRA 22A).

While there is no formal field method for the identification and inventory of WOUS, the field survey and delineation verified the presence of defined bed and bank, along with evidence that the drainage experiences surface flows on an average annual basis, and the potential for interstate connectivity.

## 3.2 WETLAND DELINEATION

The site was initially visited in December 2011, with subsequent consultation with Natural Resources Conservation Service (NRCS) (Loftis 2012) indicating that maximum hydrology was probable at the site from mid April through mid May, 2012. Therefore the site was visited May 8-10, 2012 by a Wood Rodgers botanist/environmental scientist, and a preliminary wetlands delineation conducted to identify potential jurisdictional wetlands present within the project area boundaries. Representative locations in potential wetland vegetation types within the project area were examined for wetland characteristics. Based on this examination, sample sites were established in each potentially hydrophytic (wetland) vegetation community in the area. Sites in adjacent upland (non-hydrophytic) communities were also examined to further delineate the wetland areas. The presence or absence of jurisdictional wetland resources within the project area was documented by 22 sample sites.

## 3.2.1 Hydric Soils

Hydric soils are defined by the National Technical Committee for Hydric Soils as soils that are "...saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation" (USACE 1987). Hydric soils usually include all histosols except Folists; soils in the Aquic suborders, Aquic subgroups, Albolls suborder, Salorthids great group, or Pell great groups of Vertisols that are somewhat poorly drained, poorly drained, or very poorly drained; soils that are ponded for long or very long duration during the growing season; or soils that are frequently flooded for a long duration or a very long duration during the growing season (USACE 1987).

Hydric soils are generally characterized by the accumulation or loss of iron, manganese, sulfur, or carbon compounds. Hydric soils were interpreted through the guidance contained in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* and *Field Indicator of Hydric Soils in the United States* (NRCS 1999). Hydric soils applicable to the MLRA 22A exhibit mineral layer(s) above the indicators that have a dominant chroma of 2 or less, or the layer(s) with a dominant chroma of more than 2 is less than 6 inches thick. Hydric soil indicators include the following:

Histosol (A1) – Soil classifies as a Histosol (except Folists) and must meet all requirements contained in *Soil Taxonomy* (NRCS 1999).

Histic Epipedon (A2) – A histic epipedon is present underlain by mineral soil material with a chroma of 2 or less, and must meet all requirements contained in *Soil Taxonomy*.

Black Histic (A3) - A layer of peat, mucky peat, or muck 8 inches or more thick starting within the upper 6 inches of the soil surface having a hue 10YR or yellower and a value 3 or less and chroma of 1 or less; and is underlain by mineral soil material with chroma of 2 or less.

Hydrogen Sulfide (A4) – A hydrogen sulfide odor is present within 12 inches of the soil surface.

Depleted Below Dark Surface (A11) – A layer with a depleted or gleyed matrix that has 60% or more chroma of 2 or less, starting within 12 inches of the soil surface that has a minimum thickness of either (a) 6 inches or (b) 2 inches if the 2 inches consists of fragmental soil material. Loamy/clayey layer(s) above the depleted or gleyed matrix must have a value of 3 or less, and chroma of 2 or less. Any sandy material above the depleted or gleyed matrix must have a value of 3 or less, and chroma of 1 or less, and at least 70% of the visible soil particles when viewed with a 10-15 power hand lens must be covered, coated or similarly masked with organic material.

Thick Dark Surface (A12) - A layer at least 6 inches thick with a depleted or gleyed matrix that has 60% or more chroma of 2 or less starting below 12 inches of the surface. The layer(s) above the depleted or gleyed matrix have a value 2.5 or less and chroma of 1 or less to a depth of at least 12 inches and a value of 3 or less and chroma of 1 or less in any remaining layers above the depleted or gleyed matrix. Any

sandy material above the depleted or gleyed matrix must have at least 70% of the visible soil particles when viewed with a 10-15 power hand lens, covered, coated or similarly masked with organic material.

Sandy Mucky Mineral (S1) – A layer of mucky, modified sandy soil material 2 inches or more thick starting within 6 inches of the soil surface.

Sandy Gleyed Matrix (S4) – A gleyed matrix that occupies 60% or more of a layer within 6 inches of the soil surface.

Sandy Redox (S5) – A layer starting within 6 inches of the soil surface that is at least 4 inches thick, and has a matrix with 60% or more chroma of 2 or less with 2% or more distinct or prominent redox concentrations occurring as soft masses and/or pore linings.

Stripped Matrix (S6) - A layer starting within 6 inches of the soil surface in which iron/manganese oxides and/or organic matter have been stripped from the matrix and the primary base color of soil material has been exposed. The stripped areas and/or translocated oxides and/or organic matter form a faint, diffuse splotchy pattern of two or more colors. The stripped zones are 10% or more of the volume; they are rounded, and typically 0.5 to 1 inch in diameter.

Loamy Mucky Mineral (F1) – A layer of mucky modified loamy or clayey soil material 4 inches or more thick starting within 6 inches of the soil surface.

Loamy Gleyed Matrix (F2) – A gleyed matrix that occupies 60% or more of a layer starting within 12 inches of the soil surface.

Depleted Matrix (F3) – A layer that has a depleted matrix with 60% or more chroma of 2 or less and that has a minimum thickness of either: (a) 2 inches if the 2 inches is entirely within the upper 6 inches of the soil, or (b) 6 inches and starts within 10 inches of the soil surface.

Redox Dark Surface (F6) – A layer that is at least 4 inches thick, is entirely within the upper 12 inches of the mineral soil and has either: (a) matrix value of 3 or less and chroma of 1 or less and 2% or more distinct or prominent redox concentrations occurring as soft masses or pore linings; or (b) matrix value of 3 or less and chroma of 2 or less and 5% or more distinct or prominent redox concentrations occurring as soft masses or pore linings; or (b) matrix value of 3 or less and chroma of 2 or less and 5% or more distinct or prominent redox concentrations occurring as soft masses or pore linings.

Depleted Dark Surface (F7) – Redox depletions with a value of 5 or more and chroma of 2 or less, in a layer at least 4 inches thick, is entirely within the upper 12 inches of the mineral soil, and has either; (a) a matrix value 3 or less and chroma of 1 or less and 10% or more redox depletions; or (b) a matrix value of 3 or less and chroma of 2 or less and 20% or more redox depletions.

Redox Depressions (F8) – In closed depressions that are subject to ponding, 5% or more distinct or prominent redox concentrations occurring as soft masses or pore linings in a layer that is 2 inches or more thick and is entirely within the upper 6 inches of the soil.

Soil test pits for the 2011-2012 field investigation were excavated to a minimum depth of 20 inches when possible.

# 3.2.2 Wetland Vegetation

Wetland or hydrophytic vegetation is defined as any macrophyte that grows in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water. The delineation methodology contained in both the 1987 *Wetlands Delineation Manual* and the 2010 *Western Mountains, Valleys and Coast Region* supplement requires that, in most cases more than 50 percent of the dominant vegetation on a potential wetland site must include plants that meet the wetland plant definition in order for the site to be delineated as a jurisdictional wetland (USACE 1987 and USACE 2010).

Vegetation within the project area was visually surveyed in the vicinity of each of the sample site soil/groundwater observation holes to estimate percent absolute aerial cover of all species present in each stratum, or vegetative layer, and to characterize the vegetation communities as required by the USACE (USACE 1987 and USACE 2010). Percentages of vegetation cover were averaged for each sample site location. Plant species not identifiable in the field were collected and identified using *The Jepson Manual: Vascular Plants of California* (Baldwin et al 2012).

The wetland indicator status for each observed plant species according to the 2012 National Wetland Plant List (Lichvar and Kartesz 2009) was recorded to aid in making the jurisdictional wetland determinations. The exception to this was use of the 1988 National List of Vascular Plant Species That Occur in Wetlands wetland indicator status for quaking aspen (Populus tremuloides) as this species was observed at the ordinary high water mark in conjunction with a hydrophytic, herbaceous understory. In accordance with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region, the wetland indicator status modifiers were not used. According to Reed (1988), and Lichvar and Kartesz (2009), the wetland indicator categories include:

- Obligate Wetland (OBL) which occur almost always (estimated probability >99%) under natural conditions in wetlands;
- Facultative Wetland (FACW) which usually occur in wetlands (estimated probability 67-99%), but occasionally found in non-wetlands;
- Facultative (FAC) are equally likely to occur in wetlands or non-wetlands (estimated probability 34-66%);
- Facultative Upland (FACU) usually occur in non-wetlands (estimated probability 67-99%), but occasionally found in wetlands (estimated probability 1-33%);
- Upland (UPL) occur almost always (estimated probability >99%) under natural conditions in nonwetlands in the Region specified; and
- No Indicator (NI) have insufficient information available to determine an indicator status.

# 3.2.3 Wetland Hydrology

Wetland hydrology is the driving force behind wetland formation. The term "wetland hydrology" encompasses all hydrologic characteristics of areas that are periodically inundated or have soil saturated to the surface at some time during the growing season (USACE 1987). During the field investigation,

several primary and secondary indicators for these characteristics were used to determine wetland hydrology as follows:

- Surface water (A1)
- High water table (A2)
- Saturation (A3)
- Water marks (B1)
- Sediment deposits (B2) (nonriverine)
- Drift deposits (B3) (nonriverine)
- Algal mat or crust (B4)
- Iron deposits (B5)
- Surface soil cracks (B6)
- Inundation visible on aerial imagery (B7)
- Sparsely vegetated concave surface (B8)
- Water-stained leaves (B9)
- Salt crust (B11)

- Aquatic invertebrates (B13)
- Hydrogen sulfide odor (C1)
- Oxidized rhizospheres along living roots (C3)
- Presence of reduced iron (C4)
- Recent iron reduction in tilled soils (C6)
- Drainage patterns (B10)
- Dry-season water table (C2)
- Saturation visible on aerial imagery (C9)
- Geomorphic position (D2)
- Shallow acquitard (D3)
- FAC-neutral test (D5)
- Frost-heave hummocks (D7)

## **3.3** WATERS OF THE U.S.

As discussed in Section 2.2, the presence of defined bed and banks, along with some evidence that the drainage experiences surface water flows on an average annual basis, are considered indicative of WOUS. Drainages within the project area were examined for these characteristics. The width of the bed and height of the bank were recorded within a representative sample of each reach, thereby documenting the extent of potential jurisdictional WOUS present in the drainages. Additionally, a connection with interstate commerce was determined where applicable. Total linear feet of waters of the U.S. can then be extrapolated to the entire reach.

## 4.0 RESULTS

## 4.1 WETLAND DELINEATION

A total of 22 sample sites were investigated to characterize potential wetlands within the project area. Sample sites were located adjacent to streams and open water, and in topographic lows as well as paired upland sites. A data form was completed for each sample site to assist with determining whether the site may be a jurisdictional wetland. Data forms summarizing information collected in the field are presented in Appendix B.

Figure 2 illustrates sample site locations and boundaries of potential jurisdictional wetlands within the project area. Appendix C presents photographs for each sample site location, while Table 1 provides a summary of the vegetation, soils and hydrology characteristics recorded at each sample site location.

## 4.1.1 Soils

Soils within the project area have been mapped by the NRCS. However, the project area and vicinity has been altered by development of commercial and residential properties and historic timber extraction. Therefore, it is not certain that these soil map units reflect current soil attributes.

As shown in Figure 4, soil map units identified as occurring at sample point locations within the project area include:

• Map Unit Symbol 7041: Tahoe complex, 0 to 2 percent slopes

The Tahoe silt loam component is 55 percent of this map unit and is found on floodplains and valley flats with slopes of 0-2 percent, generally occurring at elevations of 6,215 to 7,970 feet. Parent material consists of alluvium derived from granitic and volcanic rocks. Depth to a restrictive feature is > 59 inches. Depth to water table varies seasonally from 0 to 49 inches. This soil is very poorly drained, with an available high water capacity of 9.2 inches. Soil is occasionally flooded. Soil texture from 0 to 3 inches is moderately decomposed plant material; at 3 to 15 inches soil texture is mucky silt loam; at 15 to 20 inches soil texture is gravelly coarse sand; at 20 to 30 inches soil texture is mucky silt loam; at 30 to 49 inches soil texture is loam; and at 49 to 59 inches soil texture is loamy sand. This soil meets hydric criteria.

The Tahoe silt loam wet component is 25 percent of this map unit and is found on floodplains and valley flats with slopes of 0-2 percent, generally occurring at elevations of 6,215 to 7,970 feet. Parent material consists of alluvium derived from granitic and volcanic rocks. Depth to a restrictive feature is > 46 inches. Depth to water table varies seasonally from 0 to 40 inches. This soil is very poorly drained, with an available moderate water capacity of 5.5 inches. Soil is frequently flooded. Soil texture from 0 to 10 inches is mucky silt loam; at 10 to 27 inches soil texture is loam; at 27 to 32 inches soil texture is loamy fine sand; and at 32 to 46 inches soil texture is fine sand. **This soil meets hydric criteria.** 

The Marla component is 10 percent of this map unit, and is found on outwash terraces and valley flats with slopes of 0-5 percent, generally occurring at an elevation of 6,215 to 6,495 feet. Parent material consists of alluvium derived from granodiorite. Depth to a restrictive feature is > 68 inches. Depth to water table varies seasonally from 12 to 79 inches. This soil is poorly drained, with an available moderate water capacity of 6.8 inches. Soil is rarely flooded. Soil texture from 0 to 3 inches is slightly decomposed plant material; at 3 to 47 inches soil texture is loamy coarse sand; at 47 to 59 inches soil texture is clay loam; and at 59 to 68 inches soil texture is stratified sandy loam to fine sandy loam. **This soil component meets hydric criteria.** 

The Tahoe gravelly component is 5 percent of this map unit, found on floodplains and valley flats with slopes of 0-5 percent, generally occurring at an elevation of 6,215 to 7,725 feet. Parent material consists of alluvium derived from granitic and volcanic rocks. Depth to restrictive feature is > 46 inches. Depth to water table varies seasonally from 0 to 49 inches. This soil is poorly drained, with an available moderate water capacity of 5.5 inches. Soil is occasionally flooded. Soil texture from 0 to 10 inches is mucky gravelly silt loam; at 10 to 27 inches soil texture is gravelly loam; at 27 to 32 inches soil texture is gravelly loamy fine sand; and at 32 to 46 inches soil texture is gravelly fine sand. This soil component meets hydric criteria.

The Watah component is 5 percent of this map unit, found on fens, floodplains and valley flats with slopes of 0-2 percent, generally occurring at an elevation of 6,215 to 9,415 feet. Parent material consists

of organic material over alluvium. Depth to a restrictive feature is > 63 inches. Depth to water table varies seasonally from 0 to 40 inches. This soil is very poorly drained, with an available moderate water capacity of 5.8 inches. Soil is frequently flooded. Soil texture from 0 to 3 inches is peat; at 3 to 8 inches soil texture is mucky peat; at 8 to 15 inches soil texture is mucky gravelly coarse sandy loam; and at 15 to 63 inches soil texture is very gravelly loamy coarse sand. **This soil component meets hydric criteria.** 

• Map Unit Symbol 7411: Cagwin-Rock outcrop complex, 5 to 15 percent slopes, extremely stony

The Cagwin component is 50 percent of this map unit and is found on hillslopes and mountain slopes with slopes of 5-15 percent, generally occurring at an elevation of 6,230 to 8,200 feet. Parent material consists of colluvium over grus derived from granodiorite. Depth to a restrictive feature is 20-39 inches consisting of paralithic bedrock. Depth to water table is >39 inches. This soil is somewhat excessively drained, with an available very low water capacity of 2.1 inches. Soil is not flooded. Soil texture from 0 to 1 inch is slightly decomposed plant material; at 1 to 13 inches soil texture is gravelly loamy coarse sand; at 13 to 27 inches soil texture is gravelly coarse sand; and at 27 to 37 inches soil texture is soft bedrock. **This soil does not meet hydric criteria.** 

The Rock outcrop, granitic component is 20 percent of this map unit, and is found on mountains with slopes of 5-15 percent, generally occurring at an elevation of 6,970 to 9,890 feet. Parent material consists of granite. Depth to a restrictive feature is at the soil surface consisting of lithic bedrock. Depth to the water table is not noted. **This soil component does not meet hydric criteria.** 

The Cassenai gravelly loamy coarse sand component is 10 percent of this map unit, found on hillslopes and mountain slopes with slopes of 5-15 percent, generally occurring at an elevation of 6,230 to 7,920 feet. Parent material consists of colluvium derived from granodiorite. Depth to restrictive feature is > 79 inches. Depth to water table is > 79 inches. This soil is somewhat excessively drained, with an available low water capacity of 4.4 inches. Soil is not flooded Soil texture from 0 to 1 inch is slightly decomposed plant material; and at 1 to 79 inches soil texture is gravelly loamy coarse sand. This soil does not meet hydric criteria.

The Toem component is 10 percent of this map unit, found on hillslopes and mountain slopes with slopes of 9-30 percent, generally occurring at an elevation of 6,230 to 8,265 feet. Parent material consists of colluvium and/or residuum weathered from granodiorite. Depth to restrictive feature is 10-20 inches consisting of paralithic bedrock. Depth to water table is > 32 inches. This soil is excessively drained, with an available very low water capacity of 1.4 inches. Soil is not flooded. Soil texture from 0 to 1 inch is slightly decomposed plant material; at 1 to 18 inches soil texture is very gravelly coarse sand; and at 18 to 32 inches soil texture is soft bedrock. This soil does not meet hydric criteria.

Very minor soil components include 5 percent Dagget very gravelly loamy coarse sand (soil does not meet hydric criteria), 2 percent Temo (soil does not meet hydric criteria), 2 percent Witefels (soil does not meet hydric criteria), and 1 percent Marla (soil meets hydric criteria).

• Map Unit Symbol 9011: Oxyaquic Cryothents-Aquic Xerothents-Tahoe complex, 0-15 percent slopes

The Oxyaquic Cryorthents component is 30 percent of this map unit, found on drainageways with slopes of 0-15 percent, generally occurring at an elevation of 6,220 to 7,790 feet. Parent material consists of alluvium and/or colluvium derived from mixed sources. Depth to restrictive feature is > 80 inches. Depth to water table is 20-39 inches. This soil is somewhat poorly drained, with an available low water capacity of 2.5 inches. Soil is frequently flooded. Soil texture at soil surface is moderately decomposed plant material; at 0 to 20 inches soil texture is gravelly loamy coarse sand; at 32 to 52 inches soil texture is very gravelly coarse sand; and at 52 to 112 inches soil texture is coarse sand. **This soil meets hydric criteria.** 

The Aquic xerothents component is 28 percent of this map unit, found on drainageways with slopes of 0-15 percent, generally occurring at an elevation of 6,220 to 7,790 feet. Parent material consists of alluvium and/or colluvium derived from mixed sources. Depth to restrictive feature is > 80 inches. Depth to water table is 20-39 inches. This soil is poorly drained, with an available moderate water capacity of 6.5 inches. Soil is frequently flooded. Soil texture at soil surface is moderately decomposed plant material; at 0 to 1 inch soil texture is highly decomposed plant material; at 1 to 9 inches soil texture is sandy loam; at 9 to 14 inches soil texture is coarse sandy loam; at 14 to 29 inches soil texture is sandy loam; at 29 to 41 inches soil texture is gravelly sandy loam; at 41 to 45 inches soil texture is loamy coarse sand; and at 45 to 59 inches soil texture is sandy loam. **This soil meets hydric criteria.** 

The Tahoe gravelly component is 15 percent of this map unit, found on floodplains and valley flats with slopes of 0-5 percent, generally occurring at an elevation of 6,220 to 7,790 feet. Parent material consists of alluvium derived from granitic and volcanic rock. Depth to restrictive feature is > 80 inches. Depth to a high water table is 0-12 inches. This soil is poorly drained, with an available low water capacity of 5.5 inches. Soil is occasionally flooded. Soil texture at 0 to 10 inches is mucky gravelly silt loam; at 10 to 27 inches soil texture is gravelly loam; at 27 to 32 inches soil texture is gravelly loamy fine sand; and at 32 to 46 inches soil texture is gravelly fine sand. **This soil meets hydric criteria.** 

The Watah component is 10 percent of this map unit, found on fens, floodplains and valley flats with slopes of 0-2 percent, generally occurring at an elevation of 6,215 to 9,415 feet. Parent material consists of organic material over alluvium. Depth to a restrictive feature is > 63 inches. Depth to water table varies seasonally from 0 to 40 inches. This soil is very poorly drained, with an available moderate water capacity of 5.8 inches. Soil is frequently flooded. Soil texture from 0 to 3 inches is peat; at 3 to 8 inches soil texture is mucky gravelly coarse sandy loam; and at 15 to 63 inches soil texture is very gravelly loamy coarse sand. **This soil component meets hydric criteria**.

The Bidart mucky silt loam component is 10 percent of this map unit, found on floodplains and valley flats with slopes of 0-2 percent, generally occurring at an elevation of 6,985 to 9,265 feet. Parent material consists of alluvium derived from mixed sources. Depth to a restrictive feature is > 59 inches. Depth to water table varies seasonally from 0 to 49 inches. This soil is very poorly drained, with an available high water capacity of 9 inches. Soil is occasionaly flooded. Soil texture from 0 to 3 inches is moderately decomposed plant material; at 3 to 9 inches soil texture is mucky silt loam; at 9 to 16 inches soil texture is silt loam; at 16 to 17 inches soil texture is extremely gravelly coarse sand; at 17 to 39 inches soil texture

is very fine sandy loam; and at 39 to 59 inches soil texture is sandy loam. This soil component meets hydric criteria.

Additional minor components vary and may include 5 percent Marla (**soil meets hydric criteria**); and 2 percent Riverwash (**soil meets hydric criteria**) soils.

# 4.1.2 Vegetation

The project area is located at the east shore of Lake Tahoe at the foot of the Carson Range, a spur of the Sierra Nevada Mountains, in the High Sierra Nevada Floristic Province (Hickman 1993). Elevations range from 6,283 to 6,383 feet above mean sea level (AMSL). The project area has been altered by human-induced impacts, including timber harvest, and residential/commercial development, and supports conifer dominated uplands, emergent and forested/shrub wetlands, and ruderale vegetation.

# 4.1.2.1 Upland Communities

## Coniferous Forest - Jeffrey Pine

The project area is surrounded by Jeffrey pine dominated forests, with some white fir (*Abies concolor*), incense cedar (*Calocedrus decurrens*) and ponderosa pine (*P. ponderosa*) additional overstory associates. The shrub understory varies from sparse to solid stands within the forest, and is represented by snowbrush (*Ceonothus velutinus*), whitethorn (*C. cordulatus*), greenleaf manzanita (*Arctostaphlos patula*), mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*), and rubber rabbitbrush (*Ericameria nauseosa*) shrubs. Occasional ground cover is provided by squawcarpet (*Ceonothus prostratus*) and bitter dogbane (*Apocynum androsaemifolium*), while common herbaceous species present in the understory include seeded wheatgrasses, California brome (*Bromus carinatus*) and bluegrasses (*Poa spp*). A few flowering natives observed include silver lupine (*Lupinus argenteus* var. *heteranthus*) and wooly mule's ears (*Wyethia mollis*).

## Shrubland-Mountain Big Sagebrush, Rubber Rabbitbrush

Shrubland occurs on the margins of the coniferous forest, and as stands adjacent to and within the Dry Meadow vegetation type. Mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*) and rubber rabbitbrush (*Ericameria nauseosa*) are the dominant shrubs with herbaceous cover sparse to absent. When present, the herbaceous component consists of dry meadow species as described below.

## Dry Meadow

Dry Meadow is adjacent to the wet meadow vegetation type and also present on elevated slopes. Typical graminoids include cheatgrass (*Bromus tectorum*), California brome, other brome species (*Bromus* spp.), wheatgrasses (*Elymus* spp.) and bluegrasses (*Poa* spp.). Common herbs observed include tumble mustard (*Sisymbrium altissimum*), tall annual willowherb (*Epilobium brachycarpum*), aster (*Symphyotrichum* sp.), and prickly lettuce (*Lactuca serriola*).

## Ruderale

Disturbed soils on road shoulders host opportunistic and for the most part annual plant species that take advantage of little competition, as well as native colonizers. Commonly observed grasses include bulbous

bluegrass (*Poa bulbosa*) and cheatgrass (*Bromus tectorum*). Flowering plants include white sweetclover (*Melilotus albus*), tall annual willowherb, curlycup gumweed (*Grindelia squarrosa*), pepperweeds (*Lepidium virginicum* and *L. perfoliatum*), prickly lettuce (*Lactuca serriola*), lambsquarters (*Chenopodium album*), yard knotweed (*Polygonum aviculare*), and tumble mustard (*Sisymbrium altissimum*).

# 4.1.2.2 Wetland Communities

## Forested Shrub Wetlands

Forested shrub wetlands are found adjacent to Burke Creek with overstory tree cover variously provided by black cottonwood (*Populus trichocarpa*), quaking aspen, mountain alder (*Alnus incana ssp. tenuifolia*), Scouler's and Pacific willow (*Salix scouleriana* and *S. lasiandra* ssp. *lasiandra*). Dense to sparse shrub cover is provided by Lemmon's and arroyo willow (*S. lemmonii* and *S. lasiolepis*), redosier dogwood (*Cornus sericea* ssp. *sericea*) and Sierra current (*Ribes nevadense*). The herbaceous understory varies from completely absent to evident. When present it consists of mesic graminoids and forbs as described below for herbaceous wetlands.

#### Herbaceous Wetlands

Herbaceous dominated wetlands are found adjacent to Burke Creek at the ordinary high water mark, and in some roadside ditches. Typical saturated wetland vegetation includes patches of smallfruit bulrush (*Scirpus microcarpus*), bigleaf and Nebraska sedge (*Carex amplifolia* and *C. nebrascensis*), three-stamen rush (*Juncus ensifolius*), tall mannagrass (*Glyceria elata*), and big leaf avens (*Geum macrophyllum*). Baltic rush (*J. balticus* ssp. *ater*), creeping wildrye (*Leymus triticoides*), and horsetails (*Equisetum hymale* and *E. arvense*) tend to be more prevalent in seasonally drying wetlands. Bull thistle (*Cirsium vulgare*), a Group 2 Lake Tahoe Priority Invasive Weed, was found in such an environment.

A list of plant species encountered throughout the project area is contained in Appendix D.

## 4.1.3 Hydrology

The project area is located within the Lake Tahoe Basin, with Burke Creek, a perennial stream draining westwards to Lake Tahoe. According to the United States Geological Service (USGS), the project area is located within the Burke Creek sub basin (66) of Lake Tahoe, California and Nevada (Catalogue Unit 16050101), of the Truckee River Basin, California and Nevada (Accounting Unit 160501), of the greater Central Lahontan Basin (Subregion1605), within the Great Basin (Region 16).

## 4.2 POTENTIAL JURISDICTIONAL WETLANDS

## 4.2.1 Wetland Sample Sites

Based on the required wetlands parameters previously described, three potential wetland areas were delineated within the project area boundaries, and are depicted as Wetlands A and B, and Feature 1 on Figure 2. Figure 2 also presents sample site locations.

Two of the potential jurisdictional wetlands were found as herbaceous emergent wetlands and forested/shrub wetlands adjacent to Burke Creek, and one emergent/forested/shrub wetland was found

within a roadside ditch. Table 1 presents a summary of vegetation, hydrology, and soils characteristics found at all sample sites within the project area. Areas meeting the required criteria for jurisdictional wetland are described below.

#### Wetland A

Wetland A consisted of emergent and forested shrub wetland adjacent to Burke Creek west of US Highway 50 and contains Burke Creek (WOUS 1). This wetland was delineated by sample points RB-2, RB-4, RB-7, RB-8, RB-12 and RB-14. Dominant, hydrophytic vegetation consists variously of smallfruit bulrush, Nebraska sedge, bentgrasses (*Agrostis stolonifera* and *A exerata*), aster (*Symphyotrichum* sp.), big leaf avens, hairy willowherb (*Epilobium ciliatum*), and rushes providing herbaceous components. Overstory tree and shrub cover was variously contributed by quaking aspen, black cottonwood, mountain alder, Lemmon's willow, and Wood's rose (*Rosa woodsii* ssp. *ultramontana*). Observed wetland hydrology primary indicators included saturation from 0-8 inches, water table from 0-12 inches, drift deposits and oxidized rhizospheres that provided support for wetland hydrology findings. The predominant hydric soil indicator was depleted below dark surface, with depleted matrix, redox dark surface, black histic and thick dark surface also observed. Adjacent uplands consisted of dry meadow vegetation as described in section 4.1.2.1. Within the Cowardin wetland classification system, Wetland A would be described as a combination of palustrine emergent and forested/shrub wetlands, and would be considered a jurisdictional resource. See Table 1 for the sample point summaries associated with these wetlands.

#### Wetland B

Wetland B consisted of emergent and forested/shrub wetland adjacent to Burke Creek east of US Highway 50 and contains Burke Creek (WOUS 1). This wetland was delineated by sample points RB-15, RB-17, RB-19, and RB-21. Dominant, hydrophytic vegetation consists variously of smallfruit bulrush, big-leaf sedge, tall mannagrass (*Glyceria elata*), and additional sedges providing herbaceous components. Overstory tree and shrub cover was variously contributed by quaking aspen, mountain alder, Scouler's and Pacific willow. Observed wetland hydrology primary indicators included saturation from 0-3 inches, water table from 0-6 inches, drift deposits and oxidized rhizospheres that provided support for wetland hydrology findings. The predominant hydric soil indicator was depleted below dark surface, with sandy redox, and loamy mucky mineral also observed. Adjacent uplands consisted of open Jeffrey pine forest as described in section 4.1.2.1. Within the Cowardin wetland classification system, Wetland B would be described as a combination of palustrine emergent and forested/shrub wetlands, and would be considered a jurisdictional resource. See Table 1 for sample point summaries associated with these wetlands.

## 4.2.2 Other Wetland Features Investigated

#### Feature 1

Feature 1 occurred within a manmade channel constructed for the temporary relocation of Burke Creek for constriction of the airport/development. It currently receives stormwater that are conveyed through the stormwater system along Kahle drive to the Kahle Basin. This wetland feature was delineated by sample point RB-3. Dominant, hydrophytic vegetation consisted of Lemmon's and arroyo willow in the shrub overstory, with Baltic rushes, sedge, and spike bentgrass characterizing the herbaceous layer. The primary wetland hydrology indicator was saturation at 7 inches, with two secondary indicators,

geomorphic position and drainage patterns, provided support for the wetland hydrology finding. The soil profile consisted of well drained sands and cobble that prohibit organic concentrations, with hydrophytic vegetation and wetland hydrology assuming hydric soils. The 44 foot long ditch collects runoff from US Highway 50 and perhaps overflows from Burke Creek. Through a series of culverts and piping, flow is conveyed across Kahle Drive to a detention basin, and then back to Burke Creek prior to its terminus at Lake Tahoe. Within the Cowardin wetland classification system, Feature 1 would be described as a palustrine scrub-shrub wetland with an emergent wetland understory, and may be considered a jurisdictional resource as there is connectivity to Lake Tahoe via Burke Creek. See Table 1 for the sample point summary associated with this feature.

# Table 1. Summary of Vegetation, Hydrology, and Soils CharacteristicsFound at Sample Sites Within the Project Area, May 2012

| Sample Site<br>Number | Dominant Plant Species %<br>Absolute Cover   | Region 0<br>Indicator<br>Status          | Wetland Hydrology<br>Indicators                       | Depth<br>Inches | Hydric Soil<br>Indicators   | Potential<br>Wetlands |
|-----------------------|--|--|---|-----------------|---|-----------------------|
| RB-1                  | Elymus hispidus (30%)  | UPL                                      | None  | > 20            | Depleted below dark surface   | Upland                |
| RB -2                 | Populus trichocarpa (10%)<br>Salix lemmonii (55%)<br>Scirpus microcarpus (60%)   | FAC<br>FACW<br>OBL                       | Saturation<br>Drift deposits<br>Oxidized rhizospheres | 8               | Depleted below dark<br>surface<br>Thick dark surface  | Wetland A             |
| RB -3                 | Salix lemmonii (15%)<br>Salix lasiolepis (25%)<br>Juncus balticus ssp. ater (10%)<br>Carex sp. (20%)<br>Agrostis exerata (15%) | FACW<br>FACW<br>FACW<br>FACW-OBL<br>FACW | Saturation<br>Water table                             | 7<br>15         | Wetland hydrology and<br>hydrophytic vegetation imply<br>hydric soils in historic,<br>disturbed channel | Feature 1             |
| RB -4                 | Rosa woodsii (5%)<br>Epilobium ciliatum (15%)<br>Hordeum brachyantherum (15%)<br>Juncus ensifolius (10%)                       | UPL<br>FACW<br>FACW<br>FACW              | Saturation<br>Water table                             | 3.5<br>8        | Depleted below dark surface   | Wetland A             |
| RB -5                 | Elymus hispidus (45%)  | UPL                                      | None  | >20             | None  | Upland                |
| RB -6                 | Festuca idahoensis (305%)<br>Achillea millefolium (15%)<br>Symphyotrichum sp. (15%)  | FACU<br>FACU<br>FAC-<br>FACU             | None  | >16             | Depleted below dark surface   | Upland                |

| Sample Site<br>Number | Dominant Plant Species %<br>Absolute Cover   | Region 0<br>Indicator<br>Status | Wetland Hydrology<br>Indicators   | Depth<br>Inches | Hydric Soil<br>Indicators                         | Potential<br>Wetlands |
|-----------------------|--|---------------------------------|---|-----------------|---|-----------------------|
| RB -7                 | Salix lemmonii (35%)<br>Carex nebrascensis (15%)<br>Carex sp. (15%)                          | FACW<br>OBL<br>FAC-OBL          | Saturation<br>Water table   | 2.5<br>6        | Depleted below dark<br>surface<br>Depleted matrix | Wetland A             |
| RB -8                 | Symphyotrichum sp. (20%)<br>Agrostis stolonifera (15%)<br>Alnus incana ssp. tenuifolia (25%) | FAC-FACU<br>FAC<br>FACW         | Saturation<br>Water table   | 3<br>11         | Depleted matrix                                   | Wetland A             |
| RB -9                 | Elymus hispidus (30%)  | UPL                             | None  | >20             | None  | Upland                |
| RB -10                | Festuca sp. (20%)<br>Bromus carinatus (15%)<br>Elymus hispidus (10%)                         | FACU<br>UPL<br>UPL              | None  | >20             | None  | Upland                |
| RB -11                | Elymus hispidus (30%)  | UPL                             | None  | >20             | None  | Upland                |
| RB -12                | Juncus ensifolius (15%)<br>Epilobium ciliatum (10%)<br>Typha sp. (10%)                       | FACW<br>FACW<br>OBL             | Surface water<br>Saturation   | 0<br>6          | Redox dark surface                                | Wetland A             |
| RB -13                | Epilobium ciliatum (25%)<br>Poa bulbosa (15%)<br>Festuca sp. (10%)                           | FACW<br>UPL<br>FACU             | None  | >20             | Depleted below dark surface                       | Upland                |
| RB -14                | Scirpus microcarpus (30%)<br>Carex sp. (10%)   | OBL<br>OBL-<br>FACW             | Saturation<br>Water table<br>Oxidized rhizospheres<br>Geomorphic position<br>Fac-neutral test | 3<br>12         | Black Histic                                      | Wetland A             |
| RB -15                | Scirpus microcarpus (50%)  | OBL                             | Saturation<br>Water table   | 0<br>6          | Depleted below dark surface<br>Sandy redox        | Wetland B             |

| Sample Site<br>Number | Dominant Plant Species %<br>Absolute Cover  | Region 0<br>Indicator<br>Status            | Wetland Hydrology<br>Indicators  | Depth<br>Inches | Hydric Soil<br>Indicators                          | Potential<br>Wetlands |
|-----------------------|---|--|--|-----------------|--|-----------------------|
|                       |   |  | Geomorphic position<br>Fac-neutral test  |                 |  |                       |
| RB -16                | Pinus jeffreyi (70%)<br>Populus tremuloides (15%)<br>Poa pratensis (5%)<br>Elymus hispidus (5%)<br>Poa bulbosa (5%)               | UPL<br>FAC<br>FAC<br>UPL<br>UPL            | None   | >20             | None   | Upland                |
| RB -17                | Alnus incana (20%)ssp. tenuifoliaSalix scouleriana (10%)Alnus incana (10%)ssp. tenuifoliaScirpus microcarpus (10%)Carex sp. (10%) | FACW<br>FAC<br>FACW<br>OBL<br>FACW-<br>OBL | Saturation<br>Sediment deposits<br>Geomorphic position   | 2               | Depleted below dark surface                        | Wetland B             |
| RB -18                | Salix scouleriana (50%)   | FAC  | None   |                 | None   | Upland                |
| RB -19                | Populus tremuloides (25%)<br>Glyceria elata (10%)<br>Carex sp. (5%)<br>Carex deweyana (5%)<br>ssp. leptopoda                      | FAC<br>FACW<br>FACW<br>FAC                 | Saturation<br>Water table<br>Drift deposits<br>Algal mats<br>Iron deposits<br>Water stained leaves | 0<br>>10        | Depleted below dark surface<br>Loamy mucky mineral | Wetland B             |
| RB -20                | Populus tremuloides (40%)<br>Populus tremuloides (5%)<br>Poa pratensis (20%)  | FAC<br>FAC<br>FAC                          | None   | >19             | None   | Upland                |

| Sample Site<br>Number | Dominant Plant Species %<br>Absolute Cover  | Region 0<br>Indicator<br>Status | Wetland Hydrology<br>Indicators                                       | Depth<br>Inches | Hydric Soil<br>Indicators                          | Potential<br>Wetlands |
|-----------------------|---|---------------------------------|---|-----------------|--|-----------------------|
| RB -21                | Populus tremuloides (30%)<br>Populus tremuloides (10%)<br>Carex amplifolia (20%)  | FAC<br>FAC<br>OBL               | Saturation<br>Water table<br>Sediment deposits<br>Geomorphic position | 3<br>6          | Depleted below dark surface<br>Loamy mucky mineral | Wetland B             |
| RB -22                | Pinus jeffreyi (10%)<br>Ceanothus cordulatus (10%)<br>Arctostaphylos patula (10%) | UPL<br>UPL<br>UPL               | None  |                 | None   | Upland                |

## 4.2.3 Waters of the U.S.

One perennial WOUS and one other feature were identified as occurring within the project area as illustrated on Figure 2 and are described below. Appendix B contains a data form for each watercourse, while Appendix C contains photographs of these resources.

#### WOUS 1

Burke Creek is a perennial stream that drains west to Lake Tahoe, an interstate navigable water. The defined channel drains from the east end of the project area under US Highway 50 via a culvert, to the west end of the project area. It then continues to flow through Rabe Meadow and outlets at Lake Tahoe. The total length of WOUS 1 is approximately 2178 linear feet within the project area, and has an average width of 24 inches. Where Wetland A and Wetland B occur, they encompass WOUS 1 within the project area. WOUS 1 is presumed to be a jurisdictional resource.

# 4.2.4 Other Features Investigated

One additional topographic feature was investigated that appears to be non-jurisdictional in nature, as it is a constructed, rocklined ditch built to capture surface runoff from the adjacent ballpark (Appendix E). This feature is illustrated on Figure 2.

#### Feature 2

Feature 2 was a constructed, partially rocklined ditch designed to capture surface runoff. The stormwater conveyance was located east of US Highway 50 on the south side of Burke Creek. The 163 foot long ditch drains directly to Burke Creek. While there was a surface water connection to Burke Creek (WOUS 1), this feature is manmade and thus considered to be a non-jurisdictional resource.

# 5.0 SUMMARY OF RESULTS

The 2012 field survey identified potential waters of the United States that included wetlands within the proposed Burke Creek/Rabe Meadows Stream Restoration Project area. These included Wetlands A and B, (includes WOUS 1 as this WOUS supports these wetlands), that were documented as having the three parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. Furthermore, these wetlands had surface hydrology connectivity to other jurisdictional resources.

Additional features investigated within the proposed Burke Creek/Rabe Meadows Stream Restoration Project area included two manmade conveyance features, one of which supports wetland vegetation. These features while having surface hydrology connectivity to Burke Creek, are manmade, currently serve as stormwater conveyance features and thus proposed as not jurisdictional.

The field survey also documented one potential WOUS within the proposed Burke Creek/Rabe Meadows Complex Project. One perennial watercourse was identified within the project area, with a nexus to a navigable water – Lake Tahoe.

Table 2 presents potential jurisdictional resources within the project area. These resources require verification by the USACE.

 Table 2. Summary of Potential Jurisdictional Resources

| Potential          |       |
|--------------------|-------|
| Jurisdictional     | Acres |
| Wetlands and WOUS  |       |
| Wetland A (WOUS 1) | 1.96  |
| Wetland B (WOUS 1) | 0.61  |
| Total Acres        | 2.57  |

| WOUS 1 (Burke Creek) |      |
|----------------------|------|
| Total Linear Feet    | 2178 |

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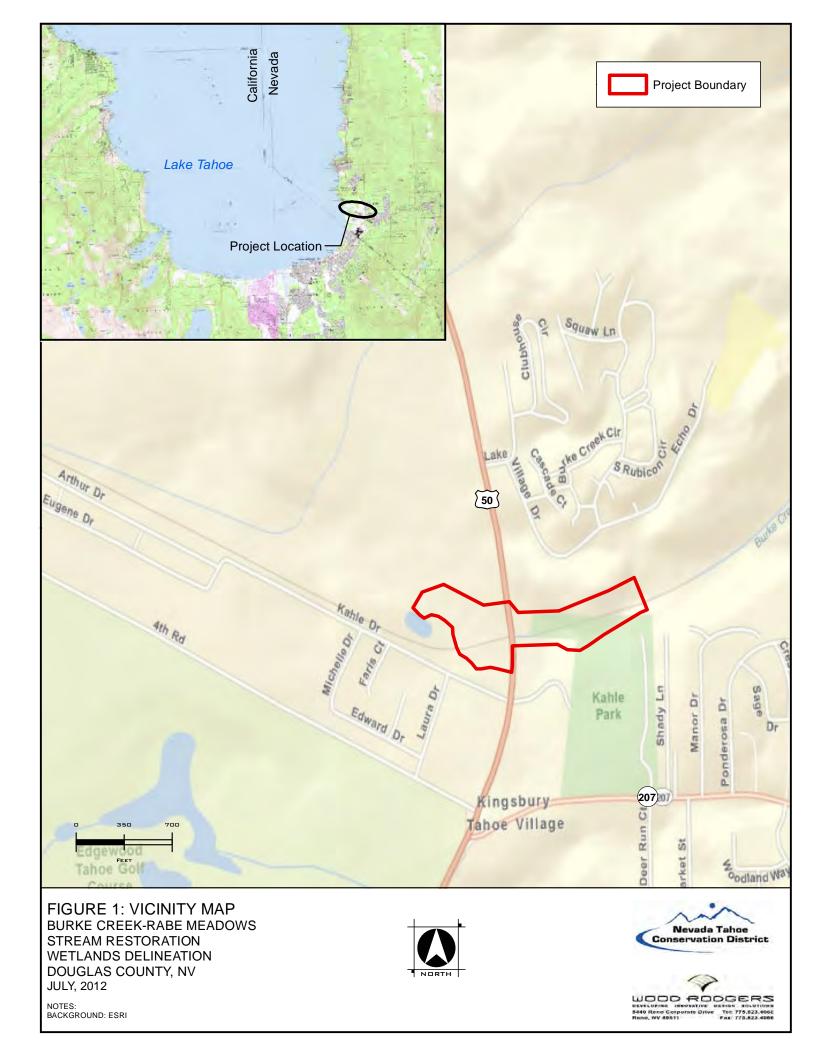
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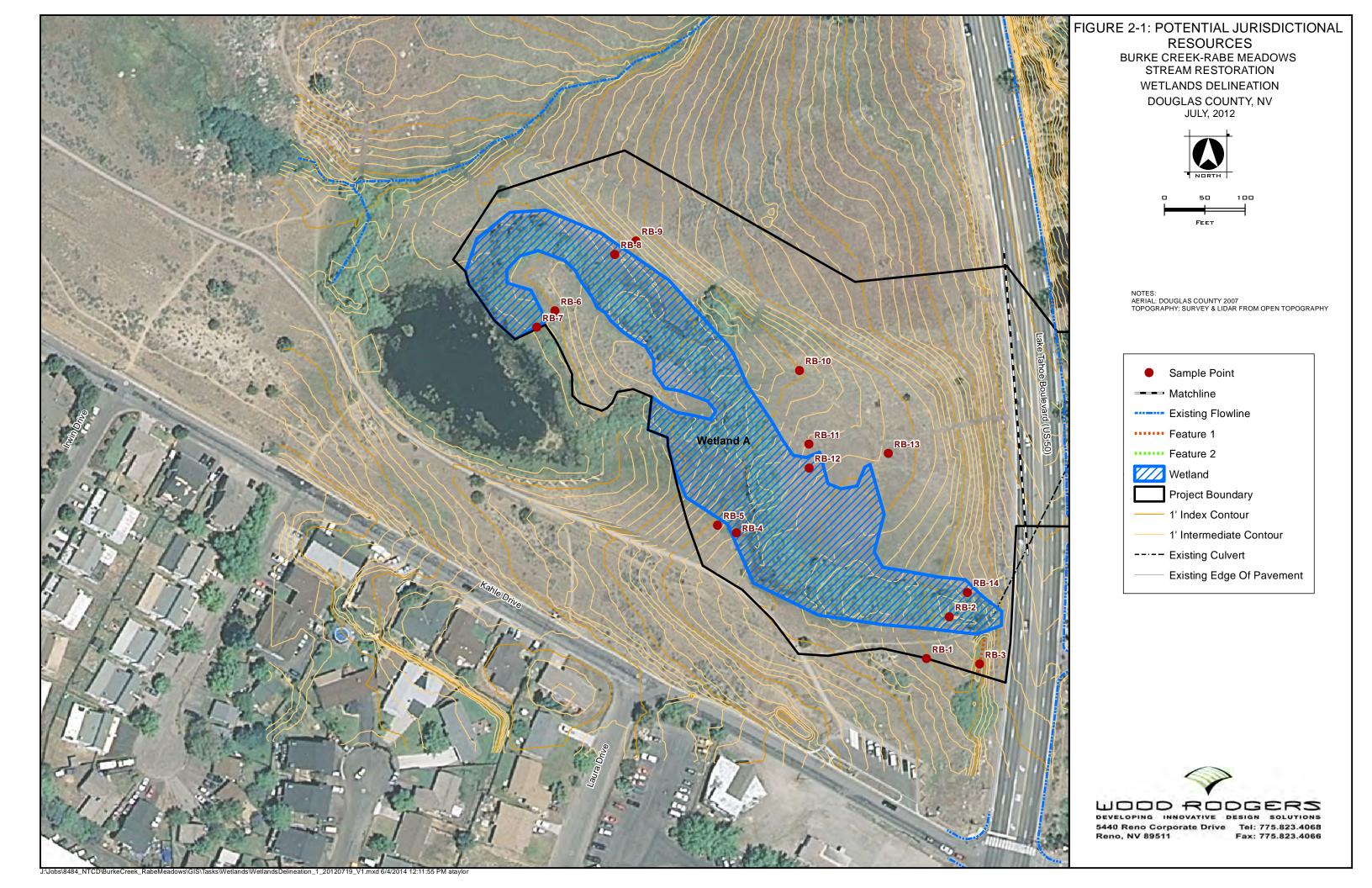
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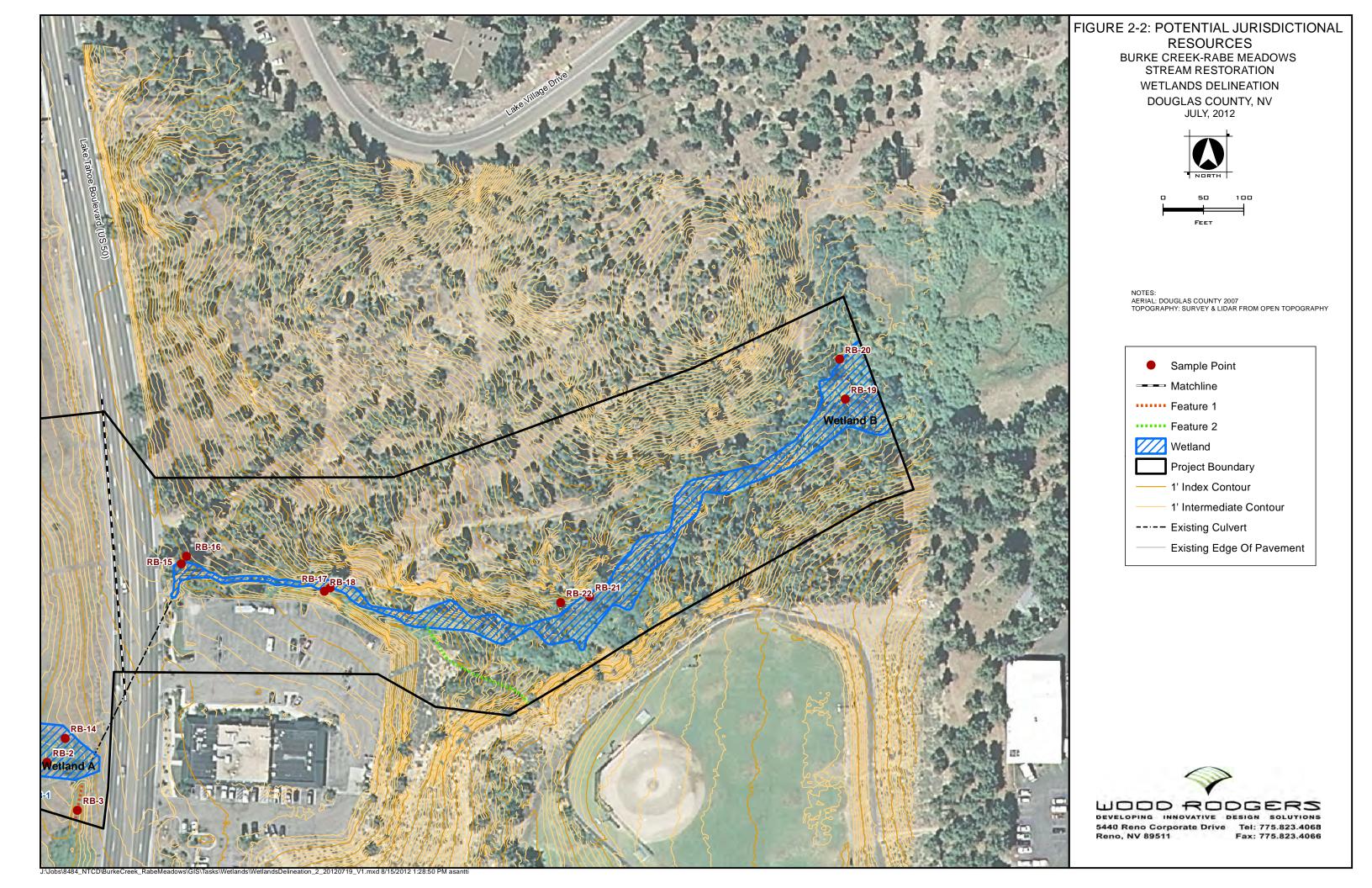
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# APPENDIX A

Figures







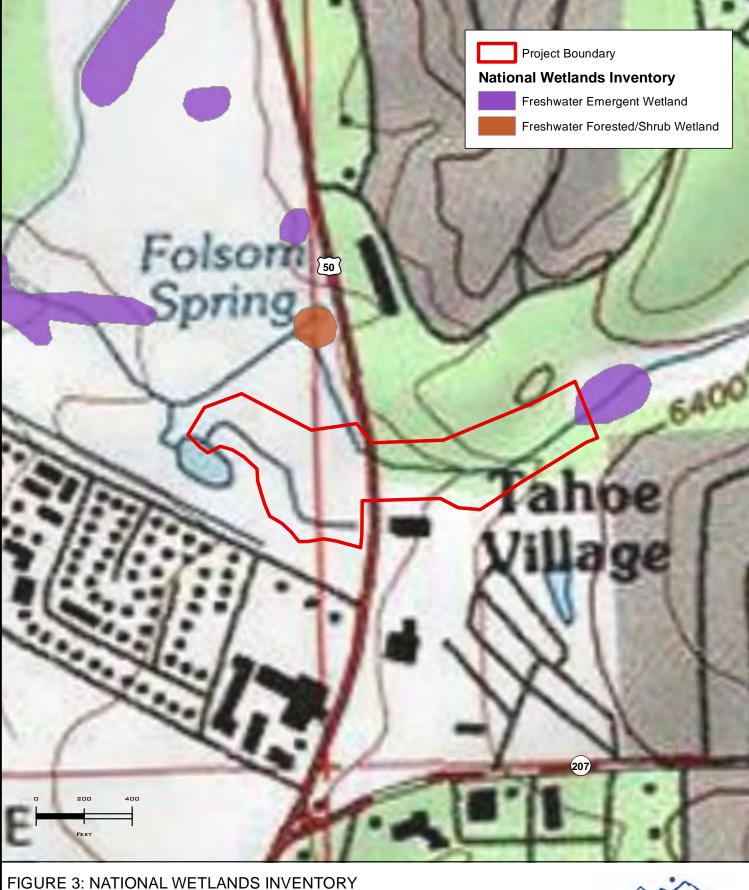


FIGURE 3: NATIONAL WEILANDS INVENTORY BURKE CREEK-RABE MEADOWS STREAM RESTORATION WETLANDS DELINEATION DOUGLAS COUNTY, NV JULY, 2012





NOTES: BACKGROUND: ESRI

FIGURE 4: PROJECT AREA SOILS BURKE CREEK-RABE MEADOWS STREAM RESTORATION WETLANDS DELINEATION DOUGLAS COUNTY, NV JULY, 2012

150

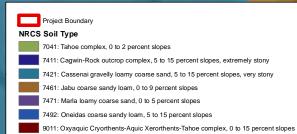
FEET

NOTES: BACKGROUND: ESRI



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# **APPENDIX B**

Site Investigation Wetland and WOUS Data Forms

| ~   | Picciai<br>9/2012                         |                    | Project Number:<br>Project Name:                          | le Mea                       | eele                   |                            | d Measurem<br>(inches) | ents    |
|---|---|--------------------|---|------------------------------|------------------------|----------------------------|------------------------|---------|
|   | 083 Zov                                   |                    | Sample Number: WC   | m les                        | Inan                   | Length                     | Depth                  | Width   |
| Ordinary High W   |   |                    | Ephemeral Draina  |                              |                        | 0 ft.                      | 36                     | 24      |
| for Perennial Wate  | ers of the United                         | d States           | for Waters of the U                                       | United State                 | es                     | 114 15 ft.                 | 36                     | 3       |
| Line Impressed<br>on Bank?                                  | Yes                                       | No                 | Defined<br>Bed & Bank?                                    | Yes                          | No                     | 11630 TT.                  | 24                     | 36      |
| Shelving?   | Yes                                       | No                 | Ordinary High<br>Water Mark?                              | Yes                          | No                     | 117<br>45 ft.              | 48                     | 36      |
| Change in<br>Soil Character?                                | Yes                                       | No                 | Shelving?   | Yes                          | No                     | 118 60 ft.                 | 72                     | 31      |
| Destruction of Vegetation?                                  | Yes                                       | No                 | Vegetation<br>Break?                                      | Yes                          | No                     | 1202511.                   | 72                     | 36      |
| Litter and/or<br>Debris Present?                            | Yes                                       | No                 | Scoured<br>Bed?   | Yes                          | No                     | 12/90.11.                  | .72                    | 30      |
| (Photo points and   | field diagram be                          | elow)              | Association with feature related to interstate commerce?  | Yes                          | No                     | 105 ft.                    |                        |         |
| each &  | ide o                                     | Jer<br>luei<br>- u | ed some freek' nears H<br>t<br>vetland 18"-<br>vetland 24 | wys<br>each                  | Bide                   | oz stre                    | am                     | dy      |
| each \$<br>0ft = US<br>wp 114<br>wp 116<br>wp 117<br>wp 118 | 36" W<br>36" W<br>36" W<br>36" W<br>36" W | 2 er               | vetland 18",<br>wetland 24<br>wetland 12'<br>wetland 12'  | wys<br>each<br>'w M          | Bide<br>side;          | oz stre                    | Sside                  | -<br>in |
| each \$<br>0ft= US<br>wp 114<br>wp 116<br>wp 117            | 26" W<br>36" W<br>36" W<br>36" W          | 2 er               | vetland 18",<br>wetland 24<br>wetland 12                  | wys<br>each<br>'w M<br>''w e | side;<br>side;<br>each | oz stre<br>24''w<br>side o | s side<br>z stree      | ih.     |

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| Line Impressed<br>on Bank? Yes No Defined<br>Bed & Bank? Yes No 2200 ft. 24<br>Shelving? Yes No Ordinary High<br>Water Mark? Yes No 1256 ft. 24<br>Change in<br>Soil Character? No Shelving? Yes No 1456 ft. 24<br>Change in<br>Soil Character? No Shelving? Yes No 1456 ft. 30<br>Destruction<br>of Vegetation? Yes No Break? Yes No 75 ft. 30<br>Destruction<br>of Vegetation? Yes No Break? Yes No 75 ft. 30<br>Destruction<br>Of Vegetation? Yes No Bed? Yes No 90 ft. 4<br>Debris Present? Yes No 105 ft. 4<br>West of US SO<br>OFA @ US SO<br>OFA @ US SO<br>OFA @ US SO<br>OFA @ US SO<br>Shelving? Yes Will OW OVERSTORY<br>3 FA - WIN WILLOW OVERSTORY<br>125 F4 - Channel becomes braided - 2 main channels<br>each 24''W<br>HS F4 - back to one main channel   | Ordinary Ingle Water soft the United States       Implemental Dramage Indicators         for Perennial Waters of the United States       Implemental Dramage Indicators         for Perennial Waters of the United States       Implemental Dramage Indicators         in Bank?       Yes       No         Bed & Bank?       Yes       No         Shelving?       Yes       No         Ordinary High       Yes       No         On Bank?       Yes       No         Shelving?       Yes       No         Ordinary High       Yes       No         Shelving?       Yes       No         Shelving?       Yes       No         Shelving?       Yes       No         Shelving?       Yes       No         Destruction       Tes       No         Shelving?       Yes       No         Bed?       Yes       No         Office Present?       Yes       No         Operation       Tes       Yes         Operation?       Yes       No       105 ft.         Detrie Present?       Yes       No       105 ft.         West of US SO       Sociation with feature relater to itature related to interstater commerce?       Yes </th <th></th> <th>Picciai<br/>19120<br/>08371</th> <th>12</th> <th>Project Number:<br/>Project Name: Ral<br/>Sample Number:</th> <th>lu Cri<br/>ve Mea<br/>ean R</th> <th>dows<br/>estora</th> <th></th> <th>d Measurer<br/>(inches)<br/><i>Depth</i></th> <th>ments<br/>Width</th>   |                    | Picciai<br>19120<br>08371 | 12                  | Project Number:<br>Project Name: Ral<br>Sample Number:  | lu Cri<br>ve Mea<br>ean R | dows<br>estora |          | d Measurer<br>(inches)<br><i>Depth</i> | ments<br>Width |
|---|---|--------------------|---------------------------|---------------------|---|---------------------------|----------------|----------|--|----------------|
| for Perennial Waters of the United States     for Waters of the United States     3,15 ft.     H     2.4       Line Inpresed<br>on Bank?     Yes     No     Defined<br>Bed & Bank?     Yes     No     236 ft.     2.4       Shelving?     Yes     No     Ordinary High<br>Water Mark?     Yes     No     125 ft.     2.4       Change in<br>Soil Character?     Yes     No     Shelving?     Yes     No     125 ft.     2.4       Defined<br>on Bank?     Yes     No     Shelving?     Yes     No     125 ft.     2.4       Change in<br>Soil Character?     Yes     No     Shelving?     Yes     No     145 ft.     3.0       Destruction<br>of Vegetation?     Yes     No     Bed?     Yes     No     75 ft.     3.0       Destruction<br>of Vegetation?     Yes     No     Bed?     Yes     No     90 ft.     3.0       Detris Present?     Yes     No     Bed?     Yes     No     105 ft.     105 ft.       West of US SO     Association with feature related to<br>Interstate commerce?     Yes     No     105 ft.     105 ft.       West of US SO     SO     Culture the present?     Yes     No     105 ft.     105 ft.       24 (Photo points and field diagram below)     Association with feature r  | for Perennial Waters of the United States     for Waters of the United States     3,15 ft.     H     2.4       Line Inpresed<br>on Bank?     Yes     No     Defined<br>Bed & Bank?     Yes     No     236 ft.     2.4       Shelving?     Yes     No     Ordinary High<br>Water Mark?     Yes     No     125 ft.     2.4       Change in<br>Soil Character?     Yes     No     Shelving?     Yes     No     125 ft.     2.4       Defined<br>on Bank?     Yes     No     Shelving?     Yes     No     125 ft.     2.4       Change in<br>Soil Character?     Yes     No     Shelving?     Yes     No     145 ft.     3.0       Destruction<br>of Vegetation?     Yes     No     Bed?     Yes     No     75 ft.     3.0       Destruction<br>of Vegetation?     Yes     No     Bed?     Yes     No     90 ft.     3.0       Detris Present?     Yes     No     Bed?     Yes     No     105 ft.     105 ft.       West of US SO     Association with feature related to<br>Interstate commerce?     Yes     No     105 ft.     105 ft.       West of US SO     SO     Culture the present?     Yes     No     105 ft.     105 ft.       24 (Photo points and field diagram below)     Association with feature r  | Ordinary High Wa   | ater Mark Ind             | icators             | Ephemeral Drainag   | e Indicator               | rs             | 0 ft.    | (0                                     | 48             |
| Line Impressed Yes No Defined Bed & Bank? Yes No 2006 ft. 24<br>Bed & Bank? Yes No 2006 ft. 24<br>Shelving? Yes No Ordinary High Yes No 1256 ft. 24<br>Change in Soil Character? Yes No Shelving? Yes No 1456 ft. 30<br>Destruction Tes No Break? Yes No 75 ft. 30<br>Destruction Yes No Break? Yes No 90 ft. 40<br>Litter and/or Debris Present? Yes No 90 ft. 40<br>(Photo points and field diagram below) Association with feature related to interstate commerce? Yes No 105 ft. 40<br>Welst of US SO<br>Deft @ US SO cultured w/in will OW Overstory<br>3 ft - w/in will ow overstory<br>3 ft - w/in will ow overstory<br>4 So ft - channel becomes braided - 2 main channels<br>caeh 24'' W<br>HS ft - back to one main channel<br>perennel stream flows wett, discharging into   | Line Impressed Yes No Defined Bed & Bank? Yes No 2006 ft. 24<br>Bed & Bank? Yes No 2006 ft. 24<br>Shelving? Yes No Ordinary High Yes No 1256 ft. 24<br>Change in Soil Character? Yes No Shelving? Yes No 1456 ft. 30<br>Destruction Tes No Break? Yes No 75 ft. 30<br>Destruction Yes No Break? Yes No 90 ft. 40<br>Litter and/or Debris Present? Yes No 90 ft. 40<br>(Photo points and field diagram below) Association with feature related to interstate commerce? Yes No 105 ft. 40<br>Welst of US SO<br>Deft @ US SO cultured w/in will OW Overstory<br>3 ft - w/in will ow overstory<br>3 ft - w/in will ow overstory<br>4 So ft - channel becomes braided - 2 main channels<br>caeh 24'' W<br>HS ft - back to one main channel<br>perennel stream flows wett, discharging into   | for Perennial Wate | rs of the Unite           | ed States           | The second se |                           |                | 3,15 ft. |  |                |
| Shelving?YesNoOrdinary High<br>Water Mark?YesNo1257t.24Change in<br>Soil Character?NoShelving?YesNo1450 ft.30Destruction<br>of Vegetation?CesNoNegetation<br>Break?YesNo1450 ft.30Destruction<br>of Vegetation?CesNoNegetation<br>Break?YesNo75 ft.30Destruction<br>of Vegetation?YesNoScoured<br>Bed?YesNo75 ft.30Litter and/or<br>Debris Present?YesNoScoured<br>Bed?YesNo90 ft.(Photo points and field diagram below)Association with feature related to<br>interstate commerce?YesNo105 ft.WelstOf US SOSoScoured<br>Interstate commerce?YesNo105 ft.Solt Of US SOSolt Of US SOSolt Of Will OW OVERStory<br>Soft Of US SOSolt Of Will OW OVERStory<br>Soft Of US SOSolt Of Will OW OVERStory<br>Soft Of US SOSoft Of US SOSolt Of US SOSolt Of Will OW OVERStory<br>Soft Of US SOSolt Of US SOSoft Of US SOSolt Of US SOSolt Of US SOSolt Of US SOSoft Of US SOSold Of US SOSold Of US SOSold Of US SOSoft Of US SOSold Of US SOSold Of US SOSold Of US SOSoft Of US SOSold Of US SOSold Of US SOSold Of US SOSoft Of US SOSold Of US SOSold Of US SOSold Of US SOSoft Of US SOSold Of US SOSold Of US SO   | Shelving?YesNoOrdinary High<br>Water Mark?YesNo1257t.24Change in<br>Soil Character?NoShelving?YesNo1450 ft.30Destruction<br>of Vegetation?CesNoNegetation<br>Break?YesNo1450 ft.30Destruction<br>of Vegetation?CesNoNegetation<br>Break?YesNo75 ft.30Destruction<br>of Vegetation?YesNoScoured<br>Bed?YesNo75 ft.30Litter and/or<br>Debris Present?YesNoScoured<br>Bed?YesNo90 ft.(Photo points and field diagram below)Association with feature related to<br>interstate commerce?YesNo105 ft.WelstOf US SOSoScoured<br>Interstate commerce?YesNo105 ft.Solt Of US SOSolt Of US SOSolt Of Will OW OVERStory<br>Soft Of US SOSolt Of Will OW OVERStory<br>Soft Of US SOSolt Of Will OW OVERStory<br>Soft Of US SOSoft Of US SOSolt Of US SOSolt Of Will OW OVERStory<br>Soft Of US SOSolt Of US SOSoft Of US SOSolt Of US SOSolt Of US SOSolt Of US SOSoft Of US SOSold Of US SOSold Of US SOSold Of US SOSoft Of US SOSold Of US SOSold Of US SOSold Of US SOSoft Of US SOSold Of US SOSold Of US SOSold Of US SOSoft Of US SOSold Of US SOSold Of US SOSold Of US SOSoft Of US SOSold Of US SOSold Of US SO   |                    | Yes                       | No                  |   | Yes                       | No             | 2030 ft. |  |                |
| Change in Soil Character? (P) No Shelving? Yes No 1450 ft. 30<br>Destruction (P) No Regetation Break? Yes No 75 ft. 30<br>Litter and/or Debris Presen? Yes (No) Bed? Yes No 90 ft. 90 ft. 105 ft. | Change in Soil Character? (P) No Shelving? Yes No 1450 ft. 30<br>Destruction (P) No Regetation Break? Yes No 75 ft. 30<br>Litter and/or Debris Presen? Yes (No) Bed? Yes No 90 ft. 90 ft. 105 ft. | Shelving?          | Xes                       | No                  |   | Yes                       | No             | 125 ft.  |  |                |
| Destruction<br>of Vegetation?<br>Litter and/or<br>Debris Present?<br>Yes<br>No<br>Scoured<br>Bed?<br>Yes<br>No<br>90 ft.<br>Association with feature related to<br>interstate commerce?<br>Yes<br>No<br>105 ft.<br>West of USSO<br>OFT @ USSO culvent w/in will ow overstory<br>3 FT - w/in will ow overstory<br>3 FT - w/in will ow overstory<br>3 FT - channel becomes braided - 2 main channels<br>each 24''w<br>HS FT - back to one main channel<br>perennel stream flows west, discharging into  | Destruction<br>of Vegetation?<br>Litter and/or<br>Debris Present?<br>Yes<br>No<br>Scoured<br>Bed?<br>Yes<br>No<br>90 ft.<br>Association with feature related to<br>interstate commerce?<br>Yes<br>No<br>105 ft.<br>West of USSO<br>OFT @ USSO culvent w/in will ow overstory<br>3 FT - w/in will ow overstory<br>3 FT - w/in will ow overstory<br>3 FT - channel becomes braided - 2 main channels<br>each 24''w<br>HS FT - back to one main channel<br>perennel stream flows west, discharging into  |                    | Yes                       | No                  | Shelving?   | Yes                       | No             | 1450 ft. |  |                |
| Debris Present? Yes No Bed? Yes No 90 ft.<br>(Photo points and field diagram below) Association with feature related to<br>interstate commerce? Yes No 105 ft.<br>West of US 50<br>OFF @ US 50 culvert w/in willow overstory<br>3 F4 - w/in willow overstory<br>3 F4 - w/in willow overstory<br>2 S F4 - channel becomes braided - 2 main channels<br>caeh 24''w<br>45 F4 - back to one main channel<br>perennel stream flows west, discharging into  | Debris Present? Yes No Bed? Yes No 90 ft.<br>(Photo points and field diagram below) Association with feature related to<br>interstate commerce? Yes No 105 ft.<br>West of US 50<br>OFF @ US 50 culvert w/in willow overstory<br>3 F4 - w/in willow overstory<br>3 F4 - w/in willow overstory<br>2 S F4 - channel becomes braided - 2 main channels<br>caeh 24''w<br>45 F4 - back to one main channel<br>perennel stream flows west, discharging into  |                    | Tes                       | No                  |   | Yes                       | No             | 75 ft.   |  |                |
| (Proto points and need diagram below)<br>West of USSO<br>2 Ft @ USSO culvert w/in willow overstory<br>3 Ft - w/in willow overstory<br>2 S Ft - channel becomes braided - 2 main channels<br>call 24''w<br>45 Ft - back to one main channel<br>perennel stream flows west, discharging into  | (Proto points and need diagram below)<br>West of USSO<br>2 Ft @ USSO culvert w/in willow overstory<br>3 Ft - w/in willow overstory<br>2 S Ft - channel becomes braided - 2 main channels<br>call 24''w<br>45 Ft - back to one main channel<br>perennel stream flows west, discharging into  |                    | Yes                       | No                  |   | Yes                       | No             | 90 ft.   |  |                |
| West of US 50<br>2Ft@ US 50 culved w/in willow overstory<br>3Ft - w/in willow overstory<br>2SFt - channel becomes braided - 2 main channels<br>each 24''w<br>45Ft - back to one main channel<br>perennel stream flows west, discharging into  | West of US 50<br>2Ft@ US 50 culved w/in willow overstory<br>3Ft - w/in willow overstory<br>2SFt - channel becomes braided - 2 main channels<br>each 24''w<br>45Ft - back to one main channel<br>perennel stream flows west, discharging into  | (Photo points and  | field diagram b           | pelow)              |   | Yes                       | No             | 105 ft.  |  | 1              |
|   |   | HSF4 -             | Each                      | 24<br>le to         | one main  | che                       | anne           | 1        |  | LS.            |
|   |   | HSF4 -             | each<br>back              | 24<br>le to<br>ream | one main<br>flows wet   | che                       | anne           | 1        |  |                |
|   |   | HSF4 -             | each<br>back              | 24<br>le to<br>ream | one main<br>flows wet   | che                       | anne           | 1        |  |                |
|   |   | HSF4 -             | each<br>back              | 24<br>le to<br>ream | one main<br>flows wet   | che                       | anne           | 1        |  |                |
|   |   | HSF4 -             | each<br>back              | 24<br>le to<br>ream | one main<br>flows wet   | che                       | anne           | 1        |  |                |
|   |   | HSF4 -             | each<br>back              | 24<br>le to<br>ream | one main<br>flows wet   | che                       | anne           | 1        |  |                |
|   |   | HSF4 -             | each<br>back              | 24<br>le to<br>ream | one main<br>flows wet   | che                       | anne           | 1        |  |                |

| GPS: 2 GW2<br>Ordinary High Water<br>for Perennial Waters of<br>Line Impressed<br>on Bank?<br>Shelving?<br>Change in<br>Soil Character?<br>Destruction<br>of Vegetation?<br>Litter and/or<br>Debris Present?<br>(Photo points and field | Mark Indicators                               | Sample Number: Fr   | age Indicators   | s<br>s | Length<br>WP of T.<br>WP of T. | Depth<br>H 8<br>3 4 | Width<br>24<br>48 |
|---|---|---|------------------|--------|--------------------------------|---------------------|-------------------|
| for Perennial Waters of<br>Line Impressed<br>on Bank?<br>Shelving?<br>Change in<br>Soil Character?<br>Destruction<br>of Vegetation?<br>Litter and/or<br>Debris Present?   | f the United States<br>Yes No<br>Yes No       | for Waters of the Defined Bed & Bank? Ordinary High   | United States    | 5      | WP G                           |                     |                   |
| Line Impressed<br>on Bank?<br>Shelving?<br>Change in<br>Soil Character?<br>Destruction<br>of Vegetation?<br>Litter and/or<br>Debris Present?  | Yes No<br>Yes No                              | Defined<br>Bed & Bank?<br>Ordinary High   |                  |        | WPISH.                         | 36                  | HR                |
| on Bank?<br>Shelving?<br>Change in<br>Soil Character?<br>Destruction<br>of Vegetation?<br>Litter and/or<br>Debris Present?  | Yes No  | Bed & Bank?<br>Ordinary High  | Yes              | N      | 1007                           |                     | 1 4               |
| Change in<br>Soil Character?<br>Destruction<br>of Vegetation?<br>Litter and/or<br>Debris Present?   |   | and the second se |                  | No     | WB30TH.                        | 36                  | 60                |
| Soil Character?<br>Destruction<br>of Vegetation?<br>Litter and/or<br>Debris Present?  | Yes No  | trates strate.  | Yes              | No     | 45 ft.                         |                     |                   |
| of Vegetation?<br>Litter and/or<br>Debris Present?  |   | Shelving?   | Yes              | No     | 60 ft.                         |                     |                   |
| Debris Present?   | Yes No  | Vegetation<br>Break?  | Yes              | No     | 75 ft.                         |                     |                   |
| (Photo points and field   | Yes No  | Scoured<br>Bed?   | Yes              | No     | 90 ft.                         |                     |                   |
|   | diagram below)                                | Association with feature related to interstate commerce?  | (Yes)            | No     | 105 ft.                        |                     |                   |
| 2 wp # 6<br>conveya<br>2 wp # 7<br>Creek  | piped<br>piped<br>ence (i<br>- end<br>- photo | ale end.<br>side of Kahle<br>silted in, Th<br>retention I def<br>r to end up i<br>water curren<br>photo VE)<br>of conveyan<br>V N<br>int RIB-3, 51<br>e document  | ithy 61<br>ac ju | st so  | s swal                         | Bade                |                   |

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| Observer: J.<br>Date: S<br>GPS: NBI       | 9 201  | 2                         | Project Number:<br>Project Name: Sak<br>Sample Number: Fe                     |                   | eek<br>adouds<br>stopat | on                 | d Measuren<br>(inches) |        |
|---|--|---------------------------|---|-------------------|-------------------------|--------------------|------------------------|--------|
|   |  |                           |   |                   |                         | Length<br>0 ft.    | Depth                  | Width  |
| Ordinary High Wat<br>for Perennial Water: |  |                           | Ephemeral Drainage Indicators<br>for Waters of the United States              |                   |                         | 15 ft.             |                        | 36     |
| Line Impressed<br>on Bank?                | Yes  | No                        |   |                   |                         | 30 ft.             |                        | 36     |
| Shelving?                                 | Yes  | No                        | Ordinary High<br>Water Mark?  | Yes               | No                      | 45 ft.             |                        | 48     |
| Change in<br>Soil Character?              | Yes  | No                        | Shelving?   | Yes               | No                      | 60 ft.             |                        | 36     |
| Destruction<br>of Vegetation?             | Yes  | No                        | Vegetation<br>Break?  | Yes               | (No)                    | 75 ft.             |                        | 26     |
| Litter and/or<br>Debris Present?          | Yes  | No                        | Scoured<br>Bed?   | Yes               | (No)                    | 90 ft.             |                        |        |
| (Photo points and fi                      | ield diagram b                                       | below)                    | Association with feature related to interstate commerce?                      | (Yes)             | No                      | 105 ft.            |                        |        |
| This con                                  | s 18 to<br>any C<br>nal w<br>connec<br>nveys<br>Cree | al<br>collection<br>store | show flow<br>ted 5/9/201<br>hts 138,139<br>mwater nu<br>wous, as<br>ahe Tahoe | z.<br>reele<br>Bu | teci F                  | +141 (20<br>rectly | to to                  | >      |
|   |  |                           |   |                   |                         |                    |                        |        |
|   | H6-H<br>east   | 8,1<br>8,1                | 2] s zo11, al   | 50 7              | cree                    | 2 photo<br>12 conf | vs fro                 | e<br>e |

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| Project/Site: BC/RM Stre                  | an Kestor           | anon City           | County: Dolu                        | g las Sampling  | Date: 12 6 2011   |
|---|---------------------|---------------------|-------------------------------------|---|---|
| Applicant/Owner: NTCD                     |                     |                     |                                     | State: <u>NV</u> Sampling                                   | Point: RIS-1  |
| nvestigator(s): <u>J.P.CCIAV</u>          | u                   | Sec.                | tion, Township, Ra                  | nge:  |   |
| andform (hillslope, terrace, etc.):       | VILLSIOPH           | Loc                 | cal relief (concave,                | convex, none): _none  | Slope (%): 2 -3   |
| Subregion (LRR): //L/24 22                | A                   | Lat: 43178          | 558 N                               |   | Datum: NAD83  |
| Soil Map Unit Name: Tahore (              | omplex,             | 0-20/6 51           | Ope                                 | NWI classification:   | the second se |
| Are climatic / hydrologic conditions on t | he site typical for | this time of year?  | Yes No                              | (If no, explain in Remarks )                                |   |
| Are Vegetation, Soil, or                  | Hydrology           | _significantly dist |                                     | 'Normal Circumstances" present?                             | Vac V No  |
| Are Vegetation, Soil, or                  | Hydrology           | _ naturally problem |                                     | eded, explain any answers in Rema                           |   |
| SUMMARY OF FINDINGS - A                   | ttach site ma       | n showing sa        |                                     |   |   |
| Hydrophytic Vegetation Present?           | Yes                 | No V                |                                     | ocations, transects, import                                 | ant features, etc.  |
| Hydric Soil Present?                      | Yes                 | No                  | Is the Sampled                      | Area  |   |
| Wetland Hydrology Present?                | Yes                 | No_                 | within a Wetlan                     | nd? Yes No  | V   |
| Remarks: plot S of IS                     | Burle Cre           | ENE +NO             | 7 Kahlel                            | is just wog He  | VICO  |
|   |                     |                     | 0                                   | 3 9 m 31 44 m 9 1000  | 150   |
| 115245690,431785                          |                     |                     |                                     |   |   |
| EGETATION – Use scientific                | names of pla        | ints.               |                                     |   |   |
| Tree Stratum (Plot size:                  | I                   | Absolute Do         | ominant Indicator<br>becies? Status | Dominance Test worksheet:                                   |   |
| 1   |                     | <u>no Cover</u> St  | Jeoles Jialus                       | Number of Dominant Species                                  | 1   |
| 2   |                     |                     |                                     | That Are OBL, FACW, or FAC:                                 | (A)   |
| 3   |                     |                     |                                     | Total Number of Dominant<br>Species Across All Strata:      |   |
| 4   |                     |                     |                                     |   | (B)   |
|   |                     |                     | Total Cover                         | Percent of Dominant Species<br>That Are OBL, FACW, or FAC:  | (A/B)   |
| Sapling/Shrub Stratum (Plot size:         | /                   |                     |                                     | Prevalence Index worksheet:                                 | (A/B)   |
| 1   |                     |                     |                                     |   | Multiply by:  |
| 3.  |                     |                     |                                     | OBL species x 1   |   |
| 4   |                     |                     |                                     | FACW species x 2  |   |
| 5   |                     |                     |                                     | FAC species x 3   |   |
| 5DVS                                      | 21                  | =1                  | otal Cover                          | FACU species x 4  |   |
| Herb Stratum (Plot size: 50×5             |                     | 20                  | 1 1101                              | UPL species x 5   | *   |
| 1. Elymus hispi<br>2. Sumphystrich        |                     | - <u></u>           | V UPL                               | Column Totals: (A)  | (B)   |
| 3. Lupinus gray                           | un spi              | -10                 | FAC-FAC                             | Prevalence Index = B/A =                                    |   |
| 4. Bromus tector                          | LIM                 |                     | TIPL                                | Hydrophytic Vegetation Indicate                             | Ins:  |
| 5 Lactuca Service                         |                     |                     | FACU                                | 1 - Rapid Test for Hydrophytic                              | Vegetation  |
| 6. Epilobium bra                          | chycarpu            | IMT                 | UPI                                 | 2 - Dominance Test is >50%                                  |   |
| 7. MOSS                                   | / /                 | 5                   |                                     | 3 - Prevalence Index is ≤3.01                               | 100   |
| 8   |                     |                     |                                     | 4 - Morphological Adaptations<br>data in Remarks or on a se | (Provide supporting<br>parate sheet)  |
| 9   |                     |                     |                                     | 5 - Wetland Non-Vascular Pla                                |   |
| 10  |                     |                     |                                     | Problematic Hydrophytic Vege                                |   |
| 11  |                     |                     |                                     | <sup>1</sup> Indicators of hydric soil and wetlag           | nd bydrology must   |
| Woody Vine Stratum (Plot size:            | 1                   | <u>55</u> =Te       | otal Cover                          | be present, unless disturbed or pro                         | pplematic.  |
| 1   |                     |                     |                                     | that is a   |   |
| -   |                     |                     |                                     | Hydrophytic<br>Vegetation                                   | 1   |
|   |                     |                     | otal Cover                          | Present? Yes  | No  |
| % Bare Ground in Herb Stratum             |                     |                     |                                     |   |   |
| Remarks:                                  | veg uc              | ary ibut            | Standin                             | 9 moss collect  | ed  |
| 10 littly - 7 270                         | U                   | ~                   |                                     |   |   |
| Elymussis th                              |                     |                     |                                     | 1 = Elytriaria intern                                       |   |

|   | ription: (Describe to   | o the dept    |  |   |                                 | or commi | in the absentice of h   | Idicators./  |
|---|---|---------------|--|---|---------------------------------|----------|---|--|
| Depth <u>Matrix</u><br>(inches) Color (moist) %   | 9/  | Color (moist) | x Features<br>%  | Type'   | Texture                         | Remarks  |   |  |
| 5-4<br>5-4<br>4-20  | TOYR3La   | 100           | 54R 5/8  | 5   | 0                               | <u>M</u> | gravell   | sitter<br>sitty loam<br>usility clays<br>when mottles  |
| Hydric Soil<br>Histosol<br>Histic E<br>Black H<br>Hydroge<br>✓ Deplete<br>Thick D<br>Sandy f<br>Sandy f | pipedon (A2)<br>istic (A3)<br>en Sulfide (A4)<br>ed Below Dark Surface<br>ark Surface (A12)<br>Mucky Mineral (S1)<br>Gleyed Matrix (S4) | able to all   | =Reduced Matrix, C<br>LRRs, unless othe<br>Sandy Redox<br>Stripped Matri<br>Loamy Mucky<br>Loamy Gleyed<br>Depleted Matri<br>Redox Dark S<br>Depleted Dark<br>Redox Depres | erwise not<br>(S5)<br>x (S6)<br>Mineral (F<br>Matrix (F<br>Matrix (F3)<br>urface (F6<br>& Surface ( | (exce)<br>(exce)<br>(2)<br>(F7) |          | Indicators<br>2 cm M<br>Red Pa<br>1) Very SI<br>Other (<br><sup>3</sup> Indicators<br>wetland | on: PL=Pore Lining, M=Matrix.<br>for Problematic Hydric Soils <sup>3</sup> :<br>uck (A10)<br>rent Material (TF2)<br>nallow Dark Surface (TF12)<br>Explain in Remarks)<br>of hydrophytic vegetation and<br>hydrology must be present,<br>isturbed or problematic. |
| Restrictive<br>Type:<br>Depth (ir   | Layer (if present):   |               | _  |   |                                 |          | Hydric Soil Pr  | esent? Yes 📈 No _  |
| Remarks:  | 1   | Soi<br>his    | forie ali  | snir  | ent                             |          |   |  |

#### Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (B9) (MLRA 1, 2, Water-Stained Leaves (B9) (except Surface Water (A1) 4A, and 4B) MLRA 1, 2, 4A, and 4B) High Water Table (A2) Drainage Patterns (B10) Salt Crust (B11) Saturation (A3) Dry-Season Water Table (C2) Aquatic Invertebrates (B13) Water Marks (B1) Saturation Visible on Aerial Imagery (C9) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Drift Deposits (B3) Shallow Aquitard (D3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Iron Deposits (B5) Raised Ant Mounds (D6) (LRR A) Stunted or Stressed Plants (D1) (LRR A) Surface Soil Cracks (B6) Frost-Heave Hummocks (D7) Other (Explain in Remarks) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) 518/2012 Field Observations: Depth (inches) Surface Water Present? 720 Depth (inches): Water Table Present? No Wetland Hydrology Present? Yes Yes No Depth (inches): Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Pemarks: This Late in season not cupturing maximum plot 2 75's of Burke Creek on a slightrise revisited plot 5/8/2012 results indicate Remarks:

| Project/Site: BC/RM Stream Res                                 | STOTAL Colty                                   | County: Dou                    | gas Sampling Date: 12/06/6  |
|--|--|--------------------------------|---|
| pplicant/Owner:  |  |                                | State: <u>MV</u> Sampling Point: <u>RB ~ 2</u>  |
| vestigator(s): J. PICCIANI                                     |  | tion, Township, Rai            | nge:  |
| andform (hillslope, terrace, etc.): <u>hludplain</u>           | Loc  | al relief (concave, o          | convex, none): <u>None</u> Slope (%): <u>3</u>  |
| ubregion (LRR): _MLRA 27A                                      | _ Lat: 4317                                    | -674N                          | Long: 245699E Datum: UAD 8  |
| Dil Map Unit Name: Tahoe Complex 0                             |  |                                | NWI classification: NONE  |
| re climatic / hydrologic conditions on the site typical for th | nis time of year?                              | Yes No                         |   |
| re Vegetation, Soil, or Hydrology                              |  |                                | Normal Circumstances" present? Yes No   |
| e Vegetation, Soil, or Hydrology                               |  |                                |   |
|  |  |                                | eded, explain any answers in Remarks.)  |
| UMMARY OF FINDINGS – Attach site map                           | showing sa                                     | mpling point le                | ocations, transects, important features, etc.   |
| Hydrophytic Vegetation Present? Yes                            | No   | 50.2                           |   |
|  | No   | Is the Sampled within a Wetlan |   |
|  | No   | within a wettan                | No  |
| Remarks: plot on sside up                                      | Burke  | Creek                          | , just weston two use   |
| UP #3 115  |  |                                | 10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-   |
| EGETATION – Use scientific names of pla                        | nto  |                                |   |
|  |  | minant Indicator               | Dominance Trade 1 1   |
| Tree Stratum (Plot size: 40 X 30)                              |  | ecies? Status                  | Dominance Test worksheet:   |
| Populus trichocarpa  | - 10 -   | FAC                            | Number of Dominant Species 7 That Are OBL, FACW, or FAC: 7 (A)                          |
| 2  |  |                                |   |
| B  | <u> 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 </u> |                                | Total Number of Dominant  |
| 4  |  |                                |   |
| Sapling/Shrub Stratum (Plot size: Hox39                        | <u></u> =T                                     | otal Cover                     | Percent of Dominant Species<br>That Are OBL, FACW, or FAC: 100 (A/B)                    |
| Sapling/Shrub Stratum (Plot size: 10 x 0 y                     | CE I   | FACW                           | Prevalence Index worksheet:   |
| Ponulus Themulaides  |  | CAR                            | Total % Cover of: Multiply by:  |
| Rosa Wood s i  | 10   | PARI                           | OBL species x 1 =   |
| 11000 3000 511   |  | 11100                          | FACW species x 2 =  |
|  | 1.000  |                                | FAC species x 3 =   |
| 110/1201   | 80 =T  | otal Cover                     | FACU species x 4 =  |
| Herb Stratum (Plot size: 40 × 30)                              | kn.  |                                | UPL species x 5 =   |
| Scipus nuero carpus  | 2 40 L   | 1 OBL                          | Column Totals: (A) (B)  |
| geun macrophyllum  | _10  | FAC                            | Prevalence Index = B/A =  |
| Epilobium cilitatum  |  | - FACU                         | Hydrophytic Vegetation Indicators:  |
| ·  |  |                                | Rapid Test for Hydrophytic Vegetation   |
|  |  |                                | ✓ 2 - Dominance Test is >50%  |
|  |  |                                | 3 - Prevalence Index is ≤3.0 <sup>1</sup>   |
| 1  |  |                                | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting                          |
| 3  |  |                                | data in Remarks or on a separate sheet)<br>5 - Wetland Non-Vascular Plants <sup>1</sup> |
| )  |  |                                | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)                               |
| 11   |  |                                | <sup>1</sup> Indicators of hydric soil and wetland hydrology must                       |
|  | 70 = TO  | otal Cover                     | be present, unless disturbed or problematic.  |
| Noody Vine Stratum (Plot size: )                               |  |                                |   |
| (Flot size)  |  |                                | Hydrophytic   |
|  |  |                                | Vegetation  |
|  |  |                                | Procent2  |
| Stratum (Flot size)  | = To   | otal Cover                     | Present? Yes No   |

Sampling Point: RB-2

| Profile Description: (Describe to the de  | pth needed to docume                  | ent the inc | dicator o         | or confirm       | the absence            | of indicators.)  |
|---|---------------------------------------|-------------|-------------------|------------------|------------------------|--|
| Depth Matrix  | Redox                                 | Features    |                   |                  |                        |  |
| (inches) Color (moist) %  | Color (moist)                         | %           | Type <sup>1</sup> | Loc <sup>2</sup> | Texture                | Remarks  |
| 2-9 104R2/1 100   |                                       | 17          |                   | -14              |                        | SIty Loam  |
| 1-15/04/25/1 70   |                                       | 10          | C                 | M                |                        | silty loam   |
|   | 2.54512                               | 20          | D                 | M                |                        | clayey sand  |
| 5-17-25/5/2 100   |                                       |             |                   |                  |                        | gravelly cay   |
| 7-20 10YR 2/1 100   | 1-1-1-1                               |             |                   |                  |                        | Pitainuclau  |
| 17 20 10 11 eft 100   |                                       |             |                   |                  | 1                      | tourndrived  |
|   |                                       |             |                   |                  |                        |  |
|   |                                       |             |                   |                  |                        |  |
| Type: C=Concentration, D=Depletion, RM  | A=Reduced Matrix CS                   | Covered     | or Coate          | d Sand Gr        | rains. <sup>2</sup> Lo | cation: PL=Pore Lining, M=Matrix.                      |
| lydric Soil Indicators: (Applicable to a  | II LRRs, unless other                 | vise note   | d.)               | d ound of        |                        | ors for Problematic Hydric Soils <sup>3</sup> :        |
| Histosol (A1)   | Sandy Redox (S                        |             |                   |                  | _ 2 c                  | m Muck (A10)   |
| Histic Epipedon (A2)  | Stripped Matrix (                     |             |                   |                  |                        | d Parent Material (TF2)                                |
| Black Histic (A3)   | Loamy Mucky M                         |             |                   | t MLRA 1)        |                        | y Shallow Dark Surface (TF12)                          |
| Hydrogen Sulfide (A4)   | Loamy Gleyed M                        |             |                   |                  | Oth                    | ner (Explain in Remarks)                               |
| V Depleted Below Dark Surface (A11)   | V Depleted Matrix<br>V Redox Dark Sur |             |                   |                  | 3Indicat               | ors of hydrophytic vegetation and                      |
| Thick Dark Surface (A12)  | V Depleted Dark Sur                   |             | ()                |                  |                        | and hydrology must be present,                         |
| Sandy Mucky Mineral (S1)<br>Sandy Gleyed Matrix (S4)                                  | Redox Depressi                        |             |                   |                  |                        | ss disturbed or problematic.                           |
| Restrictive Layer (if present):   |                                       |             |                   |                  |                        |  |
| Туре:   |                                       |             |                   |                  |                        | /  |
| Depth (inches):<br>Remarks:<br>2 8-17 reduction<br>2 8-15 prominent m                 |                                       |             |                   |                  | Hydric Soi             | Present? Yes V No                                      |
| YDROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one requi |                                       |             |                   |                  |                        | ondary Indicators (2 or more required)                 |
| Surface Water (A1)  | Water-Stai                            |             | (                 | except           |                        | Water-Stained Leaves (B9) (MLRA 1, 2,                  |
| High Water Table (A2)   |                                       | 1, 2, 4A, a | nd 4B)            |                  |                        | 4A, and 4B)  |
| Saturation (A3)   | Salt Crust                            |             | /012)             |                  |                        | Drainage Patterns (B10)<br>Dry-Season Water Table (C2) |
| Water Marks (B1)  | Aquatic Inv<br>Hydrogen               |             |                   |                  |                        | Saturation Visible on Aerial Imagery (C9               |
| Sediment Deposits (B2)  | V Oxidized F                          |             |                   | Livina Ro        |                        | Geomorphic Position (D2)                               |
| Algal Mat or Crust (B4)   | Presence                              |             |                   |                  |                        | Shallow Aquitard (D3)                                  |
| Iron Deposits (B5)  | Recent Iro                            |             |                   |                  |                        | FAC-Neutral Test (D5)                                  |
| Surface Soil Cracks (B6)  | Stunted or                            |             |                   |                  |                        | Raised Ant Mounds (D6) (LRR A)                         |
| Inundation Visible on Aerial Imagery  | (B7) Other (Exp                       | lain in Re  | marks)            |                  | -                      | Frost-Heave Hummocks (D7)                              |
| Sparsely Vegetated Concave Surface  | e (B8)                                |             |                   |                  |                        |  |
| Field Observations:   | 1                                     | 12          | 2011              | 51               | 8/2012                 |  |
| Surface Water Present? Yes  | No Depth (in                          |             |                   | 1 20             | 2 11                   |  |
| Water Table Present? Yes V  | No Depth (in                          | ches):      | 20                | - 01             |                        | N/   |
| Saturation Present? Yes   | No Depth (in                          | ches):      | 12                | ØVe              | tland Hydrolo          | gy Present? Yes V No                                   |
| (includes capillary fringe)<br>Describe Recorded Data (stream gauge,                  | monitoring well, aerial               | photos, pr  | evious in         | spections        | ), if available:       |  |
|   |                                       |             |                   |                  |                        |  |
| Remarks: hydric so<br>assume we   | ils + vege<br>fland hy                | tatu        | no<br>lo-         | shi              | Ath                    | hytic also   |
| hudrolver   |                                       |             |                   | 1.1              |                        |  |
| Jinun dote  | 18/2012                               | Lava        | (JUP)             | 2 u              | ore les                | 2009/000, 20,1101                                      |

| WETLAND DETERMINATION DATA FORM – Western Mountair   | is, Valleys, and Coast Region 012012   |
|--|--|
| Project/Site: BC/RM Stream Restoration city/eounty: Dougl  |  |
| Applicant/Owner: 14100   | State: NV Sampling Point: RB-3   |
| Investigator(s): J. PICCIALL Section, Township, Range:_  |  |
| Landform (hillslope, terrace, etc.): Suale Local relief (concave, conve:   | x, none): <u>Concave</u> Slope (%): <u>S</u><br>g: <u>245712</u> <u>E</u> Datum: <u>NAD</u> 83 |
|  | NWI classification: NONe   |
|  | (If no, explain in Remarks.)   |
|  | al Circumstances" present? Yes V No  |
| 그렇는 사람이 가는 것이 아니는 것이 안 가지 않는 것이 같이 가지 않는 것이 같이 많이 많이 많이 많이 많이 했다.  | explain any answers in Remarks.)   |
| SUMMARY OF FINDINGS - Attach site map showing sampling point locati  |  |
| Hydrophytic Vegetation Present?       Yes       No       Is the Sampled Area         Hydric Soil Present?       Yes       No       Is the Sampled Area         Wetland Hydrology Present?       Yes       No       within a Wetland? |  |
| Remarks: Plot in roudside swale adjacent to west<br>WP#4 Just S of Burke Creek   | side 13 USSD; and  |

VEGETATION - Use scientific names of plants.

| <u>Tree Stratum</u> (Plot size:)<br>1)        | Absolute<br>% Cover | Dominant Indicator<br>Species? Status |  |
|---|---------------------|---------------------------------------|--|
| 2<br>3<br>4                                   |                     |                                       | Total Number of Dominant Species Across All Strata: (B)  |
| Sapling/Shrub Stratum (Plot size: 51 × 35)    | -                   | = Total Cover                         | Percent of Dominant Species<br>That Are OBL, FACW, or FAC: (A/B)   |
| 2. Saley Lemonnu                              | 15                  | - PACU<br>FACU                        | Prevalence Index worksheet:  |
| 3   |                     |                                       | GBL species         x 1 =           FACW species         x 2 =   |
| 5   | 110                 |                                       | FAC species         x 3 =           FACU species         x 4 =   |
| Herb Stratum (Plot size: 5'X35                | 40                  | = Total Cover                         | UPL species x 5 =  |
| 1. Juncus battens ssp. ater<br>2. Curer Sp.   | 20                  | V FACU-ON                             | Column Totals:   |
| 3. Agrostis exercita -                        | 15<br>T             | V FAU<br>FAC                          | U Hydrophytic Vegetation Indicators:   |
| 5. Melilotus Sp.<br>6. Epilobium brachycarpum | 50                  | FACU                                  | <ul> <li>1 - Rapid Test for Hydrophytic Vegetation</li> <li>2 - Dominance Test is &gt;50%</li> </ul>                           |
| 7. Epilolojuhn cittatum                       | T                   | FACU                                  |  |
| 89  |                     |                                       | data in Remarks or on a separate sheet)<br>5 - Wetland Non-Vascular Plants <sup>1</sup>  |
| 10  |                     |                                       | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><sup>1</sup> Indicators of hydric soil and wetland hydrology must |
| Woody Vine Stratum (Plot size:)               | 55                  | = Total Cover                         | be present, unless disturbed or problematic.   |
| 1   |                     | ·                                     | - Hydrophytic  |
| 2<br>% Bare Ground in Herb Stratum 15         | _                   | = Total Cover                         | Present? Yes No  |
|   | 88 IV               | nd status                             | or Jibalticus = J. arcticus 201:   |
| Carey sp., not in blower,                     | chizo               | + bright g                            | un Ciaquitilus?  |

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) **Redox Features** Depth Matrix Type' Texture Remarks % Loc (inches) Color (moist) Color (moist) Coarse and 33 100 20 <sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix Indicators for Problematic Hydric Soils<sup>3</sup>: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) 2 cm Muck (A10) Sandy Redox (S5) Histosol (A1) Red Parent Material (TF2) Stripped Matrix (S6) Histic Epipedon (A2) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Black Histic (A3) U Other (Explain in Remarks) Loamy Gleyed Matrix (F2) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Matrix (F3) <sup>3</sup>Indicators of hydrophytic vegetation and Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) wetland hydrology must be present, Sandy Mucky Mineral (S1) unless disturbed or problematic. Redox Depressions (F8) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Hydric Soil Present? Yes Depth (inches): Remarks: ted swal 0rock 113 wel HYDROLOG Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2, Surface Water (A1) 4A, and 4B) High Water Table (A2) MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Salt Crust (B11) Saturation (A3) Dry-Season Water Table (C2) Water Marks (B1) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Drift Deposits (B3) Shallow Aquitard (D3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Iron Deposits (B5) Raised Ant Mounds (D6) (LRR A) Stunted or Stressed Plants (D1) (LRR A) Surface Soil Cracks (B6) Frost-Heave Hummocks (D7) Other (Explain in Remarks) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) 5/2012 2011 Field Observations: 12 Depth (inches): Surface Water Present? No Depth (inches): Water Table Present? No Yes Wetland Hydrology Present? Yes No Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks; per. CO Spill TheL 15 Creeks Could UDTDa VLA ation below barrier fatric Western Mountains, Valleys, and Coast - Version 2.0 US Army Corps of Engineers one ac Wes C hanne Shoto see 1 tou

| WETLAND DETERMINATION D   | ATA FORM - W    | estern Mou      | ntains, Valleys, and Coast Region 8 120  |
|---|-----------------|-----------------|--|
| Project/Site; BC/RM Stream Reg                                  | trationura      | Dou             | al. intrala.   |
| Applicant/Owner: NTCD   |                 |                 | Sampling Date: 127201  |
| Investigator(s): J. P. CCIANE                                   | Soution         | Taurahia De     | State: <u></u> Sampling Point: <u>RB-4</u>   |
| Landform (hillslope, terrace, etc.): 1000 plain                 |                 |                 | nge:   |
| Subregion (LRR): MLRA 22A                                       | and and the     | TOZ N           | convex, none): hoi slope (%):  |
| Soil Map Unit Name: Tallor Complex                              | 0-2%sl          |                 | Long: 0245618E Datum/1AD8  |
|   |                 | 1               | NWI classification: <u>DDhl</u>  |
| Are climatic / hydrologic conditions on the site typical for th |                 |                 | (If no, explain in Remarks.)   |
| Are Vegetation, Soil, or Hydrology                              |                 |                 | "Normal Circumstances" present? Yes V No   |
| Are Vegetation, Soil, or Hydrology                              |                 |                 | eeded, explain any answers in Remarks.)  |
| SUMMARY OF FINDINGS – Attach site map                           | showing samp    | ling point l    | ocations, transects, important features, etc.  |
| Hydrophytic Vegetation Present? Yes V                           | No              | Section 1       |  |
|   |                 | s the Sampled   |  |
| Pemarke' - I m I I I  |                 | vithin a Wetlar |  |
| Remarks: plot 1 o cated west o                                  | 3 Burle C       | reale of        | HS in wet mead on edge   |
| Wp#12 Zone 115 (2011)   | NP 31 ,         | 2012            | 245618   |
| /EGETATION - Use scientific names of plan                       | nte             |                 | 4311104  |
| e e e e e e e e e e e e e e e e e e e                           |                 | ant Indicator   | Dominance Tester I to a  |
| Tree Stratum (Plot size:)                                       | % Cover Specie  | s? Status       | Dominance Test worksheet:<br>Number of Dominant Species  |
| 1   |                 |                 | That Are OBL, FACW, or FAC:(A)   |
| 2   |                 |                 | Total Number of Dominant   |
| 3   |                 |                 | Species Across All Strata:(B)  |
| 4   |                 |                 | Percent of Dominant Species  |
| Sapling/Shrub Stratum (Plot size: 20 × 30)                      | = Total         | Cover           | That Are OBL, FACW, or FAC: (A/B)  |
| 1. Salix exigua   |                 | FACW            | Prevalence Index worksheet:  |
| 2 Bosq woodile  | SV              | EACU            | Total % Cover of:Multiply by:  |
| 3   |                 |                 | OBL species         x 1 =           FACW species         x 2 =   |
| 5   |                 |                 | FAC species x 2 =  |
|   | 0               |                 | FACU species x4 =  |
| Herb Stratum (Plot size: 201 X 30                               | <u>S</u> =Total | Cover           | UPL species x 5 =  |
| 1. Epilobium cillatum   | 15 V            | EACW            | Column Totals: (A) (B)   |
| 2. Hordoum brachy an then                                       | IMS V           | FACW            | Prevalence Index = B/A =   |
| 3. Junus ensiteins  | 10 V            | -FACW           | Hydrophytic Vegetation Indicators:   |
| 5. Agrestis exercita  |                 | - FAC           |  |
| Deschampsig Cespitosa   |                 | - FACU          | 2 - Dominance Test is >50%   |
| Veronia so.   | 1               | OBT             | 3 - Prevalence Index is ≤3.0 <sup>1</sup>  |
| s. Juneus sp.   | 5               | FAC-DIBI        | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |
| Cirsium Valaare   | T               | FACU            | 5 - Wetland Non-Vascular Plants <sup>1</sup>   |
| 10  |                 |                 | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 11  |                 |                 | <sup>1</sup> Indicators of hydric soil and wetland hydrology must                                      |
| Noody Vine Stratum (Plot size:)                                 | 65 = Total      | Cover           | be present, unless disturbed or problematic.   |
|   |                 |                 |  |
| 2.  |                 |                 | Hydrophytic<br>Vegetation  |
| % ice = 25% =   | = Total (       | Cover           | Present? Yes No  |
| % Bare Ground in Herb Stratum                                   |                 |                 |  |
| Remarks: plants in domana                                       | 1 21 0 0 110    | e i dev         | the flable to spe-   |
| level, some collecter   | 2 to dete       | mine            | positive In  |
| 901 1 4   |                 |                 |  |

US Army Corps of Engineers

| the second se  | epth needed to document the indicator or confirm t   |   |
|--|--|---|
| pth Matrix   | Redox Features   | Texture Remarks   |
| ches) Color (moist) %  | <u>Color (moist)</u> <u>%</u> <u>Type'</u> <u>Loc</u> <sup>2</sup>   | Texture Remarks   |
| -15  |  | - unu   |
| -4,5 10YB 2/2 100  |  | - fine sandy loam   |
| 5-12 1 INR 3h 70   | -7.54K518 3-3 C M  | gravelly Sandy lo   |
|  | 10YR414 20 D M   | Sandy Young   |
|  |  | @ 4.5-12" or mineut mottles   |
|  |  |   |
|  |  |   |
|  |  |   |
|  | ·  |   |
| pe: C=Concentration, D=Depletion, F  | RM=Reduced Matrix, CS=Covered or Coated Sand Gra   | ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.<br>Indicators for Problematic Hydric Soils <sup>3</sup> :  |
|  | all LRRs, unless otherwise noted.)   | 2 cm Muck (A10)   |
| _ Histosol (A1)  | Sandy Redox (S5)   | Red Parent Material (TF2)   |
| _ Histic Epipedon (A2)   | Stripped Matrix (S6)<br>Loamy Mucky Mineral (F1) (except MLRA 1)   | Very Shallow Dark Surface (TF12)  |
| Black Histic (A3)<br>Hydrogen Sulfide (A4)   | Loamy Gleyed Matrix (F2)   | Other (Explain in Remarks)  |
| Depleted Below Dark Surface (A11)  |  |   |
| Thick Dark Surface (A12)   | Redox Dark Surface (F6)  | <sup>3</sup> Indicators of hydrophytic vegetation and   |
| Sandy Mucky Mineral (S1)   | Depleted Dark Surface (F7)   | wetland hydrology must be present,  |
| Sandy Gleyed Matrix (S4)   | Redox Depressions (F8)   | unless disturbed or problematic.  |
| estrictive Layer (if present):   | - 12/1   |   |
| Type:  | 22011  |   |
| Depth (inches):  |  | Hydric Soil Present? Yes No   |
|  | The second star a second the   | Illustrated OLATA   |
| heall  | an of destetions imothes   |   |
| Vetland Hydrology Indicators:  | don'in sails   | Secondary Indicators (2 or more required)   |
| Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one rec  | uired; check all that apply)   | Secondary Indicators (2 or more required)<br>Water-Stained Leaves (B9) (MLRA 1, 2,  |
| Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one rec<br>Surface Water (A1)  | uired; check all that apply)<br>Water-Stained Leaves (B9) (except  | Water-Stained Leaves (B9) (MLRA 1, 2,   |
| Vetland Hydrology Indicators:<br>rimary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)  | uired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)  |
| Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)  | uired: check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)  | Water-Stained Leaves (B9) (MLRA 1, 2,   |
| Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)  | wired: check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)   |
| Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)   |
| Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)   | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Sait Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living Row   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)   |
| Vetland Hydrology Indicators:<br>rimary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)   | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Sait Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living Rom<br>Presence of Reduced Iron (C4)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)   |
| Vetland Hydrology Indicators:<br>trimary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Sait Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living Row   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3)<br>Shallow Aquitard (D3)<br>6)<br>FAC-Neutral Test (D5)   |
| Vetland Hydrology Indicators:<br>rimary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)   | <u>uired: check all that apply)</u><br><u>Water-Stained Leaves (B9) (except</u> <u>MLRA 1, 2, 4A, and 4B)</u><br>Salt Crust (B11)<br><u>Aquatic Invertebrates (B13)</u><br><u>Hydrogen Sulfide Odor (C1)</u><br>Oxidized Rhizospheres along Living Rom<br><u>Presence of Reduced Iron (C4)</u><br><u>Recent Iron Reduction in Tilled Soils (C</u><br>Stunted or Stressed Plants (D1) (LRR 4) | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3)<br>Shallow Aquitard (D3)<br>6)<br>FAC-Neutral Test (D5)   |
| Vetland Hydrology Indicators:<br>rimary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Image   | wired: check all that apply)   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3)<br>Shallow Aquitard (D3)<br>6)<br>FAC-Neutral Test (D5)<br>A)<br>Raised Ant Mounds (D6) (LRR A)   |
| Vetland Hydrology Indicators:<br>rimary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Image<br>Sparsely Vegetated Concave Surf  | Address         (uired; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Vetland Hydrology Indicators:<br>rimary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Image<br>Sparsely Vegetated Concave Surf<br>Field Observations:   | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Sait Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living Rou<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils (C<br>Stunted or Stressed Plants (D1) (LRR A<br>ry (B7) Other (Explain in Remarks)<br>ace (B8)                              | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3)<br>Shallow Aquitard (D3)<br>6)<br>FAC-Neutral Test (D5)<br>A)<br>Raised Ant Mounds (D6) (LRR A)   |
| Interface       Interface         Surface       Water Table (A2)         Saturation (A3)       Saturation (A3)         Water       Marks (B1)         Sediment       Deposits (B2)         Drift       Deposits (B3)         Algal       Mat or Crust (B4)         Iron       Deposits (B5)         Surface       Solid Cracks (B6)         Inundation       Visible on Aerial Image         Sparsely       Vegetated Concave Surf         Field       Observations:         Surface       Water Present?  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Sait Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living Rou<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils (C<br>Stunted or Stressed Plants (D1) (LRR A<br>ny (B7) Other (Explain in Remarks)<br>ace (B8)                              | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Vetland Hydrology Indicators:         rimary Indicators (minimum of one reconstruction (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Image         Sparsely Vegetated Concave Surf         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes   | Address         (uired; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Image<br>Sparsely Vegetated Concave Surf<br>Field Observations:<br>Surface Water Present? Yes<br>Water Table Present? Yes<br>Saturation Present? Yes   | Address         uuired; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes   | Address         (uired; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Vetland Hydrology Indicators:<br>Irimary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Image<br>Sparsely Vegetated Concave Surf<br>Field Observations:<br>Surface Water Present? Yes<br>Water Table Present? Yes<br>Saturation Present? Yes Ves   | Address         uuired; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Vetland Hydrology Indicators:         Primary Indicators (minimum of one reconstruction of the second seco  | Address         uuired; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Aretiand Hydrology Indicators:         rimary Indicators (minimum of one reconstruction of the second seco  | Address         nuired; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Aretiand Hydrology Indicators:         rimary Indicators (minimum of one reconstruction of the second seco  | Address         uuired; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one reconstruction of the second secon | Address         nuired; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Vetland Hydrology Indicators:         Primary Indicators (minimum of one reconstruction of the second seco  | And Added         uired: check all that apply)   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |

h

| oject/Site: <u>BC/RM Stream</u> Re<br>oplicant/Owner: NTCD | storation c         | ity/County: Do i     | iglas   | Sampling Date: 5/8/20                       |
|--|---------------------|----------------------|---|---|
| plicant/Owner: NTCD  |                     |                      | State: <u></u>  | Sampling Point: RB-5                        |
| vestigator(s): J. Ricciani, H. F                           | ook s               | ection, Township, Ra | ange:   |   |
| ndform (hillslope, terrace, etc.): hill Sta                |                     |                      |   | VEY Slope (%):                              |
| bregion (LRR): MLRA 22A                                    | Lat: 431            | JTIDN                | 1000: 245612E   |   |
| il Map Unit Name: Tahoe Comp                               | 104 0-7             | 0/0 SLODE            |   |   |
|  |                     |                      |   |   |
| e climatic / hydrologic conditions on the site typica      |                     |                      |   |   |
| Vegetation, Soil, or Hydrology _                           |                     |                      |   | resent? Yes V No                            |
| e Vegetation, Soil, or Hydrology                           | naturally prob      | ematic? (If no       | eeded, explain any answer   | rs in Remarks.)                             |
| JMMARY OF FINDINGS – Attach site                           | map showing s       | ampling point l      | locations, transects.   | important features, etc.                    |
|  | No V                |                      |   |   |
| lydric Soil Present? Yes                                   |                     | Is the Sampleo       |   |   |
| Vetland Hydrology Present? Yes                             |                     | within a Wetla       | nd? Yes   | No  |
| Remarks: plot 2220ftsw of                                  | 3 RB-4              |                      | 1   |   |
| WP32 245612, H31771  |                     |                      |   |   |
|  |                     |                      |   |   |
| EGETATION – Use scientific names of                        | f plants.           |                      |   |   |
| ree Stratum (Plot size:)                                   | Absolute<br>% Cover | Dominant Indicator   | Dominance Test works  | sheet:                                      |
|  |                     |                      | Number of Dominant Sp<br>That Are OBL, FACW, o  |   |
|  |                     |                      |   |   |
|  |                     |                      | Total Number of Domina  |   |
|  |                     |                      | Species Across All Strat  | ta: / (B)                                   |
| the second second second                                   |                     | Total Cover          | Percent of Dominant Sp<br>That Are OBL, FACW, o   |   |
| apling/Shrub Stratum (Plot size:                           | _)                  |                      |   | Carta Carta Carta Carta                     |
|  |                     |                      | Prevalence Index work   |   |
|  |                     |                      | the second se   | Multiply by:                                |
|  |                     |                      |   | x 1 =<br>x 2 =                              |
| ( <u></u>  |                     |                      | the second | x3=   |
|  |                     |                      |   | x4=   |
| lerb Stratum (Plot size: 30 × 30)                          |                     | = Total Cover        |   | x 5 =                                       |
| Elymus hispidus  | 45                  | V UPL                | Column Totals:  | (A) (B)                                     |
| - prior suspine  |                     | 012                  |   |   |
| Taranacum Mich   | nales               | FACU                 |   | = B/A =                                     |
| Draba verna  | T                   | UPL                  | Hydrophytic Vegetatio   |   |
| Microsteris gracil   | LS T                | FACL                 | 1 - Rapid Test for H<br>2 - Dominance Test  |   |
| Festuca Idalioensis  | 5                   | FACU                 | 3 - Prevalence Inde   |   |
| Festuca Sp. (annua   |                     | FACU                 |   | daptations <sup>1</sup> (Provide supporting |
| (alka Vul)   | 114)                |                      | data in Remarks   | or on a separate sheet)                     |
|  |                     |                      | 5 - Wetland Non-Va  | C Truch True Coheren                        |
| 0  |                     |                      |   | hytic Vegetation <sup>1</sup> (Explain)     |
| 1  | -72-                |                      | <sup>1</sup> Indicators of hydric soil<br>be present, unless distu  | and wetland hydrology must                  |
| loody Vine Stratum (Plot size)                             | 65=                 | Total Cover          | be present, unless distu  | roed or problematic.                        |
| Voody Vine Stratum (Plot size:)                            |                     |                      | and the second  |   |
|  |                     |                      | Hydrophytic<br>Vegetation   |   |
|  |                     |                      |   | No. 1/                                      |
|  |                     | Total Course         | Present? Yes  | No  |
|  | % m055 =            | Total Cover          | Present? Yes  | NO  |

SOIL

| Profile Description: (Describe to the dep   | oth needed to document the indicator or confir  | in the absence of mulcators.)   |
|---|---|---|
| Depth <u>Matrix</u>   | Redox Features  | Toyluro Bomarka   |
| Color (moist), %  | Color (moist) % Type' Loc <sup>2</sup>  | Texture Remarks   |
| 1-12 104R 419 45  | 5442 I D M  | loamysand austinct mottle   |
| 2-20 10YR514 90   | 54612 2 D M   | Silty Clay / oum -  |
| Invia yla E   |   | Loamy sand  |
|   |   | courny such a   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   |   |
| ype: C=Concentration, D=Depletion, RM   | 1=Reduced Matrix, CS=Covered or Coated Sand   | Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.<br>Indicators for Problematic Hydric Soils <sup>3</sup> :  |
| ydric Soil Indicators: (Applicable to al  |   |   |
| _ Histosol (A1)   | Sandy Redox (S5)<br>Stripped Matrix (S6)  | 2 cm Muck (A10)<br>Red Parent Material (TF2)  |
| <ul> <li>Histic Epipedon (A2)</li> <li>Black Histic (A3)</li> </ul>   | Loamy Mucky Mineral (F1) (except MLRA   |   |
| _ Hydrogen Sulfide (A4)   | Loamy Gleyed Matrix (F2)  | Other (Explain in Remarks)  |
| Depleted Below Dark Surface (A11)   | Depleted Matrix (F3)  |   |
| Thick Dark Surface (A12)  | Redox Dark Surface (F6)   | <sup>3</sup> Indicators of hydrophytic vegetation and   |
| Sandy Mucky Mineral (S1)  | Depleted Dark Surface (F7)  | wetland hydrology must be present.  |
| Sandy Gleyed Matrix (S4)  | Redox Depressions (F8)  | unless disturbed or problematic.  |
| testrictive Layer (if present):   | -   |   |
| Type:   |   | Hydric Soil Present? Yes No   |
| Depth (inches):   |   |   |
| 100101  | Profile may indicat<br>Purtie Creek onto &  | lope  |
| YDROLOGY<br>Vetland Hydrology Indicators:   |   |   |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requir  | ed; check all that apply)   | Secondary Indicators (2 or more required)   |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requir<br>Surface Water (A1)  | ed; check all that apply)<br>Water-Stained Leaves (B9) (except  | Secondary Indicators (2 or more required)<br>Water-Stained Leaves (B9) (MLRA 1, 2,  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requir<br>Surface Water (A1)<br>High Water Table (A2)   | ed; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)  | Secondary Indicators (2 or more required)<br>Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)   |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requir<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)  | ed; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)  | <ul> <li><u>Secondary Indicators (2 or more required)</u></li> <li>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> </ul>  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)   | ed; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)   | Secondary Indicators (2 or more required)<br>Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)   |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requir<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)  | ed; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)   | Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)   |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requir<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)   | ed; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living F   | Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9 Roots (C3) Geomorphic Position (D2)  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requir<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)  | ed; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living F<br>Presence of Reduced Iron (C4)  | Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9 Roots (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requir<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)  | ed; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living F<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils   | Secondary Indicators (2 or more required)        Water-Stained Leaves (B9) (MLRA 1, 2,         4A, and 4B)        Drainage Patterns (B10)        Dry-Season Water Table (C2)        Saturation Visible on Aerial Imagery (C9         Roots (C3)      Geomorphic Position (D2)        Shallow Aquitard (D3)         (C6)      FAC-Neutral Test (D5)  |
| YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)   | ed; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living F<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LRF   | Secondary Indicators (2 or more required)        Water-Stained Leaves (B9) (MLRA 1, 2,         4A, and 4B)        Drainage Patterns (B10)        Dry-Season Water Table (C2)        Saturation Visible on Aerial Imagery (C9         Roots (C3)      Geomorphic Position (D2)        Shallow Aquitard (D3)         (C6)      FAC-Neutral Test (D5)  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requir<br>  | ed; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living F<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LRF<br>(B7) Other (Explain in Remarks)  | Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9)         Roots (C3)       Geomorphic Position (D2)         Shallow Aquitard (D3)         (C6)       FAC-Neutral Test (D5)         RA)       Raised Ant Mounds (D6) (LRR A) |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requir<br>  | ed; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living F<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LRF<br>(B7) Other (Explain in Remarks)  | Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9)         Roots (C3)       Geomorphic Position (D2)         Shallow Aquitard (D3)         (C6)       FAC-Neutral Test (D5)         RA)       Raised Ant Mounds (D6) (LRR A) |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requir<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Imagery (<br>Sparsely Vegetated Concave Surface<br>Field Observations:   | ed; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living F<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LRF<br>(B7) Other (Explain in Remarks)  | Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9)         Roots (C3)       Geomorphic Position (D2)         Shallow Aquitard (D3)         (C6)       FAC-Neutral Test (D5)         RA)       Raised Ant Mounds (D6) (LRR A) |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requir<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Imagery (<br>Sparsely Vegetated Concave Surface<br>Field Observations:<br>Surface Water Present? Yes   | ed; check all that apply)<br>— Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>— Salt Crust (B11)<br>— Aquatic Invertebrates (B13)<br>— Hydrogen Sulfide Odor (C1)<br>— Oxidized Rhizospheres along Living F<br>— Presence of Reduced Iron (C4)<br>— Recent Iron Reduction in Tilled Soils<br>— Stunted or Stressed Plants (D1) (LRF<br>(B7) — Other (Explain in Remarks)<br>a (B8)  | Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9)         Roots (C3)       Geomorphic Position (D2)         Shallow Aquitard (D3)         (C6)       FAC-Neutral Test (D5)         RA)       Raised Ant Mounds (D6) (LRR A) |
| YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one requir  | ed; check all that apply)<br>Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living F<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LRF<br>(B7)<br>Other (Explain in Remarks)<br>a (B8)<br>No<br>Depth (inches):<br>No<br>Depth (inches):<br>No<br>Depth (inches):<br>No<br>Depth (inches):<br>Mathematical Statematics<br>Mathematical Statematics<br>Mathematical Statematics<br>Statematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>Mathematics<br>M | Secondary Indicators (2 or more required)         Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9)         Roots (C3)       Geomorphic Position (D2)         Shallow Aquitard (D3)         (C6)       FAC-Neutral Test (D5)         RA)       Raised Ant Mounds (D6) (LRR A) |
| YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one requir  | ed; check all that apply)<br>Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living F<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LRF<br>(B7)<br>Other (Explain in Remarks)<br>a (B8)<br>No<br>Depth (inches):<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>2  | Secondary Indicators (2 or more required)   |
| YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one requires)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface)         Field Observations:         Surface Water Present?       Yes   | ed; check all that apply)   | Secondary Indicators (2 or more required)   |
| YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one require   | ed; check all that apply)   | Secondary Indicators (2 or more required)   |
| YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one require         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface)         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         Describe Recorded Data (stream gauge, Image) | ed; check all that apply)   | Secondary Indicators (2 or more required)   |
| YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one require         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface)         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         Describe Recorded Data (stream gauge, Image) | ed; check all that apply)   | Secondary Indicators (2 or more required)   |
| YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one requir  | ed; check all that apply)   | Secondary Indicators (2 or more required)   |

| Project/Site: BC/ RM Stream CS                            | toration city/ci         | ounty: Douglas   | Sampling Date: 5 8 20 1   |
|---|--------------------------|--|---|
| pplicant/Owner:   |                          |  | A) V Sampling Point: RB-6   |
| nvestigator(s): J. Picclanc                               | Sectio                   | n, Township, Range:  |   |
| andform (hillslope, terrace, etc.):                       | Local                    | relief (concave, convex, none):  | Convey Slope (%): 1-7   |
| ubregion (LRR):   | Lat: 43177               | 92 N Long: 24!   | SSS2E Datum: 11AD 83  |
| oil Map Unit Name: Tahoe Comple                           | N, 0-2%                  | slopes N   | WI classification: NONe   |
| re climatic / hydrologic conditions on the site typical f | or this time of year? Ye | es No (If no, e  | explain in Remarks )  |
| re Vegetation, Soil, or Hydrology                         |                          |  | nstances" present? Yes V No   |
| re Vegetation, Soil, or Hydrology                         | naturally problema       |  | any answers in Remarks.)  |
| UMMARY OF FINDINGS - Attach site n                        | ap showing sam           |  |   |
| Hydrophytic Vegetation Present? Yes                       |                          |  | anocoto, important features, etc.   |
| Hydric Soil Present? Yes                                  | _ No                     | Is the Sampled Area  | Yes No /  |
| Wetland Hydrology Present? Yes                            |                          |  |   |
| Remarks: plat an star of upla                             | uid Blope ~              | 30 Gram ponc   | imaigh  |
| WP33 245552, 43177  | 92                       |  |   |
| EGETATION – Use scientific names of                       |                          |  |   |
| Trace Short-me (Dist                                      |                          | inant Indicator Dominance  | Test worksheet:   |
| <u>Tree Stratum</u> (Plot size:)                          |                          | cies? Status Number of D   | ominant Species   |
| 1<br>2  |                          | That Are OB  | L, FACW, or FAC: (A)  |
| 3   |                          | Total Number   | pr of Dominant 3 (B)  |
| 4   |                          |  |   |
|   | = Tot                    | al Cover Percent of D<br>That Are OB   | ominant Species<br>L, FACW, or FAC: <u>33</u> (A/B)                       |
| Sapling/Shrub Stratum (Plot size:)                        |                          |  | Index worksheet:  |
| 1<br>2  |                          | and the second sec | Cover of: Multiply by:  |
| 3   |                          | OBL species  | x 1 =   |
| 4   |                          | FACW speci   | es x2 =   |
| 5   |                          | FAC species  | x 3 =   |
| Herb Stratum (Plot size: 10 X SO')                        | = Tot                    |  | 28 x 4 =<br>x 5 =   |
| 1. Festuca idahoensis                                     | 30 V                     |  | Is: (A) (B)   |
| 2. Achillen mille foldem                                  | - <u>15</u> V            | FAIL   |   |
| 3. Symphyotrichumsp.                                      | 15 V                     | FAL FALI Prevale   | ence Index = B/A =<br>Vegetation Indicators:                              |
| 4. Et agohim umbellion                                    | MT                       |  | d Test for Hydrophytic Vegetation   |
| 5. Collinseq Daruttora                                    |                          |  | nance Test is >50%  |
| Taravacun Afficinal                                       |                          | 3 - Preva  | alence Index is ≤3.0 <sup>1</sup>   |
| 3. Festuca sp. 2ka Vulpia                                 | 20 T                     | FACU - 4 - Morp  | hological Adaptations <sup>1</sup> (Provide supporting                    |
| 9.  | <del></del>              |  | n Remarks or on a separate sheet)<br>and Non-Vascular Plants <sup>1</sup> |
| 10  |                          |  | atic Hydrophytic Vegetation <sup>1</sup> (Explain)                        |
| 11  |                          | <sup>1</sup> Indicators of   | hydric soil and wetland hydrology must                                    |
|   | 70 = Tota                | be present, u  | nless disturbed or problematic.   |
| Woody Vine Stratum (Plot size:) 1                         |                          |  |   |
| 2.  |                          | Hydrophytic<br>Vegetation  |   |
| 11-   | = Tota                   | Present?   | Yes No  |
| % Bare Ground in Herb Stratum                             |                          |  |   |
| Remarks: 10% little 5% mos                                | ss adju                  | epland slope.  | selded w/ same  |
|   | 0                        |  |   |
| Aster + Lathurus wooh                                     | owers ~                  | perces TLTICO  | america nauscova  |

| Sampling | Doint- | 10  | 15 | -10 |
|----------|--------|-----|----|-----|
| Sampling | Point  | 1 1 | 10 |     |

| rema manula manu (mananga   | to the dept       | h needed to docum  | ent me n  | luicator  | or commin        | the absence of indi  | cators.   |
|---|-------------------|--|---|---|------------------|--|---|
| Depth Matrix  |                   |  | Features  |   | Loc <sup>2</sup> | Texture  | Demotio   |
| inches) Color (moist)   |                   | Color (moist)  | %   | Туре'   | LOC              |  | Remarks   |
| 7-6 2.54412   | 100               | the second   |   |   | 11               | 1 Damy Se  | pronuntil,  |
| 1-10 2,5 4512   | - 80              | 104R416  | 20  | C   | M                | SINYClar   | loan mottles  |
| 0-11, 2.54514   | 100               |  |   |   |                  | any coal   | seland  |
| 1-17 JOYRILL  | 100               |  |   | -   | -                | loamuc   | lay.  |
| 7 77 10121  |                   |  |   |   |                  | J  | 1 5   |
| 7-20 10451  | 100               |  |   |   |                  | Damyc  | lay   |
|   |                   |  |   |   |                  | ¥  |   |
| Type: C=Concentration, D=Dep<br>Hydric Soil Indicators: (Applic<br>Histosol (A1)<br>Histic Epipedon (A2)<br>Black Histic (A3)<br>Hydrogen Sulfide (A4)<br>Depleted Below Dark Surfac<br>Thick Dark Surface (A12)<br>Sandy Mucky Mineral (S1)<br>Sandy Gleyed Matrix (S4)<br>Restrictive Layer (if present):   | able to all       | Reduced Matrix, CS<br>LRRs, unless other<br>Sandy Redox (S<br>Stripped Matrix<br>Loamy Mucky M<br>Loamy Gleyed I<br>Depleted Matrix<br>Redox Dark Su<br>Depleted Dark S<br>Redox Depress | wise not<br>(S6)<br>(ineral (F<br>Matrix (F2<br>(F3)<br>(F3)<br>Surface (F6)<br>Surface (F                | ed.)<br>1) (excep<br>2)<br>                                   |                  | Indicators for<br>2 cm Muck<br>Red Paren<br>Very Shalle<br>Other (Exp<br><sup>3</sup> Indicators of h<br>wetland hyd | PL=Pore Lining, M=Matrix.<br>Problematic Hydric Soils <sup>3</sup> :<br>(A10)<br>t Material (TF2)<br>bw Dark Surface (TF12)<br>lain in Remarks)<br>ydrophytic vegetation and<br>rology must be present,<br>rbed or problematic. |
| Туре:   |                   |  |   |   |                  |  | 1   |
| Depth (inches):   |                   |  |   |   |                  | Hydric Soil Prese  | nt? Yes No  |
| YDROLOGY<br>Wetland Hydrology Indicators  |                   | di obsok all that and  | w)  | -   |                  | Secondary  | ndicators (2 or more required)  |
| Primary Indicators (minimum of<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)  | one require       | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized I<br>Presence<br>Recent Inc  | ined Leav<br><b>1, 2, 4A</b> ,<br>(B11)<br>vertebrate<br>Sulfide C<br>Rhizosphi<br>of Reduct<br>on Reduct | and 4B)<br>es (B13)<br>Odor (C1)<br>eres along<br>red Iron (C | g Living Ro      | Water-S<br>4A, a<br>Drainag<br>Dry-Sea<br>Saturati<br>pots (C3) Geomo<br>Shallow                                     | tained Leaves (B9) (MLRA 1, 2,<br>and 4B)<br>e Patterns (B10)<br>ison Water Table (C2)<br>on Visible on Aerial Imagery (C9)<br>iphic Position (D2)<br>Aquitard (D3)<br>autral Test (D5)   |
| <ul> <li>Iron Deposits (B5)</li> <li>Surface Soil Cracks (B6)</li> <li>Inundation Visible on Aerial<br/>Sparsely Vegetated Concat</li> </ul>  |                   | 7) Other (Ex   |   |   | D1) (LRR         | A) Raised  | Ant Mounds (D6) (LRR A)<br>eave Hummocks (D7)   |
| Surface Soil Cracks (B6)<br>Inundation Visible on Aerial<br>Sparsely Vegetated Concar   |                   | 7) Other (Ex   |   |   | 11. J. L. L. T.  | A) Raised  | Ant Mounds (D6) (LRR A)   |
| <ul> <li>Surface Soil Cracks (B6)</li> <li>Inundation Visible on Aerial</li> <li>Sparsely Vegetated Conca</li> <li>Field Observations:</li> </ul>   |                   | 7) Other (Ex   | plain in R  |   | 11. J. L. L. T.  | A) Raised  | Ant Mounds (D6) (LRR A)   |
| <ul> <li>Surface Soil Cracks (B6)</li> <li>Inundation Visible on Aerial</li> <li>Sparsely Vegetated Concar</li> <li>Field Observations:</li> <li>Surface Water Present?</li> </ul>  | ve Surface        | 87) Other (Ex<br>(88)<br>No Depth (ir  | plain in R  |   | 11. J. L. L. T.  | A) Raised  | Ant Mounds (D6) (LRR A)   |
| Surface Soil Cracks (B6)<br>Inundation Visible on Aerial<br>Sparsely Vegetated Concar<br>Field Observations:<br>Surface Water Present?<br>Water Table Present?  | Yes Yes           | 87) Other (Ex<br>(B8)<br>No Depth (ir<br>No Depth (ir  | plain in R<br>nches):<br>nches):  | emarks)   | D1) (LRR         | A) Raised<br>Frost-H   | Ant Mounds (D6) (LRR A)<br>eave Hummocks (D7)   |
| Surface Soil Cracks (B6)<br>Inundation Visible on Aerial<br>Sparsely Vegetated Concar<br>Field Observations:<br>Surface Water Present?<br>Water Table Present?<br>Saturation Present?<br>(includes capillary fringe)  | Yes<br>Yes<br>Yes | 87) Other (Ex<br>(B8)<br>No Depth (ir<br>No Depth (ir<br>No Depth (ir  | plain in R<br>nches):<br>nches):<br>nches):   | Ib<br>14  | D1) (LRR         | A) Raised<br>Frost-H   | Ant Mounds (D6) (LRR A)<br>eave Hummocks (D7)   |
| Surface Soil Cracks (B6)<br>Inundation Visible on Aerial<br>Sparsely Vegetated Concar<br>Field Observations:<br>Surface Water Present?<br>Water Table Present?<br>Saturation Present?<br>(includes capillary fringe)  | Yes<br>Yes<br>Yes | 87) Other (Ex<br>(B8)<br>No Depth (ir<br>No Depth (ir<br>No Depth (ir  | plain in R<br>nches):<br>nches):<br>nches):   | Ib<br>14  | D1) (LRR         | A) Raised<br>Frost-H   | Ant Mounds (D6) (LRR A)<br>eave Hummocks (D7)   |
| <ul> <li>Surface Soil Cracks (B6)</li> <li>Inundation Visible on Aerial</li> <li>Sparsely Vegetated Concar</li> <li>Field Observations:</li> <li>Surface Water Present?</li> <li>Water Table Present?</li> </ul>  | Yes<br>Yes<br>Yes | 87) Other (Ex<br>(B8)<br>No Depth (ir<br>No Depth (ir<br>No Depth (ir  | plain in R<br>nches):<br>nches):<br>nches):   | Ib<br>14  | D1) (LRR         | A) Raised<br>Frost-H   | Ant Mounds (D6) (LRR A)<br>eave Hummocks (D7)   |
| Surface Soil Cracks (B6)<br>Inundation Visible on Aerial<br>Sparsely Vegetated Concar<br>Field Observations:<br>Surface Water Present?<br>Water Table Present?<br>Water Table Present?<br>Saturation Present?<br>(includes capillary fringe)<br>Describe Recorded Data (stream  | Yes<br>Yes<br>Yes | 87) Other (Ex<br>(B8)<br>No Depth (ir<br>No Depth (ir<br>No Depth (ir  | plain in R<br>nches):<br>nches):<br>nches):   | Ib<br>14  | D1) (LRR         | A) Raised<br>Frost-H   | Ant Mounds (D6) (LRR A)<br>eave Hummocks (D7)   |
| <ul> <li>Surface Soil Cracks (B6)</li> <li>Inundation Visible on Aerial</li> <li>Sparsely Vegetated Concar</li> <li>Field Observations:</li> <li>Surface Water Present?</li> <li>Water Table Present?</li> <li>Water Table Present?</li> <li>Saturation Present?</li> <li>(includes capillary fringe)</li> <li>Describe Recorded Data (stream)</li> </ul> | Yes<br>Yes<br>Yes | 87) Other (Ex<br>(B8)<br>No Depth (ir<br>No Depth (ir<br>No Depth (ir  | plain in R<br>nches):<br>nches):<br>nches):   | Ib<br>14  | D1) (LRR         | A) Raised<br>Frost-H   | Ant Mounds (D6) (LRR A)<br>eave Hummocks (D7)   |
| <ul> <li>Surface Soil Cracks (B6)</li> <li>Inundation Visible on Aerial</li> <li>Sparsely Vegetated Concar</li> <li>Field Observations:</li> <li>Surface Water Present?</li> <li>Water Table Present?</li> <li>Water Table Present?</li> <li>Saturation Present?</li> <li>(includes capillary fringe)</li> <li>Describe Recorded Data (stream)</li> </ul> | Yes<br>Yes<br>Yes | 87) Other (Ex<br>(B8)<br>No Depth (ir<br>No Depth (ir<br>No Depth (ir  | plain in R<br>nches):<br>nches):<br>nches):   | Ib<br>14  | D1) (LRR         | A) Raised<br>Frost-H   | Ant Mounds (D6) (LRR A)<br>eave Hummocks (D7)   |
| <ul> <li>Surface Soil Cracks (B6)</li> <li>Inundation Visible on Aerial</li> <li>Sparsely Vegetated Concar</li> <li>Field Observations:</li> <li>Surface Water Present?</li> <li>Water Table Present?</li> <li>Water Table Present?</li> <li>Saturation Present?</li> <li>(includes capillary fringe)</li> <li>Describe Recorded Data (stream)</li> </ul> | Yes<br>Yes<br>Yes | 87) Other (Ex<br>(B8)<br>No Depth (ir<br>No Depth (ir<br>No Depth (ir  | plain in R<br>nches):<br>nches):<br>nches):   | Ib<br>14  | D1) (LRR         | A) Raised<br>Frost-H   | Ant Mounds (D6) (LRR A)<br>eave Hummocks (D7)   |

| WETLAND DETE                                       | RMINATION DA            | TA FORM          | - Western Mou       | intains, Valleys, and Coast Region  |
|--|-------------------------|------------------|---------------------|---|
|  | Stream Rec              |                  |                     |   |
| Applicant/Owner: NITCD                             |                         | <u></u>          | , county. <u>10</u> | State: <u>NV</u> Sampling Point: <u>RB-7</u>  |
| Investigator(s): J. Piccha                         | NI.                     | Se               | ction, Township, Ra |   |
| Landform (hillslope, terrace, etc.):               |                         |                  | and a second second |   |
| Subregion (LRR): MLRA2                             |                         |                  |                     | convex, none): <u>None</u> Slope (%):<br>Long: <u>245545E</u> Datum: <u>NADE3</u>                                 |
| Soil Map Unit Name: Tahoe                          | 2 Comple                | 212. 0 -         | 20/0 5/00           | NWI classification: <u>None</u>   |
| Are climatic / hydrologic conditions on t          | the site typical for th | is time of year? | Vac V No            | //f as surplais is Barred a   |
| Are Vegetation, Soil, or                           |                         |                  |                     |   |
| Are Vegetation, Soil, or                           |                         |                  |                     | "Normal Circumstances" present? Yes No  |
|  |                         |                  |                     | eeded, explain any answers in Remarks.)   |
|  | Attach site map         | showing sa       | ampling point I     | locations, transects, important features, etc.  |
| Hydrophytic Vegetation Present?                    | N/                      | lo               | Is the Sampled      | 14  |
| Hydric Soil Present?<br>Wetland Hydrology Present? | 1                       | lo               | within a Wetlan     |   |
| Remarks:   | Tes                     | 10               |                     |   |
|  |                         |                  |                     |   |
| WP 34 24554  | 5,431778                | slo              |                     |   |
| VEGETATION - Use scientific                        | c names of plar         | nts.             |                     |   |
|  |                         | Absolute D       | ominant Indicator   | Dominance Test worksheet:   |
| Tree Stratum (Plot size:                           |                         |                  | pecies? Status      | Number of Dominant Species 3  |
| 1  |                         |                  |                     | That Are OBL, FACW, or FAC: (A)   |
| 2  |                         |                  |                     | Total Number of Dominant  |
| 4.   |                         |                  |                     | Species Across All Strata: (B)  |
|  | 1-1.26                  |                  | Total Cover         | Percent of Dominant Species   |
| Sapling/Shrub Stratum (Plot size:                  | OX 30,                  | 35               | 1                   | That Are OBL, FACW, or FAC: _/OO(A/B)<br>Prevalence Index worksheet:  |
| 1. Salex lemmon                                    |                         |                  | V FACW              |   |
| 2. Salin externa                                   |                         | -10              | FACW                | OBL species x 1 =   |
| 3  |                         | - <u> </u>       |                     | FACW species x 2 =  |
| 5.   |                         |                  |                     | FAC species x 3 =   |
| 1.17   | in .                    | 45=              | Total Cover         | FACU species x 4 =  |
| Herb Stratum (Plot size: OX 3                      |                         | 15               |                     | UPL species x 5 =   |
| 1. Carex novasce                                   |                         | 12-              | V OBL               | Column Totals: (A) (B)  |
| 3 Carev Lin  | cus sep.at              | er S             | V FACU-DE           | Prevalence Index = B/A =  |
|  | oconous.                | 15               | OBL                 | nydrophytic vegetation indicators:  |
|  | nikeho                  | 10               | FAC                 | 1-Rapid Test for Hydrophytic Vegetation   |
| 6  | V                       |                  |                     | ∠ 2 - Dominance Test is >50%     _ 3 - Prevalence Index is ≤3.0 <sup>1</sup>                                      |
| 7  |                         |                  |                     | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting  |
| 8  |                         |                  |                     | data in Remarks or on a separate sheet)   |
| 9  |                         |                  |                     | 5 - Wetland Non-Vascular Plants <sup>1</sup>  |
| 10   |                         |                  |                     | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 11   |                         | 50-              |                     | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic. |
| Woody Vine Stratum (Plot size:                     | )                       | 22 -             | Total Cover         |   |
| 1  |                         |                  |                     | Hydrophytic   |
| 2  |                         |                  |                     | Vegetation  |
| % Bare Ground in Herb Stratum                      | 5                       | =1               | fotal Cover         | Present? Yes <u>V</u> No  |
| Remarks:   |                         | 1                | 1                   |   |
| Carex sp -ruize                                    | o assur                 | ne wet           | land sp             | d Status = J. arcticus 2012   |
| % Petter = 20%                                     | mass 5%                 | *                | = 1988 In           | a startus summuns zoic  |

| rofile Description: (Describe to the d<br>Depth Matrix   | Redox Feature   | s   |  |                               |  |
|--|---|---|--|-------------------------------|--|
| nches) Color (moist) %   | Color (moist) %   | Type <sup>1</sup>   | Loc <sup>2</sup>                               | Texture                       | Remarks  |
|  |   |   |  |                               | Obayer   |
| -2.52.543/2100   |   |   |  |                               | Silty clay loam  |
| 5-62.54411 90  | 7.54123/410   | C   | M  |                               | sandy clay loam  |
|  |   | -   |  | _                             | w/promineutrites   |
| ype: C=Concentration, D=Depletion, R<br>ydric Soil Indicators: (Applicable to  | M=Reduced Matrix, CS=Covere   | d or Coated   | d Sand Gra                                     | ins. <sup>2</sup> L<br>Indica | ocation: PL=Pore Lining, M=Matrix.<br>tors for Problematic Hydric Soils <sup>3</sup> :   |
| <ul> <li>Histosol (A1)</li> <li>Histic Epipedon (A2)</li> <li>Black Histic (A3)</li> <li>Hydrogen Sulfide (A4)</li> <li>Depleted Below Dark Surface (A11)</li> <li>Thick Dark Surface (A12)</li> </ul>   | <ul> <li> Sandy Redox (S5)</li> <li> Stripped Matrix (S6)</li> <li> Loarny Mucky Mineral (F</li> <li> Loarny Gleyed Matrix (F3)</li> <li> Depleted Matrix (F3)</li> <li> Redox Dark Surface (F6)</li> </ul>   | 1) (except<br>2)  | MLRA 1)  | 2<br>Re<br>Ve<br>0            | cm Muck (A10)<br>ed Parent Material (TF2)<br>ery Shallow Dark Surface (TF12)<br>ther (Explain in Remarks)<br>ators of hydrophytic vegetation and   |
| Sandy Mucky Mineral (S1)<br>Sandy Gleyed Matrix (S4)   | <ul> <li>Depleted Dark Surface (I</li> <li>Redox Depressions (F8)</li> </ul>  |   |  | wei                           | tland hydrology must be present,<br>ess disturbed or problematic.  |
| lestrictive Layer (if present):  |   |   |  |                               |  |
| Туре:  |   |   |  |                               | 1  |
| Depth (inches):  |   |   |  | Hydric So                     | oil Present? Yes No  |
|  |   |   |  |                               |  |
| YDROLOGY<br>Vetland Hydrology Indicators:  | ired: check all that apoly)   |   |  | Sec                           | condary Indicators (2 or more required)  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requ<br>Surface Water (A1)   | Water-Stained Lea   |   | xcept  | <u>Sec</u>                    | Water-Stained Leaves (B9) (MLRA 1, 2   |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requ<br>Surface Water (A1)   | Water-Stained Lea<br>MLRA 1, 2, 4A,   |   | xcept  | <u>Sec</u>                    | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requ<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)   | Water-Stained Lea<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)   | and 4B)   | xcept  | <u>Sec</u>                    | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)   |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requ<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)   | Water-Stained Lea<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)<br>Aquatic Invertebrat  | and 4B)<br>es (B13)   | xcept  | <u>Sec</u>                    | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requ<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)   | Water-Stained Lea<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)   | and 4B)<br>es (B13)<br>Odor (C1)  |  |                               | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requ<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)   | Water-Stained Lea<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)<br>Aquatic Invertebrat<br>Hydrogen Sulfide C  | and 4B)<br>es (B13)<br>Odor (C1)<br>eres along  | Living Roo                                     |                               | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (CS  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requ<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)  | Water-Stained Lear<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)<br>Aquatic Invertebrat<br>Hydrogen Sulfide C<br>Oxidized Rhizosph  | and 4B)<br>es (B13)<br>Odor (C1)<br>eres along<br>ced Iron (C4  | Living Roo<br>4)                               | ts (C3)                       | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (CS<br>Geomorphic Position (D2)  |
| Vetland Hydrology Indicators:<br>rimary Indicators (minimum of one requ<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)  | Water-Stained Lear<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)<br>Aquatic Invertebrat<br>Hydrogen Sulfide C<br>Oxidized Rhizosph<br>Presence of Reduc<br>Recent Iron Reduc<br>Stunted or Stresse  | and 4B)<br>es (B13)<br>Ddor (C1)<br>eres along<br>ced Iron (C4<br>tion in Tille<br>d Plants (D              | Living Roo<br>4)<br>d Soils (C6                |                               | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (CS<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                              |
| Vetland Hydrology Indicators:<br>Trimary Indicators (minimum of one requestion of the second se | Water-Stained Lear<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)<br>Aquatic Invertebrat<br>Hydrogen Sulfide C<br>Oxidized Rhizosph<br>Presence of Reduc<br>Recent Iron Reduc<br>Stunted or Stresse<br>(B7) Other (Explain in R  | and 4B)<br>es (B13)<br>Ddor (C1)<br>eres along<br>ced Iron (C4<br>tion in Tille<br>d Plants (D              | Living Roo<br>4)<br>d Soils (C6                |                               | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (CS<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)  |
| Vetland Hydrology Indicators:<br>Trimary Indicators (minimum of one requestion of the second se | Water-Stained Lear<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)<br>Aquatic Invertebrat<br>Hydrogen Sulfide C<br>Oxidized Rhizosph<br>Presence of Reduc<br>Recent Iron Reduc<br>Stunted or Stresse<br>(B7) Other (Explain in R  | and 4B)<br>es (B13)<br>Ddor (C1)<br>eres along<br>ced Iron (C4<br>tion in Tille<br>d Plants (D              | Living Roo<br>4)<br>d Soils (C6                |                               | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (CS<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                              |
| Vetland Hydrology Indicators:<br>rrimary Indicators (minimum of one requestion of the second se | Water-Stained Lear<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)<br>Aquatic Invertebrat<br>Hydrogen Sulfide C<br>Oxidized Rhizosph<br>Presence of Reduc<br>Recent Iron Reduc<br>Stunted or Stresse<br>(B7) Other (Explain in R<br>ce (B8)   | and 4B)<br>es (B13)<br>Ddor (C1)<br>eres along<br>ced Iron (C4<br>tion in Tille<br>d Plants (D              | Living Roo<br>4)<br>d Soils (C6                |                               | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (CS<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                              |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Trimary Indicators (minimum of one requests)<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Imagery<br>Sparsely Vegetated Concave Surface<br>Vegetated Concave Surface<br>Surface Water Present?<br>Yes  | Water-Stained Lear<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)<br>Aquatic Invertebrat<br>Hydrogen Sulfide C<br>Oxidized Rhizosph<br>Presence of Reduc<br>Recent Iron Reduc<br>Stunted or Stresse<br>(B7) Other (Explain in R<br>ce (B8)   | and 4B)<br>es (B13)<br>Ddor (C1)<br>eres along<br>ced Iron (C4<br>tion in Tille<br>d Plants (D              | Living Roo<br>4)<br>d Soils (C6                |                               | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (CS<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                              |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requ<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Imagery<br>Sparsely Vegetated Concave Surface<br>Field Observations:<br>Surface Water Present? Yes<br>Water Table Present? Yes  | Water-Stained Lear<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)<br>Aquatic Invertebrat<br>Hydrogen Sulfide C<br>Oxidized Rhizosph<br>Presence of Reduc<br>Recent Iron Reduc<br>Stunted or Stresse<br>(B7) Other (Explain in R<br>ce (B8)<br>No Depth (inches):                       | and 4B)<br>des (B13)<br>Ddor (C1)<br>eres along<br>ced Iron (C4<br>tion in Tille<br>d Plants (D<br>Remarks) | Living Rool<br>4)<br>d Soils (C6<br>1) (LRR A) | Ls (C3)                       | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (CS<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requestion<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Imagery<br>Sparsely Vegetated Concave Surface<br>Field Observations:<br>Surface Water Present? Yes  | Water-Stained Lear<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)<br>Aquatic Invertebrat<br>Hydrogen Sulfide C<br>Oxidized Rhizosph<br>Presence of Reduc<br>Recent Iron Reduc<br>Stunted or Stresse<br>(B7) Other (Explain in R<br>ce (B8)<br>No Depth (inches):<br>No Depth (inches): | and 4B)<br>es (B13)<br>Odor (C1)<br>eres along<br>ced Iron (C4<br>tion in Tille<br>d Plants (D<br>Remarks)  | Living Roof<br>4)<br>d Soils (C6<br>1) (LRR A) | Is (C3)<br>)<br>and Hydrole   | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (CS<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                              |
| YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one requestion stream of the requestion o  | Water-Stained Lear<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)<br>Aquatic Invertebrat<br>Hydrogen Sulfide C<br>Oxidized Rhizosph<br>Presence of Reduc<br>Recent Iron Reduc<br>Stunted or Stresse<br>(B7) Other (Explain in R<br>ce (B8)<br>No Depth (inches):<br>No Depth (inches): | and 4B)<br>es (B13)<br>Odor (C1)<br>eres along<br>ced Iron (C4<br>tion in Tille<br>d Plants (D<br>Remarks)  | Living Roof<br>4)<br>d Soils (C6<br>1) (LRR A) | Is (C3)<br>)<br>and Hydrole   | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (CS<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one requestion)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         Saturation Present?       Yes         Saturation Present?       Yes         Saturation Present?       Yes         Describe Recorded Data (stream gauge  | Water-Stained Lear<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)<br>Aquatic Invertebrat<br>Hydrogen Sulfide C<br>Oxidized Rhizosph<br>Presence of Reduc<br>Recent Iron Reduc<br>Stunted or Stresse<br>(B7) Other (Explain in R<br>ce (B8)<br>No Depth (inches):<br>No Depth (inches): | and 4B)<br>es (B13)<br>Odor (C1)<br>eres along<br>ced Iron (C4<br>tion in Tille<br>d Plants (D<br>Remarks)  | Living Roof<br>4)<br>d Soils (C6<br>1) (LRR A) | Is (C3)<br>)<br>and Hydrole   | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (CS<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one requestion)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         Saturation Present?       Yes         Saturation Present?       Yes         Saturation Present?       Yes         Describe Recorded Data (stream gauge  | Water-Stained Lear<br>MLRA 1, 2, 4A,<br>Salt Crust (B11)<br>Aquatic Invertebrat<br>Hydrogen Sulfide C<br>Oxidized Rhizosph<br>Presence of Reduc<br>Recent Iron Reduc<br>Stunted or Stresse<br>(B7) Other (Explain in R<br>ce (B8)<br>No Depth (inches):<br>No Depth (inches): | and 4B)<br>es (B13)<br>Odor (C1)<br>eres along<br>ced Iron (C4<br>tion in Tille<br>d Plants (D<br>Remarks)  | Living Roof<br>4)<br>d Soils (C6<br>1) (LRR A) | Is (C3)<br>)<br>and Hydrole   | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (CS<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |

| WETLAND DETE   | RMINATION D         | DATA FOR        | M – Western Mou                  | untains, Valleys, and Coast Region  |
|--|---------------------|-----------------|----------------------------------|---|
| Project/Site: <u>DC/K/M STE</u>                              | am relston          | an ion          | City/County:                     | Sampling Date: 5/8/2017   |
| pplicativowner: 191 CT                                       |                     |                 |                                  | State: UV Sampling Point: ICB X   |
| vestigator(s): J. Picconi                                    | M. Pook             |                 | Section, Township, Ra            | ange:   |
| andform (hillslope, terrace, etc.): _/o~                     | terence Adj.        | to Stechim      | Local relief (concave,           | convex, none): NONC Slope (%): 2 2  |
| ubregion (LRR): MLKA 22                                      | A                   | Lat: 43         | 317813 N                         | Long: 245575E Datum: NAD8   |
| oil Map Unit Name: Taloe C                                   | omolex.             | 0-29            | 6 Slopes                         | SNWI classification:NONe  |
| re climatic / hydrologic conditions on t                     | he site typical for | this time of ve | ar? Yes / No                     | (If no explain in Remarks )   |
|  |                     |                 |                                  | "Normal Circumstances" present? Yes No  |
| re Vegetation, Soil, or                                      |                     |                 |                                  | eeded, explain any answers in Remarks.)   |
|  |                     |                 |                                  |   |
| UMMARY OF FINDINGS - A                                       | ttach site ma       |                 | sampling point I                 | locations, transects, important features, etc.  |
| Hydrophytic Vegetation Present?                              | Yes_V_              | No              | 60.6350                          | . A.a.  |
| Hydric Soil Present?   | Yes                 | No              | Is the Sampleo<br>within a Wetla |   |
| Wetland Hydrology Present?<br>Remarks: WP # 77 Plat or       | Yes                 | No              | and the state of the state       |   |
| 245575 H317813   | North side          | ik Burke        | Creek between                    | a stream and top of slope,  |
| EGETATION - Use scientific                                   | names of pla        | ants.           |                                  |   |
|  |                     | Absolute        |                                  | Dominance Test worksheet:   |
| Tree Stratum (Plot size:                                     |                     |                 | Species? Status                  | Number of Dominant Species  |
|  |                     |                 |                                  | That Are OBL, FACW, or FAC: (A)   |
|  |                     |                 |                                  | Total Number of Dominant  |
| k  |                     |                 |                                  | Species Across All Strata: (B)  |
|  |                     |                 | = Total Cover                    | Percent of Dominant Species 100% (A/B)  |
| Sapling/Shrub Stratum (Plot size: 10                         | 1×25)               | 1.00            |                                  |   |
| . Alnus income ssp. ten                                      | Golia               | 25              | FACW                             | Prevalence Index worksheet:   |
|  |                     |                 |                                  | Total % Cover of: Multiply by:  |
|  |                     |                 |                                  | OBL species         x 1 =           FACW species         x 2 =  |
|  |                     |                 |                                  | FAC species x 2 =   |
|  |                     |                 | 1200 CZ                          | FACU species x 4 =  |
| Herb Stratum (Plot size: 10 x 25                             | 51                  |                 | = Total Cover                    | UPL species x 5 =   |
| Symphyptrichumsp   | CASterso            | ) 20            | V FAL-FA                         | Column Totals: (A), (B)   |
| X Juneus baltieus 55   | spiater'            | 5               | FACU                             |   |
| Agrostus Shlonifern  |                     | 15              | V FAC                            | Prevalence Index = B/A =<br>Hydrophytic Vegetation Indicators:  |
| Alchillen milli folli  |                     | 5_              | FACU                             | 1 - Rapid Test for Hydrophytic Vegetation   |
| Ristice idahoensis   |                     | - T             | PACU                             | 2 - Dominance Test is >50%  |
| terraxacum officia   | allian              |                 | FACU                             | 3 - Prevalence Index is ≤3.01   |
| per Protensis  |                     |                 | FAC                              | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting  |
| CARE NEbrasensis   |                     | _ <u></u>       | OBL                              | data in Remarks or on a separate sheet)   |
|  |                     |                 |                                  | 5 - Wetland Non-Vascular Plants <sup>1</sup>  |
| 0  |                     |                 |                                  | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| u  |                     | 50              |                                  | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.   |
| Voody Vine Stratum (Plot size:                               | )                   |                 | = Total Cover                    | and the second se |
| ·  |                     | 1               |                                  | Hydrophytic   |
| <u></u>  |                     |                 |                                  | Vegetation  |
| Des Des anticipation T                                       | -                   |                 | = Total Cover                    | Present? Yes No   |
| 8 Bare Ground in Herb Stratum <u>5</u><br>Remarks: こっか 110-1 |                     |                 |                                  |   |
| Remarks: 30% litter Inye                                     | P                   |                 |                                  |   |
|  |                     |                 |                                  |   |

US Army Corps of Engineers

| Depth   |  | a me nopm                             | needed to docum   |  |  | or contirm                       | the absence            | of indicators.)   |
|---|--|---------------------------------------|---|--|--|----------------------------------|------------------------|---|
| inches) Color   | Matrix<br>(moist)  | %                                     | Redox<br>Color (moist)  | Features<br>%  | Type <sup>1</sup>  | Loc <sup>2</sup>                 | Texture                | Remarks   |
| -,5   | (moist)  | 70                                    | COIDI (MOISI)   |  | 1300   |                                  | Tentare                | O layer   |
|   | LIL.   | 92                                    | LOYO HIL  |  | ~  | 10                               | 81.1                   |   |
| 5-8 Z.5Y  | 4/2  | 93                                    | 10YR 4/6  |  |  | Ari                              | Spridy Clay            | Sticky clay, wet  |
| 8-12 54   | -1/1   | 75                                    | 10YR 3/6  | 25   | L  |                                  | silfy clay             | gland materia   |
|   |  |                                       |   | _  |  |                                  |                        |   |
| Type: C=Concentrati   | on, D=Depl   | etion, RM=F                           | Reduced Matrix, CS  | =Covered   | or Coate   | d Sand G                         | rains. <sup>2</sup> Lo | cation: PL=Pore Lining, M=Matrix.   |
| lydric Soil Indicator   | s: (Applica  | ble to all L                          | RRs, unless other   | wise note  | ed.)   |                                  |                        | ors for Problematic Hydric Soils <sup>3</sup> :   |
| Histosol (A1)<br>Histic Epipedon (<br>Black Histic (A3)<br>Hydrogen Sulfide<br>Depleted Below I<br>Thick Dark Surfac<br>Sandy Mucky Mir<br>Sandy Gleyed Ma  | (A4)<br>Dark Surface<br>ce (A12)<br>neral (S1)   | -<br>                                 | <ul> <li>Sandy Redox (S</li> <li>Stripped Matrix</li> <li>Loamy Mucky M</li> <li>Loamy Gleyed M</li> <li>Depleted Matrix</li> <li>Redox Dark Sur</li> <li>Depleted Dark S</li> <li>Redox Depress</li> </ul> | (S6)<br>lineral (F1<br>Matrix (F2)<br>(F3)<br>face (F6)<br>Surface (F  | )  | MLRA 1)                          |                        | m Muck (A10)<br>d Parent Material (TF2)<br>ny Shallow Dark Surface (TF12)<br>ner (Explain in Remarks)<br>ors of hydrophytic vegetation and<br>and hydrology must be present,<br>ss disturbed or problematic.          |
| Restrictive Layer (if   |  |                                       |   |  |  |                                  |                        |   |
| Type:   |  |                                       |   |  |  |                                  | · · . · · .            | 1   |
| Depth (inches):   |  |                                       |   |  |  |                                  | Hydric Soi             | I Present? Yes V No   |
| YDROLOGY<br>Wetland Hydrology   |  |                                       |   |  | -  |                                  |                        | adam Indicatory 10 structure as statut  |
| Primary Indicators (m   |  | ne required                           | and a set of the second second  |  | (DO) //  | waant                            |                        | ondary Indicators (2 or more required)<br>Water-Stained Leaves (B9) (MLRA 1, 2,   |
| Surface Water (A  |  |                                       | Water-Sta   | 1, 2, 4A, a  |  | except                           | -                      | 4A, and 4B)   |
| V High Water Table<br>Saturation (A3)   | e (AZ)   |                                       | Salt Crust  |  | 40)  |                                  |                        |   |
|   | Υ.   |                                       | the second se   |  |  |                                  |                        | Drainage Patterns (B10)   |
|   | /  |                                       |   | vertebrate   | s (B13)  |                                  |                        | Drainage Patterns (B10)<br>Dry-Season Water Table (C2)  |
| Water Marks (B1<br>Sediment Depos   | its (B2)   |                                       |   |  | es (B13)<br>dor (C1)   |                                  | _                      | Dry-Season Water Table (C2)   |
| Sediment Depos  |  |                                       | Hydrogen  | Sulfide O  | dor (C1)   | Living Ro                        | 1                      | Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9   |
| the second se   | 3)   |                                       | Hydrogen  | Sulfide O  | dor (C1)<br>res along  |                                  |                        | Dry-Season Water Table (C2)   |
| Sediment Depos<br>Drift Deposits (B   | 3)<br>st (B4)  |                                       | Hydrogen<br>Oxidized F<br>Presence  | Sulfide O<br>Rhizosphe<br>of Reduce  | dor (C1)<br>eres along<br>ed Iron (C   |                                  |                        | Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)   |
| Sediment Depos     Drift Deposits (B     Algal Mat or Crus  | 3)<br>st (B4)<br>5)  |                                       | Hydrogen     Oxidized F     Presence     Recent Irc   | Sulfide O<br>Rhizosphe<br>of Reduce<br>on Reduction  | dor (C1)<br>res along<br>ed Iron (C<br>ion in Tille  | :4)                              | bots (C3)              | Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                               |
| Sediment Depos<br>Drift Deposits (B.<br>Algal Mat or Cru:<br>Iron Deposits (B!<br>Surface Soil Cra<br>Inundation Visibl   | 3)<br>st (B4)<br>5)<br>cks (B6)<br>e on Aerial   |                                       | Hydrogen     Oxidized F     Oxidized F     Presence     Recent Irc     Stunted o     Other (Ex  | Sulfide O<br>Rhizosphe<br>of Reduce<br>on Reduction<br>r Stressed  | dor (C1)<br>eres along<br>ed Iron (C<br>ion in Tille<br>I Plants ([  | :4)<br>ed Soils (C               | bots (C3)              | Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)  |
| Sediment Depos<br>Drift Deposits (B<br>Algal Mat or Cru:<br>Iron Deposits (B<br>Surface Soil Cra<br>Inundation Visibl<br>Sparsely Vegeta  | 3)<br>st (B4)<br>5)<br>cks (B6)<br>e on Aerial<br>ted Concave                                |                                       | Hydrogen     Oxidized F     Oxidized F     Presence     Recent Irc     Stunted o     Other (Ex  | Sulfide O<br>Rhizosphe<br>of Reduce<br>on Reduction<br>r Stressed  | dor (C1)<br>eres along<br>ed Iron (C<br>ion in Tille<br>I Plants ([  | :4)<br>ed Soils (C               | bots (C3)              | Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                              |
| Sediment Depos<br>Drift Deposits (B.<br>Algal Mat or Cru:<br>Iron Deposits (B.<br>Surface Soil Cra<br>Inundation Visibl<br>Sparsely Vegeta<br>Field Observations:   | 3)<br>st (B4)<br>5)<br>cks (B6)<br>e on Aerial<br>ted Concave                                | e Surface (E                          | Hydrogen<br>Oxidized F<br>Presence<br>Recent Iro<br>Stunted o<br>Other (Ex<br>88)   | Sulfide O<br>Rhizosphe<br>of Reduce<br>on Reducti<br>r Stressed<br>plain in Re                                     | dor (C1)<br>eres along<br>ed Iron (C<br>ion in Tille<br>I Plants ([  | :4)<br>ed Soils (C               | bots (C3)              | Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                               |
| Sediment Depos<br>Drift Deposits (B.<br>Algal Mat or Crue<br>Iron Deposits (B.<br>Surface Soil Cra<br>Inundation Visibl<br>Sparsely Vegeta<br>Field Observations:<br>Surface Water Prese  | 3)<br>st (B4)<br>5)<br>cks (B6)<br>e on Aerial I<br>ted Concavi                              | e Surface (E<br>'es 1                 | Hydrogen     Oxidized F     Oxidized F     Presence     Recent Irc     Stunted o     Other (Ex     No // Depth (ir  | Sulfide Or<br>Rhizosphe<br>of Reduce<br>on Reduction<br>r Stressed<br>plain in Re<br>aches):                       | dor (C1)<br>eres along<br>ed Iron (C<br>ion in Tille<br>I Plants (I<br>emarks)                                 | :4)<br>ed Soils (C               | bots (C3)              | Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                              |
| Sediment Depos<br>Drift Deposits (B.<br>Algal Mat or Crue<br>Iron Deposits (B.<br>Surface Soil Cra<br>Inundation Visibl<br>Sparsely Vegeta<br>Field Observations:<br>Surface Water Present<br>Water Table Present   | 3)<br>st (B4)<br>5)<br>cks (B6)<br>e on Aerial I<br>ted Concave<br>nt? Y<br>? Y              | e Surface (E<br>'es I<br>'es I        | Hydrogen     Oxidized F     Oxidized F     Presence     Recent Irc     Stunted o     Other (Ex     No Depth (ir   | Sulfide Or<br>Rhizosphe<br>of Reduce<br>on Reducti<br>r Stressed<br>plain in Re<br>uches):<br>nches):              | dor (C1)<br>eres along<br>ed Iron (C<br>ion in Tille<br>I Plants (I<br>emarks)                                 | :4)<br>ed Soils (C<br>D1) (LRR / | →<br>bots (C3) ✓<br>   | Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Sediment Depos<br>Drift Deposits (B.<br>Algal Mat or Cru:<br>Iron Deposits (B.<br>Surface Soil Cra<br>Inundation Visibl<br>Sparsely Vegeta<br>Field Observations:<br>Surface Water Present<br>Water Table Present?<br>(includes capillary fri                       | 3)<br>st (B4)<br>5)<br>cks (B6)<br>e on Aerial I<br>ted Concave<br>nt? Y<br>? Y<br>Y<br>nge) | e Surface (E<br>Yes  <br>Yes  <br>Yes | Hydrogen     Oxidized F     Oxidized F     Presence     Recent Irc     Stunted o     Other (Ex     No Depth (ir     No Depth (ir  | Sulfide Or<br>Rhizosphe<br>of Reduce<br>on Reduction<br>r Stressed<br>plain in Re<br>aches):<br>aches):<br>aches): | dor (C1)<br>eres along<br>ed Iron (C<br>ion in Tille<br>I Plants (I<br>ermarks)<br><u>   //</u><br><u>3 //</u> | :4)<br>ed Soils (C<br>D1) (LRR / | Doots (C3)             | Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                               |
| Sediment Depos<br>Drift Deposits (B.<br>Algal Mat or Crue<br>Iron Deposits (B.<br>Surface Soil Cra<br>Inundation Visibl<br>Sparsely Vegeta<br>Field Observations:<br>Surface Water Present<br>Water Table Present?  | 3)<br>st (B4)<br>5)<br>cks (B6)<br>e on Aerial I<br>ted Concave<br>nt? Y<br>? Y<br>Y<br>nge) | e Surface (E<br>Yes  <br>Yes  <br>Yes | Hydrogen     Oxidized F     Oxidized F     Presence     Recent Irc     Stunted o     Other (Ex     No Depth (ir     No Depth (ir  | Sulfide Or<br>Rhizosphe<br>of Reduce<br>on Reduction<br>r Stressed<br>plain in Re<br>aches):<br>aches):<br>aches): | dor (C1)<br>eres along<br>ed Iron (C<br>ion in Tille<br>I Plants (I<br>ermarks)<br><u>   //</u><br><u>3 //</u> | :4)<br>ed Soils (C<br>D1) (LRR / | Doots (C3)             | Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Sediment Depos<br>Drift Deposits (B.<br>Algal Mat or Cru:<br>Iron Deposits (B.<br>Surface Soil Cra<br>Inundation Visibl<br>Sparsely Vegeta<br>Field Observations:<br>Surface Water Present<br>Water Table Present?<br>(includes capillary fri                       | 3)<br>st (B4)<br>5)<br>cks (B6)<br>e on Aerial I<br>ted Concave<br>nt? Y<br>? Y<br>Y<br>nge) | e Surface (E<br>Yes  <br>Yes  <br>Yes | Hydrogen     Oxidized F     Oxidized F     Presence     Recent Irc     Stunted o     Other (Ex     No Depth (ir     No Depth (ir  | Sulfide Or<br>Rhizosphe<br>of Reduce<br>on Reduction<br>r Stressed<br>plain in Re<br>aches):<br>aches):<br>aches): | dor (C1)<br>eres along<br>ed Iron (C<br>ion in Tille<br>I Plants (I<br>ermarks)<br><u>   //</u><br><u>3 //</u> | :4)<br>ed Soils (C<br>D1) (LRR / | Doots (C3)             | Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Sediment Depos<br>Drift Deposits (B.<br>Algal Mat or Cru:<br>Iron Deposits (B.<br>Surface Soil Cra<br>Inundation Visibl<br>Sparsely Vegeta<br>Field Observations:<br>Surface Water Present<br>Saturation Present?<br>(includes capillary fri<br>Describe Recorded I | 3)<br>st (B4)<br>5)<br>cks (B6)<br>e on Aerial I<br>ted Concave<br>nt? Y<br>? Y<br>Y<br>nge) | e Surface (E<br>Yes  <br>Yes  <br>Yes | Hydrogen     Oxidized F     Oxidized F     Presence     Recent Irc     Stunted o     Other (Ex     No Depth (ir     No Depth (ir  | Sulfide Or<br>Rhizosphe<br>of Reduce<br>on Reduction<br>r Stressed<br>plain in Re<br>aches):<br>aches):<br>aches): | dor (C1)<br>eres along<br>ed Iron (C<br>ion in Tille<br>I Plants (I<br>ermarks)<br><u>   //</u><br><u>3 //</u> | :4)<br>ed Soils (C<br>D1) (LRR / | Doots (C3)             | Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
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| WETLAND DETERMINATION DATA F  | ORM – Western Mountains, Valleys, and Coast Region                |
|---|---|
| Project/Site: BC/RM Stream Restoration                                    | M City/County: Douglas Sampling Date: 5/8/2012                    |
| Applicant/Owner:  | State: <u>NV</u> Sampling Point: RVB - 9                          |
| Investigator(s): JI Picciahi, M. Pook                                     | Section, Township, Range:   |
| Landform (hillslope, terrace, etc.): hill slope                           | Local relief (concave, convex, none): CONUEX Slope (%): 5         |
| Subregion (LRR): MLRA 22 A Lat:   | 4317818 N Long: 245582E Datum: NADE3                              |
|   | 2% Slopes NWI classification: NGNL                                |
| Are climatic / hydrologic conditions on the site typical for this time of |   |
| Are Vegetation, Soil, or Hydrology significa                              |   |
| Are Vegetation, Soil, or Hydrology naturally                              |   |
| SUMMARY OF FINDINGS – Attach site map show                                | ing sampling point locations, transects, important features, etc. |
| Hydrophytic Vegetation Present? Yes No _/                                 |   |
| Hydric Soil Present? Yes No   |   |
| Wetland Hydrology Present? Yes No   | within a Wetland? Yes No V  |
| Remarks:  |   |

## WP79 245582, 4317818

| <b>VEGETATION</b> - | - Use | scientific | names | of | plants. |
|---------------------|-------|------------|-------|----|---------|
|---------------------|-------|------------|-------|----|---------|

| Tree Stratum         (Plot size:)           1) |  |             | Status  | Dominance Test workshee<br>Number of Dominant Specie<br>That Are OBL, FACW, or FA | s o                               |
|--|--|-------------|---------|---|-----------------------------------|
| 2<br>3   |  | ·           |         | Total Number of Dominant<br>Species Across All Strata:                            | ((B)                              |
| 4  |  | = Total Co  |         | Percent of Dominant Species<br>That Are OBL, FACW, or FA                          | C: (A/B)                          |
| 1  |  |             |         | Prevalence Index workshe<br>Total % Cover of:                                     |                                   |
| 2  |  |             |         | OBL species   |                                   |
| 3  |  |             |         | FACW species  |                                   |
| 4  |  | <u> </u>    |         | FAC species   |                                   |
| 5  |  |             |         | FACU species  |                                   |
| Herb Stratum (Plot size:)                      |  | = Total Co  | ver     | UPL species   |                                   |
| 1. Elymus hispidus                             | 30                                       | V           | UPL     | Column Totals:  |                                   |
| 2. epiloboum prachycorpum                      | 10                                       |             | UPL     | Prevalence Index = B/   | A =                               |
| 3. Symphyptnichum SP                           |  |             | FAC-FA  | Hydrophytic Vegetation Inc  | licators:                         |
| 4. Taraxacum officinale                        | _ T_                                     |             | FACU    | 1 - Rapid Test for Hydro  | phytic Vegetation                 |
| 5  |  |             |         | 2 - Dominance Test is >   |                                   |
| 6,   | _  |             |         | 3 - Prevalence Index is s   |                                   |
| 7  |  |             |         | 4 - Morphological Adapta  |                                   |
| 8  |  |             |         | data in Remarks or o  | a separate sheet)                 |
| 9  | _  |             | _       | 5 - Wetland Non-Vascula   | ar Plants <sup>1</sup>            |
| 10   |  |             | <u></u> | Problematic Hydrophytic   | Vegetation <sup>1</sup> (Explain) |
| 11   |  |             |         | <sup>1</sup> Indicators of hydric soil and  | wetland hydrology must            |
| Woody Vine Stratum (Plot size:)                | 40                                       | = Total Cov | er      | be present, unless disturbed  | or problematic.                   |
| 1  | 1. |             |         | Hydrophytic   |                                   |
| 2  |  |             |         | Vegetation  | 1                                 |
| % Bare Ground in Herb Stratum 10%              |  | = Total Cov | er      | Present? Yes  | No                                |
| Remarks: 50% life                              |  |             |         |   |                                   |

| epth   | Matrix   |   |   | Features  |  |  | 1.1.1                 |  |   |  |
|--|--|---|---|---|--|--|-----------------------|--|---|--|
| nches)   | Color (moist)  | %   | Color (moist)   | %   | Type <sup>1</sup>  | _Loc <sup>2</sup>                                  | Texture               |  | Remarks   |  |
| -1-  |  |   | <u></u>   |   |  |  |                       | Litter   | layela  |  |
| -18  | 7.5YR 3/3  | 100   |   |   | _  |  | SANdy los             | M  |   |  |
| 8-20   | 10YR 4/4   | 93  | 5YR 4/6   | 5   | C  | M  | loamit St             | id   |   |  |
|  |  |   | 7.5YR 2.5/2   | 2   | D  | AA   | the second second     | -  |   |  |
|  |  |   |   |   |  |  |                       |  |   |  |
|  |  |   |   |   |  |  |                       |  |   |  |
| _  |  |   | ÷   | _   |  |  |                       | -  |   |  |
|  |  |   |   |   |  | التسكر   |                       |  |   | _  |
|  |  |   |   |   |  |  |                       |  |   |  |
| vpe: C=C   | oncentration, D=De   | pletion, RM   | Reduced Matrix, CS  | S=Covere  | d or Coate   | ed Sand Gra  | ains. <sup>2</sup> Lo | cation: PL=Po  | ore Lining, M   | Matrix.                                  |
| dric Soil  | Indicators: (Appli   | cable to all  | LRRs, unless other  | wise not  | ed.)   |  | Indicate              | ors for Proble   | matic Hydri   | c Soils <sup>3</sup> :                   |
| Histoso  | I (A1)   |   | Sandy Redox (   | 35)   |  |  |                       | m Muck (A10)   |   |  |
| Histic E   | pipedon (A2)   |   | Stripped Matrix   |   |  |  |                       | d Parent Mate  |   |  |
| - Contraction of the second  | listic (A3)  |   | Loamy Mucky M   |   |  | t MLRA 1)  |                       | ry Shallow Dar   |   | -12)                                     |
|  | en Sulfide (A4)  |   | Loamy Gleyed  |   | 2)   |  | Otr                   | ner (Explain in  | Remarks)  |  |
|  | ed Below Dark Surfa  | ce (A11)  | Depleted Matrix<br>Redox Dark Su  | 1. A  |  |  | <sup>3</sup> Indicat  | ors of hydroph   | vtic venetatio  | n and                                    |
|  | Park Surface (A12)<br>Mucky Mineral (S1)   |   | Redox Dark Su<br>Depleted Dark  |   |  |  |                       | and hydrology  |   |  |
|  | Gleyed Matrix (S4)   |   | Redox Depress   | and the second  |  |  |                       | ss disturbed o   |   |  |
|  | Layer (if present):  | -   |   |   |  |  |                       | E CALLED DE LES  |   |  |
| Type:  |  |   |   |   |  |  | 11 a. a. 1            |  |   |  |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | nches):  |   |   |   |  |  | Hydric Soi            | Present?   | Yes   | No_V                                     |
| emarks:  |  |   |   |   |  |  |                       | 1000.010   | A   |  |
| DROLO  | DGY  |   |   |   |  |  |                       |  |   |  |
| Vetland H  | ydrology Indicators  |   |   |   |  |  |                       |  |   |  |
| Vetland H  | ydrology Indicators  |   | ed; check all that app  |   |  |  |                       | ondary Indicate  | 11 11 11 11 11 11   | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1    |
| Vetland Hy<br>Primary Ind  | ydrology Indicators<br>licators (minimum of<br>e Water (A1)  |   | Water-Sta   | ained Lea   |  | except   |                       | Water-Stained  | Leaves (B9)   | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1    |
| Vetland Hy<br>Primary Ind<br>Surface<br>High W   | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)  |   | Water-Sta<br>MLRA   | ained Lea<br>1, 2, 4A,  |  | except   | -                     | Water-Stained<br>4A, and 4E  | Leaves (B9)<br>3)   | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1    |
| Vetland H<br>Primary Ind<br>Surface<br>High W<br>Satura  | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)   |   | Water-Sta<br>MLRA<br>Salt Crus  | ained Lea<br>1, 2, 4A,<br>t (B11)   | and 4B)  | except   |                       | Water-Stained<br>4A, and 4E<br>Drainage Patte  | Leaves (B9)<br>3)<br>erns (B10)   | (MLRA 1, 2                               |
| Vetland H<br>rimary Ind<br>Surface<br>High W<br>Satura<br>Water  | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)   |   | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir  | ained Lea<br>1, 2, 4A,<br>t (B11)<br>nvertebrat   | and 4B)<br>es (B13)  |  | 1                     | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W  | l Leaves (B9)<br>3)<br>erns (B10)<br>/ater Table (C   | (MLRA 1, 2                               |
| Vetland Hy<br><u>Primary Ind</u><br>Surface<br>High W<br>Satura<br>Water<br>Sedime   | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)  |   | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger  | ained Lea<br>1, 2, 4A,<br>t (B11)<br>nvertebrat<br>sulfide (  | and 4B)<br>es (B13)<br>Odor (C1)   |  | EET E                 | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis  | l Leaves (B9)<br>3)<br>erns (B10)<br>/ater Table (C<br>ible on Aerial   | (MLRA 1, 2<br>C2)<br>Imagery (C          |
| Vetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water<br>Sedime<br>Drift De   | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)  |   | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized  | ained Lea<br><b>1, 2, 4A,</b><br>t (B11)<br>ivertebrat<br>Sulfide (<br>Rhizosph   | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon  | g Living Roo                                       |                       | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F  | l Leaves (B9)<br>8)<br>erns (B10)<br>/ater Table (C<br>ible on Aerial<br>Position (D2)  | (MLRA 1, 2<br>C2)<br>Imagery (C          |
| Vetland H<br><u>rimary Ind</u><br>Surface<br>High W<br>Satura'<br>Water<br>Sedime<br>Drift Do<br>Algal M   | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>/at or Crust (B4)   |   | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence  | ained Lea<br><b>1, 2, 4A,</b><br>t (B11)<br>nvertebrat<br>Sulfide C<br>Rhizosph<br>of Reduc   | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (C   | g Living Roc<br>C4)                                |                       | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquita  | l Leaves (B9)<br>s)<br>erns (B10)<br>/ater Table (C<br>ible on Aerial<br>Position (D2)<br>ard (D3)                                      | (MLRA 1, 2<br>C2)<br>Imagery (C          |
| Vetland H<br><u>rimary Ind</u><br>Surface<br>High W<br>Satura'<br>Water<br>Sedime<br>Drift De<br>Algal M<br>Iron De  | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>/lat or Crust (B4)<br>eposits (B5)  |   | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence<br>Recent Ir   | ained Lea<br><b>1, 2, 4A,</b><br>(B11)<br>wertebrat<br>Sulfide (<br>Rhizosph<br>of Reduction<br>on Reduction  | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (C<br>tion in Till   | g Living Roc<br>C4)<br>led Soils (Cf               | ots (C3)              | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquita<br>FAC-Neutral T                                   | Leaves (B9)<br>s)<br>erns (B10)<br>/ater Table (C<br>ible on Aerial<br>Position (D2)<br>ard (D3)<br>Fest (D5)                           | (MLRA 1, 2<br>2)<br>Imagery (C           |
| Vetland H<br>rimary Ind<br>Surface<br>High W<br>Satura'<br>Water<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surfac   | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)   | one requir  | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence<br>Recent Ir<br>Stunted o  | ained Lea<br><b>1, 2, 4A,</b><br>t (B11)<br>nvertebrat<br>o Sulfide C<br>Rhizosph<br>of Reduct<br>on Reduct<br>or Stresse   | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (0<br>tion in Till<br>d Plants (   | g Living Roc<br>C4)                                | ots (C3)              | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquit<br>FAC-Neutral T<br>Raised Ant Mo                   | I Leaves (B9)<br>arms (B10)<br>/ater Table (C<br>ible on Aerial<br>/osition (D2)<br>ard (D3)<br>Fest (D5)<br>bunds (D6) (L              | (MLRA 1, 2<br>2)<br>Imagery (C<br>.RR A) |
| Vetland H<br><u>rimary Ind</u><br>Surface<br>High W<br>Satura'<br>Water<br>Water<br>Drift De<br>Algal M<br>Iron De<br>Surfac<br>Inunda   | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>ation Visible on Aeria   | one requir  | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence<br>Recent Ir<br>Stunted o<br>(B7) Other (E)  | ained Lea<br><b>1, 2, 4A,</b><br>t (B11)<br>nvertebrat<br>o Sulfide C<br>Rhizosph<br>of Reduct<br>on Reduct<br>or Stresse   | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (0<br>tion in Till<br>d Plants (   | g Living Roc<br>C4)<br>led Soils (Cf               | ots (C3)              | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquita<br>FAC-Neutral T                                   | I Leaves (B9)<br>arms (B10)<br>/ater Table (C<br>ible on Aerial<br>/osition (D2)<br>ard (D3)<br>Fest (D5)<br>bunds (D6) (L              | (MLRA 1, 2<br>2)<br>Imagery (C<br>.RR A) |
| Vetland H<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surfac<br>Inunda<br>Sparse  | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>ation Visible on Aeria<br>ely Vegetated Conce  | one requir  | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence<br>Recent Ir<br>Stunted o<br>(B7) Other (E)  | ained Lea<br><b>1, 2, 4A,</b><br>t (B11)<br>nvertebrat<br>o Sulfide C<br>Rhizosph<br>of Reduct<br>on Reduct<br>or Stresse   | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (0<br>tion in Till<br>d Plants (   | g Living Roc<br>C4)<br>led Soils (Cf               | ots (C3)              | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquit<br>FAC-Neutral T<br>Raised Ant Mo                   | I Leaves (B9)<br>arms (B10)<br>/ater Table (C<br>ible on Aerial<br>/osition (D2)<br>ard (D3)<br>Fest (D5)<br>bunds (D6) (L              | (MLRA 1, 2<br>2)<br>Imagery (C<br>.RR A) |
| Vetland H<br>Primary Ind<br>Surface<br>High W<br>Satura'<br>Water<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surfac<br>Inunda<br>Sparse<br>Field Obse                                  | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>ation Visible on Aeria<br>ely Vegetated Conca<br>ervations:  | one requin<br>I Imagery (<br>ve Surface               | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence<br>Recent Ir<br>Stunted of<br>B7) Other (Ex<br>(B8)  | ained Lea<br><b>1, 2, 4A,</b><br><b>(B11)</b><br>ivertebrat<br><b>o</b> Sulfide (<br>Rhizosph<br>of Reduct<br>on Reduct<br>on Reduct<br>or Stresse<br>cplain in F | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (0<br>tion in Till<br>d Plants (   | g Living Roc<br>C4)<br>led Soils (Cf               | ots (C3)              | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquit<br>FAC-Neutral T<br>Raised Ant Mo                   | I Leaves (B9)<br>arms (B10)<br>/ater Table (C<br>ible on Aerial<br>/osition (D2)<br>ard (D3)<br>Fest (D5)<br>bunds (D6) (L              | (MLRA 1, 2<br>2)<br>Imagery (C<br>.RR A) |
| Vetland H<br>Primary Ind<br>Surface<br>High W<br>Satura'<br>Water<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surface<br>Surface Withing<br>Surface Withing                             | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>ation Visible on Aeria<br>ely Vegetated Conca<br>ervations:<br>ater Present?   | one requin<br>I Imagery (<br>ve Surface<br>Yes        | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence<br>Recent Ir<br>Stunted co<br>(B7)Other (E)<br>e (B8)                                      | ained Lea<br>1, 2, 4A,<br>(B11)<br>avertebrat<br>Sulfide (<br>Rhizosph<br>of Reduct<br>on Reduct<br>on Reduct<br>or Stresse<br>cplain in F<br>mches):             | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon<br>eres alon<br>ered Iron (C<br>tion in Till<br>d Plants (<br>emarks)                | g Living Roc<br>C4)<br>led Soils (C6<br>D1) (LRR A | ots (C3)              | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquit<br>FAC-Neutral T<br>Raised Ant Mo                   | I Leaves (B9)<br>arms (B10)<br>/ater Table (C<br>ible on Aerial<br>/osition (D2)<br>ard (D3)<br>Fest (D5)<br>bunds (D6) (L              | (MLRA 1, 2<br>2)<br>Imagery (C<br>.RR A) |
| Vetland H<br><u>rimary Ind</u><br>Surface<br>High W<br>Satura'<br>Water<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surfac<br>Inunda<br>Sparse<br>Field Obse<br>Surface W<br>Water Tabl | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>/at or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>ation Visible on Aeria<br>ely Vegetated Conca<br>ervations:<br>ater Present?   | one requir<br>I Imagery (<br>ve Surface<br>Yes<br>Yes | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence<br>Recent Ir<br>Stunted of<br>(B7) Other (E)<br>(B8)                                       | ained Lea<br>1, 2, 4A,<br>t (B11)<br>ivertebrat<br>of Reduct<br>on Reduct<br>on Reduct<br>or Stresse<br>cplain in F<br>   | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon-<br>ced Iron (C<br>tion in Till<br>d Plants (<br>cemarks)                            | g Living Roc<br>C4)<br>led Soils (Cf<br>D1) (LRR A | ots (C3)              | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquit:<br>FAC-Neutral T<br>Raised Ant Mo<br>Frost-Heave F | Leaves (B9)<br>arms (B10)<br>/ater Table (C<br>ible on Aerial<br>Position (D2)<br>ard (D3)<br>Fest (D5)<br>bunds (D6) (L<br>Hummocks (D | (MLRA 1, 2<br>2)<br>Imagery (C<br>.RR A) |
| Vetland H<br>Primary Ind<br>Surface<br>High W<br>Satura'<br>Vater<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surface<br>Surface Wi<br>Vater Tabl<br>Saturation                         | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>ation Visible on Aeria<br>ely Vegetated Conca<br>ervations:<br>ater Present?<br>le Present?<br>Present?<br>apillary (fringe) | one requir  | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence<br>Recent Ir<br>Stunted of<br>B7)Other (E)<br>(B8)<br>Depth (i<br>NoDepth (i<br>NoDepth (i | ained Lea<br>1, 2, 4A,<br>( (B11)<br>ivertebrat<br>9 Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>on Reduc<br>or Stresse<br>cplain in F<br>                   | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (C<br>tion in Till<br>d Plants (<br>cemarks)<br>$\geq 2_0$<br>$\geq 2_0$ | g Living Roc<br>C4)<br>led Soils (Cf<br>D1) (LRR A | ots (C3)              | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquit<br>FAC-Neutral T<br>Raised Ant Mo                   | Leaves (B9)<br>arms (B10)<br>/ater Table (C<br>ible on Aerial<br>Position (D2)<br>ard (D3)<br>Fest (D5)<br>bunds (D6) (L<br>Hummocks (D | (MLRA 1, 2<br>2)<br>Imagery (C<br>.RR A) |
| Primary Ind<br>Surface<br>High W<br>Satural<br>Water<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surface<br>Surface Water<br>Tabl<br>Saturation   | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>ation Visible on Aeria<br>ely Vegetated Conca<br>ervations:<br>ater Present?<br>le Present?<br>Present?<br>apillary (fringe) | one requir  | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence<br>Recent Ir<br>Stunted of<br>(B7) Other (E)<br>(B8)                                       | ained Lea<br>1, 2, 4A,<br>( (B11)<br>ivertebrat<br>9 Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>on Reduc<br>or Stresse<br>cplain in F<br>                   | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (C<br>tion in Till<br>d Plants (<br>cemarks)<br>$\geq 2_0$<br>$\geq 2_0$ | g Living Roc<br>C4)<br>led Soils (Cf<br>D1) (LRR A | ots (C3)              | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquit:<br>FAC-Neutral T<br>Raised Ant Mo<br>Frost-Heave F | Leaves (B9)<br>arms (B10)<br>/ater Table (C<br>ible on Aerial<br>Position (D2)<br>ard (D3)<br>Fest (D5)<br>bunds (D6) (L<br>Hummocks (D | (MLRA 1, 2<br>2)<br>Imagery (C<br>.RR A) |
| Vetland Hy<br>Primary Ind<br>Surface<br>High W<br>Satura'<br>Water<br>Drift De<br>Algal M<br>Iron De<br>Surface<br>Surface Wi<br>Water Tabl<br>Saturation<br>(includes c<br>Describe F     | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>ation Visible on Aeria<br>ely Vegetated Conca<br>ervations:<br>ater Present?<br>le Present?<br>Present?<br>apillary (fringe) | one requir  | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence<br>Recent Ir<br>Stunted of<br>B7)Other (E)<br>(B8)<br>Depth (i<br>NoDepth (i<br>NoDepth (i | ained Lea<br>1, 2, 4A,<br>( (B11)<br>ivertebrat<br>9 Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>on Reduc<br>or Stresse<br>cplain in F<br>                   | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (C<br>tion in Till<br>d Plants (<br>cemarks)<br>$\geq 2_0$<br>$\geq 2_0$ | g Living Roc<br>C4)<br>led Soils (Cf<br>D1) (LRR A | ots (C3)              | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquit:<br>FAC-Neutral T<br>Raised Ant Mo<br>Frost-Heave F | Leaves (B9)<br>arms (B10)<br>/ater Table (C<br>ible on Aerial<br>Position (D2)<br>ard (D3)<br>Fest (D5)<br>bunds (D6) (L<br>Hummocks (D | (MLRA 1, 2<br>2)<br>Imagery (C<br>.RR A) |
| Vetland H<br>Primary Ind<br>Surface<br>High W<br>Satura'<br>Vater<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surface<br>Surface Wi<br>Water Tabl<br>Saturation                         | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>ation Visible on Aeria<br>ely Vegetated Conca<br>ervations:<br>ater Present?<br>le Present?<br>Present?<br>apillary (fringe) | one requir  | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence<br>Recent Ir<br>Stunted of<br>(B7) Other (E)<br>(B8)                                       | ained Lea<br>1, 2, 4A,<br>( (B11)<br>ivertebrat<br>9 Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>on Reduc<br>or Stresse<br>cplain in F<br>                   | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (C<br>tion in Till<br>d Plants (<br>cemarks)<br>$\geq 2_0$<br>$\geq 2_0$ | g Living Roc<br>C4)<br>led Soils (Cf<br>D1) (LRR A | ots (C3)              | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquit:<br>FAC-Neutral T<br>Raised Ant Mo<br>Frost-Heave F | Leaves (B9)<br>arms (B10)<br>/ater Table (C<br>ible on Aerial<br>Position (D2)<br>ard (D3)<br>Fest (D5)<br>bunds (D6) (L<br>Hummocks (D | (MLRA 1, 2<br>2)<br>Imagery (C<br>.RR A) |
| Vetland Hy<br>Primary Ind<br>Surface<br>High W<br>Satura'<br>Water<br>Drift De<br>Algal M<br>Iron De<br>Surface<br>Surface Wi<br>Water Tabl<br>Saturation<br>(includes c<br>Describe F     | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>ation Visible on Aeria<br>ely Vegetated Conca<br>ervations:<br>ater Present?<br>le Present?<br>Present?<br>apillary (fringe) | one requir  | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence<br>Recent Ir<br>Stunted of<br>(B7) Other (E)<br>(B8)                                       | ained Lea<br>1, 2, 4A,<br>( (B11)<br>ivertebrat<br>9 Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>on Reduc<br>or Stresse<br>cplain in F<br>                   | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (C<br>tion in Till<br>d Plants (<br>cemarks)<br>$\geq 2_0$<br>$\geq 2_0$ | g Living Roc<br>C4)<br>led Soils (Cf<br>D1) (LRR A | ots (C3)              | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquit:<br>FAC-Neutral T<br>Raised Ant Mo<br>Frost-Heave F | Leaves (B9)<br>arms (B10)<br>/ater Table (C<br>ible on Aerial<br>Position (D2)<br>ard (D3)<br>Fest (D5)<br>bunds (D6) (L<br>Hummocks (D | (MLRA 1, 2<br>2)<br>Imagery (C<br>.RR A) |
| Vetland Hy<br>Primary Ind<br>Surface<br>High W<br>Satura'<br>Water<br>Drift De<br>Algal M<br>Iron De<br>Surface<br>Surface Wi<br>Water Tabl<br>Saturation<br>(includes c<br>Describe F     | ydrology Indicators<br>licators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>ation Visible on Aeria<br>ely Vegetated Conca<br>ervations:<br>ater Present?<br>le Present?<br>Present?<br>apillary (fringe) | one requir  | Water-Sta<br>MLRA<br>Salt Crus<br>Aquatic Ir<br>Hydroger<br>Oxidized<br>Presence<br>Recent Ir<br>Stunted of<br>(B7) Other (E)<br>(B8)                                       | ained Lea<br>1, 2, 4A,<br>( (B11)<br>ivertebrat<br>9 Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>on Reduc<br>or Stresse<br>cplain in F<br>                   | and 4B)<br>es (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (C<br>tion in Till<br>d Plants (<br>cemarks)<br>$\geq 2_0$<br>$\geq 2_0$ | g Living Roc<br>C4)<br>led Soils (Cf<br>D1) (LRR A | ots (C3)              | Water-Stained<br>4A, and 4E<br>Drainage Patte<br>Dry-Season W<br>Saturation Vis<br>Geomorphic F<br>Shallow Aquit:<br>FAC-Neutral T<br>Raised Ant Mo<br>Frost-Heave F | Leaves (B9)<br>arms (B10)<br>/ater Table (C<br>ible on Aerial<br>Position (D2)<br>ard (D3)<br>Fest (D5)<br>bunds (D6) (L<br>Hummocks (D | (MLRA 1, 2<br>2)<br>Imagery (C<br>.RR A) |

| roject/Site: <u>BCIRM</u> Stream Res                            | City               | y/County:                           | Sampling Date: 5/8/20   |
|---|--------------------|-------------------------------------|---|
|   | -                  |                                     | State: <u>NV</u> Sampling Point: <u>RB-10</u>   |
| Vestigator(s): Christian Church                                 | Se                 | ction, Township, Rar                | nge:  |
| ndform (hillslope, terrace, etc.): <u>Swade</u>                 | Lo                 | cal relief (concave, o              | convex, none): <u>concave</u> Slope (%):  |
| bregion (LRR): MLRA 22A   | Lat:               | TTGEN                               | Long: 245645E Datum: NADE   |
| il Map Unit Name: <u>Tahoe Complex</u>                          | 0-2%               | Slopes                              | NWI classification: NONE  |
| e climatic / hydrologic conditions on the site typical for t    |                    |                                     |   |
| e Vegetation, Soil, or Hydrology                                | significantly dis  | turbed? Are "                       | Normal Circumstances" present? Yes Kan No   |
| e Vegetation, Soil, or Hydrology                                | _ naturally proble | matic? (If ne                       | eded, explain any answers in Remarks.)  |
| UMMARY OF FINDINGS – Attach site may                            | p showing sa       | ampling point lo                    | ocations, transects, important features, etc.   |
| Hydrophytic Vegetation Present? Yes                             |                    |                                     |   |
| Hydric Soil Present? Yes  |                    | Is the Sampled                      | Area  |
| Netland Hydrology Present? Yes                                  |                    | within a Wetlan                     | nd? Yes No V  |
| Remarks: Plot Noz Burlie Cr                                     | cek x              | 40'                                 |   |
| NPRI 245645, 4317768  |                    |                                     |   |
| and have been been and the set when a well be at the set of the |                    |                                     |   |
| EGETATION – Use scientific names of pla                         |                    |                                     |   |
| ree Stratum (Plot size:)  |                    | ominant Indicator<br>pecies? Status | Dominance Test worksheet:   |
| ·/  |                    |                                     | Number of Dominant Species<br>That Are OBL, FACW, or FAC:(A)  |
|   |                    |                                     |   |
| ·   |                    |                                     | Total Number of Dominant<br>Species Across All Strata:(B)   |
| H   |                    |                                     |   |
|   | =                  | Total Cover                         | Percent of Dominant Species<br>That Are OBL, FACW, or FAC: (A/B)  |
| Sapling/Shrub Stratum (Plot size:)                              |                    |                                     | Prevalence Index worksheet:   |
|   |                    |                                     | Total % Cover of: Multiply by:  |
| k   |                    |                                     | OBL species x 1 =   |
|   |                    |                                     | FACW species x 2 =  |
|   |                    |                                     | FAC species x 3 =   |
| 10110   | F                  | Total Cover                         | FACU species x 4 =  |
| Festuca Sp (Vulpersp)   | 20                 | V. FACU                             | UPL species x 5 =   |
| Bromus Canhatus   | 10                 | VUPL                                | Column Totals: (A) (B)  |
| Montha linearis   |                    | FAC                                 | Prevalence Index = B/A =  |
| Juncus balticus 550,  | ater T             | EATU                                | Hydrophytic Vegetation Indicators:  |
| Drabailerna   | T                  | UPL                                 | 1 - Rapid Test for Hydrophytic Vegetation   |
| Elymus hispidus   | 10                 | V UPL                               | 2 - Dominance Test is >50%<br>3 - Prevalence Index is <3.01   |
| Epilobrum bracingcarsus   | M.T.               | UPL                                 | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting  |
| Jupinal Sp.   |                    | UPL                                 | data in Remarks or on a separate sheet)   |
|   |                    |                                     | 5 - Wetland Non-Vascular Plants <sup>1</sup>  |
| 0   |                    |                                     | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 1   | 50-                |                                     | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic. |
| Voody Vine Stratum (Plot size: )                                | <u>30</u> =1       | Fotal Cover                         | es present, unicas disturbed of problematic.  |
| /   |                    | 1.000                               | Hudronhutia   |
|   |                    |                                     | Hydrophytic<br>Vegetation   |
|   |                    | CALL TARTA P                        | Present? Yes No V   |
|   | = ]                | Total Cover                         |   |
| 6 Bare Ground in Herb Stratum                                   |                    | Fotal Cover                         |   |

Sampling Point: <u>RB-1</u>0

| Profile Desc  | ription: (Describe   | to the dep  | th needed to de  |  |   |   |                                       |  |   |   |   |
|---|--|---|--|--|---|---|---------------------------------------|--|---|---|---|
| Depth   | Matrix   |   |  | Redox Feature  |   | Loc <sup>2</sup>                              | Textur                                |  |   | Remarks   |   |
| (inches)  | Color (moist)  | _%  | Color (moist   | )%   | Type <sup>1</sup>   | LOC   | - 01                                  |  |   | Remarks   |   |
| )-2   | 10YR 3/1   | 100   |  |  |   |   | TANEICS 1.                            | DAM_   |   | -   |   |
| 2-8   | 2.5Y 4/3   | 100   |  |  |   | /   | 2002                                  | al L   |   | 1   |   |
| 9-20  | 2.544/3  | 93  | 5YR 3/4  |  |   | M   |                                       | Demy C   | listin  | ctmot   | tling   |
|   |  |   |  |  | _   |   | =                                     |  |   |   |   |
| Type: C=C   | oncentration, D=Dep  | letion, RM  | =Reduced Matri   | x, CS=Covere   | d or Coate  | ed Sand G                                     | Grains.                               | <sup>2</sup> Locatio   | n: PL=P   | ore Lining, I   | M=Matrix.   |
| Hydric Soil   | Indicators: (Applic  | able to all   | LRRs, unless   | otherwise not  | ted.)   |   | Ind                                   |  |   | matic Hyd   |   |
| Histosol  | (A1)   |   | Sandy Red  | dox (S5)   |   |   | _                                     | 2 cm M   | uck (A10)   |   |   |
| and the second se | pipedon (A2)   |   | Stripped N   | latrix (S6)  |   |   |                                       |  | rent Mate   |   |   |
|   | istic (A3)   |   | and the second s | cky Mineral (F   | - 1 A   | t MLRA 1                                      | ) _                                   |  |   | k Surface (   | TF12)   |
|   | en Sulfide (A4)  |   |  | eyed Matrix (F   | 2)  |   |                                       | Other (I   | Explain in  | Remarks)  |   |
|   | d Below Dark Surfac  | ce (A11)  |  | Vatrix (F3)  |   |   | 3100                                  | licators   | fhudroph  | ytic vegeta   | tion and  |
|   | ark Surface (A12)  |   |  | rk Surface (F6<br>Dark Surface (   |   |   |                                       |  | 1   | must be pr  |   |
|   | Mucky Mineral (S1)<br>Gleyed Matrix (S4)   |   |  | pressions (F8)   |   |   |                                       |  |   | r problemat   |   |
|   | Layer (if present):  |   |  | pressions (r.e.  |   |   |                                       |  |   |   |   |
| Type:   | Luyer (in present):  |   |  |  |   |   |                                       |  |   |   |   |
| Depth (in   | ches).   |   |  |  |   |   | Hydric                                | Soil Pre   | esent?  | Yes   | No V  |
| 1.1.2   |  |   |  |  |   |   |                                       |  | (1997) - H  |   |   |
| Remarks:  |  |   |  |  |   |   |                                       |  |   |   |   |
| YDROLC  | OGY<br>/drology Indicators   | *   |  |  |   |   |                                       |  |   |   |   |
| IYDROLC<br>Wetland Hy   |  |   | ed; check all tha  | t apply)   |   |   |                                       | Seconda  | ry Indicate   | ors (2 or mo  | pre required)   |
| YDROLC<br>Wetland Hy<br>Primary Ind   | drology Indicators   |   |  | t apply)<br>er-Stained Lea   | ves (B9) (  | except  |                                       |  |   |   | ore required)<br>9) (MLRA 1, 2,                           |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface  | drology Indicators   |   | Wate   |  |   | except  |                                       | Wate   | er-Stained<br>A, and 4E   | Leaves (B<br>I)   |   |
| Wetland Hy<br>Primary Ind<br>Surface<br>High W  | vdrology Indicators<br>icators (minimum of<br>a Water (A1)   |   | Wate   | er-Stained Lea   |   | except  |                                       | Wate<br>4<br>Draii   | er-Stained<br>A, and 4E<br>nage Patte   | Leaves (B<br>I)<br>erns (B10)   | 9) (MLRA 1, 2,  |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water I  | vdrology Indicators<br>icators (minimum of<br>a Water (A1)<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)  |   | Wate<br>Salt<br>Aqua   | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra   | and 4B)<br>tes (B13)  |   |                                       | Wate<br>4<br>Drain<br>Dry-   | er-Stained<br>A, and 4E<br>nage Patte<br>Season W   | Leaves (B<br>I)<br>erns (B10)<br>/ater Table  | 9) (MLRA 1, 2,<br>(C2)                                    |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water I  | vdrology Indicators<br>icators (minimum of<br>a Water (A1)<br>later Table (A2)<br>ion (A3)   |   | Wate<br>M<br>Salt<br>Aqua<br>Hydr  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (  | and 4B)<br>tes (B13)<br>Odor (C1)   |   |                                       | Wate<br>Drain<br>Dry<br>Satu   | er-Stained<br>A, and 4E<br>nage Patte<br>Season W<br>ration Vis   | Leaves (B<br>)<br>erns (B10)<br>/ater Table<br>ible on Aeri   | 9) ( <b>MLRA 1, 2,</b><br>(C2)<br>al Imagery (C9)         |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Saturat<br>Sedime<br>Drift De  | vdrology Indicators<br>icators (minimum of<br>a Water (A1)<br>fater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ant Deposits (B2)<br>aposits (B3)  |   | Wate<br>M<br>Salt<br>Aqua<br>Oxid  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph  | tes (B13)<br>Odor (C1)<br>eres along  | g Living R                                    |                                       | Wate<br>4<br>Drain<br>Dry-<br>Satu<br>Geo                                | er-Stained<br>A, and 4E<br>nage Patte<br>Season W<br>ration Vis<br>morphic P  | Leaves (B<br>I)<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>rosition (D2  | 9) ( <b>MLRA 1, 2,</b><br>(C2)<br>al Imagery (C9)         |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M   | vdrology Indicators<br>icators (minimum of<br>a Water (A1)<br>later Table (A2)<br>ion (A3)<br>Marks (B1)<br>ant Deposits (B2)<br>aposits (B3)<br>fat or Crust (B4)   |   | Wate<br>M<br>Salt<br>Aqua<br>Hydr<br>Oxid<br>Pres  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph<br>rence of Reduc  | and 4B)<br>tes (B13)<br>Odor (C1)<br>heres along<br>ced Iron (C   | g Living R<br>C4)                             | loots (C3)                            | Wate<br>4<br>Drain<br>Dry-<br>Satu<br>Geo<br>Shal                        | er-Stained<br>A, and 4E<br>nage Patte<br>Season M<br>ration Vis<br>morphic P<br>low Aquite  | Leaves (B<br>l)<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>osition (D2<br>ard (D3)   | 9) ( <b>MLRA 1, 2,</b><br>(C2)<br>al Imagery (C9)         |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De  | ydrology Indicators<br>icators (minimum of<br>a Water (A1)<br>later Table (A2)<br>ion (A3)<br>Marks (B1)<br>ant Deposits (B2)<br>aposits (B3)<br>fat or Crust (B4)<br>aposits (B5)   |   | Wate<br>M<br>Salt<br>Aqua<br>Hydr<br>Oxid<br>Res   | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph<br>sence of Reducent Iron Reducent   | and 4B)<br>tes (B13)<br>Odor (C1)<br>neres along<br>ced Iron (C<br>ction in Till                            | g Living R<br>C4)<br>led Soils (i             | loots (C3)                            | Wate<br>4<br>Drain<br>Dry-<br>Satu<br>Geo<br>Shal<br>FAC                 | er-Stained<br>A, and 4E<br>nage Patte<br>Season W<br>ration Vis<br>morphic P<br>low Aquita<br>-Neutral 1                            | Leaves (B<br>)<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>osition (D2<br>ard (D3)<br>Fest (D5)                             | 9) ( <b>MLRA 1, 2,</b><br>(C2)<br>al Imagery (C9)<br>)    |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surface   | Adrology Indicators<br>icators (minimum of<br>a Water (A1)<br>dater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>fat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)   | one require   | Wate<br>N<br>Salt<br>Aqua<br>Hydr<br>Oxid<br>Pres<br>Reco<br>Stur  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph<br>sence of Reduc<br>ent Iron Reduc<br>ted or Stresse  | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres along<br>ced Iron (C<br>stion in Till<br>ed Plants (             | g Living R<br>C4)<br>led Soils (i             | loots (C3)                            | Wate<br>4<br>Drain<br>Dry-<br>Satu<br>Geo<br>Shal<br>FAC<br>Rais         | er-Stained<br>A, and 4E<br>nage Patte<br>Season W<br>ration Vis<br>morphic P<br>low Aquita<br>-Neutral 1<br>red Ant Mo              | Leaves (B<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>osition (D2<br>ard (D3)<br>fest (D5)<br>bunds (D6)                    | 9) (MLRA 1, 2,<br>(C2)<br>al Imagery (C9)<br>)<br>(LRR A) |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surface<br>Inunda   | Adrology Indicators<br>icators (minimum of<br>a Water (A1)<br>later Table (A2)<br>ion (A3)<br>Marks (B1)<br>ant Deposits (B2)<br>aposits (B3)<br>fat or Crust (B4)<br>aposits (B5)<br>a Soil Cracks (B6)<br>tion Visible on Aeria  | one require   | Wate<br>N<br>Salt<br>Aqua<br>Hydr<br>Oxid<br>Pres<br>Reco<br>Stur<br>B7) Othe  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph<br>sence of Reducent Iron Reducent   | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres along<br>ced Iron (C<br>stion in Till<br>ed Plants (             | g Living R<br>C4)<br>led Soils (i             | loots (C3)                            | Wate<br>4<br>Drain<br>Dry-<br>Satu<br>Geo<br>Shal<br>FAC<br>Rais         | er-Stained<br>A, and 4E<br>nage Patte<br>Season W<br>ration Vis<br>morphic P<br>low Aquita<br>-Neutral 1<br>red Ant Mo              | Leaves (B<br>)<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>osition (D2<br>ard (D3)<br>Fest (D5)                             | 9) (MLRA 1, 2,<br>(C2)<br>al Imagery (C9)<br>)<br>(LRR A) |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surface<br>Inunda<br>Sparse   | vdrology Indicators<br>icators (minimum of<br>a Water (A1)<br>later Table (A2)<br>ion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>fat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>tion Visible on Aeria  | one require   | Wate<br>N<br>Salt<br>Aqua<br>Hydr<br>Oxid<br>Pres<br>Reco<br>Stur<br>B7) Othe  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph<br>sence of Reduc<br>ent Iron Reduc<br>ted or Stresse  | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres along<br>ced Iron (C<br>stion in Till<br>ed Plants (             | g Living R<br>C4)<br>led Soils (i             | loots (C3)                            | Wate<br>4<br>Drain<br>Dry-<br>Satu<br>Geo<br>Shal<br>FAC<br>Rais         | er-Stained<br>A, and 4E<br>nage Patte<br>Season W<br>ration Vis<br>morphic P<br>low Aquita<br>-Neutral 1<br>red Ant Mo              | Leaves (B<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>osition (D2<br>ard (D3)<br>fest (D5)<br>bunds (D6)                    | 9) (MLRA 1, 2,<br>(C2)<br>al Imagery (C9)<br>)<br>(LRR A) |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surface<br>Inunda<br>Sparse<br>Field Obse   | Adrology Indicators<br>icators (minimum of<br>a Water (A1)<br>fater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ant Deposits (B2)<br>aposits (B3)<br>fat or Crust (B4)<br>aposits (B5)<br>a Soil Cracks (B6)<br>tion Visible on Aeria<br>ally Vegetated Conca  | one require   |  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph<br>ence of Reduc<br>ent Iron Reduc<br>ted or Stresse<br>er (Explain in F                                   | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres along<br>ced Iron (C<br>stion in Till<br>ed Plants (             | g Living R<br>C4)<br>led Soils (i             | loots (C3)                            | Wate<br>4<br>Drain<br>Dry-<br>Satu<br>Geo<br>Shal<br>FAC<br>Rais         | er-Stained<br>A, and 4E<br>nage Patte<br>Season W<br>ration Vis<br>morphic P<br>low Aquita<br>-Neutral 1<br>red Ant Mo              | Leaves (B<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>osition (D2<br>ard (D3)<br>fest (D5)<br>bunds (D6)                    | 9) (MLRA 1, 2,<br>(C2)<br>al Imagery (C9)<br>)<br>(LRR A) |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surface<br>Surface<br>Water I<br>Surface Water<br>Surface Water   | Adrology Indicators<br>icators (minimum of<br>a Water (A1)<br>later Table (A2)<br>ion (A3)<br>Marks (B1)<br>ant Deposits (B2)<br>aposits (B3)<br>fat or Crust (B4)<br>aposits (B5)<br>a Soil Cracks (B6)<br>tion Visible on Aeria<br>aly Vegetated Conca<br>arvations:<br>ater Present?  | one require<br>I Imagery (<br>ve Surface<br>Yes               |  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph<br>ence of Reduc<br>ent Iron Reduc<br>ted or Stresse<br>er (Explain in F                                   | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres along<br>ced Iron (C<br>stion in Till<br>ed Plants (             | g Living R<br>C4)<br>led Soils (i             | loots (C3)                            | Wate<br>4<br>Drain<br>Dry-<br>Satu<br>Geo<br>Shal<br>FAC<br>Rais         | er-Stained<br>A, and 4E<br>nage Patte<br>Season W<br>ration Vis<br>morphic P<br>low Aquita<br>-Neutral 1<br>red Ant Mo              | Leaves (B<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>osition (D2<br>ard (D3)<br>fest (D5)<br>bunds (D6)                    | 9) (MLRA 1, 2,<br>(C2)<br>al Imagery (C9)<br>)<br>(LRR A) |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water N<br>Sedime<br>Drift De<br>Surface<br>Inunda<br>Sparse<br>Field Obse<br>Surface Wa<br>Water Tabl   | Adrology Indicators<br>icators (minimum of<br>a Water (A1)<br>later Table (A2)<br>ion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>fat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>tion Visible on Aeria<br>ely Vegetated Conca<br>ervations:<br>ater Present?<br>e Present?                                  | one require<br>I Imagery (<br>ve Surface<br>Yes<br>Yes        | Wate<br>N<br>Salt<br>Aqua<br>Hydr<br>Oxid<br>Pres<br>Recu<br>Recu<br>Stur<br>B7) Othe<br>(B8)<br>No Del<br>No Del  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph<br>sence of Reduc<br>ent Iron Reduc<br>ated or Stresse<br>er (Explain in F                                 | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres along<br>ced Iron (C<br>stion in Till<br>ed Plants (             | g Living R<br>C4)<br>led Soils (i<br>D1) (LRR | coots (C3)<br>C6)<br>A)               | Wate   | er-Stained<br>A, and 4E<br>hage Patte<br>Season W<br>ration Vis<br>morphic P<br>low Aquita<br>-Neutral T<br>red Ant Mo<br>t-Heave P | Leaves (B<br>an)<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>osition (D2<br>ard (D3)<br>fest (D5)<br>bunds (D6)<br>hummocks | 9) (MLRA 1, 2,<br>(C2)<br>al Imagery (C9)<br>)<br>(LRR A) |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surface<br>Surface<br>Field Obse<br>Surface Wa<br>Water Tabl<br>Saturation<br>(includes c:  | Adrology Indicators<br>icators (minimum of<br>a Water (A1)<br>later Table (A2)<br>ion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>fat or Crust (B4)<br>eposits (B5)<br>e Soil Cracks (B6)<br>tion Visible on Aeria<br>ely Vegetated Conca<br>ervations:<br>ater Present?<br>e Present?                                  | one require<br>I Imagery (<br>ve Surface<br>Yes<br>Yes<br>Yes |  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph<br>ence of Reduc<br>ent Iron Reduc<br>ted or Stresse<br>er (Explain in F<br>pth (inches):<br>pth (inches): | and 4B)<br>tes (B13)<br>Odor (C1)<br>heres along<br>ced Iron (C<br>ction in Till<br>ed Plants (<br>Remarks) | g Living R<br>C4)<br>led Soils (i<br>D1) (LRR | coots (C3)<br>C6)<br>A)<br>etland Hyd | Wate<br>4<br>Drain<br>Dry-<br>Satu<br>Geo<br>Shal<br>FAC<br>Rais<br>Fros | er-Stained<br>A, and 4E<br>hage Patte<br>Season W<br>ration Vis<br>morphic P<br>low Aquita<br>-Neutral T<br>red Ant Mo<br>t-Heave P | Leaves (B<br>an)<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>osition (D2<br>ard (D3)<br>fest (D5)<br>bunds (D6)<br>hummocks | 9) (MLRA 1, 2,<br>(C2)<br>al Imagery (C9)<br>)<br>(LRR A) |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Surface<br>Surface<br>Field Obse<br>Surface Wa<br>Water Tabl<br>Saturation<br>(includes c:  | ydrology Indicators<br>icators (minimum of<br>a Water (A1)<br>Pater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ant Deposits (B2)<br>aposits (B3)<br>fat or Crust (B4)<br>aposits (B5)<br>a Soil Cracks (B6)<br>tion Visible on Aeria<br>aly Vegetated Conca<br>crvations:<br>ater Present?<br>e Present?<br>Present?<br>apoillary fringe) | one require<br>I Imagery (<br>ve Surface<br>Yes<br>Yes<br>Yes |  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph<br>ence of Reduc<br>ent Iron Reduc<br>ted or Stresse<br>er (Explain in F<br>pth (inches):<br>pth (inches): | and 4B)<br>tes (B13)<br>Odor (C1)<br>heres along<br>ced Iron (C<br>ction in Till<br>ed Plants (<br>Remarks) | g Living R<br>C4)<br>led Soils (i<br>D1) (LRR | coots (C3)<br>C6)<br>A)<br>etland Hyd | Wate<br>4<br>Drain<br>Dry-<br>Satu<br>Geo<br>Shal<br>FAC<br>Rais<br>Fros | er-Stained<br>A, and 4E<br>hage Patte<br>Season W<br>ration Vis<br>morphic P<br>low Aquita<br>-Neutral T<br>red Ant Mo<br>t-Heave P | Leaves (B<br>an)<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>osition (D2<br>ard (D3)<br>fest (D5)<br>bunds (D6)<br>hummocks | 9) (MLRA 1, 2,<br>(C2)<br>al Imagery (C9)<br>)<br>(LRR A) |
| IYDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal N<br>Iron De<br>Surface<br>Surface<br>Field Obse<br>Surface Wa<br>Water Tabl<br>Saturation<br>(includes ca<br>Describe R   | ydrology Indicators<br>icators (minimum of<br>a Water (A1)<br>Pater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ant Deposits (B2)<br>aposits (B3)<br>fat or Crust (B4)<br>aposits (B5)<br>a Soil Cracks (B6)<br>tion Visible on Aeria<br>aly Vegetated Conca<br>crvations:<br>ater Present?<br>e Present?<br>Present?<br>apoillary fringe) | one require<br>I Imagery (<br>ve Surface<br>Yes<br>Yes<br>Yes |  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph<br>ence of Reduc<br>ent Iron Reduc<br>ted or Stresse<br>er (Explain in F<br>pth (inches):<br>pth (inches): | and 4B)<br>tes (B13)<br>Odor (C1)<br>heres along<br>ced Iron (C<br>ction in Till<br>ed Plants (<br>Remarks) | g Living R<br>C4)<br>led Soils (i<br>D1) (LRR | coots (C3)<br>C6)<br>A)<br>etland Hyd | Wate<br>4<br>Drain<br>Dry-<br>Satu<br>Geo<br>Shal<br>FAC<br>Rais<br>Fros | er-Stained<br>A, and 4E<br>hage Patte<br>Season W<br>ration Vis<br>morphic P<br>low Aquita<br>-Neutral T<br>red Ant Mo<br>t-Heave P | Leaves (B<br>an)<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>osition (D2<br>ard (D3)<br>fest (D5)<br>bunds (D6)<br>hummocks | 9) (MLRA 1, 2,<br>(C2)<br>al Imagery (C9)<br>)<br>(LRR A) |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Vater I<br>Sedime<br>Sedime<br>Drift De<br>Algal N<br>Iron De<br>Surface<br>Surface<br>Surface Wa<br>Water Tabl<br>Saturation<br>(includes ca<br>Describe R  | ydrology Indicators<br>icators (minimum of<br>a Water (A1)<br>Pater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ant Deposits (B2)<br>aposits (B3)<br>fat or Crust (B4)<br>aposits (B5)<br>a Soil Cracks (B6)<br>tion Visible on Aeria<br>aly Vegetated Conca<br>crvations:<br>ater Present?<br>e Present?<br>Present?<br>apoillary fringe) | one require<br>I Imagery (<br>ve Surface<br>Yes<br>Yes<br>Yes |  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph<br>ence of Reduc<br>ent Iron Reduc<br>ted or Stresse<br>er (Explain in F<br>pth (inches):<br>pth (inches): | and 4B)<br>tes (B13)<br>Odor (C1)<br>heres along<br>ced Iron (C<br>ction in Till<br>ed Plants (<br>Remarks) | g Living R<br>C4)<br>led Soils (i<br>D1) (LRR | coots (C3)<br>C6)<br>A)<br>etland Hyd | Wate<br>4<br>Drain<br>Dry-<br>Satu<br>Geo<br>Shal<br>FAC<br>Rais<br>Fros | er-Stained<br>A, and 4E<br>hage Patte<br>Season W<br>ration Vis<br>morphic P<br>low Aquita<br>-Neutral T<br>red Ant Mo<br>t-Heave P | Leaves (B<br>an)<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>osition (D2<br>ard (D3)<br>fest (D5)<br>bunds (D6)<br>hummocks | 9) (MLRA 1, 2,<br>(C2)<br>al Imagery (C9)<br>)<br>(LRR A) |
| YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Vater I<br>Sedime<br>Sedime<br>Drift De<br>Algal N<br>Iron De<br>Surface<br>Surface<br>Surface Wa<br>Water Tabl<br>Saturation<br>(includes ca<br>Describe R  | ydrology Indicators<br>icators (minimum of<br>a Water (A1)<br>Pater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ant Deposits (B2)<br>aposits (B3)<br>fat or Crust (B4)<br>aposits (B5)<br>a Soil Cracks (B6)<br>tion Visible on Aeria<br>aly Vegetated Conca<br>crvations:<br>ater Present?<br>e Present?<br>Present?<br>apoillary fringe) | one require<br>I Imagery (<br>ve Surface<br>Yes<br>Yes<br>Yes |  | er-Stained Lea<br>ILRA 1, 2, 4A,<br>Crust (B11)<br>atic Invertebra<br>rogen Sulfide (<br>lized Rhizosph<br>ence of Reduc<br>ent Iron Reduc<br>ted or Stresse<br>er (Explain in F<br>pth (inches):<br>pth (inches): | and 4B)<br>tes (B13)<br>Odor (C1)<br>heres along<br>ced Iron (C<br>ction in Till<br>ed Plants (<br>Remarks) | g Living R<br>C4)<br>led Soils (i<br>D1) (LRR | coots (C3)<br>C6)<br>A)<br>etland Hyd | Wate<br>4<br>Drain<br>Dry-<br>Satu<br>Geo<br>Shal<br>FAC<br>Rais<br>Fros | er-Stained<br>A, and 4E<br>hage Patte<br>Season W<br>ration Vis<br>morphic P<br>low Aquita<br>-Neutral T<br>red Ant Mo<br>t-Heave P | Leaves (B<br>an)<br>erns (B10)<br>/ater Table<br>ible on Aeri<br>osition (D2<br>ard (D3)<br>fest (D5)<br>bunds (D6)<br>hummocks | 9) (MLRA 1, 2,<br>(C2)<br>al Imagery (C9)<br>)<br>(LRR A) |

| pplicant/Owner: NTCD                                       |                 |                        | Douglas Sampling Date: 5/9/20   |
|--|-----------------|------------------------|---|
| vestigator(s): J. Piccland                                 |                 |                        | State: Sampling Point: RB-7   |
|  |                 | Section, Township, Ra  | ange:   |
| ndform (hillslope, terrace, etc.): NUCSION                 | se              | Local relief (concave, | , convex, none): CONVEY Slope (%): 6  |
| (bregion (LRR): //LK/7 doff                                | Lat: <u>서</u> 소 | 517740 N               | Long: 245648 E Datum: 1040  |
| il Map Unit Name: <u>Lahoe Compl</u>                       | ex, 0-0         | 1º/0 SLOP              | NWI classification: DOME  |
| e climatic / hydrologic conditions on the site typical for |                 |                        | (If no, explain in Remarks.)  |
| e Vegetation, Soil, or Hydrology                           | significantly   | disturbed? Are         | "Normal Circumstances" present? Yes V No  |
| e Vegetation, Soil, or Hydrology                           | naturally pro   | blematic? (If n        | needed, explain any answers in Remarks.)  |
| UMMARY OF FINDINGS - Attach site m                         | ap showing      |                        | locations, transects, important features, etc.  |
| Hydrophytic Vegetation Present? Yes                        |                 | Sampling point         | iocations, transects, important features, etc.  |
| Hydric Soil Present? Yes                                   |                 | Is the Sample          | d Area  |
| Vetland Hydrology Present? Yes                             |                 | within a Wetla         |   |
| Remarks: plot NE of Burlach                                | eele will       | LANDEN DE              | 24  |
|  |                 | 000 3 2 00             | DI  |
| wp82 245648,4317740  |                 |                        |   |
| EGETATION – Use scientific names of p                      | plants.         |                        |   |
|  | Absolute        | Dominant Indicator     | Dominance Test worksheet:   |
| ree Stratum (Plot size:)                                   |                 |                        | Number of Dominant Species  |
|  |                 |                        | That Are OBL, FACW, or FAC: (A)   |
|  |                 |                        | Total Number of Dominant  |
| ^ <u></u>  |                 |                        | Species Across All Strata: (B)  |
|  |                 | - Total Cours          | Percent of Dominant Species   |
| Sapling/Shrub Stratum (Plot size:)                         |                 | = Total Cover          | That Are OBL, FACW, or FAC: (A/B)   |
|  |                 |                        | Prevalence Index worksheet:   |
| L  |                 |                        | Total % Cover of: Multiply by:  |
| A  |                 |                        | OBL species x 1 =   |
|  |                 |                        | FACW species x 2 =  |
| ű  |                 |                        | FAC species         x 3 =           FACU species         x 4 =  |
| Herb Stratum (Plot size: 10 × 10)                          |                 | = Total Cover          | UPL species x 5 =   |
| Elymas hispidus  | 30              | V UPL                  | Column Totals: (A) (B)  |
| Edilshunz brachy campu                                     | 10 + 10         | UPL                    |   |
| Microsteris gracilles                                      | T               | FAC                    | Prevalence Index = B/A =  |
| Jupinis sp (annual)  | 1               | UPL                    | Hydrophytic Vegetation Indicators:  |
| 1  |                 |                        | <ul> <li>1 - Rapid Test for Hydrophytic Vegetation</li> <li>2 - Dominance Test is &gt;50%</li> </ul>              |
| L  |                 |                        | $3 - 2^{\circ}$ Dominance results >50%  |
|  |                 |                        | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting  |
| d  |                 |                        | data in Remarks or on a separate sheet)   |
| S  |                 |                        | 5 - Wetland Non-Vascular Plants <sup>1</sup>  |
| 0  |                 |                        | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 1  | - 1/6           |                        | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic. |
| Voody Vine Stratum (Plot size:)                            | 40              | = Total Cover          | present, unless disturbed or problematic.   |
|  |                 |                        | 1111 A.   |
|  |                 |                        | Hydrophytic<br>Vegetation   |
|  |                 |                        |   |
| Bare Ground in Herb Stratum                                |                 | = Total Cover          | Present? Yes No   |

US Army Corps of Engineers

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|    |   |   |    |   |

|  |   |   | in necuca to accam   |   |   | 01 00111111                                      | i nie ansei       | nce of indicators.)   |
|--|---|---|--|---|---|--|-------------------|---|
| Depth  | Matrix  |   | Redox  | Feature   | s   |  |                   |   |
| (inches)   | Color (moist)   |   | Color (moist)  | %   | Type <sup>1</sup>   | Loc  | Texture           | Remarks   |
| 0-,5   |   |   |  | _   |   | 5 - R.   |                   | _ little  |
| 15-6   | 104R33  | 100                                     |  |   |   | gra  | Rlysi             | andy clay Loans   |
| 1  |   |   |  | 100   |   | /  | 2                 |   |
| 1-20   | INYR3/4   | 95                                      | 545/2  | 5   | D   | M  | nas               | se Sandwlgravel   |
| 6-20   | 104K317   | 12                                      | 2121-  | 2   | -   | 11   | Course            | 2 Sundang fine  |
|  |   | -                                       |  |   |   |  |                   |   |
|  |   |   |  |   | _   |  |                   |   |
|  |   |   |  |   |   | £  | _                 |   |
| -  |   | _                                       |  | 1.  |   |  |                   |   |
| 1Tupo: C=Co  | acentration D=Den   | letion RM=                              | Reduced Matrix, CS   | =Covere   | d or Coat   | ed Sand G  | rains.            | <sup>2</sup> Location: PL=Pore Lining, M=Matrix.  |
| Hydric Soil Ir   | ndicators: (Applica   | able to all                             | LRRs, unless other   | wise not  | ted.)   |  | India             | cators for Problematic Hydric Soils <sup>3</sup> :  |
| Histosol (   |   |   | Sandy Redox (S   |   |   |  |                   | 2 cm Muck (A10)   |
|  | ipedon (A2)   |   | Stripped Matrix  |   |   |  |                   | Red Parent Material (TF2)   |
| Black His  |   |   | Loamy Mucky M  |   | 1) (excep   | t MLRA 1)  |                   | Very Shallow Dark Surface (TF12)  |
| Hydrogen   | n Sulfide (A4)  |   | Loamy Gleyed N   |   | 2)  |  | -                 | Other (Explain in Remarks)  |
| the second s   | Below Dark Surface  | e (A11)                                 | Depleted Matrix  |   |   |  | 3                 |   |
| the second se  | rk Surface (A12)  |   | Redox Dark Sur   |   | 2   |  |                   | cators of hydrophytic vegetation and  |
|  | ucky Mineral (S1)   |   | Depleted Dark S<br>Redox Depress   |   |   |  |                   | vetland hydrology must be present,<br>inless disturbed or problematic.  |
|  | leyed Matrix (S4)<br>ayer (if present):   | -                                       | Redux Depress  |   |   |  | 1                 | meas distance of problematic.   |
|  | ayer (il present).  |   |  |   |   |  |                   |   |
| Type:<br>Depth (incl   | hool:   |   |  |   |   |  | Hydric            | Soil Present? Yes No  |
| Remarks:   | aics).  |   |  |   |   |  | 10.0              |   |
|  |   |   |  |   |   |  |                   |   |
|  | GY<br>drology Indicators:   |   |  |   |   |  |                   |   |
| Wetland Hyd  | drology Indicators:   |   | d; check all that appl   | v)  |   |  | <u>S</u>          | econdary Indicators (2 or more required)  |
| Wetland Hyd  | drology Indicators:<br>ators (minimum of c  |   | d; check all that appl<br>Water-Sta  |   | ves (B9)  | except   | <u>s</u>          | econdary Indicators (2 or more required)<br>Water-Stained Leaves (B9) (MLRA 1, 2,   |
| Wetland Hyd  | drology Indicators:<br>ators (minimum of c  |   | Water-Sta  | ined Lea  | ves (B9)<br>and 4B)   | except   | <u>s</u>          | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)  |
| Wetland Hyd<br>Primary Indice  | drology Indicators:<br>ators (minimum of o<br>Water (A1)<br>iter Table (A2)   |   | Water-Sta<br>MLRA<br>Salt Crust  | ined Lea<br>1, 2, 4A,<br>(B11)  | and 4B)   | except   | S                 | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)   |
| Wetland Hyd<br>Primary Indice<br>Surface V<br>High Wat<br>Saturatio  | drology Indicators:<br>ators (minimum of o<br>Water (A1)<br>iter Table (A2)   |   | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In  | ined Lea<br>1, 2, 4A,<br>(B11)<br>vertebrat   | and 4B)<br>les (B13)  |  |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)  |
| Wetland Hyd<br>Primary Indica<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sedimen   | drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>tter Table (A2)<br>on (A3)<br>larks (B1)<br>nt Deposits (B2)   |   | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen  | ined Lea<br>1, 2, 4A,<br>(B11)<br>vertebrat<br>Sulfide (  | and 4B)<br>tes (B13)<br>Odor (C1)   |  |                   | <ul> <li>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> </ul>  |
| Wetland Hyd<br>Primary Indic<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep   | drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>tter Table (A2)<br>on (A3)<br>arks (B1)<br>nt Deposits (B2)<br>posits (B3)   |   | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized I  | ined Lea<br>1, 2, 4A,<br>(B11)<br>vertebrat<br>Sulfide (<br>Rhizosph  | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres alon   | g Living Ro                                      |                   | <ul> <li>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C9</li> <li>Geomorphic Position (D2)</li> </ul>   |
| Wetland Hyd<br>Primary Indic<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma   | drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>arks (B1)<br>ht Deposits (B2)<br>posits (B3)<br>at or Crust (B4)   |   | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F<br>Presence  | ined Lea<br>1, 2, 4A,<br>(B11)<br>vertebrat<br>Sulfide (<br>Rhizosph<br>of Reduc  | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres alon<br>ced Iron (1  | g Living Ro<br>C4)                               | <br><br>pots (C3) | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)   |
| Wetland Hyd<br>Primary Indic<br>Surface V<br>High Wal<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep   | drology Indicators:<br>cators (minimum of c<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>arks (B1)<br>nt Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)  |   | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized I<br>Presence<br>Recent Inc  | ined Lea<br>1, 2, 4A,<br>(B11)<br>vertebrat<br>Sulfide (<br>Rhizosph<br>of Reduc  | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres alon<br>ced Iron (i<br>tion in Til   | g Living Ro<br>C4)<br>led Soils (C               |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)  |
| Wetland Hyd<br>Primary Indica<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep<br>Surface S   | drology Indicators:<br>eators (minimum of e<br>Water (A1)<br>tter Table (A2)<br>on (A3)<br>earks (B1)<br>nt Deposits (B2)<br>posits (B3)<br>et or Crust (B4)<br>posits (B5)<br>Soil Cracks (B6)   | one require                             | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Inc<br>Stunted o   | ined Lea<br><b>1, 2, 4A,</b><br>(B11)<br>vertebrat<br>Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse                              | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres alon<br>ced Iron (0<br>tion in Til<br>cd Plants (                                      | g Living Ro<br>C4)                               |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                              |
| Wetland Hyd<br>Primary Indica<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep<br>Surface S<br>Inundatio  | drology Indicators:<br>eators (minimum of e<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>earks (B1)<br>nt Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>Soil Cracks (B6)<br>on Visible on Aerial   | one require                             | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent In<br>Stunted o<br>T) Other (Ex  | ined Lea<br><b>1, 2, 4A,</b><br>(B11)<br>vertebrat<br>Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse                              | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres alon<br>ced Iron (0<br>tion in Til<br>cd Plants (                                      | g Living Ro<br>C4)<br>led Soils (C               |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)  |
| Wetland Hyd<br>Primary Indica<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep<br>Surface 3<br>Inundatic<br>Sparsely  | drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>arks (B1)<br>at Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>Soil Cracks (B6)<br>on Visible on Aerial<br>y Vegetated Concav  | one require                             | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent In<br>Stunted o<br>T) Other (Ex  | ined Lea<br><b>1, 2, 4A,</b><br>(B11)<br>vertebrat<br>Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse                              | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres alon<br>ced Iron (0<br>tion in Til<br>cd Plants (                                      | g Living Ro<br>C4)<br>led Soils (C               |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                              |
| Wetland Hyd<br>Primary Indic<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep<br>Surface S<br>Inundatio<br>Field Observ   | drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>larks (B1)<br>nt Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>Soil Cracks (B6)<br>on Visible on Aerial<br>y Vegetated Concav<br>vations:   | Imagery (B<br>Surface I                 | Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o T) Other (Ex (B8)   | ined Lea<br><b>1, 2, 4A</b> ,<br>(B11)<br>vertebral<br>Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse<br>plain in F               | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres alon<br>ced Iron (0<br>tion in Til<br>cd Plants (                                      | g Living Ro<br>C4)<br>led Soils (C               |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                              |
| Wetland Hyd<br>Primary Indic<br>Surface V<br>High Wal<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep<br>Surface S<br>Field Observer<br>Surface Water   | drology Indicators:<br>eators (minimum of o<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>arks (B1)<br>nt Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>Soil Cracks (B6)<br>on Visible on Aerial<br>y Vegetated Concav<br>vations:<br>er Present?                                 | Imagery (B<br>e Surface I               | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Irc<br>Stunted o<br>Other (Ex<br>(88)  | ined Lea<br><b>1, 2, 4A,</b><br>(B11)<br>vertebrat<br>Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse<br>plain in F                | and 4B)<br>tes (B13)<br>Odor (C1)<br>teres alon<br>ced Iron (0<br>tion in Til<br>cd Plants (                                      | g Living Ro<br>C4)<br>led Soils (C               |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)                              |
| Wetland Hyd<br>Primary Indic<br>Surface V<br>High Wal<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep<br>Surface S<br>Field Observ<br>Surface Water<br>Water Table  | drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>arks (B1)<br>nt Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>Soil Cracks (B6)<br>on Visible on Aerial<br>y Vegetated Concav<br>vations:<br>er Present?                                 | Imagery (B<br>e Surface I<br>Yes        | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Irc<br>Stunted o<br>Other (Ex<br>(B8)<br>No<br>No<br>Depth (ir<br>Depth (ir                    | ined Lea<br><b>1, 2, 4A</b> ,<br>(B11)<br>vertebrat<br>Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse<br>plain in F<br>mches):    | and 4B)<br>les (B13)<br>Ddor (C1)<br>leres alon<br>ced Iron (C<br>tion in Till<br>d Plants (<br>Remarks)<br>> 200                 | g Living Rc<br>C4)<br>led Soils (C<br>D1) (LRR / |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Wetland Hyd<br>Primary Indic<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep<br>Surface Saturation<br>Field Observ<br>Surface Water<br>Saturation Pr<br>(includes cac  | drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>larks (B1)<br>ht Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>Soil Cracks (B6)<br>on Visible on Aerial<br>y Vegetated Concav<br>vations:<br>er Present?<br>Present?<br>pillary fringe) | Imagery (B<br>e Surface I<br>Yes<br>Yes | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized R<br>Presence<br>Recent Irc<br>Stunted o<br>Stunted o<br>Other (Ex<br>(B8)<br>No<br>No<br>Depth (ir<br>No<br>Depth (ir | ined Lea<br>1, 2, 4A,<br>(B11)<br>vertebral<br>Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse<br>plain in F<br>nches):<br>nches): | and 4B)<br>les (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (i<br>ction in Till<br>d Plants (<br>Remarks)<br>> 20<br>> 20<br>> 20  | g Living Ro<br>C4)<br>led Soils (C<br>D1) (LRR / |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Wetland Hyd<br>Primary Indic<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep<br>Surface Saturation<br>Field Observ<br>Surface Water<br>Saturation Pr<br>(includes cac  | drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>larks (B1)<br>ht Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>Soil Cracks (B6)<br>on Visible on Aerial<br>y Vegetated Concav<br>vations:<br>er Present?<br>Present?<br>pillary fringe) | Imagery (B<br>e Surface I<br>Yes<br>Yes | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Irc<br>Stunted o<br>Other (Ex<br>(B8)<br>No<br>No<br>Depth (ir<br>Depth (ir                    | ined Lea<br>1, 2, 4A,<br>(B11)<br>vertebral<br>Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse<br>plain in F<br>nches):<br>nches): | and 4B)<br>les (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (i<br>ction in Till<br>d Plants (<br>Remarks)<br>> 20<br>> 20<br>> 20  | g Living Ro<br>C4)<br>led Soils (C<br>D1) (LRR / |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Wetland Hyd<br>Primary Indic<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep<br>Surface 3<br>Inundatio<br>Sparsely<br>Field Observ<br>Surface Water<br>Surface Water<br>Surface Rate<br>Water Table<br>Saturation Pre<br>(includes cap<br>Describe Ret | drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>larks (B1)<br>ht Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>Soil Cracks (B6)<br>on Visible on Aerial<br>y Vegetated Concav<br>vations:<br>er Present?<br>Present?<br>pillary fringe) | Imagery (B<br>e Surface I<br>Yes<br>Yes | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized R<br>Presence<br>Recent Irc<br>Stunted o<br>Stunted o<br>Other (Ex<br>(B8)<br>No<br>No<br>Depth (ir<br>No<br>Depth (ir | ined Lea<br>1, 2, 4A,<br>(B11)<br>vertebral<br>Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse<br>plain in F<br>nches):<br>nches): | and 4B)<br>les (B13)<br>Odor (C1)<br>leres alon<br>ced Iron (i<br>ction in Till<br>d Plants (<br>Remarks)<br>> 20<br>> 20<br>> 20 | g Living Ro<br>C4)<br>led Soils (C<br>D1) (LRR / |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Primary Indice<br>Surface V<br>High Wate<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep<br>Surface V<br>Field Observ<br>Surface Wate<br>Water Table<br>Saturation Pr<br>(includes cac  | drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>larks (B1)<br>ht Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>Soil Cracks (B6)<br>on Visible on Aerial<br>y Vegetated Concav<br>vations:<br>er Present?<br>Present?<br>pillary fringe) | Imagery (B<br>e Surface I<br>Yes<br>Yes | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized R<br>Presence<br>Recent Irc<br>Stunted o<br>Stunted o<br>Other (Ex<br>(B8)<br>No<br>No<br>Depth (ir<br>No<br>Depth (ir | ined Lea<br>1, 2, 4A,<br>(B11)<br>vertebral<br>Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse<br>plain in F<br>nches):<br>nches): | and 4B)<br>les (B13)<br>Odor (C1)<br>leres alon<br>ced Iron (i<br>ction in Till<br>d Plants (<br>Remarks)<br>> 20<br>> 20<br>> 20 | g Living Ro<br>C4)<br>led Soils (C<br>D1) (LRR / |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Wetland Hyd<br>Primary Indic<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep<br>Surface 3<br>Inundatio<br>Sparsely<br>Field Observ<br>Surface Water<br>Surface Water<br>Surface Rate<br>Water Table<br>Saturation Pre<br>(includes cap<br>Describe Ret | drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>larks (B1)<br>ht Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>Soil Cracks (B6)<br>on Visible on Aerial<br>y Vegetated Concav<br>vations:<br>er Present?<br>Present?<br>pillary fringe) | Imagery (B<br>e Surface I<br>Yes<br>Yes | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized R<br>Presence<br>Recent Irc<br>Stunted o<br>Stunted o<br>Other (Ex<br>(B8)<br>No<br>No<br>Depth (ir<br>No<br>Depth (ir | ined Lea<br>1, 2, 4A,<br>(B11)<br>vertebral<br>Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse<br>plain in F<br>nches):<br>nches): | and 4B)<br>les (B13)<br>Odor (C1)<br>leres alon<br>ced Iron (i<br>ction in Till<br>d Plants (<br>Remarks)<br>> 20<br>> 20<br>> 20 | g Living Ro<br>C4)<br>led Soils (C<br>D1) (LRR / |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Wetland Hyd<br>Primary Indic<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep<br>Surface 3<br>Inundatio<br>Sparsely<br>Field Observ<br>Surface Water<br>Surface Water<br>Surface Rate<br>Water Table<br>Saturation Pre<br>(includes cap<br>Describe Ret | drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>larks (B1)<br>ht Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>Soil Cracks (B6)<br>on Visible on Aerial<br>y Vegetated Concav<br>vations:<br>er Present?<br>Present?<br>pillary fringe) | Imagery (B<br>e Surface I<br>Yes<br>Yes | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized R<br>Presence<br>Recent Irc<br>Stunted o<br>Stunted o<br>Other (Ex<br>(B8)<br>No<br>No<br>Depth (ir<br>No<br>Depth (ir | ined Lea<br>1, 2, 4A,<br>(B11)<br>vertebral<br>Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse<br>plain in F<br>nches):<br>nches): | and 4B)<br>les (B13)<br>Odor (C1)<br>leres alon<br>ced Iron (i<br>ction in Till<br>d Plants (<br>Remarks)<br>> 20<br>> 20<br>> 20 | g Living Ro<br>C4)<br>led Soils (C<br>D1) (LRR / |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Wetland Hyd<br>Primary Indic<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sedimen<br>Drift Dep<br>Algal Ma<br>Iron Dep<br>Surface V<br>Field Observ<br>Surface Water<br>Surface Water<br>Surface Water<br>Surface Rate<br>Water Table<br>Saturation Pre<br>(includes cap<br>Describe Ret         | drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ther Table (A2)<br>on (A3)<br>larks (B1)<br>ht Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>Soil Cracks (B6)<br>on Visible on Aerial<br>y Vegetated Concav<br>vations:<br>er Present?<br>Present?<br>pillary fringe) | Imagery (B<br>e Surface I<br>Yes<br>Yes | Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized R<br>Presence<br>Recent Irc<br>Stunted o<br>Stunted o<br>Other (Ex<br>(B8)<br>No<br>No<br>Depth (ir<br>No<br>Depth (ir | ined Lea<br>1, 2, 4A,<br>(B11)<br>vertebral<br>Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse<br>plain in F<br>nches):<br>nches): | and 4B)<br>les (B13)<br>Odor (C1)<br>leres alon<br>ced Iron (i<br>ction in Till<br>d Plants (<br>Remarks)<br>> 20<br>> 20<br>> 20 | g Living Ro<br>C4)<br>led Soils (C<br>D1) (LRR / |                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |

| WETLAND DETERMINATION D   | ATA FORM -            | - Western Mou   | ntains, Valleys, and Coast Region  |
|---|-----------------------|---|--|
| Project/Site: BC/RM Stream Restor                               |                       |   |  |
| Applicant/Owner: NTCD   | City                  | County:   | 1 11/ 20 12  |
| Investigator(s): J. P. cclanu                                   | Se                    | ction, Township, Ra   | Find the second se |
| Landform (hillslope, terrace, etc.): hill Slope + 1 lor         | Antohala              | cal relief (concerve  | convex, none): CONVEX Slope (%): 2%  |
| Subregion (LRR):ARA 22A   | Lat: <u>H31</u>       | the second se | Long: 245647E Datum: NAD 83  |
|   |                       |   | SNWI classification:NON&   |
| Are climatic / hydrologic conditions on the site typical for th |                       | / /   |  |
| Are Vegetation, Soil, or Hydrology                              |                       |   | (If no, explain in Remarks.)   |
| Are Vegetation, Soil, or Hydrology                              |                       |   | "Normal Circumstances" present? Yes V No No  |
|   | a second de la second | die ee  | eeded, explain any answers in Remarks.)  |
|   |                       | impling point l   | ocations, transects, important features, etc.  |
|   | No                    | Is the Sampled  | Area   |
|   | No<br>No              | within a Wetlan   |  |
| Descention 1  |                       | ILC.I. ma   |  |
|   | news o                | verblow   | N + E of Budge Creek   |
| WP83 245647,4317731   |                       |   | Allgriment   |
| VEGETATION – Use scientific names of plan                       | nts.                  |   |  |
| Tree Stratum (Plot size:)                                       |                       | ominant Indicator<br>pecies? Status   | Dominance Test worksheet:  |
| 1/  | <u>_/6 COVEL_O</u>    |   | Number of Dominant Species 3 (A)   |
| 2   |                       |   |  |
| 3   |                       |   | Total Number of Dominant<br>Species Across All Strata:3 (B)  |
| 4   |                       |   | Percent of Dominant Species  |
| Sapling/Shrub Stratum (Plot size:)                              |                       | Total Cover   | That Are OBL, FACW, or FAC: (A/B)  |
| 1)  |                       |   | Prevalence Index worksheet:  |
| 2   |                       |   | Total % Cover of: Multiply by:   |
| 3   |                       |   | OBL species x 1 =  |
| 4   |                       |   | FACW species         x 2 =           FAC species         x 3 =   |
| 5   |                       |   | FAC species x 3 =<br>FACU species x 4 =  |
| Herb Stratum (Plot size: 10×10)                                 | 1.1                   | Total Cover   | UPL species x 5 =  |
| 1. Juncus ensitatius  | 15                    | V FACW  | Column Totals: (A) (B)   |
| 2. Epiloloium ciliatum  | 10                    | V PACW  | Prevalence Index = B/A =   |
| 3. Jupha sp.  | 10_                   | VOBL  | Hydrophytic Vegetation Indicators:   |
| 4. X Judicus balticus ssp. a                                    | ter -                 | PATCW   | 1 - Rapid Test for Hydrophytic Vegetation  |
| 5. annual grass   |                       |   | 2 - Dominance Test is >50%   |
| 7   |                       |   | 3 - Prevalence Index is ≤3.01  |
| 8.  |                       |   | <ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting<br/>data in Remarks or on a separate sheet)</li> </ul>  |
| 9   |                       |   | 5 - Wetland Non-Vascular Plants <sup>1</sup>   |
| 10  |                       |   | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 11  |                       |   | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| Woody Vine Stratum (Plot size:)                                 | 40 =T                 | otal Cover  | be present, unless disturbed or problematic.   |
| 1   | 1.                    |   | Underschutz  |
| 2   |                       |   | Hydrophytic<br>Vegetation  |
| % Bare Ground in Herb Stratum 45                                | = T                   | otal Cover  | Present? Yes No  |
| % Bare Ground in Herb Stratum                                   |                       |   |  |
| annual grass 1-2" tall  | *=19                  | 88 Ind  | status = Jarotians 2012  |
| 15% Ditta   |                       |   | Lest   |
| 1 - 1 - pune  |                       |   |  |

US Army Corps of Engineers

4

SOIL

# Sampling Point: R 13-12

| Profile Descrip  | tion: (Describe to  | the depth    | needed to docum  |  |   | or confirm        | n the absen   | ce of indicators.)  |                            |
|--|---|--------------|--|--|---|-------------------|---|---|----------------------------|
| Depth  | Matrix  |              |  | Features   |   | 1 = 2             | Texture   | Bamarka   | -                          |
| <u>(inches)</u><br>つ ー   | Color (moist)   | <u>%</u>     | Color (moist)  |  | Type'   | _Loc <sup>2</sup> | Texture   | Remarks   |                            |
| 1-6 1  | 04123/2   | 80           | SYR34<br>SY5/2   | 10   | CD  | M                 | grac  | selly Sandy clar  | 1 loan                     |
| e-15 1   | OYR 3/4   | 70           | 5/5/2  | 30   | D   | M                 | Nort  | Loam Loam   | 4                          |
| Hydric Soil Inc<br>Histosol (A<br>Histic Epip<br>Black Histi<br>Hydrogen<br>Depleted E<br>Thick Dark<br>Sandy Mud  | ficators: (Applical<br>1)<br>edon (A2)<br>c (A3)<br>Sulfide (A4)<br>Below Dark Surface<br>: Surface (A12)<br>cky Mineral (S1)   | ble to all L | Reduced Matrix, CS<br>RRs, unless other<br>Sandy Redox (S<br>Stripped Matrix<br>Loamy Mucky M<br>Loamy Gleyed I<br>Depleted Matrix<br>Redox Dark Su<br>Depleted Dark S | wise not<br>(S6)<br>/lineral (F<br>Matrix (F2<br>(F3)<br>rface (F6)<br>Surface (I                                | ed.)<br>1) (excep<br>2)<br>)<br>F7)   |                   | Indic<br>2<br>F<br>)V<br>0<br><sup>3</sup> Indic<br>W | Location: PL=Pore Lining, M=Matrix<br>ators for Problematic Hydric Soils<br>2 cm Muck (A10)<br>Red Parent Material (TF2)<br>/ery Shallow Dark Surface (TF12)<br>Other (Explain in Remarks)<br>cators of hydrophytic vegetation and<br>etland hydrology must be present,<br>nless disturbed or problematic.                            |                            |
|  | yed Matrix (S4)   |              | Redox Depress  | ions (FO)  | V   |                   | - u   | liess distribed of problematic,   |                            |
| Type: _/   | yer (if present):<br>5<br>es): <u>CO                                   </u>   | + rou        | Ter  |  |   |                   | Undate d  | Soil Present? Yes No _  |                            |
| YDROLOG<br>Wetland Hydr  | Y<br>ology Indicators:  |              |  | -  |   |                   | _   |   | -                          |
| Primary Indica<br>Surface W<br>High Water<br>Saturation<br>Water Mai<br>Sediment<br>Drift Depo<br>Algal Mat<br>Iron Depo<br>Surface S<br>Surface S<br>Sparsely | tors (minimum of or<br>/ater (A1)<br>er Table (A2)<br>(A3)<br>rks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>sits (B5)<br>foil Cracks (B6)<br>in Visible on Aerial II<br>Vegetated Concave | magery (B    | Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized<br>Presence<br>Recent In<br>Stunted o<br>7) Other (Ex   | ined Lea<br><b>1, 2, 4A,</b><br>(B11)<br>vertebrat<br>Sulfide C<br>Rhizosph<br>of Reduc<br>on Reduc<br>r Stresse | and 4B)<br>tes (B13)<br>Odor (C1)<br>eres alon<br>ced Iron (C<br>tion in Till<br>d Plants ( | g Living R        | oots (C3)   | econdary Indicators (2 or more require<br>Water-Stained Leaves (B9) (MLR/<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Image<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)<br>Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) | <b>A 1, 2,</b><br>ery (C9) |
| Field Observa<br>Surface Water<br>Water Table F<br>Saturation Pre<br>(includes capi<br>Describe Reco   | r Present? Y<br>Present? Y<br>esent? Y<br>llary fringe)   | es           | No Depth (in   | nches): <u>(</u>   | O<br>) - 6<br>previous i  |                   |   | blogy Present? Yes <u>No</u> No   |                            |
| Remarks:<br>6-15   | soll n  | noist        | , overlar  | d bl   | nı  | rom               | oru   | ck supports   |                            |

| pplicant/Owner:  |  |                                       | State: <u>NV</u> Sampling Date: <u>5920</u>   |
|--|--|---------------------------------------|---|
| TRA  | S  | ection, Township, Ra                  | anne: State. 20 V Sampling Point: 1710-10   |
| andform (hillslope, terrace, etc.): Swale  |  | ocal relief (concave                  | CONCOUR   |
| ubregion (LRR): MLRA 22A   | 1at H31  | 7736 M                                |   |
|  | 0 = 2'   | 1900 N                                | _ Long: Datum: <u>ADAD &amp;</u>  |
| re climatic / hydrologic conditions on the site tunion i   |  | 10 Gropes                             | NWI classification: <u>NDNE</u>   |
| re climatic / hydrologic conditions on the site typical i  | or this time of year   |                                       |   |
| re Vegetation, Soil, or Hydrology  |  |                                       | "Normal Circumstances" present? Yes No  |
| e Vegetation, Soil, or Hydrology   |  |                                       | eeded, explain any answers in Remarks.)   |
| UMMARY OF FINDINGS – Attach site r   | nap showing s  | ampling point I                       | locations, transects, important features, etc.  |
| Hydrophytic Vegetation Present? Yes  | No   | 10000                                 |   |
| Hydric Soil Present? Yes V   | No   | Is the Sampled                        |   |
| Wetland Hydrology Present? Yes   |  | within a Wetlan                       | nd? Yes No  |
| Remarks: plot N of Burly C   | rech 21  | 00'                                   |   |
| WP 84 2415677 4317736  |  |                                       |   |
| EGETATION - Use scientific names of  |  |                                       |   |
| LOLIATION - Use scientific names of  | and the second s |                                       |   |
| Free Stratum (Plot size:)  | % Cover  | Dominant Indicator<br>Species? Status | Dominance Test worksheet:   |
|  |  |                                       | Number of Dominant Species / (A)  |
|  |  |                                       |   |
| l  |  |                                       | Total Number of Dominant<br>Species Across All Strata:(B)   |
|  |  | فتتست فيسب                            |   |
| Sapling/Shrub Stratum (Plot size:)   |  | Total Cover                           | Percent of Dominant Species 33 (A/B)  |
|  |  |                                       | Prevalence Index worksheet:   |
|  |  |                                       | Total % Cover of:Multiply by:   |
| h  |  |                                       | OBL species x 1 =   |
|  |  |                                       | FACW species $25$ x 2 = $50$  |
| 5  |  |                                       | FAC species x 3 =   |
| Herb Stratum (Plot size: 10 × 10')   | =  | Total Cover                           | FACU species $10$ x4 = $40$   |
| Epilolonium cillatum   | 25   | 1/ FACU                               | UPL species $15 \times 5 = 75$  |
| Poaloulhosa  | 16   | VUPL                                  | Column Totals: <u>50</u> (A) <u>165</u> (B)   |
| MUDSWILL 401   | - <u>/-</u>  | FAC-OBL                               | Prevalence index = B/A =313   |
| Montia linearies   |  | FAC                                   | Hydrophytic Vegetation Indicators:  |
| Festuca Sp. (Vulpins   | P) 10.   | V FALU                                | 1 - Rapid Test for Hydrophytic Vegetation   |
| Taravacun Officinale   | T  | PACU                                  | 2 - Dominance Test is >50%<br>3 - Prevalence Index is ≤3.0 <sup>1</sup>   |
|  |  |                                       | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting  |
|  |  |                                       | data in Remarks or on a separate sheet)   |
| Q  |  |                                       | 5 - Wetland Non-Vascular Plants <sup>1</sup>  |
| 0  |  |                                       | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
|  |  |                                       | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic. |
| 1  | 50=  | Total Cover                           | be prosent, unless disturbed or problematic.  |
|  |  |                                       |   |
|  |  |                                       | this is a   |
| <u>Woody Vine Stratum</u> (Plot size:)   |  |                                       | Hydrophytic<br>Vegetation   |
| Moody Vine Stratum       (Plot size:)         1          2          3          4          5          6. Bare Groond in Herb Stratum       SD |  | Total Cover                           |   |

#### S

### RB-13

| L<br>ofile Description: (Describe to the depth needed to a   | ocument the indicator or confirm  | the absence of indicators.)   |
|--|---|---|
|  | Redox Features  |   |
| ches) Color (moist) % Color (mois  | st) % Type <sup>1</sup> Loc <sup>2</sup>  | Texture Remarks   |
| -15  |   | litter  |
| 5-7 TOYR32100  |   | loamin sand   |
| -12 TOUR 212 90 TOUR   | 41/2 10 C. M  | Sanda clay (vany  |
| -10 104K3K 10 101K   |   | Sandy Clay loam   |
| 2-18 104 R 413 45 7548   | 410 2 0 11  | 1.0.0   |
| 8-20 10412212 100  |   | sandly clay loam  |
|  |   |   |
| ype: C=Concentration, D=Depletion, RM=Reduced Mat  | rix, CS=Covered or Coated Sand Gr   | ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.  |
| dric Soil Indicators: (Applicable to all LRRs, unless  | s otherwise noted.)   | Indicators for Problematic Hydric Soils <sup>3</sup> :  |
|  | edox (S5)   | 2 cm Muck (A10)   |
| Histic Epipedon (A2) Stripped  | Matrix (S6)   | Red Parent Material (TF2)   |
|  | lucky Mineral (F1) (except MLRA 1)  |   |
|  | Sleyed Matrix (F2)  | Other (Explain in Remarks)  |
|  | I Matrix (F3)   | <sup>3</sup> Indicators of hydrophytic vegetation and   |
|  | ark Surface (F6)<br>I Dark Surface (F7)   | wetland hydrology must be present,  |
|  | epressions (F8)   | unless disturbed or problematic.  |
| estrictive Layer (if present):   |   |   |
|  |   | 1   |
|  |   | Hydric Soil Present? Yes No   |
| Depth (inches):  | s<br>tles   |   |
| Depth (inches):<br>emarks:<br>) 7-12" prominent mottle<br>) 12-18" provident mot   | s<br>tleg   |   |
| Depth (inches):<br>emarks:<br>) 7-12" prominent mottle<br>) 12-18" prominent mot<br>YDROLOGY<br>Vetland Hydrology Indicators:  |   | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>lemarks:<br>) 7-12" prominent mattle<br>) 12-18" prominent mot<br>YDROLOGY<br>Yetland Hydrology Indicators:<br>Primary Indicators (minimum of one required; check all th  | nat apply)  | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>lemarks:<br>) 7-12" prominent mattle<br>) 12-18" prominent mot<br>Prominent mot<br>YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one required; check all the<br>Surface Water (A1) Wa   | nat apply)<br>ater-Stained Leaves (B9) (except  | Water-Stained Leaves (B9) (MLRA 1, 2,   |
| Depth (inches):<br>remarks:<br>) 7-12'' prominent mattle<br>) 12-18'' prominent mattle<br>) 12-18'' prominent mat<br>Primary Indicators (minimum of one required; check all the<br>  | nat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)  |
| Depth (inches):<br>emarks:<br>) 7-12 '' prominent mattle<br>) 12-18 '' prominent mat<br>Prominent mat<br>Prominent mat<br>Prominent mat<br>Prominent mat<br>Prominent mat<br>Prominent mattle<br>Prominent | nat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)   |
| Depth (inches):<br>emarks:<br>) 7-12 '' prominent mattle<br>) 12-18 '' prominent mattle<br>Prominent mattle<br>YDROLOGY<br>Yetland Hydrology Indicators:<br>Primary Indicators (minimum of one required; check all the<br>   | nat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>juatic Invertebrates (B13)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)  |
| Depth (inches):<br>emarks:<br>) 7-12 '' prominent mattle<br>) 12-18 '' prominent mattle<br>Prominent mot<br>YDROLOGY<br>Yetland Hydrology Indicators:<br>Primary Indicators (minimum of one required; check all the<br>Surface Water (A1) Water<br>High Water Table (A2)<br>Saturation (A3) Saturation (A3)  | nat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>juatic Invertebrates (B13)<br>rdrogen Sulfide Odor (C1)   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)  |
| Depth (inches):  | nat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>juatic Invertebrates (B13)<br>idrogen Sulfide Odor (C1)<br>idized Rhizospheres along Living Ro  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Oots (C3) Geomorphic Position (D2)   |
| Depth (inches):  | nat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>juatic Invertebrates (B13)<br>rdrogen Sulfide Odor (C1)<br>cidized Rhizospheres along Living Ro<br>esence of Reduced Iron (C4)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)   |
| Depth (inches):  | hat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>Juatic Invertebrates (B13)<br>rdrogen Sulfide Odor (C1)<br>kidized Rhizospheres along Living Ro<br>esence of Reduced Iron (C4)<br>ecent Iron Reduction in Tilled Soils (C   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)  |
| Depth (inches):  | hat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>Juatic Invertebrates (B13)<br>rdrogen Sulfide Odor (C1)<br>kidized Rhizospheres along Living Ro<br>esence of Reduced Iron (C4)<br>esent Iron Reduction in Tilled Soils (C<br>unted or Stressed Plants (D1) (LRR )   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>C6) Shallow Aquitard (D3)<br>C6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)   |
| Depth (inches):  | hat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>Juatic Invertebrates (B13)<br>rdrogen Sulfide Odor (C1)<br>kidized Rhizospheres along Living Ro<br>esence of Reduced Iron (C4)<br>ecent Iron Reduction in Tilled Soils (C   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>FAC-Neutral Test (D5)  |
| Depth (inches):  | hat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>Juatic Invertebrates (B13)<br>rdrogen Sulfide Odor (C1)<br>kidized Rhizospheres along Living Ro<br>esence of Reduced Iron (C4)<br>esent Iron Reduction in Tilled Soils (C<br>unted or Stressed Plants (D1) (LRR )   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>C6) Shallow Aquitard (D3)<br>C6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)   |
| Depth (inches):  | hat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>Juatic Invertebrates (B13)<br>rdrogen Sulfide Odor (C1)<br>kidized Rhizospheres along Living Ro<br>esence of Reduced Iron (C4)<br>ecent Iron Reduction in Tilled Soils (C<br>unted or Stressed Plants (D1) (LRR )<br>ther (Explain in Remarks)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>C6) Shallow Aquitard (D3)<br>C6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)   |
| Depth (inches):  | hat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>juatic Invertebrates (B13)<br>rdrogen Sulfide Odor (C1)<br>kidized Rhizospheres along Living Ro<br>esence of Reduced Iron (C4)<br>ecent Iron Reduction in Tilled Soils (C<br>unted or Stressed Plants (D1) (LRR )<br>ther (Explain in Remarks)<br>Depth (inches):                                   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>C6) Shallow Aquitard (D3)<br>C6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)   |
| Depth (inches):  | hat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>juatic Invertebrates (B13)<br>rdrogen Sulfide Odor (C1)<br>ridized Rhizospheres along Living Ro-<br>esence of Reduced Iron (C4)<br>esent Iron Reduction in Tilled Soils (C<br>unted or Stressed Plants (D1) (LRR)<br>ther (Explain in Remarks)<br>Depth (inches):                                   | <ul> <li>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Shallow Aquitard (D3)</li> <li>FAC-Neutral Test (D5)</li> <li>Raised Ant Mounds (D6) (LRR A)</li> <li>Frost-Heave Hummocks (D7)</li> </ul> |
| Depth (inches):  | hat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>juatic Invertebrates (B13)<br>rdrogen Sulfide Odor (C1)<br>cidized Rhizospheres along Living Ro-<br>esence of Reduced Iron (C4)<br>ecent Iron Reduction in Tilled Soils (C<br>unted or Stressed Plants (D1) (LRR )<br>cher (Explain in Remarks)<br>Depth (inches): 720<br>Depth (inches): 720<br>We | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)                                       |
| Depth (inches):  | hat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>juatic Invertebrates (B13)<br>rdrogen Sulfide Odor (C1)<br>cidized Rhizospheres along Living Ro-<br>esence of Reduced Iron (C4)<br>ecent Iron Reduction in Tilled Soils (C<br>unted or Stressed Plants (D1) (LRR )<br>cher (Explain in Remarks)<br>Depth (inches): 720<br>Depth (inches): 720<br>We | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)                                       |
| Depth (inches):  | hat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>juatic Invertebrates (B13)<br>rdrogen Sulfide Odor (C1)<br>cidized Rhizospheres along Living Ro-<br>esence of Reduced Iron (C4)<br>ecent Iron Reduction in Tilled Soils (C<br>unted or Stressed Plants (D1) (LRR )<br>cher (Explain in Remarks)<br>Depth (inches): 720<br>Depth (inches): 720<br>We | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)                                       |
| Depth (inches):  | hat apply)<br>ater-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>It Crust (B11)<br>juatic Invertebrates (B13)<br>rdrogen Sulfide Odor (C1)<br>cidized Rhizospheres along Living Ro-<br>esence of Reduced Iron (C4)<br>ecent Iron Reduction in Tilled Soils (C<br>unted or Stressed Plants (D1) (LRR )<br>cher (Explain in Remarks)<br>Depth (inches): 720<br>Depth (inches): 720<br>We | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)                                       |

| WETLAND DETERMI                             | ATION DATA FOR              | M - Western Mo       | untains, Valleys, and Coast Region  |
|---|-----------------------------|----------------------|---|
| oject/Site: BCIRM Stream                    | n Restoration               | City/County Dol      | glas Sampling Date: 5/9/201   |
| oplicant/Owner: NTCD                        |                             | ony/obunty.          | State (1) Sampling Date: 5/1/20   |
| vestigator(s): J. Piccianu                  |                             | Section Township D   | State: <u></u> Sampling Point: <u>R'B-1-</u>  |
| ndform (hillslope, terrace, etc.):          |                             | Section, Township, R |   |
| pregion (LBR): MLBA 22                      | A www.                      | 217/.02 M            | _ Long: <u>245766E</u>  |
| Man Unit Name: Taka (20 Cas                 | Lat: 13                     | OL ELONG             | _ Long: <u>~45706E</u> Datum: <u>///AD</u>  |
| climatic / budrologic conditions on the sit | replex, 0 -d                | TO OLUPE             | S NWI classification: N DNL   |
| climatic / hydrologic conditions on the sil | typical for this time of ye |                      |   |
| Vegetation, Soil, or Hydr                   |                             |                      | "Normal Circumstances" present? Yes No  |
| Vegetation, Soil, or Hydr                   |                             |                      | needed, explain any answers in Remarks.)  |
| JMMARY OF FINDINGS – Attac                  | site map showing            | sampling point       | locations, transects, important features, etc   |
| lydrophytic Vegetation Present? Y           | No                          | a in Records         |   |
|   | No                          | Is the Sample        |   |
|   |                             | within a Wetla       |   |
| we lot in a drace                           | Burke Cier                  | in tertae            | throm flowing water   |
| GETATION - Use scientific nar               | es of plants.               |                      |   |
| on Stratum / Plataire                       | Absolute                    |                      | Dominance Test worksheet:   |
| ee Stratum (Plot size:)                     |                             | Species? Status      | Number of Dominant Species  |
|   |                             |                      | That Are OBL, FACW, or FAC: (A)   |
|   |                             |                      | Total Number of Dominant  |
|   |                             |                      | Species Across All Strata: (B)  |
|   |                             | = Total Cover        | Percent of Dominant Species<br>That Are OBL, FACW, or FAC: 1000 (A/B)   |
| pling/Shrub Stratum (Plot size:             |                             |                      | Prevalence Index worksheet: (A/B)   |
|   |                             |                      | Total % Cover of: Multiply by:  |
|   |                             |                      | OBL species x 1 =   |
|   |                             | 1                    | FACW species x 2 =  |
|   |                             |                      | FAC species x 3 =   |
| al Charles (Distained                       |                             | = Total Cover        | FACU species x 4 =  |
| Scorpus microcw                             | AUL 30                      | V OBL                | UPL species x 5 =   |
| Carly Sp.                                   | 10                          |                      | Column Totals: (A) (B)  |
| uplehown hort                               | T                           | ACU L                | BL Prevalence Index = B/A =   |
| 0   |                             |                      | Hydrophytic Vegetation Indicators:  |
|   |                             |                      | 2 - Dominance Test is >50%  |
|   |                             |                      | 3 - Prevalence Index is ≤3.01   |
|   |                             |                      | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting  |
|   |                             |                      | data in Remarks or on a separate sheet)   |
|   |                             |                      | 5 - Wetland Non-Vascular Plants <sup>1</sup>  |
|   |                             |                      | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
|   | 40                          | = Total Cover        | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic. |
| ody Vine Stratum (Plot size:                | )                           |                      |   |
|   |                             |                      | Hydrophytic   |
| 1.01.7                                      |                             |                      | Vegetation<br>Present? Yes No   |
| Bare Ground in Herb Stratum 60              |                             | = Total Cover        | Present? Yes No   |
|   |                             |                      |   |
| orb just emergen                            |                             | The let.             |   |

|  | oth needed to document the indicator or confirm  | m the absence of indicators.)   |
|--|--|---|
| epth Matrix  | Redox Features   | Texture Remarks   |
| nches) Color (moist) %   | Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>   | Texture Tritter   |
|  |  | greasy histicho   |
| -4 104R31. 100   | )  |   |
| 1-20 104R31 75   | 104R4/6 5 C M  | sitty clay,   |
|  | 2.514/120 D M  | -1  |
|  |  |   |
|  |  |   |
|  | <u>ــــــــــــــــــــــــــــــــــــ</u>  |   |
|  |  |   |
|  |  |   |
| Type: C=Concentration, D=Depletion, RM   | M=Reduced Matrix, CS=Covered or Coated Sand  | Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.  |
| ydric Soil Indicators: (Applicable to a  | II LRRs, unless otherwise noted.)  | Indicators for Problematic Hydric Soils <sup>3</sup> :  |
| Histosol (A1)  | Sandy Redox (S5)   | 2 cm Muck (A10)   |
| Histic Epipedon (A2)   | Stripped Matrix (S6)   | Red Parent Material (TF2)   |
| Black Histic (A3)  | Loamy Mucky Mineral (F1) (except MLRA  | <ol> <li>Very Shallow Dark Surface (TF12)</li> <li>Other (Explain in Remarks)</li> </ol>  |
| _ Hydrogen Sulfide (A4)  | Loamy Gleyed Matrix (F2)   |   |
| Depleted Below Dark Surface (A11)<br>Thick Dark Surface (A12)  | Depleted Matrix (F3)<br>Redox Dark Surface (F6)  | <sup>3</sup> Indicators of hydrophytic vegetation and   |
| Sandy Mucky Mineral (S1)   | Depleted Dark Surface (F7)   | wetland hydrology must be present,  |
| Sandy Gleyed Matrix (S4)   | Redox Depressions (F8)   | unless disturbed or problematic.  |
| Restrictive Layer (if present):  |  | and the second se |
| Туре:  |  |   |
| Depth (inches):  |  | Hydric Soil Present? Yes No No  |
|  |  |   |
| 2 2-4" oxidized 1  | -hizospheres<br>mottles  |   |
| Pemarks:<br>2 2-4" oxidized T<br>+-20" promihent<br>YDROLOGY   | -hizospheses<br>mottles  |   |
| 2 2-4 oxidized 1<br>4-20" promihent<br>YDROLOGY  | -hizospheres<br>mottles  |   |
| 2 2-4 oxidized 1<br>4-20" promihent<br>YDROLOGY<br>Wetland Hydrology Indicators:   |  | Secondary Indicators (2 or more required)   |
| DROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one requi   |  | Secondary Indicators (2 or more required)<br>Water-Stained Leaves (B9) (MLRA 1, 2,  |
| <ul> <li>2 - 4 oxidized it</li> <li>4 - 20" prominent</li> <li>YDROLOGY</li> <li>Wetland Hydrology Indicators:</li> <li>Primary Indicators (minimum of one required)</li> <li>Surface Water (A1)</li> </ul>  | ired; check all that apply)  |   |
| DROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one requi<br>Surface Water (A1)<br>High Water Table (A2)  | ired; check all that apply)<br>Water-Stained Leaves (B9) (except   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)   |
| <ul> <li>2 - 4 oxidized it</li> <li>4 - 20" prominent</li> <li>YDROLOGY</li> <li>Wetland Hydrology Indicators:</li> <li>Primary Indicators (minimum of one required)</li> <li>Surface Water (A1)</li> </ul>  | ired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)  |
| <ul> <li>Description</li> <li>Descript</li></ul>   | ired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  |
| <ul> <li>Description</li> <li>Descript</li></ul>   | ired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Roots (C3)   |
| <ul> <li>Description</li> <li>Descript</li></ul>   | ired; check all that apply)<br>— Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>— Salt Crust (B11)<br>— Aquatic Invertebrates (B13)<br>— Hydrogen Sulfide Odor (C1)<br>— Oxidized Rhizospheres along Living<br>— Presence of Reduced Iron (C4)   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)  |
| <ul> <li>2 -4 oxidized if</li> <li>YDROLOGY</li> <li>Wetland Hydrology Indicators:</li> <li>Primary Indicators (minimum of one required)</li> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> </ul>   | ired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>W Oxidized Rhizospheres along Living<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Roots (C3) ✓ Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) ↓ FAC-Neutral Test (D5)   |
| <ul> <li>Description</li> <li></li></ul> | ired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>V Oxidized Rhizospheres along Living<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LR   | Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9)         Roots (C3)         ✓         Geomorphic Position (D2)         Shallow Aquitard (D3)         (C6)         ✓         R A)         Raised Ant Mounds (D6) (LRR A)  |
| Image: Surface Water (A1)         Image: Water Marks (B1)         Surface Water (A1)         Image: Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery   | ired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LR<br>(B7) Other (Explain in Remarks)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Roots (C3) ✓ Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) ↓ FAC-Neutral Test (D5)   |
| <ul> <li>D = -4 oxiduzed i</li> <li>YDROLOGY</li> <li>Wetland Hydrology Indicators:</li> <li>Primary Indicators (minimum of one required)</li> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Surface Soil Cracks (B6)</li> <li>Inundation Visible on Aerial Imagery</li> <li>Sparsely Vegetated Concave Surface</li> </ul>   | ired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LR<br>(B7) Other (Explain in Remarks)  | Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9)         Roots (C3)         ✓         Geomorphic Position (D2)         Shallow Aquitard (D3)         (C6)         ✓         R A)         Raised Ant Mounds (D6) (LRR A)  |
| <ul> <li>2 2 - 4 oxiduzed i</li> <li>YDROLOGY</li> <li>Wetland Hydrology Indicators:</li> <li>Primary Indicators (minimum of one required)</li> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Surface Soil Cracks (B6)</li> <li>Inundation Visible on Aerial Imagery</li> <li>Sparsely Vegetated Concave Surface</li> <li>Field Observations:</li> </ul>   | ired; check all that apply)<br>— Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>— Salt Crust (B11)<br>— Aquatic invertebrates (B13)<br>— Hydrogen Sulfide Odor (C1)<br>— Oxidized Rhizospheres along Living<br>— Presence of Reduced Iron (C4)<br>— Recent Iron Reduction in Tilled Soils<br>— Stunted or Stressed Plants (D1) (LR<br>(B7) — Other (Explain in Remarks)<br>ce (B8)   | Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9)         Roots (C3)         ✓         Geomorphic Position (D2)         Shallow Aquitard (D3)         (C6)         ✓         R A)         Raised Ant Mounds (D6) (LRR A)  |
| Description         Description         Prominent         YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         inundation Visible on Aerial Imagery         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?  | ired; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9)         Roots (C3)         ✓         Geomorphic Position (D2)         Shallow Aquitard (D3)         (C6)         ✓         R A)         Raised Ant Mounds (D6) (LRR A)  |
| Image: Surface Water (A1)         Image: Water Marks (B1)         Surface Water (A1)         Image: Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery   | ired; check all that apply)<br>Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LR<br>(B7)<br>Other (Explain in Remarks)<br>ce (B8)<br>No<br>Depth (inches):<br>No<br>Depth (inches):<br>No<br>No<br>Depth (inches):<br>No<br>No<br>Depth (inches):<br>Depth (inches):<br>Stundard States (B13)<br>Mo<br>Stundard States (B13)<br>Stundard States (B13)<br>States (B1 |   |
| Promihent         YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Water Table Present?       Yes  | ired; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Roots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) FAC-Neutral Test (D5)<br>R A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7)<br>No   |
| <ul> <li>2 2 - 4 oxiduzed if</li> <li>YDROLOGY</li> <li>Wetland Hydrology Indicators:</li> <li>Primary Indicators (minimum of one requires a second s</li></ul> | ired; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Roots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) FAC-Neutral Test (D5)<br>R A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7)<br>No<br>No<br>No<br>No   |
| Promihent         YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Water Table Present?       Yes  | ired; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9)<br>Roots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) FAC-Neutral Test (D5)<br>R A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7)<br>Wetland Hydrology Present? Yes No  |

| pplicant/Owner: <u>NTCD</u><br>ivestigator(s): <u>J. Picciai</u> |   |                                       | Sampling Date: 5 920<br>State: Sampling Point: RB -  |
|--|---|---------------------------------------|--|
| andform (hillslope, terrace, etc.):                              | d Nation  | Section, Township, Ra                 | ange:  |
| ubregion (LRR): MLRA 22;   | A Places  | Local relief (concave,                | convex, none): Slope (%):  |
|  | Lat: 73   | DITT18 NU                             | Long: 245751 E Datum: 11110-   |
| oil Map Unit Name:   | marchara  | 10 310000                             | NWI classification: Datum: <u>///HD-</u>   |
| re climatic / hydrologic conditions on the si                    | e typical for this time of yea  | r? Yes No _                           | (If no, explain in Remarks.)   |
| re Vegetation, Soil, or Hydr                                     | ology significantly of  | disturbed? Are                        | "Normal Circumstances" present? Yes No   |
| re Vegetation, Soil, or Hydr                                     | ology naturally prol  | olematic? (If n                       | eeded, explain any answers in Remarks.)  |
| UMMARY OF FINDINGS - Attac                                       | h site map showing  | sampling point                        | locations, transects, important features, et   |
| Hydrophytic Vegetation Present? Y<br>Hydric Soil Present? Y      | es No   | Is the Sampler<br>within a Wetla      | d Area   |
| Wetland Hydrology Present? Y                                     |   | and the second second second          |  |
| PLOTE SHUL   | 150, north  | side of 13                            | Suche Creeke   |
| WP109 245751, 43177  | 10  | 0                                     |  |
| EGETATION - Use scientific name                                  |   |                                       |  |
| LOCIATION - Use scientific ha                                    |   | -                                     |  |
| Tree Stratum (Plot size:)  | Absolute<br>% Cover   | Dominant Indicator<br>Species? Status | Dominance Test worksheet:  |
| l  | and the second |                                       | Number of Dominant Species<br>That Are OBL, FACW, or FAC: (A)  |
| 2  |   |                                       | a provide and the second s |
| 3  |   |                                       | Total Number of Dominant<br>Species Across All Strata: (B)   |
| ł  |   |                                       |  |
|  |   | = Total Cover                         | Percent of Dominant Species<br>That Are OBL, FACW, or FAC:(A/B   |
| Sapling/Shrub Stratum (Plot size:                                |   |                                       | Prevalence Index worksheet:  |
|  |   |                                       | Total % Cover of:Multiply by:  |
|  |   |                                       | OBL species         x 1 =  |
| l  |   |                                       | FACW species x 2 =   |
|  |   | ·                                     | FAC species x 3 =  |
| 21 12  |   | = Total Cover                         | FACU species x 4 =   |
| Herb Stratum (Plot size: 3 × 15)                                 |   |                                       | UPL species x 5 =  |
| Scirpus microcar   |   | VOBL                                  | Column Totals: (A) (B)   |
| *Juncus balticus   | ssp.ater T  | FACW                                  | Prevalence Index = B/A =   |
| Elymus hispide   | IS T  | UPL                                   | Hydrophytic Vegetation Indicators:   |
|  |   |                                       | 1 - Rapid Test for Hydrophytic Vegetation  |
|  |   |                                       | 2 - Dominance Test is >50%   |
|  |   |                                       | 3 - Prevalence Index is ≤3.0 <sup>1</sup>  |
|  |   |                                       | 4 - Morphological Adaptations' (Provide supporting   |
|  |   |                                       | data in Remarks or on a separate sheet)  |
| 0  | ·   |                                       | 5 - Wetland Non-Vascular Plants1   |
| 1  |   |                                       | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
|  |   | Total Cover                           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.  |
| Voody Vine Stratum (Plot size:                                   | )   |                                       | Principality   |
|  |   |                                       | Hydrophytic  |
|  |   |                                       | Vegetation   |
| 2  |   |                                       |  |
|  |   | Total Cover                           | Present? Yes No No   |

| ofile Description: (Describe to the de<br>epth Matrix  | Redox Features   | Taulura Darada  |
|--|--|---|
| nches) Color (moist) %   | Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>   | Texture Remarks   |
| )-   |  |   |
| -5 54R2.511 100  |  | silty clay loam   |
| -9 7.54 22 9D  | 754R4/6 IN   | saind   |
| 1 durige 10  |  |   |
|  |  |   |
|  | ·  |   |
|  |  |   |
|  |  |   |
|  |  | Oreige 21 - Julian Di - Dere Lining M-Matrix  |
| ype: C=Concentration, D=Depletion, F<br>ydric Soil Indicators: (Applicable to  | M=Reduced Matrix, CS=Covered or Coated Sand  | Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.<br>Indicators for Problematic Hydric Soils <sup>3</sup> :  |
|  | Sandy Redox (S5)   | 2 cm Muck (A10)   |
| _ Histosol (A1)  | Stripped Matrix (S6)   | Red Parent Material (TF2)   |
| _ Histic Epipedon (A2)<br>Black Histic (A3)  | Loamy Mucky Mineral (F1) (except MLRA  | 1) Very Shallow Dark Surface (TF12)   |
| Hydrogen Sulfide (A4)  | Loamy Gleyed Matrix (F2)   | Other (Explain in Remarks)  |
| Depleted Below Dark Surface (A11)  | Depleted Matrix (F3)   |   |
| Thick Dark Surface (A12)   | Redox Dark Surface (F6)  | <sup>3</sup> Indicators of hydrophytic vegetation and   |
| Sandy Mucky Mineral (S1)   | Depleted Dark Surface (F7)   | wetland hydrology must be present,  |
| Sandy Gleyed Matrix (S4)   | Redox Depressions (F8)   | unless disturbed or problematic.  |
| Restrictive Layer (if present):  |  | 1   |
| Type: Tuch   |  | Hydric Soil Present? Yes No   |
|  |  | Hvdrig Soll Present? Tes No   |
| Depth (inches):<br>Remarks:<br>1-5 queage orge<br>2 5-9 promine  | int mottles  |   |
| Depth (inches):<br>Remarks:,<br>1-5" greasy orga<br>2 5-9" promine<br>YDROLOGY<br>Wetland Hydrology Indicators:  |  | A_  |
| Depth (inches):  | uired; check all that apply)   | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>Remarks:<br>1-5' greasy orgo<br>3 5-9' promine<br>YDROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)   | uired; check all that apply)<br>Water-Stained Leaves (B9) (except  | Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2  |
| Depth (inches):<br>Remarks:<br>1-5'' greas groge<br>3 5-9'' promine<br>YDROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req   | uired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)  | Secondary Indicators (2 or more required)<br>Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)   |
| Depth (inches):<br>Remarks:,<br>1-5'' grad grad<br>Depth (inches):<br>1-5'' grad grad<br>Promine<br>YDROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br>High Water Table (A2)<br>V Saturation (A3)  | uired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)  | Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2         4A, and 4B)     Drainage Patterns (B10)  |
| Depth (inches):<br>Remarks: ,<br>J - S ' grad g orga<br>Depth (inches):<br>J - S - g ' promine<br>YDROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br>V High Water Table (A2)<br>V Saturation (A3)<br>Water Marks (B1)  | uired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)   | Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)  |
| Depth (inches):<br>Remarks:,<br>1-5' glasg orga<br>3-5-9' promine<br>YDROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)   | uired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)   | Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)  |
| Depth (inches):<br>Remarks: ,<br>1 - 5 ' glasg orga<br>3 5 - 9 ' promine<br>Primary Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br>V High Water Table (A2)<br>V Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)   | uired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living   | Secondary Indicators (2 or more required)<br>Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C4<br>Roots (C3) Geomorphic Position (D2)                           |
| Depth (inches):<br>Remarks: ,<br>J - S '' Promine<br><b>YDROLOGY</b><br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br>V High Water Table (A2)<br>V Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)  | uired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living<br>Presence of Reduced Iron (C4)  | Secondary Indicators (2 or more required)<br>Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C3)<br>Roots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3) |
| Depth (inches):  | uired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils   | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>Remarks:<br>J - S '' Promine<br><b>YDROLOGY</b><br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br>V High Water Table (A2)<br>V Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)  | uired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LR  | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>Remarks:,<br>I - S.'' grad grad<br>Depth (inches):<br>I - S.'' grad grad<br>Promine<br>Promine<br>Provide the second s   | uired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LR<br>ry (B7) Other (Explain in Remarks)          | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>Remarks:,<br>I - S '' Promine<br>PDROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Imagen<br>Sparsely Vegetated Concave Surface   | uired; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LR<br>ry (B7) Other (Explain in Remarks)          | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>Remarks:<br>J - S<br>Promine<br>YDROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br>High Water Table (A2)<br>Sufface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Imager<br>Sparsely Vegetated Concave Surfa<br>Field Observations:  | uired; check all that apply)<br>Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils<br>Stunted or Stressed Plants (D1) (LR<br>ry (B7) Other (Explain in Remarks)<br>ace (B8) | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>Remarks:<br>J - S - 9 Promine<br>Promine<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br>V High Water Table (A2)<br>V Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Imager<br>Sparsely Vegetated Concave Surfa<br>Field Observations:<br>Surface Water Present? Yes  | uired; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR ry (B7) Other (Explain in Remarks) ace (B8)  No Depth (inches):          | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>Remarks: ,<br>J - S - 9 Promine<br>PDROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Imager<br>Sparsely Vegetated Concave Surface<br>Field Observations:<br>Surface Water Present? Yes<br>Water Table Present? Yes  | uired; check all that apply)   | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>Remarks:<br>J - S<br><b>YDROLOGY</b><br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Imager<br>Sparsely Vegetated Concave Surfater<br>Field Observations:<br>Surface Water Present? Yes<br>Water Table Present? Yes<br>Water Table Present? Yes<br>Saturation Present? Yes  | uired; check all that apply)   | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>Remarks:<br>J - S<br><b>YDROLOGY</b><br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br><br>High Water Table (A2)<br><br>Saturation (A3)<br><br>Water Marks (B1)<br><br>Sediment Deposits (B2)<br><br>Drift Deposits (B3)<br><br>Algal Mat or Crust (B4)<br><br>Iron Deposits (B5)<br><br>Surface Soil Cracks (B6)<br><br>Inundation Visible on Aerial Imager<br>Sparsely Vegetated Concave Surfat<br>Field Observations:<br>Surface Water Present? Yes<br>Water Table Present? Yes<br>Water Table Present? Yes<br>Saturation Present? Yes  | uired; check all that apply)   | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>Remarks:<br>J - S - g Promine<br><b>YDROLOGY</b><br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Imager<br>Sparsely Vegetated Concave Surfater<br>Field Observations:<br>Surface Water Present? Yes<br>Water Table Present? Yes<br>Water Table Present? Yes<br>Saturation Present? Yes<br>Saturation Present? Yes<br>Mater Table Present? Yes<br>Saturation Present? Yes<br>Saturation Present? Yes<br>Mater Table Present? Yes<br>Saturation Present? Yes<br>Describe Recorded Data (stream gauge  | uired; check all that apply)   | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>Remarks:<br>J - S<br><b>YDROLOGY</b><br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one req<br>Surface Water (A1)<br><br>High Water Table (A2)<br><br>Saturation (A3)<br><br>Water Marks (B1)<br><br>Sediment Deposits (B2)<br><br>Drift Deposits (B3)<br><br>Algal Mat or Crust (B4)<br><br>Iron Deposits (B5)<br><br>Surface Soil Cracks (B6)<br><br>Inundation Visible on Aerial Imager<br>Sparsely Vegetated Concave Surfat<br>Field Observations:<br>Surface Water Present? Yes<br>Water Table Present? Yes<br>Water Table Present? Yes<br>Saturation Present? Yes  | uired; check all that apply)   | Secondary Indicators (2 or more required)   |
| Depth (inches):<br>Remarks:<br>J - S - 9 Promine<br>Provide S - 9 Provide S - 9 P | uired; check all that apply)   | Secondary Indicators (2 or more required)   |

| pject/site: BCIRM Stream Replicant/Owner: NTCD      |                          |                                   | State: <u>NV</u>                                 | Sampling Date: 592<br>Sampling Point: RB-16   |
|---|--------------------------|-----------------------------------|--|---|
| estigator(s): <u>J. P. citanu</u>                   | Sect                     | tion, Township, Ra                | nge:   |   |
| ndform (hillslope, terrace, etc.): hill Slop        | e Loc                    | al relief (concave, o             | convex, none): Con                               | Vex Slope (%):20  |
| bregion (LRR): MLRA 22A                             | Lat: <u>H317</u>         | 751 N                             | Long: 24575                                      | Datum: NAD  |
| Map Unit Name: Caquin Rodico                        | wterop com               | slex 5-15%                        | NWI classifi                                     | h alan  |
| climatic / hydrologic conditions on the sile typica | I for this time of year? | Yes No                            | (If no, explain in F                             | Remarks.)   |
| Vegetation, Soil, or Hydrology                      | significantly distu      | urbed? Are "                      |  | present? Yes No   |
| Vegetation, Soil, or Hydrology                      | naturally problem        |                                   | eded, explain any answe                          |   |
| IMMARY OF FINDINGS – Attach site                    | map showing sa           |                                   |  |   |
|   | No                       |                                   | obulions, transects                              | s, important reatures, etc.   |
|   | No                       | Is the Sampled                    |  | 1   |
|   | No V                     | within a Wetlar                   | nd? Yes  | No  |
| emarks: plot top of home                            | le N side                | 177 TOUR                          | 10 CLASE   | 1   |
| 10  | IV MALINA                | Digun                             | nerrice-1  | UDRB-15   |
| -1110 6 13 1321 1317731                             | NAL REAL                 |                                   |  |   |
| GETATION - Use scientific names of                  | A                        |                                   |  |   |
| ee Stratum (Plot size: 10X4)                        |                          | minant Indicator<br>ecies? Status | Dominance Test work                              |   |
| PINUS lettreial                                     | 70                       | V. UPL                            | Number of Dominant S<br>That Are OBL, FACW,      |   |
| 0 10  |                          |                                   |  |   |
|   |                          |                                   | Total Number of Domin<br>Species Across All Stra | nant <u>5</u> (B)   |
|   |                          |                                   |  |   |
| apling/Shrub Stratum (Plot size: 10×4               | 70_=T                    | otal Cover                        | Percent of Dominant S<br>That Are OBL, FACW,     | or FAC: HO (A/B)  |
| Paper us thomalar de                                | 10 10                    | 1. EAR.                           | Prevalence Index wor                             |   |
|   |                          | 1110                              | Total % Cover of:                                | the second se |
|   |                          |                                   |  | x 1 =   |
|   |                          |                                   | FACW species                                     | x 2 =   |
|   |                          |                                   |  | x 3 =   |
| erb Stratum (Plot size: 10)(4)                      | <u>15</u> =T             | otal Cover                        | FACU species                                     | x 4 =   |
| Poar ovalinsis                                      | 5                        | V FAC                             |  | x 5 =   |
| Elymus hispidus                                     |                          | VID                               | and the second second second                     | (A) (B)   |
| Poh loulissa  |                          | VUPT                              | Prevalence Index                                 | = B/A =   |
| hances habrew ssp. a                                | ater T                   | FREW                              | Hydrophytic Vegetatio                            |   |
|   |                          |                                   | 1 - Rapid Test for H<br>2 - Dominance Test       |   |
|   |                          |                                   | 3 - Prevalence Inde                              |   |
|   |                          |                                   | 4 - Morphological A                              | Adaptations <sup>1</sup> (Provide supporting  |
|   |                          |                                   | data in Remarks                                  | s or on a separate sheet)   |
|   |                          |                                   | 5 - Wetland Non-V                                | The second se |
|   |                          |                                   |  | phytic Vegetation <sup>1</sup> (Explain)  |
| *   | 15                       | tal Cause                         | be present, unless distu                         | l and welland hydrology must<br>urbed or problematic.   |
| oody Vine Stratum (Plot size:)                      | <u> </u>                 | otal Cover                        |  |   |
|   |                          |                                   | Hydrophytic                                      |   |
|   |                          |                                   | Vegetation                                       |   |
| The second second second second                     | = To                     | otal Cover                        | Present? Ye                                      | s No  |
| Bare Ground in Herb Stratum                         |                          |                                   |  |   |

# Sampling Point: RB-16

| Profile Description: (Describe to the d   |  |   |
|---|--|---|
| epth Matrix   | <u>Redox Features</u><br>Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>  | Texture Remarks   |
| nches) Color (moist) %  | Color (moist) % Type' Loc <sup>2</sup>   | pheneedle duff  |
| -1  |  | procenteduc during  |
| -52.54312100  | )  | Sandy Clay Isam_  |
|   | 0  | sandy loan  |
| -20 104K412 10  |  | Jarreng Tourre  |
|   |  |   |
|   | RM=Reduced Matrix, CS=Covered or Coated Sand Gra   | ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.  |
| lydric Soil Indicators: (Applicable to  | all I RRs. unless otherwise noted.)  | Indicators for Problematic Hydric Soils <sup>3</sup> :  |
|   | Sandy Redox (S5)   | 2 cm Muck (A10)   |
| _ Histosol (A1)   | Stripped Matrix (S6)   | Red Parent Material (TF2)   |
| _ Histic Epipedon (A2)  | Loamy Mucky Mineral (F1) (except MLRA 1)   | Very Shallow Dark Surface (TF12)  |
| Black Histic (A3)   | Loamy Gleyed Matrix (F2)   | Other (Explain in Remarks)  |
| _ Hydrogen Sulfide (A4)   |  | - Andrew Contraction of A   |
| <ul> <li>Depleted Below Dark Surface (A11)</li> <li>Thick Dark Surface (A12)</li> </ul>   | Depleted Matrix (FS)<br>Redox Dark Surface (F6)  | <sup>3</sup> Indicators of hydrophytic vegetation and   |
| Sandy Mucky Mineral (S1)  | Depleted Dark Surface (F7)   | wetland hydrology must be present,  |
| Sandy Gleyed Matrix (S4)  | Redox Depressions (F8)   | unless disturbed or problematic.  |
| Restrictive Layer (if present):   |  |   |
|   |  | 1   |
| Туре:   |  | Hydric Soil Present? Yes No   |
| Depth (inches):   |  |   |
| Constant and an and a second  |  |   |
| YDROLOGY<br>Wetland Hydrology Indicators:   |  | Secondary Indicators (2 or more required)   |
| Wetland Hydrology Indicators:   |  | Secondary Indicators (2 or more required)   |
| Wetland Hydrology Indicators:   | Water-Stained Leaves (B9) (except  | Water-Stained Leaves (B9) (MLRA 1, 2,   |
| Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one rec   | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)  |
| Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one rec<br>Surface Water (A1)   | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)   |
| Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)   | Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)  |
| Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)   | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)  | Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)  |
| Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one red<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)   | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro  | Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3     ots (C3) Geomorphic Position (D2)   |
| Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one red<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)  | Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)  |
| Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one red<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)   | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro  | Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3     Ots (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)   |
| Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one red<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)   | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)  | Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)  |
| Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one red<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)   | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR 4)   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9     ots (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)   |
| Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one rec<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Image   | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR 4) ry (B7) Other (Explain in Remarks)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9     ots (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)  |
| Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one red<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Image<br>Sparsely Vegetated Concave Surf  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR 4) ry (B7) Other (Explain in Remarks)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9     ots (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)  |
| Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one red<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Image<br>Sparsely Vegetated Concave Surf<br>Field Observations:   | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4 ry (B7)     Other (Explain in Remarks)   | Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)   |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one red         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Image         Sparsely Vegetated Concave Surf         Field Observations:         Surface Water Present?   | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4     ry (B7) Other (Explain in Remarks)     Depth (inches):   | Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)   |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one red         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Image         Sparsely Vegetated Concave Surf         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4     ry (B7) Other (Explain in Remarks)     ace (B8)     Depth (inches):     Depth (inches):  | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3) ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) 6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one red         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Image         Sparsely Vegetated Concave Surf         Field Observations:         Surface Water Present?       Yes _         Water Table Present?       Yes _  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR 4 ry (B7) Other (Explain in Remarks) ace (B8) Depth (inches): Depth (inches):  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9     ots (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)  |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one red  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4     ry (B7) Other (Explain in Remarks)     ace (B8)     No Depth (inches):     No Depth (inches): Were                                       | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)  |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one red  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4     ry (B7) Other (Explain in Remarks)     ace (B8)     No Depth (inches): Wer     ge, monitoring well, aerial photos, previous inspections; | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9     Saturation Visible on Aerial Imagery |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one red  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4     ry (B7) Other (Explain in Remarks)     ace (B8)     No Depth (inches): Wer     ge, monitoring well, aerial photos, previous inspections; | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)  |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one red  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4     ry (B7) Other (Explain in Remarks)     ace (B8)     No Depth (inches): Wer     ge, monitoring well, aerial photos, previous inspections; | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9     Saturation Visible on Aerial Imagery (D9     Saturation Visible on Aerial Imagery |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one red  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4     ry (B7) Other (Explain in Remarks)     ace (B8)     No Depth (inches): Wer     ge, monitoring well, aerial photos, previous inspections; | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Saturation Visible on Aerial Imagery (D9)     Saturatin Visible on Aerial Imagery (D9) |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one red         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Image         Sparsely Vegetated Concave Surf         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Includes capillary fringe)       Describe Recorded Data (stream gauge) | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4     ry (B7) Other (Explain in Remarks)     ace (B8)     No Depth (inches): Wer     ge, monitoring well, aerial photos, previous inspections; | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Saturation Visible on Aerial Imagery (D9)     Saturatin Visible on Aerial Imagery (D9) |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one red  | Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4     ry (B7) Other (Explain in Remarks)     ace (B8)     No Depth (inches): Wer     ge, monitoring well, aerial photos, previous inspections; | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9     Saturation Visible on Aerial Imagery (D9     Saturation Visible on Aerial Imagery |

| oplicant/Owner: ATCD  |                     |  | State:   | _ Sampling Date: <u>5/9/20</u><br>_ Sampling Point: <u>RB-17</u>   |
|---|---------------------|--|--|--|
| vestigator(s): J. HECLAND                                     | Sect                | on, Township, Rang                       | je:  | and a state of the |
| andform (hillslope, terrace, etc.): 1000 place                | nLoca               | al relief (concave, co                   | nvex, none): heh   | P- Slope (%):  |
| Ibregion (LRR): //LKA LLA                                     | Lat: 4317           | 738 N                                    | 1000 245807  | E . UALP   |
| il Map Unit Name a awin Kodi, outcong                         | complex ?           | 5-150/- cland                            | · · · · · · · · · · · · · · · · · · ·                            | In a la f  |
| e climatic / hydrologic conditions on the site typical for th | his time of year?   | Yes No                                   | (If no explain in I  | Campelie )   |
| e Vegetation, Soil, or Hydrology                              | significantly distu |  |  | present? Yes No  |
| e Vegetation, Soil, or Hydrology                              |                     |  | ded, explain any answ  |  |
|   |                     |  |  |  |
| UMMARY OF FINDINGS – Attach site map                          |                     | npling point lo                          | cations, transects   | s, important features, etc.  |
| Hydrophytic Vegetation Present? Yes Ves                       | No                  | Is the Sampled A                         | rea  | 1  |
|   | No<br>No            | within a Wetland                         |  | No   |
| Remarks: plot S Side of cre                                   |                     |  |  |  |
| at Othum I was  | en 18.              | . Drow c                                 | channel.   | + 6" elevated  |
| NP112 245807, 4317738   |                     |  |  |  |
| EGETATION – Use scientific names of pla                       | nts.                | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | 1  |  |
| Invb.   |                     | minant Indicator                         | Dominance Test worl  | ksheet:  |
| Anus mana tenutolia   | 20 Spe              | ecies? Status                            | Number of Dominant S   | 100 C  |
|   |                     | LACU                                     | That Are OBL, FACW,  | or FAC: (A)  |
| 4   |                     |  | Total Number of Domin  | nant 5   |
|   |                     |  | Species Across All Stra  | (=)  |
|   | 20 = TO             | otal Cover                               | Percent of Dominant S<br>That Are OBL, FACW,                     |  |
| apling/Shrub Stratum (Plot size:)                             | 1.6                 |  | Prevalence Index wor   |  |
| Saly scouleriana  | - 10 -              | FAC                                      | Total % Cover of:  |  |
| BINGS MANA CENTONA  |                     | FACU                                     | Cost in the second second  | × 1 =  |
|   |                     |  |  | x 2 =  |
|   |                     |  |  | x 3 =  |
| and have been   | 25 =TO              | otal Cover                               | FACU species   | x 4 =  |
| erb Stratum (Plot size:)                                      |                     |  | UPL species  | x 5 =  |
| Carey en  | -10-                | V OBL                                    | Column Totals:   | (A) (B)  |
| Carlest sep   |                     | FACW-OGL                                 | Prevalence Index   | = B/A =  |
|   |                     | []                                       | Hydrophytic Vegetation   | on Indicators:   |
|   |                     |  |  | Hydrophytic Vegetation   |
|   |                     |  | 2 - Dominance Tes  |  |
|   |                     |  | 3 - Prevalence Ind   |  |
|   |                     |  | data in Remark   | Adaptations <sup>1</sup> (Provide supporting s or on a separate sheet)   |
|   |                     |  | 5 - Wetland Non-V  | ascular Plants <sup>1</sup>  |
| 0   |                     |  |  | phytic Vegetation <sup>1</sup> (Explain)   |
| 1   |                     |  | <sup>1</sup> Indicators of hydric soi<br>be present, unless dist | and wetland hydrology must   |
| Voody Vine Stratum (Plot size;)                               | <u>20</u> = To      | tal Cover                                | es present, unless disti   | arbed or problematic.  |
|   |                     |  | Lindere beat   | 1.1  |
|   |                     |  | Hydrophytic<br>Vegetation  | 1  |
|   |                     |  | Present? Ye  | e No   |
| Bare Ground in Herb Stratum _/D                               | = To                | tal Cover                                | Te   | a NO   |

US Army Corps of Engineers

| ofile Description: (Describ  | e to the dep  | th needed to docum  | 11.11.1.11.1.1.1.1.1.1.1.1.1.1.1.1.1.1  |   |  |
|--|---|---|---|---|--|
| epth Matrix  |   |   | K Features<br>% Type  | Loc <sup>2</sup>                                      | Texture , Remarks  |
| nches) Color (moist)   | 5 60  | Color (moist)<br>7.SYR46  | <u>% Type'</u><br>10 C  | M   | Toamusand  |
| 1-2 213401   | = 10  | TID 1K 416  | 10 0  | -1-1  |  |
| 2-4 TISYK2   | 5/1100  |   |   |   | Sandyleam  |
| 1-6 2.542.5  | 1100  |   |   |   | buindsand  |
|  |   |   |   | _   |  |
| Type: C=Concentration, D=E   | Depletion, RM   | =Reduced Matrix, CS   | S=Covered or Coate  | ed Sand Gra   | ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.   |
| ydric Soil Indicators: (App  | licable to al   | LRRs, unless other  | rwise noted.)   |   | Indicators for Problematic Hydric Solis :  |
| Histosol (A1)  |   | Sandy Redox (   |   |   | 2 cm Muck (A10)  |
| _ Histic Epipedon (A2)   |   | Stripped Matrix   |   |   | Red Parent Material (TF2)  |
| _ Black Histic (A3)  |   |   | Mineral (F1) (excep   | MLRA 1)   | Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  |
| Hydrogen Sulfide (A4)  | Ener (A11)  | Loamy Gleyed<br>Depleted Matri:   |   |   |  |
| Depleted Below Dark Sur<br>Thick Dark Surface (A12)  |   | Redox Dark Su   |   |   | <sup>3</sup> Indicators of hydrophytic vegetation and  |
| Sandy Mucky Mineral (S   |   | Depleted Dark   | and the second se   |   | wetland hydrology must be present,   |
| Sandy Gleyed Matrix (S4  |   | Redox Depress   |   |   | unless disturbed or problematic.   |
| Restrictive Layer (if present  |   | 1. The second                             |   |   |  |
| Type: 120015 1   | ochs  | 2   |   |   |  |
| Depth (inches):  |   |   |   |   | Hydric Soil Present? Yes V No  |
| Remarks:   |   |   |   |   |  |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat  |   |   |   |   | Secondary Indicators (2 or more required)  |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum   |   |   |   |   | Secondary Indicators (2 or more required)  |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>Surface Water (A1)   |   | Water-St  | ained Leaves (B9)   | •   | Water-Stained Leaves (B9) (MLRA 1, 2,  |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>Surface Water (A1)<br>High Water Table (A2)  |   | Water-St<br>MLR4  | ained Leaves (B9)<br>A 1, 2, 4A, and 4B)  |   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)   |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>Surface Water (A1)<br>High Water Table (A2)<br>V Saturation (A3)   |   | Water-St<br>MLRA<br>Salt Crus   | ained Leaves (B9)<br>A 1, 2, 4A, and 4B)<br>st (B11)  |   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)  |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)   |   | Water-St<br>MLRA<br>Salt Crus<br>Aquatic I  | ained Leaves (B9)<br>A <b>1, 2, 4A, and 4B)</b><br>st (B11)<br>invertebrates (B13)  |   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)   |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)   |   | Water-St<br>MLRA<br>Salt Crus<br>Aquatic I<br>Hydrogei  | ained Leaves (B9)<br>A 1, 2, 4A, and 4B)<br>st (B11)<br>nvertebrates (B13)<br>n Sulfide Odor (C1)   |   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9   |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)  |   | Water-St<br>MLRA<br>Salt Crus<br>Aquatic I<br>Hydroged<br>Oxidized  | ained Leaves (B9) (<br>A 1, 2, 4A, and 4B)<br>st (B11)<br>invertebrates (B13)<br>n Sulfide Odor (C1)<br>I Rhizospheres alon   | ng Living Roo   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9   |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)   |   | Water-St<br>MLRA<br>Salt Crus<br>Aquatic I<br>Hydroger<br>Oxidized<br>Presence  | ained Leaves (B9) (<br>A 1, 2, 4A, and 4B)<br>st (B11)<br>Invertebrates (B13)<br>In Sulfide Odor (C1)<br>I Rhizospheres alon<br>e of Reduced Iron (   | ng Living Roo<br>C4)                                  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)   |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)   | of one requir   | Water-St<br>MLRA<br>Salt Crus<br>Aquatic I<br>Hydroge<br>Oxidized<br>Presence<br>Recent I   | ained Leaves (B9) (<br>A 1, 2, 4A, and 4B)<br>st (B11)<br>invertebrates (B13)<br>n Sulfide Odor (C1)<br>I Rhizospheres alon   | ng Living Roo<br>C4)<br>Iled Soils (Cl                | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)   |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B66)  | <u>of one requir</u><br>)                                     | Water-St<br>MLRA<br>Salt Crus<br>Aquatic I<br>Hydrogel<br>Oxidized<br>Presence<br>Recent I<br>Stunted                                       | ained Leaves (B9) (<br>A 1, 2, 4A, and 4B)<br>st (B11)<br>nvertebrates (B13)<br>n Sulfide Odor (C1)<br>I Rhizospheres alon<br>e of Reduced Iron (<br>ron Reduction in Til   | ng Living Rod<br>C4)<br>Iled Soils (Cl<br>(D1) (LRR A | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)   |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)   | <u>of one requir</u><br>)<br>;rial Imagery                    | Water-St<br>MLRA<br>Salt Crus<br>Aquatic I<br>Hydroger<br>Oxidized<br>Presence<br>Recent I<br>Stunted<br>(B7) Other (E                      | ained Leaves (B9) (<br>A 1, 2, 4A, and 4B)<br>st (B11)<br>nvertebrates (B13)<br>n Sulfide Odor (C1)<br>Rhizospheres alon<br>e of Reduced Iron (<br>ron Reduction in Til<br>or Stressed Plants   | ng Living Rod<br>C4)<br>Iled Soils (Cl<br>(D1) (LRR A | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)                              |
| YDROLOGY         Wetland Hydrology Indicate         Primary Indicators (minimum         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Ae         Sparsely Vegetated Con | <u>of one requir</u><br>)<br>;rial Imagery                    | Water-St<br>MLRA<br>Salt Crus<br>Aquatic I<br>Hydroger<br>Oxidized<br>Presence<br>Recent I<br>Stunted<br>(B7) Other (E                      | ained Leaves (B9) (<br>A 1, 2, 4A, and 4B)<br>st (B11)<br>nvertebrates (B13)<br>n Sulfide Odor (C1)<br>Rhizospheres alon<br>e of Reduced Iron (<br>ron Reduction in Til<br>or Stressed Plants   | ng Living Rod<br>C4)<br>Iled Soils (Cl<br>(D1) (LRR A | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>ots (C3)<br>Shallow Aquitard (D3)<br>6)<br>FAC-Neutral Test (D5)<br>A)<br>Raised Ant Mounds (D6) (LRR A)   |
| YDROLOGY         Wetland Hydrology Indicate         Primary Indicators (minimum         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Ae         Sparsely Vegetated Con | <u>of one requir</u><br>)<br>;rial Imagery                    | Water-St<br>MLRA<br>Salt Crus<br>Aquatic I<br>Hydroger<br>Oxidized<br>Presence<br>Recent I<br>Recent I<br>Stunted<br>(B7)Other (E<br>e (B8) | ained Leaves (B9) (<br>A 1, 2, 4A, and 4B)<br>st (B11)<br>nvertebrates (B13)<br>n Sulfide Odor (C1)<br>Rhizospheres alon<br>e of Reduced Iron (<br>ron Reduction in Til<br>or Stressed Plants   | ng Living Rod<br>C4)<br>Iled Soils (Cl<br>(D1) (LRR A | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)                              |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B66<br>Inundation Visible on Ae<br>Sparsely Vegetated Con<br>Field Observations:<br>Surface Water Present?      | of one requir<br>)<br>rial Imagery<br>Icave Surfact           | Water-St<br>MLR/<br>Salt Crus<br>Aquatic I<br>Hydroge<br>Oxidized<br>Presence<br>Recent I<br>Stunted<br>(B7) Other (E<br>e (B8)             | ained Leaves (B9)<br>A 1, 2, 4A, and 4B)<br>st (B11)<br>Invertebrates (B13)<br>In Sulfide Odor (C1)<br>I Rhizospheres alon<br>e of Reduced Iron (<br>ron Reduction in Til<br>or Stressed Plants<br>Explain in Remarks)  | ng Living Rod<br>C4)<br>Iled Soils (Ci<br>(D1) (LRR A | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>   | )<br>)<br>irial Imagery<br>icave Surfact<br>Yes<br>Yes<br>Yes |   | ained Leaves (B9) (A 1, 2, 4A, and 4B)<br>A 1, 2, 4A, and 4B)<br>(A 1, 4A, and 4B)<br>(a 1 | Ig Living Roo<br>C4)<br>Iled Soils (Cl<br>(D1) (LRR A | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9<br>ots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>6) FAC-Neutral Test (D5)<br>A) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7) |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>   | )<br>)<br>irial Imagery<br>icave Surfact<br>Yes<br>Yes<br>Yes |   | ained Leaves (B9) (A 1, 2, 4A, and 4B)<br>A 1, 2, 4A, and 4B)<br>(A 1, 4A, and 4B)<br>(a 1 | Ig Living Roo<br>C4)<br>Iled Soils (Cl<br>(D1) (LRR A | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) 6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)                        |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>   | )<br>)<br>irial Imagery<br>icave Surfact<br>Yes<br>Yes<br>Yes |   | ained Leaves (B9) (A 1, 2, 4A, and 4B)<br>A 1, 2, 4A, and 4B)<br>(A 1, 4A, and 4B)<br>(a 1 | Ig Living Roo<br>C4)<br>Iled Soils (Cl<br>(D1) (LRR A | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) 6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)                        |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>   | )<br>)<br>irial Imagery<br>icave Surfact<br>Yes<br>Yes<br>Yes |   | ained Leaves (B9) (A 1, 2, 4A, and 4B)<br>A 1, 2, 4A, and 4B)<br>(A 1, 4A, and 4B)<br>(a 1 | Ig Living Roo<br>C4)<br>Iled Soils (Cl<br>(D1) (LRR A | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) 6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)                        |
| Remarks:<br>YDROLOGY<br>Wetland Hydrology Indicat<br>Primary Indicators (minimum<br>   | )<br>)<br>irial Imagery<br>icave Surfact<br>Yes<br>Yes<br>Yes |   | ained Leaves (B9) (A 1, 2, 4A, and 4B)<br>A 1, 2, 4A, and 4B)<br>(A 1, 4A, and 4B)<br>(a 1 | Ig Living Roo<br>C4)<br>Iled Soils (Cl<br>(D1) (LRR A | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) 6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)                        |

| WETLAND DETE                           | RMINATION            | DATA FORM                 | - Western Mou   | untains, Valleys, an  | d Coast Region  |
|--|----------------------|---------------------------|---|---|---|
| Project/Site: BC RM St                 | ream Pos             | toration                  | WCausty Do  | ualac   | _ Sampling Date: 519120                               |
| Applicant/Owner: MTCD                  |                      |                           |   | Jan 111   | Sampling Date: SIND                                   |
| nvestigator(s): J. Piccio              | inc                  |                           | -   | State: 20 V   | Sampling Point: RB-1                                  |
| andform (hillslope, terrace, etc.):    |                      |                           | ection, Township, Ra  | and the second sec  | 1414  |
| ubregion (LRR): MLRA                   | 224                  |                           |   | convex, none): <u>Con</u>   |   |
|  | de automas           | Lat: <u>73</u>            | CLOQUELE  | _ Long: <u>24 5 800</u>   | Datum: NAD  |
| re climatic / hydrologic conditions on | y Stony              | scomplete.                | 3-15 70 510   | NWI classifi  | cation: none  |
| re climatic / hydrologic conditions on | the site typical for | this time of year         | ? Yes No _  | (If no, explain in I  | Remarks.)   |
| re Vegetation, Soil, o                 |                      |                           |   |   | present? Yes No                                       |
| re Vegetation, Soil, o                 |                      |                           | a second s | eeded, explain any answ   |   |
| SUMMARY OF FINDINGS - /                | Attach site ma       | ap showing s              | ampling point   | locations, transects  | s, important features, etc.                           |
| Hydrophytic Vegetation Present?        | Yes_                 | No                        | 1.0   |   |   |
| Hydric Soil Present?                   | Yes                  |                           | Is the Sampler  |   | 1   |
| Wetland Hydrology Present?             | 1.                   |                           | within a Wetla  | nd? Yes   | No  |
| Remarks: plot on c                     | onstruct             | ted ber                   | m soz   | Burke Cre   | ele   |
| WP113 245806, 4                        | 00000                |                           | . 0   |   |   |
| EGETATION - Use scientifi              |                      | S                         |   |   |   |
| LOLIATION - Use scientin               | c names of pi        | and set of the set of the |   |   |   |
| Tree Stratum (Plot size:               | )                    |                           | Dominant Indicator<br>Species? Status   | Dominance Test work   |   |
| 1                                      |                      |                           |   | Number of Dominant S<br>That Are OBL, FACW,   | or FAC: (A)   |
| 2                                      |                      |                           |   | Total Number of Domin   |   |
| 3                                      |                      |                           |   | Species Across All Stra   | ata:(B)   |
| 4                                      |                      |                           |   | Percent of Dominant S   | ,-/   |
| Sapling/Shrub Stratum (Plot size: (    | 6×20                 |                           | Total Cover   | That Are OBL, FACW,   | or FAC: 100 (A/B)                                     |
| 1. Salex Scouler                       |                      | 50                        | V FAC   | Prevalence Index wor  | ksheet:   |
| 2                                      |                      |                           |   |   | Multiply by:  |
| 3                                      |                      |                           |   |   | x 1 =   |
| 4                                      |                      |                           |   | and a second  | x 2 =   |
| 5                                      |                      |                           |   |   | x 3 =   |
| Herb Stratum (Plot size:               | 1                    | <u></u> =                 | Total Cover   | and the second se   | x 4 =   |
| 1                                      |                      |                           |   | the set of | x 5 =<br>(A) (B)                                      |
| 2                                      |                      |                           |   |   |   |
| 3                                      |                      |                           |   | Prevalence Index<br>Hydrophytic Vegetation  | = B/A =   |
| 4                                      |                      |                           |   | 1 - Rapid Test for I  |   |
| 5                                      |                      |                           |   | 2 - Dominance Tes   |   |
| 3                                      |                      |                           |   | 3 - Prevalence Inde   |   |
| ·                                      |                      |                           |   | 4 - Morphological A   | Adaptations <sup>1</sup> (Provide supporting          |
| 3                                      |                      |                           |   | data in Remark  | s or on a separate sheet)                             |
| 9<br>10                                |                      |                           |   | 5 - Wetland Non-V   |   |
| 11                                     |                      |                           |   |   | phytic Vegetation <sup>1</sup> (Explain)              |
|  |                      |                           | Total Cover   | be present, unless dist   | I and wetland hydrology must<br>urbed or problematic. |
| Noody Vine Stratum (Plot size:         |                      |                           | I SIGI OUVEI  |   |   |
|  |                      |                           |   | Hydrophytic   | 12211   |
| 2                                      |                      |                           |   | Vegetation  | /   |
| % Bare Ground in Herb Stratum          | 0                    |                           | Total Cover   | Present? Ye   | s No  |
| Remarks:                               |                      | 1                         | 1   | A 1   |   |
|  |                      |                           |   |   |   |
| % Node 25<br>% litter 10               | noh                  | erbacei                   | res or sl   | rrub Layers   | present   |

US Army Corps of Engineers

Sampling Point: RB-18

| Depth       Matrix       Redox Features         inches)       Color (moist)       %       Type1       Loc2         Color (moist)       %       Color (moist)       %       Type1       Loc2         Color (moist)       Matrix (Se)       Matrix (Se)       Stripped Matrix (Se)       Stripped Matrix (Se)         Histos (A1) |  |
|---|--|
| rdric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         _ Histosol (A1)       Sandy Redox (S5)         _ Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)   | Indicators for Problematic Hydric Soils":<br>2 cm Muck (A10) |
| dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         _ Histosol (A1)       Sandy Redox (S5)         _ Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loarny Mucky Mineral (F1) (except MLRA         Hydrogen Sulfide (A4)       Loarny Gleyed Matrix (F2)   | Indicators for Problematic Hydric Soils":<br>2 cm Muck (A10) |
| dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)   | Indicators for Problematic Hydric Soils":<br>2 cm Muck (A10) |
| dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         _ Histosol (A1)       Sandy Redox (S5)         _ Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loarny Mucky Mineral (F1) (except MLRA         Hydrogen Sulfide (A4)       Loarny Gleyed Matrix (F2)   | Indicators for Problematic Hydric Soils":<br>2 cm Muck (A10) |
| dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         _ Histosol (A1)       Sandy Redox (S5)         _ Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loarny Mucky Mineral (F1) (except MLRA         Hydrogen Sulfide (A4)       Loarny Gleyed Matrix (F2)   | Indicators for Problematic Hydric Soils":<br>2 cm Muck (A10) |
| /dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         _ Histosol (A1)       Sandy Redox (S5)         _ Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loarny Mucky Mineral (F1) (except MLRA         Hydrogen Sulfide (A4)       Loarny Gleyed Matrix (F2)  | Indicators for Problematic Hydric Soils":<br>2 cm Muck (A10) |
| rdric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         _ Histosol (A1)       Sandy Redox (S5)         _ Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)   | Indicators for Problematic Hydric Soils":<br>2 cm Muck (A10) |
| ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         _ Histosol (A1)       Sandy Redox (S5)         _ Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)  | Indicators for Problematic Hydric Soils":<br>2 cm Muck (A10) |
| ydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)         _ Histosol (A1)       Sandy Redox (S5)         _ Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)  | Indicators for Problematic Hydric Soils":<br>2 cm Muck (A10) |
| ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         _ Histosol (A1)       Sandy Redox (S5)         _ Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)  | Indicators for Problematic Hydric Soils":<br>2 cm Muck (A10) |
| ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         _ Histosol (A1)       Sandy Redox (S5)         _ Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)  | Indicators for Problematic Hydric Soils":<br>2 cm Muck (A10) |
| ydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)         _ Histosol (A1)       Sandy Redox (S5)         _ Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)  | Indicators for Problematic Hydric Soils":<br>2 cm Muck (A10) |
| Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)  | 2 cm Muck (A10)  |
| Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)  |  |
| Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA<br>Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)   |  |
| Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)  |  |
|   | Other (Explain in Remarks)                                   |
| _ Depleted Below Dark Surace (ATT) Depleted Matrix (TO)   |  |
|   | <sup>3</sup> Indicators of hydrophytic vegetation and        |
|   | wetland hydrology must be present,                           |
| _ Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)<br>Sandy Gleyed Matrix (S4) Redox Depressions (F8)  | unless disturbed or problematic.                             |
| estrictive Layer (if present):  |  |
| Type: roots rocks   |  |
| Type:   | Hydric Soil Present? Yes No                                  |
| emarks:<br>bern is constructed of fill that in  |  |
| YDROLOGY<br>Wetland Hydrology Indicators:   |  |
| Primary Indicators (minimum of one required; check all that apply)  | Secondary Indicators (2 or more required)                    |
|   | Water-Stained Leaves (B9) (MLRA 1, 2                         |
|   | 4A, and 4B)  |
|   | Drainage Patterns (B10)                                      |
|   | Dry-Season Water Table (C2)                                  |
| Water Marks (B1) Aquatic Invertebrates (B13)  | Saturation Visible on Aerial Imagery (C                      |
| Sediment Deposits (B2) Hydrogen Sulfide Odor (C1)   |  |
|   | g Roots (C3) Geomorphic Position (D2)                        |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4)   | Shallow Aquitard (D3)  |
| Iron Deposits (B5) Recent Iron Reduction in Tilled Soils  |  |
| Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LR  |  |
| Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)  | Frost-Heave Hummocks (D7)                                    |
| Sparsely Vegetated Concave Surface (B8)   |  |
| Field Observations:   |  |
| Surface Water Present? Yes No Depth (inches):   |  |
| Water Table Present? Yes No V Depth (inches):   |  |
|   | Wetland Hydrology Present? Yes No                            |
| (includes capillary frince)   |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection   | ions), if available:   |
|   |  |
|   | CIAL 12 3 1944 1 1/1/4                                       |
| Remarks: bern elevated 3-6 Habo   | the chinand  |
| remarks bern ellevated 3-6 Jtabo  | the Officerst  |

| vestigator(s): T.P.CCTau                               | S  | ection, Township, Ra  | State: <u>UV</u> Sampling Point: <u>RB-10</u>  |
|--|--|---|--|
| ndform (hillslope, terrace, etc.):                     | plane 1  | ocal relief (concave,   | convex, none): CONCALLE Slope (%)  |
| bregion (LRR): TILMH ddH                               | Lat: 43  | 17806 N   | 1000 24/2003E  |
| il Map Unit Name Dy Uaguic Cruory                      | LAPING - HEIN  | e VREATE ALL  | Free Freed   |
| e climatic / hydrologic conditions on the site typical | for this time of year  | Yes No  | (If no. explain in Remarks.) Sent wet a  |
| e Vegetation, Soil, or Hydrology                       | significantly di   |   | "Normal Circumstances" present? Yes No   |
| e Vegetation, Soil, or Hydrology                       | naturally probl  |   | eeded, explain any answers in Remarks.)  |
| JMMARY OF FINDINGS - Attach site                       | map showing s  |   | locations, transects, important features, etc.   |
| Hydrophytic Vegetation Present? Yes                    | No   |   | incentions, transects, important features, etc.  |
| lydric Soil Present? Yes                               | No   | Is the Sample   |  |
| /etland Hydrology Present? Yes                         | _ No   | within a Wetla  | nd? Yes No   |
| remarks: plot in flow line                             | of west  | branch o  | R. Creeke  |
| U U  | La construction de la constructi |   | 0  |
| NP122 246003,4317801                                   |  |   |  |
| GETATION - Use scientific names of                     | plants.  |   | a state of the second stat |
| ree Stratum (Plot size: 10 120)                        |  | Dominant Indicator<br>Species? Status   | Dominance Test worksheet:  |
| Rooulus fremutoides                                    | 25   | V PAC   | Number of Dominant Species   |
| Saley Casiandrav, lasian                               | dra 5  | FACU  | That Are OBL, FACW, or FAC:(A)   |
|  | 10 I I I I I   |   | Total Number of Dominant<br>Species Across All Strata: 5 (B)   |
|  |  |   |  |
| 10'070'  | 30 =   | Total Cover   | Percent of Dominant Species<br>That Are OBL, FACW, or FAC: 100 (A/B)   |
| Populus Tremulardes                                    | ) 1-   | 1 EAP   | Prevalence Index worksheet: (A/B)  |
| Topseed Trendoor Cours                                 |  | <u>rnc</u>  | Total % Cover of:Multiply by:  |
|  |  |   | OBL species x 1 =  |
|  |  |   | FACW species x 2 =   |
|  |  |   | FAC species x 3 =  |
| 10/20  | 15 =   | Total Cover   | FACU species x 4 =   |
| (urly Sp, this)  | 5  | V ENGINED   | UPL species x 5 =  |
| Agrostis Stolonghera                                   |  | FAC   | Column Totals: (A) (B)   |
| Glucence elata   |  | V CACU  | Prevalence Index = B/A =   |
| Epilobiun culeatum                                     | - <u>+</u>   | FACU  | Hydrophytic Vegetation Indicators:   |
| Carey dewellana 350                                    | . 6  | VPAC  | 1 - Rapid Test for Hydrophytic Vegetation  |
| leptopoda U  |  |   | 2 - Dominance Test is >50%<br>3 - Prevalence Index is ≤3.01  |
|  |  |   | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting   |
|  |  |   | data in Remarks or on a separate sheet)  |
|  |  |   | 5 - Wetland Non-Vascular Plants1   |
| )  |  |   | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| l  | 90   |   | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.  |
| oody Vine Stratum (Plot size:)                         | 20 =   | Total Cover   | be problem and a mess disturbed or problematic.  |
| /  |  |   | Hadavala di  |
|  |  |   | Hydrophytic<br>Vegetation  |
| Li Her<br>Bare Ground in Herb Stratum <u>30</u>        |  | Total Cover   | Present? Yes V No  |
|  |  | and the second se |  |

# Sampling Point: RB-19

| ofile Description: (Describe to the dep<br>epth <u>Matrix</u>   | th needed to document the indicator or confirm<br>Redox Features  |   |
|---|---|---|
| ches) Color (moist) %   | Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>  | Texture Remarks   |
|   |   | algalmat  |
| TIT DOCTION   |   | silte Joan w Jorganie   |
| 5-1054R25/100   |   | Stiry among alacent   |
| 1 1   |   | 0 0   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   | strains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.   |
| ype: C=Concentration, D=Depletion, RN   | I=Reduced Matrix, CS=Covered or Coated Sand G   | Indicators for Problematic Hydric Soils <sup>3</sup> :  |
| ydric Soil Indicators: (Applicable to al  |   |   |
| _ Histosol (A1)   | Sandy Redox (S5)  | 2 cm Muck (A10)   |
| <ul> <li>Histic Epipedon (A2)</li> </ul>  | Stripped Matrix (S6)  | Red Parent Material (TF2)   |
| Black Histic (A3)   | V Loamy Mucky Mineral (F1) (except MLRA 1   | ) Very Shallow Dark Surface (TF12)  |
| _/ Hydrogen Sulfide (A4)  | Loamy Gleyed Matrix (F2)  | Other (Explain in Remarks)  |
| Depleted Below Dark Surface (A11)   | Depleted Matrix (F3)  | State of the state of the state of the state  |
| Thick Dark Surface (A12)  | Redox Dark Surface (F6)   | <sup>3</sup> Indicators of hydrophytic vegetation and   |
| Sandy Mucky Mineral (S1)  | Depleted Dark Surface (F7)  | wetland hydrology must be present.  |
| Sandy Gleyed Matrix (S4)  | Redox Depressions (F8)  | unless disturbed or problematic.  |
| testrictive Layer (if present):   |   | 2   |
| Type: roots   |   |   |
| Depth (inches): 10  |   | Hydric Soil Present? Yes No   |
|   |   |   |
| assume depic  | teone > 10"   |   |
| YDROLOGY  | teon > 10"  |   |
| YDROLOGY<br>Wetland Hydrology Indicators:   |   | Secondary Indicators (2 or more required)   |
| YDROLOGY<br>Netland Hydrology Indicators:<br>Primary Indicators (minimum of one requi   | red; check all that apply)  |   |
| YDROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one reguli<br>Surface Water (A1)  | red; check all that apply)  | Secondary Indicators (2 or more required)<br>Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)   |
| YDROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one requin<br>Surface Water (A1)<br>High Water Table (A2)   | red; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)   | Water-Stained Leaves (B9) (MLRA 1, 2,   |
| YDROLOGY<br>Netland Hydrology Indicators:<br>Primary Indicators (minimum of one requin<br>Surface Water (A1)<br>High Water Table (A2)<br>V Saturation (A3)  | red; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)   |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requit<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)  | red; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)  |
| YDROLOGY<br>Primary Indicators (minimum of one requination of the second states)<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)  | red; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C9  |
| YDROLOGY<br>Primary Indicators (minimum of one requir<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)  | red; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living R  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C3<br>Roots (C3) Geomorphic Position (D2)   |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requination (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)  | red; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living R<br>Presence of Reduced Iron (C4)   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C3<br>Coots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)  |
| YDROLOGY<br>Primary Indicators (minimum of one requir<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)  | red; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living R<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils (  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C3<br>Coots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) FAC-Neutral Test (D5)  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requination (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)  | red; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living R<br>Presence of Reduced Iron (C4)   | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C3)<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) FAC-Neutral Test (D5)<br>(A) Raised Ant Mounds (D6) (LRR A)  |
| YDROLOGY<br>Metland Hydrology Indicators:<br>Primary Indicators (minimum of one requints)<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)   | red; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living R<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils (<br>Stunted or Stressed Plants (D1) (LRR  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C3<br>Coots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) FAC-Neutral Test (D5)  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one requin<br>Surface Water (A1)<br>High Water Table (A2)<br>V Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>(ron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Imagery  | red; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living R<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils (<br>Stunted or Stressed Plants (D1) (LRR<br>(B7) Other (Explain in Remarks)                                 | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C3<br>Coots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) FAC-Neutral Test (D5)<br>C6) Raised Ant Mounds (D6) (LRR A)                                    |
| YDROLOGY<br>Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one requit<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Imagery<br>Sparsely Vegetated Concave Surface  | red; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living R<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils (<br>Stunted or Stressed Plants (D1) (LRR<br>(B7) Other (Explain in Remarks)                                 | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C3<br>Coots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) FAC-Neutral Test (D5)<br>C6) Raised Ant Mounds (D6) (LRR A)                                    |
| YDROLOGY         Primary Indicators (minimum of one requination (minimum of one requination)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery         Sparsely Vegetated Concave Surface         Field Observations:   | red; check all that apply)<br>Verter-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living R<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Soils (<br>Stunted or Stressed Plants (D1) (LRR<br>(B7) Other (Explain in Remarks)<br>e (B8)                      | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C3<br>Coots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) FAC-Neutral Test (D5)<br>C6) Raised Ant Mounds (D6) (LRR A)                                    |
| YDROLOGY         Primary Indicators (minimum of one requil         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?  | red; check all that apply)<br>Water-Stained Leaves (B9) (except<br>MLRA 1, 2, 4A, and 4B)<br>Salt Crust (B11)<br>Aquatic Invertebrates (B13)<br>Hydrogen Sulfide Odor (C1)<br>Oxidized Rhizospheres along Living R<br>Presence of Reduced Iron (C4)<br>Recent Iron Reduction in Tilled Solls (<br>Stunted or Stressed Plants (D1) (LRR<br>(B7) Other (Explain in Remarks)<br>e (B8)<br>No Depth (inches): | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C3<br>Coots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) FAC-Neutral Test (D5)<br>C6) Raised Ant Mounds (D6) (LRR A)                                    |
| YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one requited)         Surface Water (A1)         High Water Table (A2)         V Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?         Yes   | red; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C3)<br>Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) FAC-Neutral Test (D5)<br>(C6) Raised Ant Mounds (D6) (LRR A)<br>Frost-Heave Hummocks (D7)                |
| YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one requit         Surface Water (A1)         High Water Table (A2)         V Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes   | red; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C3<br>Coots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) FAC-Neutral Test (D5)<br>C6) Raised Ant Mounds (D6) (LRR A)                                    |
| YDROLOGY         Primary Indicators (minimum of one requination (minimum of one requination)  | red; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) (A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)   |
| YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one requit         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         Saturation Present?       Yes         Describe Recorded Data (stream gauge,   | red; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) (A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)   |
| YDROLOGY         Primary Indicators (minimum of one requination (minimum of one requination)  | red; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) (A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)   |
| YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one requit         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         Saturation Present?       Yes         Describe Recorded Data (stream gauge,   | red; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2,<br>4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) (A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)   |
| YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one requit         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         Saturation Present?       Yes         Describe Recorded Data (stream gauge,   | red; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C3<br>Coots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>C6) FAC-Neutral Test (D5)<br>C6) FAC-Neutral Test (D5)<br>C6) Frost-Heave Hummocks (D7)              |
| YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one requit         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         Describe Recorded Data (stream gauge, | red; check all that apply)  | Water-Stained Leaves (B9) (MLRA 1, 2<br>4A, and 4B)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)<br>Saturation Visible on Aerial Imagery (C<br>Soots (C3) Geomorphic Position (D2)<br>Shallow Aquitard (D3)<br>(C6) FAC-Neutral Test (D5)<br>(C6) FAC-Neutral Test (D5)<br>(C6) Frost-Heave Hummocks (D7)<br>(C7) No |

| WETLAND DETERMINATION                                       | DATA FORM   | - Western Mou       | intains, Valleys, and  | Coast Region  |
|---|---|---------------------|--|---|
| Project/Site: BCIRM Stream Res                              | foration cit  | VCounty Dou         | alas   | Sampling Date: <u>5/10/20</u>   |
| Applicant/Owner: NTCD                                       |   | , obuinty. <u></u>  | State: NV  | Sampling Date: 0/10/20  |
| + 0   | So  | ction, Township, Ra |  | Sampling Point: RB-20   |
|   | 3e  | cuon, Township, Ra  | inge:  | 00  |
| Subregion (LRR): MLRH 22 H                                  | Let 12  | La relier (concave, | convex, none):CON  | Vex Slope (%): 8%   |
| 1 2   | Lat: 13   | Xerothente          | Long: <u>246001</u>  | E Datum: <u>NADS</u>  |
| re climatic / hydrologic conditions on the site typical for |   | DREE                | INVVI Classifica   | ation: Freshwater   |
|   | a second s |                     | (If no, explain in Re  |   |
| re Vegetation, Soil, or Hydrology                           |   |                     |  | resent? Yes K No  |
| re Vegetation, Soil, or Hydrology                           |   |                     | eeded, explain any answer  |   |
| UMMARY OF FINDINGS - Attach site ma                         | ap showing sa   | ampling point I     | ocations, transects,   | important features, etc.  |
| Hydrophytic Vegetation Present? Yes                         | No  | Minister of         | 1.000 5.000  |   |
| Hydric Soil Present? Yes                                    |   | Is the Sampleo      |  | 1   |
| Remarks: DOT W & RB-19 and                                  |   | within a Wetla      |  | No  |
| WP124246001,4317821   | E of gra  | mate out RB-1       | grop, abou   | t 4-5 higher  |
| EGETATION - Use scientific names of pl                      | ants.   |                     |  |   |
| 1   |   | ominant Indicator   | Dominance Test works   | hast  |
| FPOP ulus fremulaidee                                       | <u>% Cover</u> S  | pecies? Status      | Number of Dominant So  | ecies 7   |
| ropucius tremucolous  | 40  | V FAC               | That Are OBL, FACW, o  | r FAC: (A)  |
|   |   |                     | Total Number of Domina   | nt  |
|   |   |                     | Species Across All Strat   | a: (B)  |
| and the second second                                       | 40 -  | Total Cover         | Percent of Dominant Spi  | ecies ind   |
| Sapling/Shrub Stratum (Plot size: 10×10)                    |   |                     | That Are OBL, FACW, o  |   |
| Populus tremulordes   |   | FAC                 | Prevalence Index work<br>Total % Cover of:   |   |
|   |   |                     |  | Multiply by:<br>x 1 =   |
|   |   |                     | and the second second second   | x2=   |
|   |   |                     | and the second sec | x 3 =   |
| Inter'  | 5 .   | Total Cover         | FACU species   | x 4 =   |
| Herb Stratum (Plot size: 0 ×10)                             | 2/2   | 1.000               |  | x 5 =   |
| Poapratensis  |   | V FITC              | Column Totals:   | (A) (B)   |
| Hardpyran (seeded)  |   | - UFL               | Prevalence Index   | = B/A =   |
| 1 1   |   | DPL                 | Hydrophytic Vegetation   |   |
|   |   |                     | 1 - Rapid Test for Hy  |   |
| k   |   |                     | 2 - Dominance Test   |   |
|   |   |                     | 3 - Prevalence Index   |   |
|   |   |                     | data in Remarks  | aptations <sup>1</sup> (Provide supporting<br>or on a separate sheet) |
|   |   |                     | 5 - Wetland Non-Vas  | cular Plants <sup>1</sup>   |
| 0   |   |                     |  | nytic Vegetation <sup>1</sup> (Explain)                               |
| 1   |   |                     | <sup>1</sup> Indicators of hydric soil a<br>be present, unless distur  | and wetland hydrology must  |
| Voody Vine Stratum (Plot size:)                             | 25 =1   |                     | ou preaent, uniess distur  | bed or problematic.   |
|   |   |                     | Hydrophytic  |   |
| 1.540   |   |                     | Vegetation<br>Present? Yes   | V No  |
| & Bare Ground in Herb Stratum 50%                           | =1  | otal Cover          | Tes  | NO  |
| * 1988 Wet Ind Statu  | S   |                     |  |   |

1

# Sampling Point: RB-20

| ofile Description: (Describe to th  |                            |   |   |   |  |                        |  |   |   |           |
|---|----------------------------|---|---|---|--|------------------------|--|---|---|-----------|
| epth Matrix   |                            |   | Features  |   | 12   | Tautura                |  | Rema  | rlin  |           |
| ches) Color (moist)   | % Color                    | (moist)   | %   | Type'   | Loc  | Texture                | -  |   | the second se |           |
| 2-1   |                            |   |   |   |  | -                      | -0   | Laye  | 1   |           |
| -11 10YR2/2 10  | 00                         |   |   | _   |  | sandy                  | clay   | Loav  | n   |           |
| 1-19 104R339  | 15 7.5)                    | R3/4  | 5   | C   | M  | Silty                  | clay   | loan  | 2Wg   | rave      |
| - + formage -   |                            |   |   |   |  |                        |  | K   | 11  |           |
|   |                            |   |   |   |  |                        | -  |   |   |           |
|   |                            |   |   |   |  |                        |  |   |   |           |
|   |                            |   |   |   | -  |                        |  |   |   |           |
|   |                            |   |   |   |  |                        |  |   |   |           |
|   |                            |   |   |   |  |                        | -  |   |   | -         |
| ype: C=Concentration, D=Depletic  | on, RM=Reduce              | d Matrix, CS  | =Covere   | d or Coat   | ed Sand Gr   | rains. L               |  | L=Pore Lini   |   |           |
| ydric Soil Indicators: (Applicable  |                            |   |   | tea.)   |  |                        | cm Muck (  |   | inyune oo   |           |
| _ Histosol (A1)   |                            | dy Redox (S<br>pped Matrix (  |   |   |  |                        |  | Material (TF  | 2)  |           |
| _ Histic Epipedon (A2)  |                            | my Mucky M  | ineral (F   | 1) (excer   | t MLRA 1)  |                        |  | Dark Surfa  |   |           |
| <ul> <li>Black Histic (A3)</li> <li>Hydrogen Sulfide (A4)</li> </ul>  |                            | my Gleyed N   |   |   |  |                        |  | in in Reman   |   |           |
| Depleted Below Dark Surface (A  |                            | oleted Matrix   | Ward and a state  |   |  |                        |  |   |   |           |
| Thick Dark Surface (A12)  | Red                        | dox Dark Sur  | face (F6  |   |  |                        |  | rophytic ve   | The second second   |           |
| Sandy Mucky Mineral (S1)  |                            | pleted Dark S   |   |   |  |                        |  | logy must t   |   |           |
| Sandy Gleyed Matrix (S4)  | Rec                        | dox Depressi  | ions (F8)   | )   |  | uni                    | ess disturt  | ed or proble  | emauc.  |           |
| estrictive Layer (if present):  |                            |   |   |   |  |                        |  |   |   |           |
| Туре:   |                            |   |   |   |  | Hydric Se              | il Presen  | t? Yes_   | No  | V         |
| Depth (inches):   |                            |   |   |   |  | injunio Si             | an i resen   |   |   |           |
| V II II V   | t matt                     | les   |   |   |  |                        |  |   |   |           |
| YDROLOGY<br>Wetland Hydrology Indicators:   |                            |   |   |   |  |                        |  |   |   |           |
| YDROLOGY<br>Vetland Hydrology Indicators:   |                            | c all that appl   |   |   |  | Se                     |  | dicators (2 d   |   | 1000      |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)   |                            | call that appl<br>Water-Sta   | ined Lea  | Contraction of the second   |  | <u>Se</u>              | Water-St   | ained Leave   |   | 1000      |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)  |                            | <u>all that appl</u><br>Water-Sta<br>MLRA   | ined Lea<br>1, 2, 4A  | aves (B9)<br>, and 4B)  |  | <u>Se</u>              | Water-St<br>4A, an   | ained Leave<br>nd 4B)   | es (B9) (MI   | 1000      |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)   |                            | <u>all that appl</u><br>Water-Sta<br>MLRA<br>Salt Crust   | ined Lea<br>1, 2, 4A<br>(B11)   | , and 4B)   |  | <u>Se</u>              | Water-St<br>4A, an<br>Drainage   | ained Leave<br>nd 4B)<br>Patterns (E  | es (B9) (MI<br>310)   | 1000      |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)   |                            | <u>k all that appl</u><br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In   | ined Lea<br>1, 2, 4A<br>(B11)<br>vertebra   | and 4B)   |  | <u>Se</u>              | Water-St<br>4A, an<br>Drainage<br>Dry-Seas   | ained Leave<br>nd 4B)<br>Patterns (E<br>son Water T   | es (B9) (Mi<br>310)<br>able (C2)  | .RA 1, 2, |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)   |                            | <u>all that appl</u><br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen   | ined Lea<br>1, 2, 4A<br>(B11)<br>vertebra<br>Sulfide  | and 4B)<br>ates (B13)<br>Odor (C1   | )  |                        | Water-St<br>4A, an<br>Drainage<br>Dry-Seas<br>Saturatio  | ained Leave<br>nd 4B)<br>Patterns (E<br>on Water T<br>n Visible on  | es (B9) (MI<br>310)<br>able (C2)<br>Aerial Ima  | .RA 1, 2, |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)  |                            | <u>k all that appl</u><br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F   | ined Lea<br>1, 2, 4A<br>(B11)<br>wertebra<br>Sulfide<br>Rhizospl  | and 4B)<br>ates (B13)<br>Odor (C1<br>heres alor   | )<br>ng Living R   | See<br>                | Water-St<br>4A, an<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomorp   | ained Leave<br>nd 4B)<br>Patterns (E<br>on Water T<br>n Visible on<br>ohic Position   | es (B9) (MI<br>310)<br>able (C2)<br>Aerial Ima<br>n (D2)  | .RA 1, 2, |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)   |                            | <u>All that appl</u><br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized I<br>Presence   | ined Lea<br><b>1, 2, 4A</b><br>(B11)<br>wertebra<br>Sulfide<br>Rhizospl<br>of Redu  | ates (B13)<br>Odor (C1<br>heres alon<br>iced Iron   | )<br>ng Living Ri<br>(C4)                                | oots (C3)              | Water-St<br>4A, an<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomory<br>Shallow                                    | ained Leave<br>nd 4B)<br>Patterns (E<br>on Water T<br>n Visible on  | es (B9) (MI<br>310)<br>Table (C2)<br>1 Aerial Ima<br>1 (D2)<br>3)   | .RA 1, 2, |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)   |                            | <u>all that appl</u><br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized I<br>Presence<br>Recent Inc   | ined Lea<br><b>1, 2, 4A</b><br>(B11)<br>wertebra<br>Sulfide<br>Rhizospl<br>of Redu<br>on Redu   | ates (B13)<br>Odor (C1<br>heres alou<br>iced Iron<br>ction in T   | )<br>ng Living Ri<br>(C4)<br>illed Soils ((              | oots (C3)              | Water-St<br>4A, an<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomory<br>Shallow<br>FAC-Net                         | ained Leave<br>nd 4B)<br>Patterns (E<br>son Water T<br>n Visible on<br>bhic Position<br>Aquitard (D   | es (B9) ( <b>Mi</b><br>310)<br>able (C2)<br>Aerial Ima<br>n (D2)<br>3)<br>95)                                   | RA 1, 2,  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)   | required; check            | <u>all that appl</u><br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized I<br>Presence<br>Recent Iro<br>Stunted o  | ined Lea<br><b>1, 2, 4A</b><br>(B11)<br>ivertebra<br>Sulfide<br>Rhizospl<br>of Redu<br>on Redu<br>or Stress   | ates (B13)<br>Odor (C1<br>heres alon<br>iced Iron<br>iction in T<br>ed Plants                                   | )<br>ng Living Ri<br>(C4)<br>illed Soils ((<br>(D1) (LRR | oots (C3)              | Water-St<br>4A, an<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomory<br>Shallow<br>FAC-Net<br>Raised A             | ained Leave<br>nd 4B)<br>Patterns (E<br>on Water T<br>n Visible on<br>ohic Position<br>Aquitard (D<br>utral Test (D                                 | es (B9) (Mi<br>able (C2)<br>Aerial Ima<br>1 (D2)<br>3)<br>95)<br>(D6) (LRR                                      | RA 1, 2,  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Im  | required; check            | <u>all that appl</u><br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized I<br>Presence<br>Recent Inc   | ined Lea<br><b>1, 2, 4A</b><br>(B11)<br>ivertebra<br>Sulfide<br>Rhizospl<br>of Redu<br>on Redu<br>or Stress   | ates (B13)<br>Odor (C1<br>heres alon<br>iced Iron<br>iction in T<br>ed Plants                                   | )<br>ng Living Ri<br>(C4)<br>illed Soils ((<br>(D1) (LRR | oots (C3)              | Water-St<br>4A, an<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomory<br>Shallow<br>FAC-Net<br>Raised A             | ained Leave<br>nd 4B)<br>Patterns (E<br>con Water T<br>n Visible on<br>ohic Position<br>Aquitard (D:<br>utral Test (D<br>nt Mounds                  | es (B9) (Mi<br>able (C2)<br>Aerial Ima<br>1 (D2)<br>3)<br>95)<br>(D6) (LRR                                      | RA 1, 2   |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Im<br>Sparsely Vegetated Concave S  | required; check            | <u>all that appl</u><br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized I<br>Presence<br>Recent Iro<br>Stunted o  | ined Lea<br><b>1, 2, 4A</b><br>(B11)<br>ivertebra<br>Sulfide<br>Rhizospl<br>of Redu<br>on Redu<br>or Stress   | ates (B13)<br>Odor (C1<br>heres alon<br>iced Iron<br>iction in T<br>ed Plants                                   | )<br>ng Living Ri<br>(C4)<br>illed Soils ((<br>(D1) (LRR | oots (C3)              | Water-St<br>4A, an<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomory<br>Shallow<br>FAC-Net<br>Raised A             | ained Leave<br>nd 4B)<br>Patterns (E<br>con Water T<br>n Visible on<br>ohic Position<br>Aquitard (D:<br>utral Test (D<br>nt Mounds                  | es (B9) (Mi<br>able (C2)<br>Aerial Ima<br>1 (D2)<br>3)<br>95)<br>(D6) (LRR                                      | RA 1, 2,  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Im<br>Sparsely Vegetated Concave S<br>Field Observations:   | agery (B7)                 | <u>all that appl</u><br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized I<br>Presence<br>Recent Iro<br>Stunted o  | ined Lea<br><b>1, 2, 4A</b><br>(B11)<br>vvertebra<br>Sulfide<br>Rhizospi<br>of Redu<br>on Redu<br>on Redu<br>or Stresse<br>splain in                    | ates (B13)<br>Odor (C1<br>heres alon<br>iced Iron<br>iction in T<br>ed Plants                                   | )<br>ng Living Ri<br>(C4)<br>illed Soils ((<br>(D1) (LRR | oots (C3)              | Water-St<br>4A, an<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomory<br>Shallow<br>FAC-Net<br>Raised A             | ained Leave<br>nd 4B)<br>Patterns (E<br>con Water T<br>n Visible on<br>ohic Position<br>Aquitard (D:<br>utral Test (D<br>nt Mounds                  | es (B9) (Mi<br>able (C2)<br>Aerial Ima<br>1 (D2)<br>3)<br>95)<br>(D6) (LRR                                      | RA 1, 2,  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Im<br>Sparsely Vegetated Concave S<br>Field Observations:<br>Surface Water Present? Yes   | agery (B7)<br>Surface (B8) | Call that apple<br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Iro<br>Stunted o<br>Other (Ex  | ined Lead<br>1, 2, 4A<br>(B11)<br>vvertebra<br>Sulfide<br>Rhizospl<br>of Redu<br>on Redu<br>on Redu<br>or Stress:<br>plain in<br>nches):                | ates (B13)<br>Odor (C1<br>heres alon<br>iced Iron<br>iction in T<br>ed Plants                                   | )<br>ng Living Ri<br>(C4)<br>illed Soils ((<br>(D1) (LRR | oots (C3)              | Water-St<br>4A, an<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomory<br>Shallow<br>FAC-Net<br>Raised A             | ained Leave<br>nd 4B)<br>Patterns (E<br>con Water T<br>n Visible on<br>ohic Position<br>Aquitard (D:<br>utral Test (D<br>nt Mounds                  | es (B9) (Mi<br>able (C2)<br>Aerial Ima<br>1 (D2)<br>3)<br>95)<br>(D6) (LRR                                      | RA 1, 2,  |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Im<br>Sparsely Vegetated Concave S<br>Field Observations:<br>Surface Water Present? Yes<br>Water Table Present? Yes   | agery (B7)<br>Surface (B8) | Aquatic In<br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized I<br>Presence<br>Recent Iro<br>Stunted o<br>Other (Ex   | ined Lea<br>1, 2, 4A<br>(B11)<br>ivertebra<br>Sulfide<br>Rhizospi<br>of Redu<br>on Redu<br>on Redu<br>or Stress<br>cplain in<br>nches):                 | ates (B13)<br>Odor (C1<br>heres alon<br>iced Iron<br>iction in T<br>ed Plants                                   | )<br>ng Living Ri<br>(C4)<br>illed Soils ((<br>(D1) (LRR | oots (C3)              | Water-St<br>4A, ar<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomory<br>Shallow<br>FAC-Ner<br>Raised A<br>Frost-He | ained Leave<br>nd 4B)<br>Patterns (E<br>con Water T<br>n Visible on<br>ohic Position<br>Aquitard (D:<br>utral Test (D<br>utral Test (D<br>ave Hummo | es (B9) (Mi<br>able (C2)<br>a Aerial Ima<br>a (D2)<br>3)<br>(D6) (LRR<br>ocks (D7)                              | _RA 1, 2, |
| YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Im         Sparsely Vegetated Concave S         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes | agery (B7)<br>s No<br>s No | A all that appl<br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Iro<br>Stunted o<br>Other (Ex<br>Depth (ir<br>Depth (ir              | ined Lea<br>1, 2, 4A<br>(B11)<br>vvertebra<br>Sulfide<br>Rhizospl<br>of Redu<br>on Redu<br>on Redu<br>or Stresse<br>splain in<br>nches):<br>nches):<br> | and 4B)<br>ates (B13)<br>Odor (C1<br>heres alon<br>aced Iron in<br>ction in T<br>ed Plants<br>Remarks)<br>> (9) | )<br>ng Living Ri<br>(C4)<br>illed Soils (i<br>(D1) (LRR | oots (C3)<br>C6)<br>A) | Water-St<br>4A, ar<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomory<br>Shallow<br>FAC-Ner<br>Raised A<br>Frost-He | ained Leave<br>nd 4B)<br>Patterns (E<br>con Water T<br>n Visible on<br>ohic Position<br>Aquitard (D:<br>utral Test (D<br>utral Test (D<br>ave Hummo | es (B9) (Mi<br>able (C2)<br>a Aerial Ima<br>a (D2)<br>3)<br>(D6) (LRR<br>ocks (D7)                              | _RA 1, 2, |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Im<br>Sparsely Vegetated Concave S<br>Field Observations:<br>Surface Water Present? Yes<br>Water Table Present? Yes<br>Saturation Present? Yes<br>Saturation Present? Yes<br>Saturation Present? Yes  | agery (B7)<br>s No<br>s No | A all that appl<br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Iro<br>Stunted o<br>Other (Ex<br>Depth (ir<br>Depth (ir              | ined Lea<br>1, 2, 4A<br>(B11)<br>vvertebra<br>Sulfide<br>Rhizospl<br>of Redu<br>on Redu<br>on Redu<br>or Stresse<br>splain in<br>nches):<br>nches):<br> | and 4B)<br>ates (B13)<br>Odor (C1<br>heres alon<br>aced Iron in<br>ction in T<br>ed Plants<br>Remarks)<br>> (9) | )<br>ng Living Ri<br>(C4)<br>illed Soils (i<br>(D1) (LRR | oots (C3)<br>C6)<br>A) | Water-St<br>4A, ar<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomory<br>Shallow<br>FAC-Ner<br>Raised A<br>Frost-He | ained Leave<br>nd 4B)<br>Patterns (E<br>con Water T<br>n Visible on<br>ohic Position<br>Aquitard (D:<br>utral Test (D<br>utral Test (D<br>ave Hummo | es (B9) (Mi<br>able (C2)<br>a Aerial Ima<br>a (D2)<br>3)<br>(D6) (LRR<br>ocks (D7)                              | RA 1, 2,  |
| YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave S  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes  | agery (B7)<br>s No<br>s No | A all that appl<br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Iro<br>Stunted o<br>Other (Ex<br>Depth (ir<br>Depth (ir<br>Depth (ir | ined Lea<br>1, 2, 4A<br>(B11)<br>vvertebra<br>Sulfide<br>Rhizospl<br>of Redu<br>on Redu<br>on Redu<br>or Stresse<br>splain in<br>nches):<br>nches):<br> | and 4B)<br>ates (B13)<br>Odor (C1<br>heres alon<br>aced Iron in<br>ction in T<br>ed Plants<br>Remarks)<br>> (9) | )<br>ng Living Ri<br>(C4)<br>illed Soils (i<br>(D1) (LRR | oots (C3)<br>C6)<br>A) | Water-St<br>4A, ar<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomory<br>Shallow<br>FAC-Ner<br>Raised A<br>Frost-He | ained Leave<br>nd 4B)<br>Patterns (E<br>con Water T<br>n Visible on<br>ohic Position<br>Aquitard (D:<br>utral Test (D<br>utral Test (D<br>ave Hummo | es (B9) (Mi<br>able (C2)<br>a Aerial Ima<br>a (D2)<br>3)<br>(D6) (LRR<br>ocks (D7)                              | _RA 1, 2, |
| YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave S Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream geodeted Concave S   | agery (B7)<br>s No<br>s No | A all that appl<br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Iro<br>Stunted o<br>Other (Ex<br>Depth (ir<br>Depth (ir<br>Depth (ir | ined Lea<br>1, 2, 4A<br>(B11)<br>vvertebra<br>Sulfide<br>Rhizospl<br>of Redu<br>on Redu<br>on Redu<br>or Stresse<br>splain in<br>nches):<br>nches):<br> | and 4B)<br>ates (B13)<br>Odor (C1<br>heres alon<br>aced Iron in<br>ction in T<br>ed Plants<br>Remarks)<br>> (9) | )<br>ng Living Ri<br>(C4)<br>illed Soils (i<br>(D1) (LRR | oots (C3)<br>C6)<br>A) | Water-St<br>4A, ar<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomory<br>Shallow<br>FAC-Ner<br>Raised A<br>Frost-He | ained Leave<br>nd 4B)<br>Patterns (E<br>con Water T<br>n Visible on<br>ohic Position<br>Aquitard (D:<br>utral Test (D<br>utral Test (D<br>ave Hummo | es (B9) (Mi<br>able (C2)<br>a Aerial Ima<br>a (D2)<br>3)<br>(D6) (LRR<br>ocks (D7)                              | _RA 1, 2, |
| YDROLOGY<br>Vetland Hydrology Indicators:<br>Primary Indicators (minimum of one<br>Surface Water (A1)<br>High Water Table (A2)<br>Saturation (A3)<br>Water Marks (B1)<br>Sediment Deposits (B2)<br>Drift Deposits (B3)<br>Algal Mat or Crust (B4)<br>Iron Deposits (B5)<br>Surface Soil Cracks (B6)<br>Inundation Visible on Aerial Im<br>Sparsely Vegetated Concave S<br>Field Observations:<br>Surface Water Present? Yes<br>Water Table Present? Yes<br>Saturation Present? Yes<br>Saturation Present? Yes<br>Saturation Present? Yes  | agery (B7)<br>s No<br>s No | A all that appl<br>Water-Sta<br>MLRA<br>Salt Crust<br>Aquatic In<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Iro<br>Stunted o<br>Other (Ex<br>Depth (ir<br>Depth (ir<br>Depth (ir | ined Lea<br>1, 2, 4A<br>(B11)<br>vvertebra<br>Sulfide<br>Rhizospl<br>of Redu<br>on Redu<br>on Redu<br>or Stresse<br>splain in<br>nches):<br>nches):<br> | and 4B)<br>ates (B13)<br>Odor (C1<br>heres alon<br>aced Iron in<br>ction in T<br>ed Plants<br>Remarks)<br>> (9) | )<br>ng Living Ri<br>(C4)<br>illed Soils (i<br>(D1) (LRR | oots (C3)<br>C6)<br>A) | Water-St<br>4A, ar<br>Drainage<br>Dry-Seas<br>Saturatio<br>Geomory<br>Shallow<br>FAC-Ner<br>Raised A<br>Frost-He | ained Leave<br>nd 4B)<br>Patterns (E<br>con Water T<br>n Visible on<br>ohic Position<br>Aquitard (D:<br>utral Test (D<br>utral Test (D<br>ave Hummo | es (B9) (Mi<br>able (C2)<br>a Aerial Ima<br>a (D2)<br>3)<br>(D6) (LRR<br>ocks (D7)                              | RA 1, 2   |

| roject/Site: <u>BCIRM Stream Rest</u>                      |                       | 3                              | 4141   | Sampling Date: 5/10/20<br>Sampling Point: RB-2/   |
|--|-----------------------|--------------------------------|--|---|
| vestigator(s): J. Picciani                                 | Sect                  | ion, Township, Rar             |  | Sampling Point: 13 10 001   |
| andform (hillslope, terrace, etc.): <u>Hoodplain</u>       | lors                  | al relief (concave             |  | 01  |
| ubregion (LRR): MLRA 22A                                   | Lat: 4313             | 1733 N                         | Long: 245906   | E Datum: NAD  |
| oil Map Unit Name a own - Rock out                         | TOD COMP              | lex 5-15                       | 2051009500 100   | Datum:  |
| e climatic / hydrologic conditions on the site typical for | or this time of year? |                                |  | Autor and a second a |
| e Vegetation, Soil, or Hydrology                           |                       |                                | (If no, explain in F   |   |
| e Vegetation, Soil, or Hydrology                           |                       |                                |  | present? Yes <u>V</u> No  |
|  |                       | CAN BE AND A STREET            | eded, explain any answe  |   |
| UMMARY OF FINDINGS - Attach site m                         |                       | npling point lo                | ocations, transects  | , important features, etc   |
| Hydrophytic Vegetation Present? Yes                        | _ No                  | In the Countral                | 1  |   |
| Hydric Soil Present? Yes Ves Ves                           | _ No                  | Is the Sampled within a Wetlan | Area   | No  |
|  | No                    | ALC: NOT THE REPORT OF         |  |   |
| 0  | mangware              | atoria                         | ) M of Burle   | e creeke (N   |
| NP 130 245906, 4317733                                     |                       |                                |  | 01.3  |
| EGETATION – Use scientific names of p                      | plants.               |                                |  |   |
| ree Stratum (Plot size: 6×10')                             |                       | minant Indicator               | Dominance Test work  | sheet:  |
| Appulus fremulordes  | 30                    | ecies? Status                  | Number of Dominant S   | pecies 3  |
|  |                       |                                | That Are OBL, FACW,  | (A)   |
| -  |                       |                                | Total Number of Domin<br>Species Across All Stra   | $\sim$  |
|  |                       |                                |  |   |
|  | <u>30</u> =T          | otal Cover                     | Percent of Dominant S<br>That Are OBL, FACW,   | or FAC: _/00 (A/B)  |
| Sapling/Shrub Stratum (Plot size:)                         | 10 1                  | 1 Ele                          | Prevalence Index wor   |   |
| opened It office and a                                     |                       | 1100                           | Total % Cover of:  |   |
| *  |                       |                                | OBL species  | x 1 =   |
|  |                       |                                |  | x 2 =   |
| u  |                       |                                |  | x 3 =   |
| in the second  | <u>10</u> = To        | otal Cover                     | 1101   | x 4 =   |
| Carey amplitolia   | 20                    | 6BL                            |  | x 5 =   |
| Callet ampiriora   |                       | 000                            | Column Totals:   | (A) (B)   |
|  |                       |                                |  | = B/A =   |
|  |                       |                                | Hydrophytic Vegetatio  |   |
|  |                       |                                |  | hydrophytic Vegetation  |
|  |                       |                                | 2 - Dominance Tes<br>3 - Prevalence Inde   |   |
|  |                       |                                | the second s | Adaptations <sup>1</sup> (Provide supporting  |
|  |                       |                                | data in Remarks  | s or on a separate sheet)   |
|  |                       |                                | 5 - Wetland Non-Va   |   |
| 0  |                       |                                |  | ohytic Vegetation <sup>1</sup> (Explain)  |
| 1  | 20 = To               |                                | be present, unless distu   | and wetland hydrology must  |
| Voody Vine Stratum (Plot size:)                            | <u></u> =To           | tal Cover                      |  | Presidinatio  |
| ·  | - Andrewski -         | -                              | Hydrophytic  |   |
| N  |                       |                                | Vegetation   | 1   |
| 6 Bare Ground in Herb Stratum 60                           | = To                  | tal Cover                      | Present? Yes   | s No  |
|  |                       |                                |  |   |

US Army Corps of Engineers

| OIL  |  |             |   |   |                   |                  |   | - Dert  | ing Point: <u>no on</u>  |
|--|--|-------------|---|---|-------------------|------------------|---|---|--|
| Profile Description  | n: (Describe to  | the depth   | needed to docu  | ment the ind  | icator o          | r confirm        | the absence of  | indicators.)  |  |
| Depth  | Matrix<br>olor (moist)   | %           | Rede<br>Color (moist)   | bx Features   | Type <sup>1</sup> | Loc <sup>2</sup> | Texture   | hitte   | Remarks  |
| <u>1-3 10</u><br>3-7 5   | YK2.5/1  |             |   |   | _                 |                  | sand<br>sitty c   | green se  | organie be   |
| <sup>1</sup> Type: C=Concen<br>Hydric Soil Indica                  | tration, D=Deple   | tion, RM=R  | educed Matrix, C  | S=Covered c   | or Coate          | d Sand Gr        |   |   | e Lining, M=Matrix.<br>atic Hydric Soils <sup>3</sup> ;                        |
| Histosol (A1)<br>Histic Epipedo<br>Black Histic (/<br>Hydrogen Sul | on (A2)<br>A3)<br>fide (A4)<br>ow Dark Surface<br>urface (A12)<br>Mineral (S1) | -<br>       | Sandy Redox<br>Stripped Matr<br>Loamy Mucky<br>Loamy Gleye<br>Depleted Mat<br>Redox Dark S<br>Depleted Dar<br>Redox Depre | (S5)<br>x (S6)<br>Mineral (F1)<br>d Matrix (F2)<br>rix (F3)<br>Surface (F6)<br>k Surface (F7) | (except           | MLRA 1)          | 2 cm<br>Red F<br>Very 5<br>Other<br><sup>3</sup> Indicators<br>wetlan | Muck (A10)<br>varent Materia<br>Shallow Dark<br>(Explain in R<br>of hydrophyl | II (TF2)<br>Surface (TF12)<br>emarks)<br>ic vegetation and<br>nust be present, |
| Restrictive Layer<br>Type:<br>Depth (inches)                       |  |             | -   |   |                   |                  | Hydric Soil F   | Present? Y  | es No  |
| Remarks:<br>OMA_UMME   | deplet   | ed > 3      | 7" gu   | eic Lo  | nvc               | hic              | ma 1.   | - チ ′′  |  |
| HYDROLOGY  |  |             |   |   |                   |                  |   |   |  |
| Wetland Hydrold  |  | 1000        | - 6. 20 -   | 1.  |                   |                  | - <b>6</b> × 1  | 1   | in a state of the state  |
| Primary Indicator  | s (minimum of o  | ne required |   |   |                   | 7.76.1           |   |   | s (2 or more required)   |
| Surface Wate   |  |             |   | Stained Leave   |                   | except           | W   | 4A, and 4B)   | eaves (B9) (MLRA 1, 2,   |
| High Water   |  |             |   | A 1, 2, 4A, a   | nd 4B)            |                  | D   | ainage Patter   |  |
| Saturation (A  |  |             |   | ust (B11)<br>Invertebrates  | (B13)             |                  |   |   | ter Table (C2)   |
| Water Marks  |  |             |   | en Sulfide Od   |                   |                  |   |   | le on Aerial Imagery (C9)  |
| V Sediment De  | DOSIIS (BZ)  |             | riyulug   | on dunide Ou  | 0.1011            |                  |   |   | and the statement of the state of  |

- Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2)
- Presence of Reduced Iron (C4)
  - Recent Iron Reduction in Tilled Soils (C6)
  - Stunted or Stressed Plants (D1) (LRR A)

| eld Observations:                               | 1                      | 5                                |                               |      |
|---|------------------------|----------------------------------|-------------------------------|------|
| urface Water Present?                           | Yes No                 | _ Depth (inches):                |                               | 1    |
| /ater Table Present?                            | Yes No                 | _ Depth (inches):                | -                             | 1    |
| aturation Present?<br>ncludes capillary fringe) | Yes No                 | _ Depth (inches): <u>3</u>       | Wetland Hydrology Present? Ye | s No |
| scribe Recorded Data (st                        | ream gauge, monitoring | well, aerial photos, previous in | nspections), if available:    |      |

Drift Deposits (B3)

Iron Deposits (B5)

Algal Mat or Crust (B4)

Shallow Aquitard (D3)

FAC-Neutral Test (D5)

DR-21

| roject/Site; <u>BCLKM STREAM</u><br>pplicant/Owner: <u>NTCD</u>            | Restorationily/county:   | 5  |
|--|--|--|
| TA   | 1000000  | State: <u>NV</u> Sampling Point: <u>RY3 - 22</u>   |
| vestigator(s): J. Picciant   | Section, Tov   | vnship, Range:   |
|  | Local relief   | (concave, convex, none): Convex Slope (%): 10  |
|  | Lat: <u>4817731</u>  | N Long: 245894E Datum: NAD   |
| estremaly st   | phus complex,  | 5-15% SLOPENTINI classification: none  |
| e climatic / hydrologic conditions on the site typica                      |  | No (If no, explain in Remarks.)  |
| e Vegetation, Soil, or Hydrology _   | The second s | Are "Normal Circumstances" present? Yes No   |
| e Vegetation, Soil, or Hydrology _   | naturally problematic?   | (If needed, explain any answers in Remarks.)   |
| UMMARY OF FINDINGS – Attach site   | map showing sampling   | point locations, transects, important features, etc.   |
| Hydrophytic Vegetation Present? Yes  | No V   |  |
| 영상은 21 년 1월 1일 1월 19일 1월 19일 1일 <del>1일 1</del> | No V Is the  | e Sampled Area   |
| Netland Hydrology Present? Yes   | No within  | n a Wetland? Yes No  |
| Remarks: plot 2 8 eleva  | ted allove stre  | am - on north side by  |
| pizi grante outo   | rop  | 2000   |
| 01131245894, 4319731   |  |  |
| EGETATION – Use scientific names o   |  |  |
| Tree Stratum (Plot size: 16x20)  | Absolute Dominant<br>% Cover Species?  | Status   |
| Pinus uppreyi  | 10 Species?  | 1 IDI Number of Dominant Species   |
| 8-00-01  |  |  |
|  |  | Total Number of Dominant 3<br>Species Across All Strata: (B)   |
| k  |  |  |
| 10420  | 10 = Total Cov   | Percent of Dominant Species<br>That Are OBL, FACW, or FAC: (A/B)                                       |
| Sapling/Shrub Stratum (Plot size: 10), 20                                  | in VI  | JPL Prevalence Index worksheet:  |
| 2 Arctistachulos Datula  |  | Total % Cover of: Multiply by:   |
| * Populus tremulor des   |  | OBL species x1 =   |
| 1  |  | FACW species x 2 =   |
| 5  |  | FAC species x 3 =  |
| 10270  | 25 = Total Cov   | FACU species x 4 =   |
| Herb Stratum (Plot size: 10x 20)   |  | UPL species x 5 =  |
| Apocynum androsaemipol   |  | ACU Column Totals: (A) (B)   |
|  |  | Prevalence Index = B/A =   |
| B  |  | Hydrophytic Vegetation Indicators:   |
|  |  | 1 - Rapid Test for Hydrophytic Vegetation  |
|  |  | 2 - Dominance Test is >50%   |
| N  |  |  |
| l  |  | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |
| )  |  | 5 - Wetland Non-Vascular Plants <sup>1</sup>   |
|  |  | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 0  |  | <sup>1</sup> Indicators of hydric soil and wetland hydrology must                                      |
|  | 7  | be present, unless disturbed or problematic.   |
| i1   | = Total Cove   |  |
| 11   |  | Sale And   |
| 11   |  | Hydrophytic  |
| 10   |  | Hydrophytic<br>Vegetation  |

# Sampling Point: R13-22

| $\frac{(\text{inches})}{2-2} = \frac{\text{Color (moist)}}{2-2} = \frac{\text{Color (moist)}}{2-2}$ |   |
|--|---|
| 1-2<br>1-6<br>1-6 10VR20 100   | oc <sup>2</sup> Texture Remarks   |
| 1-6 TOVR20 100   | prine needle duch   |
| 1-10 10VR217 100   | numues  |
| 4-10 10 11 41 100  | situ loam.  |
| · · · · · · · · · · · · · · · · · · ·  | _ stry warre  |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |
| ype: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated S   | and Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.  |
| ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)   | Indicators for Problematic Hydric Soils <sup>3</sup> :  |
| Histosol (A1) Sandy Redox (S5)   | 2 cm Muck (A10)   |
| Histic Epipedon (A2) Stripped Matrix (S6)  | Red Parent Material (TF2)   |
| Black Histic (A3) Loamy Mucky Mineral (F1) (except ML  |   |
| Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)   | Other (Explain in Remarks)  |
| _ Depleted Below Dark Surface (A11) Depleted Matrix (F3)   |   |
| _ Thick Dark Surface (A12) Redox Dark Surface (F6)   | <sup>3</sup> Indicators of hydrophytic vegetation and   |
| _ Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)  | wetland hydrology must be present,  |
| _ Sandy Gleyed Matrix (S4) Redox Depressions (F8)  | unless disturbed or problematic.  |
| estrictive Layer (if present):   |   |
| Type: rock   |   |
| Depth (inches):  | Hydric Soil Present? Yes No   |
| emarks:  |   |
| YDROLOGY<br>Vetland Hydrology Indicators:  |   |
| Primary Indicators (minimum of one required; check all that apply)   | Secondary Indicators (2 or more required)   |
| Surface Water (A1) Water-Stained Leaves (B9) (exce   | ept Water-Stained Leaves (B9) (MLRA 1, 2,   |
| High Water Table (A2) MLRA 1, 2, 4A, and 4B)   | 4A, and 4B)   |
| Saturation (A3) Salt Crust (B11)   | Drainage Patterns (B10)   |
| Water Marks (B1) Aquatic Invertebrates (B13)   | Dry-Season Water Table (C2)   |
| Sediment Deposits (B2) Hydrogen Sulfide Odor (C1)  | Saturation Visible on Aerial Imagery (CS  |
|  | ing Roots (C3) Geomorphic Position (D2)   |
| UXIGIZED FUIZOSUREES BIORD LIV   | Shallow Aquitard (D3)   |
|  |   |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4)  |   |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4)<br>Iron Deposits (B5) Recent Iron Reduction in Tilled S  |   |
| Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)         Iron Deposits (B5)       Recent Iron Reduction in Tilled S         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1)  | ·   |
| Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)         Iron Deposits (B5)       Recent Iron Reduction in Tilled S         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)   | Frost-Heave Hummocks (D7)   |
| Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)         Iron Deposits (B5)       Recent Iron Reduction in Tilled S         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)         Sparsely Vegetated Concave Surface (B8)   | ·   |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled S Sturface Soil Cracks (B6) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Sturted or Stressed Plants (D1) Concave Surface (B8) Concave Su   | ·   |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled S Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Terminal Stressed Plants (D1) Depth (inches): Depth  | ·   |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled S Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Depth (inches): Recent Iron Reduction in Tilled S Stunded or Stressed Plants (D1) Other (Explain in Remarks) Depth (inches): Recent Iron Reduction in Tilled S Sparsely Vegetated Concave Surface (B8) Depth (inches):  | Frost-Heave Hummocks (D7)   |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled S Stunded or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Depth (inches): Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Gaturation Present? Yes No Depth (inches): No   | 특별 2012년 1월 19일 - 19월 18일 전 2012년 12일 전 2012년 2012년 11일 관계 12일 전 2012년 12일 전 2012년 12일 전 2012년 12일 전 2012년 2012 |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled S Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Surface Water Present? Yes No Depth (inches): Recent Iron Reduction (C4) Recent Iron Reduction in Tilled S Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):   | Frost-Heave Hummocks (D7)   |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled S Stunded or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Depth (inches): Mo Depth (inches): Mo Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Gaturation Present? Yes No Depth (inches): Addt Yes No Depth (inches) Present PresentP   | Frost-Heave Hummocks (D7)   |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4)<br>Iron Deposits (B5) Recent Iron Reduction in Tilled S<br>Surface Soil Cracks (B6) Stunted or Stressed Plants (D1)<br>Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)<br>Sparsely Vegetated Concave Surface (B8)<br>Field Observations:<br>Surface Water Present? Yes No Depth (inches):<br>Water Table Present? Yes No Depth (inches):<br>Saturation Present? Yes No D  | Frost-Heave Hummocks (D7)<br>Wetland Hydrology Present? Yes No //<br>ections), if available:                    |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4)<br>Iron Deposits (B5) Recent Iron Reduction in Tilled S<br>Surface Soil Cracks (B6) Stunted or Stressed Plants (D1)<br>Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)<br>Sparsely Vegetated Concave Surface (B8)<br>Field Observations:<br>Surface Water Present? Yes No Depth (inches):<br>Water Table Present? Yes No Depth (inches):<br>Saturation Present? Yes No D  | Frost-Heave Hummocks (D7)<br>Wetland Hydrology Present? Yes No //<br>ections), if available:                    |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled S Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Depth (inches): Mo Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Gaturation Present? Yes No Depth (inches) Present? Yes No D  | Frost-Heave Hummocks (D7)<br>Wetland Hydrology Present? Yes No //<br>ections), if available:                    |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled S Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Depth (inches): Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Gaturation Present? Yes No Depth (inches) Present? Yes No Depth (inches) Present? Yes No   | Frost-Heave Hummocks (D7)<br>Wetland Hydrology Present? Yes No //<br>ections), if available:                    |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4)<br>Iron Deposits (B5) Recent Iron Reduction in Tilled S<br>Surface Soil Cracks (B6) Stunted or Stressed Plants (D1)<br>Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)<br>Sparsely Vegetated Concave Surface (B8)<br>Field Observations:<br>Surface Water Present? Yes No Depth (inches):<br>Water Table Present? Yes No Depth (inches):<br>Saturation Present? Yes No Depth (i   | Frost-Heave Hummocks (D7)<br>Wetland Hydrology Present? Yes No //<br>ections), if available:                    |

## **APPENDIX C**

# Photographs



May 8, 2012. Sample point RB-1. Close up of groundwater observation hole.



May 8, 2012. Sample point RB-2. Close up of groundwater observation hole.



May 8, 2012. Sample point RB-3. Close up of groundwater observation hole.



May 8, 2012. Sample point RB-1. Overview NW of dry meadow upland south of Burke Creek.



May 8, 2012. Sample point RB-2. Overview W of mixed herbaceous /forested shrub wetland adjacent to Burke Creek.



May 8, 2012. Sample point RB-3. Overview of mixed herbaceous / shrub wetland in roadside swale.



May 8, 2012. Sample point RB-4. Close up of groundwater observation hole.



May 8, 2012. Sample point RB-5. Close up of groundwater observation hole.



May 8, 2012. Sample point RB-6. Close up of groundwater observation hole.



May 8, 2012. Sample point RB-4. Overview N of herbaceous wetland adjacent to Burke Creek.



May 8, 2012. Sample point RB-5. Overview NE of dry meadow upland west of Burke Creek.



May 8, 2012. Sample point RB-6. Overview S of dry meadow upland between pond and Burke Creek.



May 8, 2012. Sample point RB-7. Close up of groundwater observation hole.



May 8, 2012. Sample point RB-8. Close up of groundwater observation hole.



May 8, 2012. Sample point RB-9. Close up of groundwater observation hole.



May 8, 2012. Sample point RB-7. Overview S of herbaceous wetland adjacent to Burke Creek fed pond.



May 8, 2012. Sample point RB-8. Overview NW of herbaceous/shrub wetland adjacent to Burke Creek .



May 8, 2012. Sample point RB-9. Overview NE of dry meadow upland north of Burke Creek .



May 8, 2012. Sample point RB-10. Close up of groundwater observation hole.



May 9, 2012. Sample point RB-11. Close up of groundwater observation hole.



May 9, 2012. Sample point RB-12. Close up of groundwater observation hole.



May 8, 2012. Sample point RB-10. Overview SE of dry meadow upland north of Burke Creek .



May 9, 2012. Sample point RB-11. Overview SW of dry meadow upland north of Burke Creek .



May 9, 2012. Sample point RB-12. Overview S of herbaceous wetland north of Burke Creek .



May 9, 2012. Sample point RB-13. Close up of groundwater observation hole.



May 9, 2012. Sample point RB-14. Close up of groundwater observation hole.



May 9, 2012. Sample point RB-15. Close up of groundwater observation hole.



May 9, 2012. Sample point RB-13. Overview SE of dry meadow upland north of Burke Creek.



May 9, 2012. Sample point RB-14. Overview E of herbaceous/shrub wetland north side of Burke Creek.



May 9, 2012. Sample point RB-15. Overview W of herbaceous wetland north side of Burke Creek.



May 9, 2012. Sample point RB-16. Close up of groundwater observation hole.



May 9, 2012. Sample point RB-17. Close up of groundwater observation hole.

May 9, 2012. Sample point RB-18. Overview E of plot on elevated berm, south side of Burke Creek. Rock refusal did not allow for a groundwater observation hole.



May 9, 2012. Sample point RB-16. Overview W of understory of Jeffrey pine upland north side of Burke Creek.



May 9, 2012. Sample point RB-17. Overview SW of herbaceous/forested/shrub wetland north side of Burke Creek.





May 10, 2012. Sample point RB-19. Close up of groundwater observation hole.



May 10, 2012. Sample point RB-20. Close up of groundwater observation hole.



May 10, 2012. Sample point RB-21. Close up of groundwater observation hole.



May 10, 2012. Sample point RB-19. Overview S of herbaceous wetland with quaking aspen overstory.



May 10, 2012. Sample point RB-20. Overview W of dry meadow upland with quaking aspen overstory.



May 10, 2012. Sample point RB-21. Overview S of herbaceous wetland with quaking aspen overstory north side of Burke Creek.



May 10, 2012. Sample point RB-22. Close up of groundwater observation hole.



May 9, 2012. WOUS 1, Burke Creek. View upstream (east) of west side US50 culvert.



May 9, 2012. WOUS 1, Burke Creek. View downstream (southwest) of US50 east side culvert.



May 10, 2012. Sample point RB-22. Overview W of montane shrub upland, north side of Burke Creek.



May 9, 2012. WOUS 1, Burke Creek. View upstream (east) of US50, from bend by east side culvert.



May 9, 2012. Overview W of dry meadow adjacent to south side of Burke Creek west of US50.



May 9, 2012. Overview NW of dry meadow and herbaceous wetland up gradient from pond and adjacent to south side of Burke Creek west of US50.



May 9, 2012. Overview W of dry meadow adjacent to north side of Burke Creek just west of US50.



July 11, 2012. Feature 1. Overview S of vegetated stormwater conveyance west of US50.



December 6, 2011. Feature 1. View of storm water conveyance west of US50 accepting piped, flowing water.



December 8, 2011. Feature 2. View downstream of storm water conveyance east of US50.



December 8, 2011. Feature 2. View upstream of storm water conveyance east of US50.



July 11, 2012. Feature 2. View S (upstream) of storm water conveyance swale east of US50 confluence with Burke Creek.

## **APPENDIX D**

Area Plant Species List

#### Rabe Meadows Burke Creek Area Plant Species List 2012

| Family           | Scientific Name 2012**                         | Scientific Name 1993***                           | Common Name             | Plant Communities                       |   |            |            |          |
|------------------|--|---|-------------------------|---|---|------------|------------|----------|
|                  |  |   |                         | Jeffrey Pine                            | Woody Riparian                          | Wet Meadow | Ornamental | Ruderale |
| Amblystegiaceae* | Amblystegium serpens                           | Amblystegium serpens                              | amblystegium moss       |   |   | Х          |            |          |
| Apiaceae         | Heracleum maximum                              | Heracleum lanatum                                 | cow parsnip             |   |   | Х          |            |          |
| 1                | Osmorhiza occidentalis                         | Osmorhiza occidentalis                            | sweet anise             |   | Х                                       |            |            |          |
| Apocynaceae      | Apocynum androsaemifolium                      | Apocynum androsaemifolium                         | bitter dogbane          | Х                                       |   |            |            |          |
| Asteraceae       | Achillea millefolium                           | Achillea millefolium                              | common yarrow           |   |   |            | Х          |          |
|                  | Ambrosia acantihicarpa                         | Ambrosia acantihicarpa                            | sand bursage            |   |   |            |            | Х        |
|                  | Artemisia douglasiana                          | Artemisia douglasiana                             | mugwort                 |   | Х                                       |            |            |          |
|                  | Artemesia tridentata ssp. vasevana             | Artemesia tridentata ssp. vaseyana                | mountain sagebrush      | Х                                       |   |            |            |          |
|                  | Chrysothamnus viscidiflorus ssp. viscidiflorus | Chrysothamnus viscidiflorus ssp. viscidiflorus    | Douglas' rabbitbrush    | Х                                       |   |            |            | Х        |
|                  | Cirsium vulgare                                | Cirsium vulgare                                   | bull thistle            |   |   |            |            | X        |
|                  | Ericameria nauseosa var. hololeuca             | Chrysothamnus nauseosus ssp. hololeucus           | rubber rabbitbrush      | Х                                       |   |            |            | Х        |
|                  | Erigeron breweri                               | Erigeron breweri                                  | Brewer's fleabane       | X                                       |   |            |            |          |
|                  | Erigeron canadensis                            | Conyza canadensis                                 | Canadian horseweed      |   |   |            |            | Х        |
|                  | Grindelia squarrosa var. serrulata             | Grindelia squarrosa var. serrulata                | curlycup gumweed        |   | 1                                       |            |            | X        |
|                  | Lactuca serriola                               | Lactuca serriola                                  | prickly lettuce         |   | 1                                       |            |            | X        |
|                  | Leucanthemum maximum                           | Leucanthemum maximum                              | Shasta daisy            |   |   |            | Х          |          |
|                  | Taraxacum officinale                           | Taraxacum officinale                              | common dandelion        |   |   |            |            | Х        |
|                  | Tragopogon dubius                              | Tragopogon dubius                                 | goatsbeard              |   |   |            |            | X        |
| Betulacaceae     | Alnus incana ssp. tenuifolia                   | Alnus incana ssp. tenuifolia                      | mountain alder          |   | Х                                       |            |            |          |
| Boraginaceae     | Phacelia heterophylla ssp. virgata             | Phacelia heterophylla ssp. virgata (Hydrophyllace |                         | Х                                       | ~~~~~                                   |            |            | l        |
|                  | Brachythecium frigidum                         | Brachythecium frigidum                            | cold brachythecium moss | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |   | Х          |            |          |
|                  | Boechera pinetorum                             | Arabis holboelii var. pinetorum                   | woodland rockcress      | Х                                       |   | ~ ~        |            | l        |
| Brassicaceae     | Descurainia californica                        | Descurainia californica                           | Sierra tansymustard     | X                                       | Х                                       |            |            |          |
|                  | Lepidium perfoliatum                           | Lepidium perfoliatum                              | clasping pepperweed     | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |            |            | Х        |
|                  | Lepidium virginicum                            | Lepidium virginicum                               | Virginia pepperweed     | Х                                       |   |            |            |          |
|                  | Sisymbrium altissimum                          | Sisymbrium altissimum                             | tall tumble mustard     | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |   |            |            | Х        |
| Chenopodiaceae   | Chenopodium album                              | Chenopodium album                                 | lamb's quarters         |   |   |            |            | X        |
| Cornaceae        | Cornus sericea                                 | Cornus sericea                                    | American dogwood        |   | Х                                       |            | Х          | ~        |
| Cyperaceae       | Carex amplifolia                               | Carex amplifolia                                  | big-leaf sedge          |   | X                                       | Х          | ~          |          |
| Oyperaceae       | Carex douglasii                                | Carex douglasii                                   | Douglas' sedge          | х                                       |   | X          |            | Х        |
|                  | Carex fracta                                   | Carex amplectens                                  | fragile-sheathed sedge  | X                                       |   |            |            | ~        |
|                  | Carex illota                                   | Carex illota                                      | sheep sedge             | Λ                                       |   | х          |            |          |
|                  | Carex leptopoda                                | Carex deweyana ssp. leptopoda                     | short-scale sedge       |   |   | X          |            |          |
|                  | Carex nebrascensis                             | Carex nebrascensis                                | Nebraska sedge          |   |   | X          |            |          |
|                  | Carex pellita                                  | Carex lanuginosa                                  | woolly sedge            |   |   | X          |            | <u> </u> |
|                  | Carex rossii                                   | Carex rossii                                      | Ross' sedge             | Х                                       |   | X          |            |          |
|                  | Scirpus microcarpus                            | Scirpus microcarpus                               | smallfruit bulrush      | ^                                       |   | х          |            |          |
| Ericaceae        | Arctostaphylos patula                          | Arctostaphylos patula                             | green-leaf manzanita    | х                                       |   | ~          |            |          |
|                  | Pyrola asarifolia ssp. asarifolia              | Pyrola asarifolia ssp. asarifolia                 | bog wintergreen         | ^                                       | Х                                       | х          |            |          |
|                  | Sarcodes sanguinea                             | Sarcodes sanguinea                                | snow plant              | Х                                       | ^                                       | ^          |            | l        |
| Equisetaceae     | Equisetum arvense                              | Equisetum arvense                                 | field horsetail         | ^                                       | Х                                       | х          |            |          |
| Fabaceae         | Acmispon americanus var. americanus            | Lotus purshianus var. purshianus                  | Spanish clover          |   | ^                                       | ^          | X          | Х        |
| I ANALEAE        | Lupinus grayi                                  | Lupinus grayi                                     | Gray's lupine           | Х                                       |   |            | ^          | <u>^</u> |
|                  | Medicago lupulina                              | Medicago lupulina                                 | black medic             | ^                                       | +                                       |            | Х          | l        |
|                  | Melilotus officinalis                          | Melilotus officinalis                             | vellow sweetclover      |   |   |            | ^          | Х        |
|                  |  |   | ,                       |   | Х                                       |            |            | <u> </u> |
|                  | Trifolium longipes ssp. atrorubens             | Trifolium longipes                                | long-stalked clover     |   | ^                                       | I          |            | <u> </u> |

#### Rabe Meadows Burke Creek Area Plant Species List 2012

| Family           | Scientific Name 2012**                   | Scientific Name 1993***                  | Common Name               | Plant Communities |   |   |   |   |  |
|------------------|--|--|---------------------------|-------------------|---|---|---|---|--|
| Grossulariaceae  |  | Ribes nevadense                          | Sierra currant            | X                 |   |   |   |   |  |
| Juncaceae        | Juncus balticus ssp. ater                | Juncus balticus                          | Baltic rush               |                   |   |   |   | Х |  |
| Malvaceae        | Sidalcea oregana                         | Sidalcea oregana                         | Oregon checkermallow      |                   |   | Х |   |   |  |
| Onagraceae       | Chamerion angustifolium ssp. circumvagum | Epilobium angustifolium ssp. circumvagum | fireweed                  |                   | Х |   |   |   |  |
|                  | Epilobium brachycarpum                   | Epilobium brachycarpum                   | tall annual willowherb    |                   |   |   |   | Х |  |
|                  | Epilobium ciliatum                       | Epilobium ciliatum                       | hairy willowherb          |                   |   | Х |   |   |  |
|                  | Gaophytum diffusum                       | Gaophytum diffusum                       | spreading groundsmoke     | Х                 |   |   |   | Х |  |
| Orchidaceae      | Platanthera dilatata var. leucostachys   | Platanthera leucostachys                 | bog orchid                |                   | Х | Х |   |   |  |
| Orthotrichaceae* | Orthotrichum laevigatum                  | Orthotrichum laevigatum                  | orthotrichum moss         | Х                 |   |   |   |   |  |
| Paeoniaceae      | Paeonia brownii                          | Paeonia brownii                          | Brown's peony             | Х                 |   |   |   |   |  |
| Pinaceae         | Abies concolor                           | Abies concolor                           | white fir                 | Х                 |   |   |   |   |  |
| -                | Pinus jeffreyi                           | Pinus jeffreyi                           | Jeffrey pine              | Х                 |   |   |   |   |  |
| Plantaginaceae   | Plantago major                           | Plantago major                           | common plantain           |                   |   |   |   | Х |  |
| Poaceae          | Agrostis stolonifera                     | Agrostis stolonifera                     | creeping bentgrass        |                   |   | Х |   |   |  |
|                  | Bromus carinatus                         | Bromus carinatus                         | California brome          | Х                 |   |   |   | Х |  |
|                  | Bromus tectorum                          | Bromus tectorum                          | cheatgrass                | Х                 |   |   |   | Х |  |
|                  | Dactylis glomerata                       | Dactylis glomerata                       | orchard grass             | Х                 |   |   |   |   |  |
|                  | Elymus elymoides                         | Elymus elymoides                         | squirreltail grass        | Х                 |   |   |   |   |  |
|                  | Elymus lanceolatus ssp. lanceolatus      | Elymus lanceolatus ssp. lanceolatus      | thick spike wheat grass   | Х                 |   |   | Х | Х |  |
|                  | Elymus hispidus                          | Elytrigia intermedia ssp. intermedia     | intermediate wheatgrass   | Х                 | Х |   |   |   |  |
|                  | Elymus trachycaulus ssp. trachycaulus    | Elymus trachycaulus ssp. trachycaulus    | slender wheatgrass        | Х                 |   |   |   |   |  |
|                  | Festuca arundinacea                      | Festuca arundinacea                      | tall fescue               | Х                 |   |   | Х |   |  |
|                  | Festuca idahoensis                       | Festuca idahoensis                       | Idaho fescue              | Х                 |   |   |   |   |  |
|                  | Glyceria elata                           | Glyceria elata                           | tall manna grass          |                   |   | Х |   |   |  |
|                  | Hordeum jubatum ssp. jubatum             | Hordeum jubatum                          | foxtail barley            |                   |   |   | Х |   |  |
|                  | Phleum pratense                          | Phleum pratense                          | cultivated timothy        | Х                 |   |   |   |   |  |
|                  | Poa secunda ssp. secunda                 | Poa secunda ssp. secunda                 | Sandberg bluegrass        | Х                 |   |   |   | Х |  |
|                  | Poa bulbosa                              | Poa bulbosa                              | bulbous bluegrass         |                   |   |   |   | Х |  |
|                  | Poa fendleriana ssp. longiligula         | Poa fendleriana ssp. longiligula         | muttongrass               | Х                 |   |   |   |   |  |
|                  | Poa pratensis ssp. pratensis             | Poa pratensis ssp. pratensis             | Kentucky bluegrass        |                   | Х |   | Х | Х |  |
|                  | Poa trivialis                            | Poa trivialis                            | rough bluegrass           |                   | Х | Х |   |   |  |
| Polemoniaceae    | Leptosiphon nuttallii                    | Linanthus nuttallii                      | Nuttall's desert trumpets | Х                 |   |   |   |   |  |
| Polygonaceae     | Polygonum aviculare                      | Polygonum arenastrum                     | yard knotweed             |                   |   |   |   | Х |  |
|                  | Rumex crispus                            | Rumex crispus                            | curly dock                |                   |   | Х |   |   |  |
|                  | Rumex salicifolius                       | Rumex salicifolius                       | willow dock               |                   |   | Х |   |   |  |
| Pottiaceae*      | Syntrichia princeps                      | Syntrichia princeps                      | syntrichia moss           | Х                 |   |   |   |   |  |
| Ranunculaceae    | Thalictrum fendleri                      | Thalictrum fendleri                      | meadow rue                |                   | Х |   |   |   |  |
| Rhamnaceae       | Ceanothus cordulatus                     | Ceanothus cordulatus                     | mountain whitethorn       | Х                 |   |   |   |   |  |
|                  | Ceanothus prostratus var. prostratus     | Ceanothus prostratus                     | prostrate ceanothus       | Х                 |   |   |   |   |  |
|                  | Ceanothus velutinus                      | Ceanothus velutinus                      | snowbrush ceanthosus      | Х                 |   |   |   |   |  |
| Rosaceae         | Geum macrophyllum                        | Geum macrophyllum                        | big leaf avens            |                   |   | Х |   |   |  |
|                  | Purshia tridentata var. tridentata       | Purshia tridentata var. tridentata       | antelope bitterbrush      | Х                 |   |   |   |   |  |
|                  | Rosa woodsii ssp. ultramontana           | Rosa woodsii var. ultramontana           | Wood's rose               |                   | Х |   |   |   |  |
| Rubiaceae        | Galium aparine                           | Galium aparine                           | catchweed bedstraw        |                   | Х |   |   |   |  |
|                  | Kelloggia galiodes                       | Kelloggia galiodes                       | milk kelloggia            | Х                 |   |   |   |   |  |
| Ruscaceae        | Maianthemum stellatum                    | Smilacina stellata (Liliaceae)           | false Solomon's seal      |                   | Х | Х |   |   |  |
| Salicaceae       | Populus tremuloides                      | Populus tremuloides                      | quaking aspen             |                   | Х |   | Х |   |  |

#### Rabe Meadows Burke Creek Area Plant Species List 2012

| Family           | Scientific Name 2012**         | Scientific Name 1993***     | Common Name      | Plant Communities |   |   |   |   |  |  |
|------------------|--------------------------------|-----------------------------|------------------|-------------------|---|---|---|---|--|--|
|                  | Salix exigua                   | Salix exigua                | coyote willow    |                   | Х |   |   |   |  |  |
|                  | Salix lasiandra var. lasiandra | Salix lucida ssp. lasiandra | Pacific willow   |                   | Х |   |   |   |  |  |
|                  | Salix scouleriana              | Salix scouleriana           | Scouler's willow |                   | Х |   |   |   |  |  |
| Scrophulariaceae | Verbascum thapsus              | Verbascum thapsus           | woolly mullein   | Х                 | Х | Х | Х | Х |  |  |
| Urticaceae       | Urtica dioica                  | Urtica dioica               | stinging nettle  |                   | X |   |   |   |  |  |

Note:

\* Nomenclature for mosses independent of Jepson floras, identified by David Toren

\*\*Nomenclature follows B. Baldwin et al. 2012. The Jepson Manual: Vascular Plants of California 2nd ed.

\*\*\*Nomenclature follows J.C. Hickman,ed. 1993. The Jepson Manual: Higher Plants of California 1st ed.