

Appendix G. Preliminary Jurisdictional Delineation

CALIFORNIA TAHOE CONSERVANCY SOUTH TAHOE GREENWAY SHARED-USE TRAIL PROJECT

Draft Preliminary Jurisdictional Delineation Report



California Tahoe Conservancy
1061 Third Street
South Lake Tahoe, CA 96150
Contact: Sue Rae Irelan (530) 542-5580

January 31, 2011

Prepared by:
Hauge Brueck Associates
310 Dorla Court, Suite 209
P.O. Box 10291
Zephyr Cove, NV 89448
Contact: Amy Parravano (415) 250-8900

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Project Description	1
1.2 Purpose of Study	1
2.0 REGULATORY SETTING	3
2.1 Waters of the U.S.....	3
2.1.1 Section 404 of the Clean Water Act	3
2.1.2 Significant Nexus of Tributaries.....	4
2.1.3 Isolated Areas Excluded from Section 404 Jurisdiction	5
2.2 Waters of the State	5
2.2.1 Porter-Cologne Water Quality Control Act and Section 401 of the Federal Clean Water Act.....	5
2.2.2 California Fish and Game Code	6
3.0 STUDY METHODOLOGY	7
3.1 Background Information Review	7
3.2 Field Investigation	7
3.2.1 Site Visits.....	7
3.2.2 Corps Delineation Methodology	7
3.2.3 CDFG Jurisdictional Streambeds and Waters of the State Delineation Methodology	10
4.0 ENVIRONMENTAL SETTING	12
4.1 Vegetation.....	12
4.2 Soils	13
4.3 Hydrology.....	16
4.3.1 Watershed Characteristics	16
4.3.2 Federal Emergency Management Agency (FEMA) Flood Zones.....	19
5.0 RESULTS	20
5.1 Potential Section 404/401 Wetlands	20
5.1.1 Montane Meadow Wetland.....	21
5.1.2 Emergent Floodplain Wetland	22
5.1.3 Riparian Wetland.....	22

5.2 Lakes, Ponds and Streams/ Non Tidal Waters/ Other Waters of the U.S..... 23

6.0 CONCLUSIONS 24

6.1 Waters of the U.S. Including Wetlands 24

6.2 Waters of the State 25

7.0 REFERENCES 27

LIST OF FIGURES

Figure 1. Regional and Vicinity Map..... 2

Figure 2. Map of Soils within the Study Area..... 14

Figure 3. Location of FEMA Flood Zones around the Study Area..... 17

LIST OF APPENDICES

- Appendix A: Corps Delineation Data Forms
- Appendix B: Maps of Potential Jurisdictional Wetlands and Waters
- Appendix C: List of Plant Species Observed During the Delineation
- Appendix D: Representative Photographs of the Study Area

1.0 INTRODUCTION

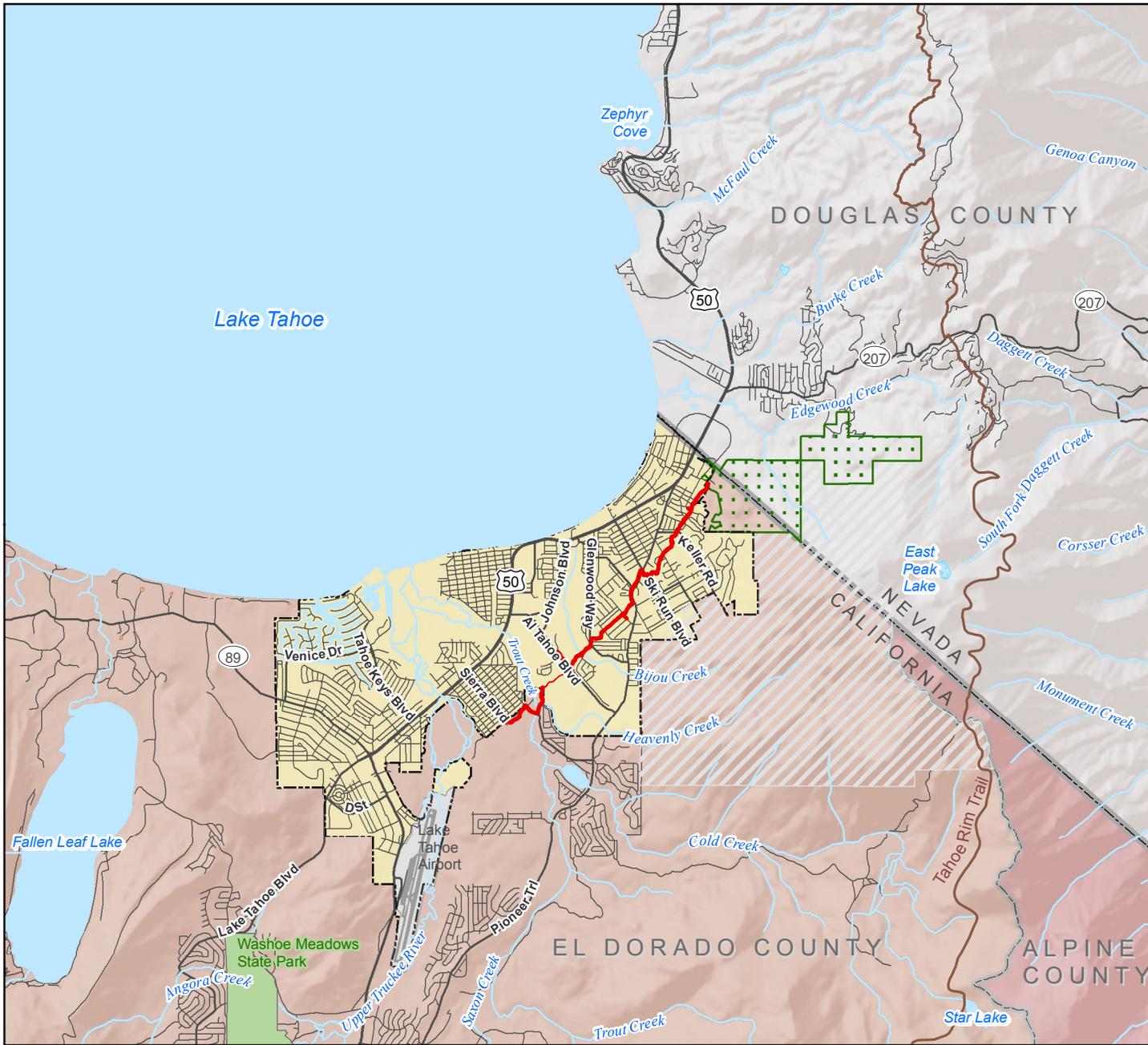
This report presents the results of a preliminary jurisdictional delineation study conducted on the site of the proposed South Tahoe Greenway Shared-Use Trail Project (Greenway Project) located in the City of South Lake Tahoe, El Dorado County, California (Figure 1). The portion of the Greenway Project currently being studied connects the Sierra Tract neighborhood in the City of South Lake Tahoe, California (near the intersection of Sierra Boulevard and Barbara Avenue) to Stateline, Nevada (near the proposed Van Sickle Bi-State Park), as illustrated in Figure 1-1. The project area is generally linear and crosses federal, State, county and city-managed public lands in the southern portion of the Lake Tahoe Basin.

1.1 Project Description

The Greenway Project is a California Tahoe Conservancy (Conservancy) proposed Class I or better trail that will eventually link Meyers, California to Stateline, Nevada, generally following the former Caltrans U.S. Highway 50 Bypass Corridor. The trail will form the backbone of the bike trail network in South Lake Tahoe and link residential and lodging uses to jobs, schools, shopping, and recreation and community areas. The trail implements specific goals and policies of the Tahoe Regional Planning Agency (TRPA), the USDA Forest Service Lake Tahoe Basin Management Unit (USFS), and Conservancy to provide a non-motorized alternative transportation corridor through South Lake Tahoe. Trail development details will comply with American Association of State Highway and Transportation Officials (AASHTO) and ADA design standards and will include informal trail consolidation, disturbed land restoration, and forest health improvement along its length. This study focuses on the northern portion of the Greenway Project that is located between the Sierra Tract neighborhood at the intersection of Sierra Boulevard and Barbara Avenue to Stateline, Nevada (Study Area).

1.2 Purpose of Study

The Conservancy requested this study to determine the location and extent of wetland or water features potentially subject to regulation by the U.S. Army Corps of Engineers (Corps) under Section 404 of the Federal Clean Water Act (CWA) and/or by the California Department of Fish and Game (CDFG) under Section 1600 of the California Fish and Game Code. Several potentially jurisdictional wetland and water features have been identified within TRPA-designated Stream Environment Zones (SEZs) distributed throughout the Van Sickle State Park and along Trout, Heavenly Valley, Little Heavenly, and Bijou Park Creeks, Bijou Meadow, and adjacent to Pioneer Avenue and Herbert Avenue along the South Tahoe Greenway alignment. The results of this study are considered to be preliminary until they are verified by the respective regulatory agencies and/or permits for impacts to the features are authorized by such agencies.

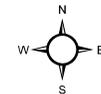


Revised South Tahoe Greenway
Shared-Use Trail

El Dorado, California

Figure 1. Regional Location

- Trail Alignment Segments
 - - - Existing Bike Path
 - Tahoe Rim Trail
 - Van Sickle State Park
 - Heavenly Mountain Resort
 - City of South Lake Tahoe
- Counties**
- El Dorado County, California
 - Alpine County, California
 - Douglas County, Nevada



0 0.250.5 1 1.5 2 Miles

1:100,000

HAUGE BRUECK
ASSOCIATES

DATA SOURCES: ESRI's StreetMap North America, ArcGIS Online Shaded Relief Map Service, Tahoe Regional Planning Agency. Map date: January 25, 2011.

2.0 REGULATORY SETTING

The regulations pertaining to this preliminary delineation study are summarized below and include Waters of the U.S., regulated by Section 404 of the CWA, and Waters of the State regulated by (1) Section 401 of the CWA regulating water quality within Waters of the U.S. by the State Water Resources Control Board through the Lahontan Regional Water Quality Control Board (RWQCB), (2) the Porter-Cologne Act regulating water quality within Waters of the State by the RWQCB, and (3) Section 1600 of the California Fish and Game Code regulating Streambeds and Lakes (which includes riparian habitat) by the CDFG.

2.1 Waters of the U.S.

2.1.1 Section 404 of the Clean Water Act

The objective of the CWA is to maintain and restore the chemical, physical, and biological integrity of the Waters of the United States (33 CFR Part 328 Section 328.4). “Waters of the U.S.” is the encompassing term for areas that qualify for federal regulation under Section 404 of the CWA. Section 404 of the CWA gives the U.S. Environmental Protection Agency (EPA) and the Corps regulatory and permitting authority regarding discharge of dredged or fill material into “navigable waters of the United States.” Section 502(7) of the CWA defines navigable waters as “waters of the United States, including territorial seas.” Section 328 of Chapter 33 in the Code of Federal Regulations (CFR) defines the term “waters of the United States” as it applies to the jurisdictional limits of the authority of the Corps under the CWA. A summary of this definition of “waters of the U.S.” in 33 CFR 328.3 includes (1) waters used for commerce and subject to tides; (2) interstate waters and wetlands; (3) “other waters” such as intrastate lakes, rivers, streams, and wetlands; (4) impoundments of waters; (5) tributaries of waters; (6) territorial seas; and (7) wetlands adjacent to waters. Therefore, for purposes of determining Corps jurisdiction under the CWA, “navigable waters” as defined in the CWA are the same as “waters of the U.S.” defined in the Code of Federal Regulations above. Waters of the U.S include non-isolated “wetlands” and “other waters of the U.S.”

Other waters of the U.S. refer to unvegetated waterways and other water bodies with a defined bed and bank, such as drainages, creeks, rivers, and lakes. This approximately translates to the bank to bank portion of water bodies, up to the ordinary high water mark (OHWM). “Other waters” typically lack hydrophytic vegetation (defined below) and may also lack hydric-soils (defined below). Jurisdiction in non-tidal areas extends to the OHWM, which is defined as:

“...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and

debris, or other appropriate means that consider the characteristics of the surrounding areas”.

CFR 328.3 (e) [51 FR 41250, Nov. 13, 1986, as amended at 58 FR 45036, Aug. 25, 1993]

Wetlands are defined as areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (CFR 328.3, CFR 230.3).

The Corps developed field methods for identifying the location and extent of jurisdictional wetlands (a subset of Waters of the United States) using the Corps Wetland Delineation Manual (Environmental Laboratory 1987). Recently, the Corps issued the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region, Version 2.0* (Western Mountain Region Supplement [WMRS]) (Corps 2010) in May 2010. This supplement was intended to address specific wetland issues within the Western Mountain and coastal regions and supersedes much of the 1987 Wetland Delineation Manual.

2.1.2 Significant Nexus of Tributaries

On June 5, 2007, the Corps and the EPA issued joint guidance on implementing the June 19, 2006 U.S. Supreme Court opinions resulting from *Rapanos v. United States* and *Carabell v. United States* (Rapanos) cases (Corps 2007). The agencies received 66,047 public comments on the Rapanos Guidance (65,765 form letters, 282 non-form letters), from States, environmental and conservation organizations, regulated entities, industry associations, and the general public. EPA and the Corps jointly reviewed the comments and released a revised version of the guidance on December 2, 2008 (Corps 2008). The revised guidance states that the agencies will assert jurisdiction over:

- Non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to no-navigable tributaries that are not relatively permanent
- Wetlands adjacent to but that do not directly abut a relatively permanent non navigable tributary

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow)
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters
- Significant nexus includes consideration of hydrologic and ecologic factors

2.1.3 Isolated Areas Excluded from Section 404 Jurisdiction

In addition to areas that may be exempt from Section 404 jurisdiction, some isolated wetlands and waters may also be considered outside of Corps jurisdiction as a result of the Supreme Court's decision in *Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers* (531 U.S. 159 [2001]). Isolated wetlands and waters are those areas that do not have a surface or groundwater connection to, and are not adjacent to a navigable "Waters of the U.S.," and do not otherwise exhibit an interstate commerce connection.

2.2 Waters of the State

2.2.1 Porter-Cologne Water Quality Control Act and Section 401 of the Federal Clean Water Act

Waters of the State are defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The RWQCB protects all waters in its regulatory scope, but has special responsibility for isolated wetlands and headwaters. These water bodies have high resource value, are vulnerable to filling, and may not be regulated by other programs, such as Section 404 of the CWA. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program, which regulates discharges of dredged and fill material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Corps CWA permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit, but does involve activities that may result in a discharge of harmful substances to waters of the State, the RWQCB has the option to regulate such activities under its State authority in the form of Waste Discharge Requirements or Certification of Waste Discharge Requirements.

In addition, the 1995 Water Quality Control Plan for the Lahontan Region (Basin Plan) includes restrictions on development and disturbance of SEZs within the Lake Tahoe Basin. The state also prohibits discharge of waste materials attributable to human activities to surface waters or 100 year floodplains. Thus, any new development or disturbance affecting SEZs within the Lake Tahoe Basin would require exemption findings by RWQCB and may require a water quality certification. Waste discharge prohibitions are listed in Section 5.2 of the Basin Plan, and discussion on non-degradation of aquatic communities and populations in the Lake Tahoe watershed is provided in the Updated Waste Discharge Permit (Board Order Number R6T-

2003-0032). Development restrictions are outlined in Section 5.8 of the Basin Plan. Section 5.4 discloses restoration requirements for disturbance to SEZs at a minimum of 1:1 ratio.

2.2.2 California Fish and Game Code

Streams, lakes, and riparian vegetation that provide habitat for fish and other wildlife species are subject to jurisdiction by the CDFG under Sections 1600-1616 of the California Fish and Game Code. Any activity that will (1) substantially obstruct or divert the natural flow of a river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake; generally require a Lake and Streambed Alteration Agreement.

The term “stream,” which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). Riparian habitat is defined in the California Fish and Game Code (Sections 5902(j) and 2785(e)) as “lands that contain habitat which grows close to and which depends upon soil moisture from a nearby freshwater source.” Removal of riparian vegetation also requires a Lake and Streambed Alteration Agreement from CDFG.

3.0 STUDY METHODOLOGY

The study methods utilized in the preparation of this report included a background information review and multiple site visits to collect pertinent wetland field data. Prior to conducting the initial field visit a 200-scale color aerial photograph of the Study Area and USGS topographic maps were assessed to determine the locations of potential areas of Corps/CDFG/RWQCB jurisdiction. Suspected jurisdictional areas were then field-checked and or sampled for the presence of wetland vegetation, soils, and hydrology. The presence of potentially jurisdictional features on the site was evaluated using the Corps and CDFG methodologies as described below.

3.1 Background Information Review

Prior to conducting field studies, available reference materials were reviewed including but not limited to:

- Soil Survey of El Dorado County, California, Southwestern Part (USDA 2007);
- Hydric Soils List for El Dorado County (USDA 1992);
- Federal Emergency Management Agency (FEMA) Flood Zone Maps (FEMA 2010);
- Regional Climate Data (National Oceanic and Atmospheric Administration [NOAA] 2010 and USDA 2010); and
- National Wetland Inventory (NWI) Map Data (USFWS 2010) for the South Lake Tahoe 7.5 Minute USGS quadrangle that characterize wetland and waters of the United States according to the Classification of Wetlands and Deepwater Habitats of the United States developed by USFWS (Cowardin et al. 1979).

3.2 Field Investigation

3.2.1 Site Visits

On July 20, August 3, 4, 11, and 25, and November 2, 2010, Amy Parravano, certified wetland delineator from Hauge Brueck Associates (HBA), conducted a jurisdictional delineation in accordance with the Corps and CDFG methodologies described below. The extent of potentially jurisdictional waters and wetlands was mapped, quantified, and characterized.

3.2.2 Corps Delineation Methodology

Surveys of the Study Area were conducted using the wetland delineation methodology provided by the Corps in their WMRS to the Wetland Delineation Manual (Corps 2010). This methodology involves observing and recording specific data on wetland vegetation, soils and

hydrology. In addition, delineation of non-wetland, “other water” features was conducted according to methodology outlined in the WMRS.

3.2.2.1 Wetlands

The Study Area was evaluated for the presence of potential jurisdictional wetlands according to the WMRS manual. According to the Corps wetland delineation methodology, a wetland must exhibit the following: (1) a prevalence or dominance of hydrophytic vegetation; (2) hydric soils; and (3) wetland hydrology. These characteristics are defined and described in further detail below.

Hydrophytic Vegetation. Plant species identified on the Study Area were assigned a wetland status according to the U.S. Fish and Wildlife (USFWS) list of plant species that occur in wetlands (Reed 1988). This wetland classification system is based on the expected frequency of occurrence in wetlands as shown in Table 1.

Table 1. Classification of Wetland-Associated Plant Species (Reed 1988)

Abbreviation	Plant Species Classification	Probability of Occurring in a Wetland
OBL	Always found in wetlands	>99%
FACW (±)	Usually found in wetlands	67-99%
FAC	Equal in wetland or non-wetlands	34-66%
FACU	Usually found in non-wetlands	1-33%
UPL	Upland	<1%
NI	No indicator status	Insufficient information to determine status
NL	Plants that are not listed (assumed upland species)	Does not occur in wetlands in any region

The WMRS (Corps 2010) requires that a three-step process be conducted to determine if hydrophytic vegetation is present. The procedure first requires the delineator to apply the “50/20 rule” (Indicator 1) described in the manual. To apply the “50/20 rule”, dominant species are evaluated within each herb, shrub, and tree stratum of the community. In general, dominants are the most abundant species that individually or collectively account for more than 50 percent of the total coverage of vegetation in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total. If greater than 50 percent of the dominant species can be classified by an OBL, FACW, or FAC wetland indicator status, ignoring + and - qualifiers, hydrophytic vegetation is present.

If the community passes Indicator 1 then the community is hydrophytic. If the community fails Indicator 1 and both hydric soils and wetland hydrology are not present, then hydrophytic vegetation is not present, unless the site is a problematic wetland situation. However, if the plant community fails Indicator 1 but hydric soils and wetland hydrology are both present, the delineator must apply Indicator 2.

Indicator 2 is known as the Prevalence Index. The prevalence index is a weighted average of the wetland indicator status for all plant species within the sampling plot. Each indicator status is given a numeric code (OBL = 1, FACW = 2, FAC = 3, FACU = 4, and UPL = 5). Indicator 2 requires the delineator to estimate the percent cover of each species in every stratum of the community and sum the cover estimates for any species that is present in more than one stratum. All species are then organized into groups according to their wetland indicator status and the Prevalence Index is calculated using the following formula:

$$PI = \frac{A_{OBL} + 2A_{FACW} + 3A_{FAC} + 4A_{FACU} + 5A_{UPL}}{A_{OBL} + A_{FACW} + A_{FAC} + A_{FACU} + A_{UPL}}$$

The Prevalence Index will yield a number between 1 and 5. If the Prevalence Index is equal or less than 3, hydrophytic vegetation is present. However, if the community fails Indicator 2, the delineator must proceed to Indicator 3.

Indicator 3 is known as Morphological Adaptations. Some hydrophytes in the Western Mountain Region develop easily recognized physical characteristics (or morphological adaptations) when they occur in wetland areas. Some of these adaptations may include, but are not necessarily limited to, adventitious roots and shallow root systems developed on or near the soil surface. If more than 50 percent of the individuals of a FACU species exhibit morphological adaptations for life in wetlands, that species is considered to be a hydrophyte and its wetland indicator status should be reassigned to FAC. If such observations are made, the delineator must recalculate Indicator 1 and 2 using a FAC indicator status for this species. The vegetation is hydrophytic if either test is satisfied.

Hydric Soils. The National Technical Committee for Hydric Soils (NTCHS) defines a hydric soil as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (U.S. Department of Agriculture [USDA], Soil Conservation Service [SCS] 1994). Nearly all hydric soils exhibit characteristic morphologies that result from repeated periods of saturation or inundation for more than a few days, including redoximorphic features such as orange oxidized mottles or light-colored (high value, low chroma) reduced matrix or mottle colors.

The WMRS (Corps 2010) contains a list of 23 hydric soil indicators that are known to occur in the Western Mountain region. Soils samples were collected and described according to the methodology provided in the WMRS. Soil chroma and values were determined by utilizing a standard Munsell soil color chart (Kollmorgen Instruments Corporation 1994). Hydric soils were determined to be present if any of the soils samples met one or more of the 23 hydric soil indicators described in the WMRS (Corps 2010).

Wetland Hydrology. Wetland hydrology exists in areas that are periodically inundated or have saturated soils at some time during the growing season, and for a sufficient duration to support hydrophytic vegetation (Environmental Laboratory 1987). This condition can either be observed through direct observation of primary indicators (such as ponding, saturation, sediment deposits, algal matting), or through indirect or “secondary” indicators (such as drainage pattern, saturation visible on an aerial photograph, raised ant mounds).

3.2.2.2 Other Waters

For non-wetland, “other water” features, the extent of the Corps jurisdiction is defined by the OWHM. Delineation of other waters was based on observing indicators for the OWHM (33 CFR 328.3), following established Corps criteria and considering hydrological connectivity or isolation. In general, the OWHM for a stream is usually determined through an examination of the recent physical evidence of surface flow. Common physical characteristics that indicate the presence of an OWHM include, but are not limited to, a clear natural line impressed on the bank; evidence of scour; recent bank erosion; destruction of native terrestrial vegetation; sediment deposition; and the presence of litter and debris.

3.2.3 CDFG Jurisdictional Streambeds and Waters of the State Delineation Methodology

This section provides the methods for collecting data for state streambeds and waters under the California Fish and Game Code and Porter-Cologne Act, respectively.

CDFG Jurisdictional Streambeds

According to CDFG, streams are generally defined by the presence of bed and bank or channelized topography, shorelines, and similar features. In addition, CDFG has discretion to assert jurisdiction over ecological systems (i.e., riparian communities) associated with streams and water bodies, as well as isolated water bodies that are outside of the Corps jurisdiction. Delineation of the limits of CDFG jurisdiction was accomplished through both on-site and remote analysis. State jurisdiction was delineated by measuring outer width and length boundaries of state jurisdiction (“lakes or streambeds”), consisting of the greater of either the “top of bank” measurement (“bankfull” width) or the extent of associated riparian or wetland vegetation. Additionally, remote, or off-site, analysis included a review of aerial photography, analysis of available topographic maps, and calculation of preliminary jurisdictional area using ArcView GIS software.

RWQCB Jurisdictional Waters of the State

Evaluation of the waters of the state followed the same methods for collection of data as described above under the Corps Delineation Methodology Section.

4.0 ENVIRONMENTAL SETTING

The Study Area consists of undeveloped parcels located in the northern portion of El Dorado County in the City of South Lake Tahoe, California (Figure 1). The Study Area consists of an approximately four mile segment of a 9.3 mile-long Class I or better proposed trail that will eventually link Meyers, California to Stateline, Nevada. Regional access to the Study Area is provided via U.S. Highway 50 and State Route 89, located approximately four miles to the southwest. The site can be found within Sections 2 and 3 of Township 12 North and Range 18 East and Section 34 of Township 13 North and Range 18 East of the Mount Diablo Baseline Meridian, in the central portion of the South Lake Tahoe 7.5-minute USGS topographic quadrangle.

The Study Area is generally linear and crosses federal, State, county and city-managed public lands in the southern portion of the Lake Tahoe Basin within an approximate elevation range of 6,240 to 6,310 feet above mean sea level (msl). The Study Area crosses a variety of topography associated with forested hill slopes, open meadow and developed residential areas. The Study Area consists of a flat plain of lakebed deposits, glacial outwash, and glacial moraines, bounded by high peaks composed of granite and metamorphic rocks.

For the purpose of discussion and to conform with the Corps' map scale requirements, the Study Area has been divided into seven sub-areas that trend from southwest to northeast: Trout Creek, Bijou Meadow, Herbert Avenue (North and South), Keller Avenue, and Van Sickle State Park (North and South). These sub-areas are shown on maps provided in Appendix B.

4.1 Vegetation

Vegetation in upland areas is comprised of mixed montane coniferous forest dominated by Jeffrey pine (*Pinus jeffreyi*) and white fir (*Abies concolor*), with occasional sugar pine (*Pinus lambertiana*) and incense cedar (*Calocedrus decurrens*) in the overstory, with lodgepole pine occurring in transition areas between upland forests and montane meadows. Common understory species include species that are commonly found in Great Basin sagebrush (*Artemisia tridentata* ssp. *vaseyana*), and montane chaparral series, such as bitterbrush (*Purshia tridentata*), mountain whitethorn (*Ceanothus cordulata*), tobacco brush (*Ceanothus velutinus*), wax currant (*Ribes cereum*), pinemat manzanita (*Arctostaphylos nevadensis*), snowberry (*Symphoricarpos alba*), greenleaf manzanita (*Arctostaphylos patula*), and mule's ears (*Wyethia mollis*), with a sparse herbaceous understory comprised of diffuse gayophytum (*Gayophytum diffusum* var. *parviflorum*), yellow salsify (*Tragopogon dubius*), mountain strawberry (*Frageria virginiana*), smooth brome (*Bromus inermis*), squirreltail (*Elymus elmoides*), and blue wildrye (*Elymus glaucus*), and timothy (*Phleum pretense*).

Wetland plant communities occur in topographic swales and along stream margins that are saturated or ponded for a sufficient duration to support a predominance of vegetation adapted to wetland conditions. Wetland plant communities in the Study Area can be divided into three general categories: riparian wetlands, montane meadows, and emergent floodplain wetlands. A majority of wetland areas mapped onsite are supported primarily by vertical fluctuations in the groundwater table or by direct inundation from adjacent streams. A detailed discussion of the plant composition of these communities is provided below in Section 5.1.

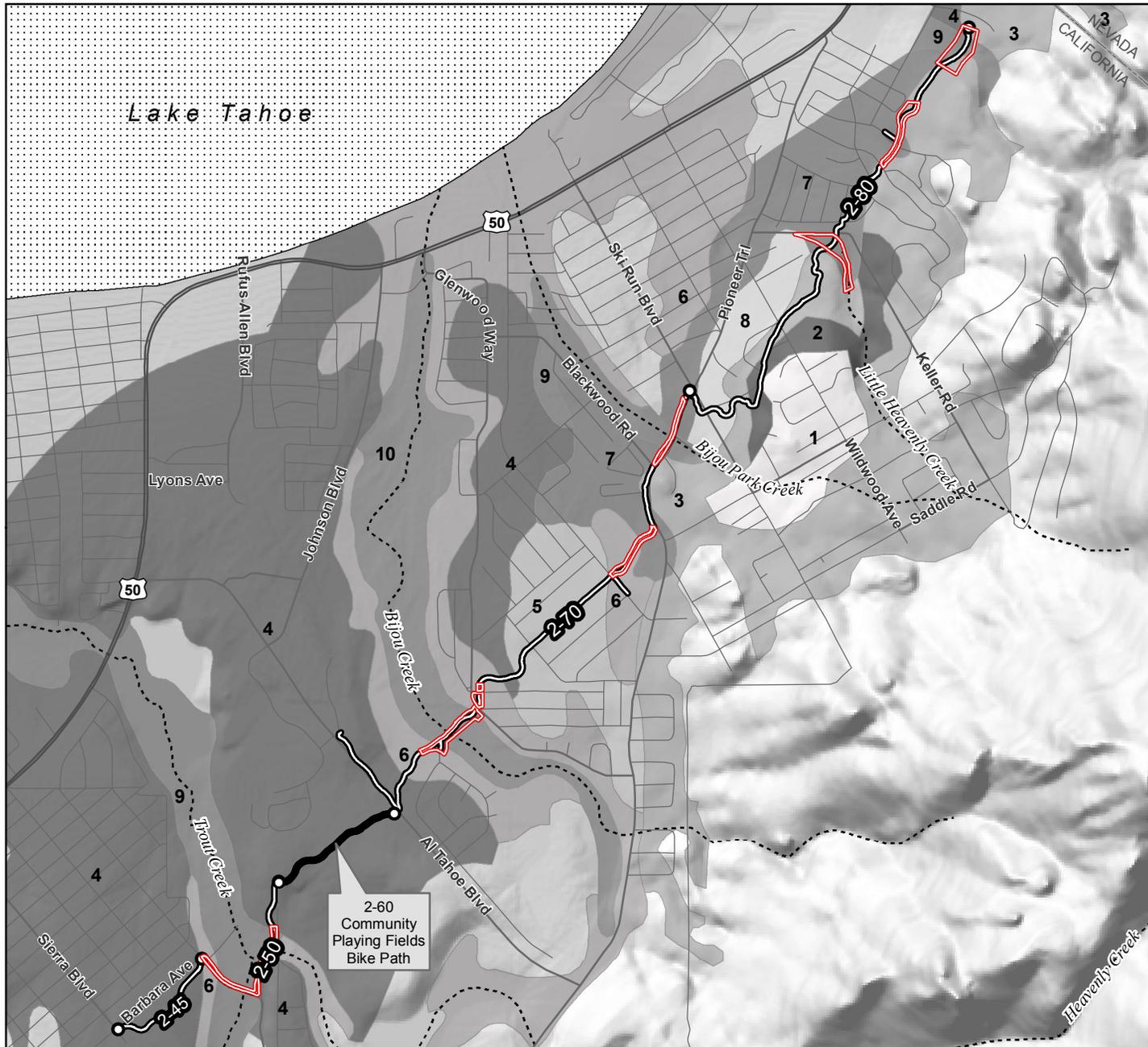
4.2 Soils

The USDA Natural Resource Conservation Service (NRCS) has mapped seven native soil types within the Study Area. These map units are described in detail below and are illustrated on Figure 2 (USDA, NRCS 2007).

Cassenai gravelly loamy coarse sand, 5 to 15 percent slopes, very stony. This soil type is found on moderately sloped upland areas within the Study Area at Herbert Avenue South and Van Sickle South and North. This somewhat excessively drained soil occurs on outwash terraces and hillslopes and was formed in material derived from granodiorite. This map unit is generally comprised of 78 percent Cassenai gravelly loam sand and 22 percent minor components, including Cagwin, Toem, Rock Outcrop, Christopher, and Marla map units. In a typical profile, this soil has a thin (less than one inch) organic layer made up of slightly decomposed plant material. The surface layer and subsoil are loamy coarse sand to a depth of 60 inches. Occasionally this soil may be overlain by subrounded stones and cobbles and/or coarse subrounded gravel and boulders. This soil is classified as hydric in one (1) percent of the map unit, when it occurs on outwash terraces or valley flats and a Marla soil component (USDA, NRCS 2010).

Christopher-Gefo complex, 0 to 5 percent slopes. This soil type is found on gently sloped forested upland areas within the Study Area at Trout Creek and Bijou Meadow. This somewhat excessively drained soil occurs on outwash terraces and hillslopes and was formed in material derived from granodiorite. In a typical profile, this soil has a thin (less than one inch) organic layer made up of slightly decomposed plant material. This map unit is generally comprised of 45 percent Christopher, loamy coarse sand, and similar soils, 35 percent Gefo, gravelly loamy coarse sand, and 20 percent Marla, Jabu, Ubaj, and Oneidas maps units. The surface layer and subsoil are loamy coarse sand to a depth of 60 inches. Occasionally this soil may be overlain by subrounded stones and cobbles and/or coarse subrounded gravel and boulders. This soil is classified as hydric in five (5) percent of the map unit when it occurs on outwash terraces or valley flats and has a Marla soil component (USDA, NRCS 2010).

Christopher loamy coarse sand, 0 to 9 percent slopes. This soil type is found on gently sloped forested upland areas within the Study Area at Bijou Meadow and Herbert Avenue South. This somewhat excessively drained soil occurs on outwash terraces and hillslopes

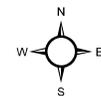


Greenway Bike Trail
El Dorado, California

Figure 2. Soils

Label	Description
1	Cagwin-Rock outcrop complex, 15 to 30 percent slopes, extremely stony
2	Cassenai gravelly loamy coarse sand, 15 to 30 percent slopes, very stony
3	Cassenai gravelly loamy coarse sand, 5 to 15 percent slopes, very stony
4	Christopher-Gefo complex, 0 to 5 percent slopes
5	Christopher loamy coarse sand, 0 to 9 percent slopes
6	Marla loamy coarse sand, 0 to 5 percent slopes
7	Oneidas coarse sandy loam, 0 to 5 percent slopes
8	Oneidas coarse sandy loam, 5 to 15 percent slopes
9	Tahoe complex, 0 to 2 percent slopes
10	Tahoe mucky silt loam, drained, 0 to 5 percent slopes

- Trail Segment Endpoints
- Trail Segments
- Existing Bike Path
- Study Areas



0 0.25 0.5 Miles

1:24,000

HAUGE BRUECK
ASSOCIATES

DATA SOURCES Soils: U.S. Department of Agriculture, Natural Resource Conservation Service, Soil Survey Geographic (SSURGO) database for Tahoe Basin Area, California and Nevada. Shaded relief: Geologic Map of the Lake Tahoe Basin, California Department of Conservation, California Geological Survey, 2005. Road data: Street Map North America, ESRI. Map date: Jan 21, 2011.

derived from granodiorite and may be overlain by subrounded stones and cobbles and/or coarse subrounded gravel and boulders. In a typical profile, this soil has a thin (less than one inch) organic layer made up of slightly decomposed plant material and a soil and subsoil comprised of loamy coarse sand. This map unit is generally comprised of 80 percent Christopher loamy coarse sand and 20 percent minor components, including Gefo gravelly loamy coarse sand and Jabu, Oneidas, and Marlas map units. This soil is classified as hydric in two (2) percent of the map unit and when it occurs on outwash terraces or valley flats and contains a Marla soil component (USDA, NRCS 2010).

Marla loamy coarse sand, 0 to 5 percent slopes. This soil type is found within the Study Area at Trout Creek, Bijou Meadow, Herbert Avenue South. This map unit is generally comprised of 80 percent Marla map unit and 20 percent minor components, including Gefo gravelly loamy coarse sand, Tahoe silt loam, Christopher loamy coarse sand, and Ubaj and Watah map units. This somewhat excessively drained soil occurs on outwash terraces and valley flats and was formed in alluvium derived from granodiorite. In a typical profile, this soil has a zero to three-inch thick organic layer made up of slightly decomposed plant material, loamy coarse sand down to 47 inches, clay loam from 47 to 59 inches, and stratified sandy loam to fine sandy loam down to 68 inches. This soil is classified as hydric in 80 percent of the map unit, as the soil components are poorly drained and/or are frequently ponded or flooded for a long or very long duration during the growing season when they occur in outwash terraces, flood plains, and valley flats (USDA, NRCS 2010).

Oneidas coarse sandy loam, 0 to 5 percent slopes. This soil type is found within the Study Area at Herbert Avenue South and North and Van Sickle South and North. This map unit is generally comprised of 80 percent Oneidas map unit and 20 percent minor components, including Gefo gravelly loamy coarse sand, Christopher loamy coarse sand, and Meeks, Jabu, and Marla map units. This poorly drained soil occurs on outwash terraces and hillslopes and was formed in outwash or till derived from granodiorite. This soil type generally has a restrictive layer or fragipan at a depth of 10 to 20 inches and may be overlain by subrounded cobble or gravel. In a typical profile, this soil has a one-inch thick organic layer made up of slightly decomposed plant material, coarse sandy loam down to 65 inches, and loamy coarse sand from 65 to 201 inches. This soil is classified as hydric in two (2) percent of the map unit and when it occurs on outwash terraces or valley flats and contains a Marla soil component (USDA, NRCS 2010).

Tahoe complex, 0 to 2 percent slopes. This soil type is found within the Study Area at Trout Creek, Herbert Avenue North, and Van Sickle North. This map unit is generally comprised of 55 percent Tahoe silt loam, 25 percent Tahoe silt loam wet and 20 percent minor components such as Marla, Tahoe gravelly, and Watah soils. This poorly drained soil occurs on frequently inundated floodplains and valley flats and was formed in alluvium derived from granitic and volcanic rocks. In a typical profile, this soil is characterized as mucky gravelly silt loam in the upper ten inches, gravelly loam from ten to 27 inches, gravelly loamy fine sand from 27 to 32

inches, and gravelly fine sand from 32 to 46 inches. This entire soil map unit is classified as hydric, as soil components are poorly drained and/or are frequently ponded or flooded for a long or very long duration during the growing season when they occur in outwash terraces, flood plains, and valley flats (USDA, NRCS 2010).

Tahoe mucky silt loam, drained, 0 to 5 percent slopes. This soil type is found within Bijou Meadow. This map unit is generally comprised of 80 percent Tahoe drained soils and 20 percent minor components such as Marla, Tahoe gravelly, Tahoe silt loam, and Watah soils. This poorly drained soil occurs on occasionally inundated floodplains and valley flats and was formed in alluvium derived from granitic and volcanic rocks. In a typical profile, this soil is characterized as mucky silt loam in the upper ten inches, loam from ten to 27 inches, loamy fine sand from 27 to 32 inches, and fine sand from 32 to 46 inches. This entire soil map unit is classified as hydric, as the soil components are poorly drained and/or are frequently ponded or flooded for a long or very long duration during the growing season when they occur in flood plains and valley flats (USDA, NRCS 2010).

4.3 Hydrology

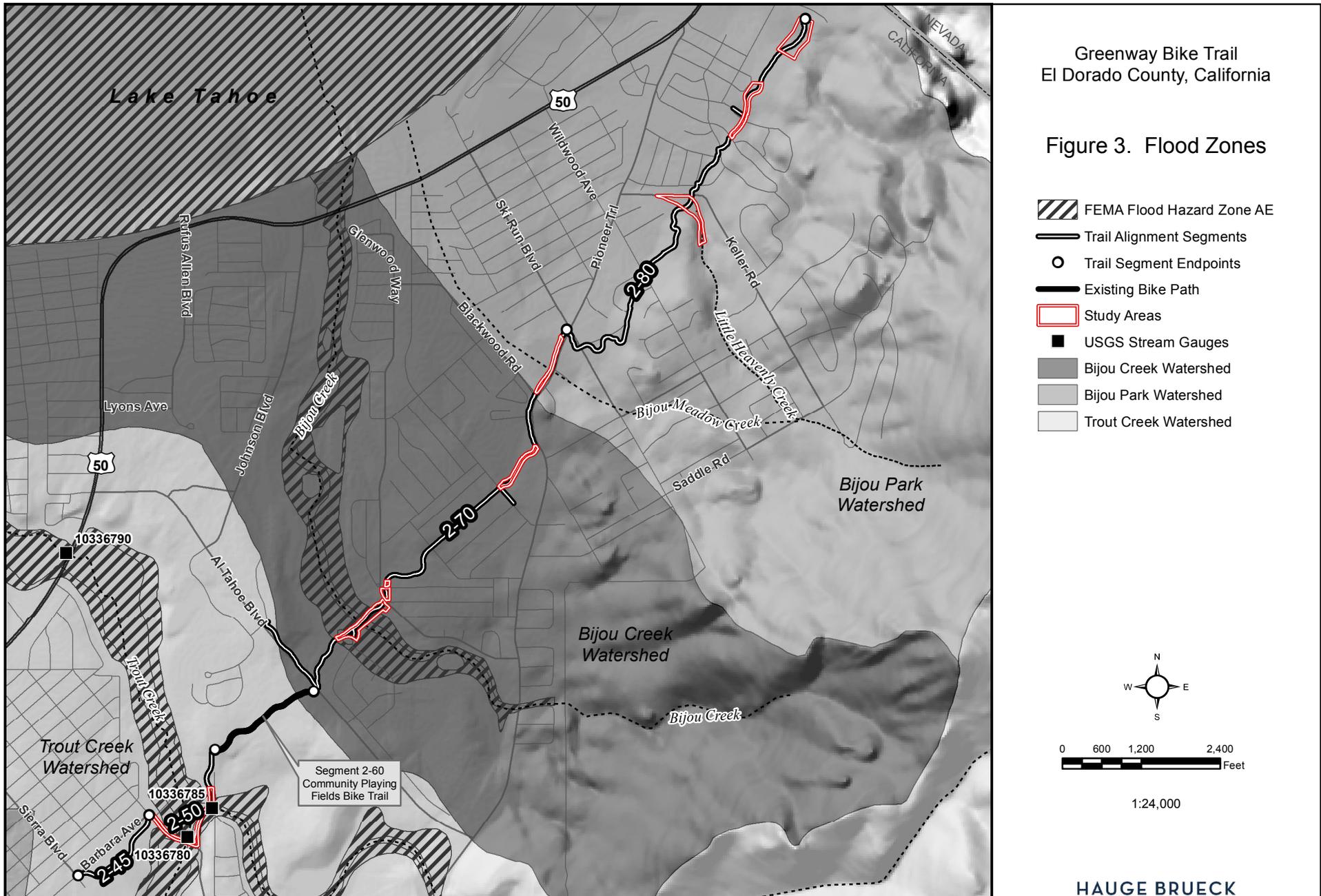
Much of the Study Area is situated on gently sloping terrain, characterized by forested hillslopes interrupted by small valleys and drainages. The main source of hydrology for wetlands and waters mapped within the Study Area is groundwater that is conveyed through well defined stream channels or is discharged to the ground surface through vertical fluctuations in the ground water table; all areas mapped as wetlands remain saturated (and in some areas, inundated) for at least 14 days during the growing season. The Study Area receives between 20 and 35 inches of precipitation a year, with the majority of the precipitation falling during the winter as snow. Based on a preliminary review of precipitation data for the site survey period, the precipitation recorded for the month of August 2010 was 1.01, which was at least 280 percent of the normal monthly average of 0.36 inch, according to local rainfall data for the nearest monitoring station at South Lake Tahoe (<http://www.wunderground.com/history>). Annual precipitation in this area for 2010 was 26 inches which is within the average annual range for this area. This information indicates that the hydrology indicators observed during the site surveys (ponding and/or saturation) occurred during a normal or above normal rainfall season.

4.3.1 Watershed Characteristics

The Study Area is located entirely within the Lake Tahoe Watershed Hydrologic Unit (State Water Resources Control Board 1996), which comprises a total area of approximately six million acres. The Study Area covers three sub watersheds, including Trout Creek, Bijou Meadow, and Bijou Park, which are described in detail below and illustrated on Figure 3.

Greenway Bike Trail
El Dorado County, California

Figure 3. Flood Zones



Flood zones: FEMA Map Service Center Flood Map Store. Watersheds: Tahoe Regional Planning Agency, Priority Watersheds. Stream data: USGS National Hydrography Dataset (NHD). USGS Stream Gauge data: California Dept. of Fish and Game, Biogeographic Information and Observation System (BIOS). Shaded relief: USGS Geology Dataset. Road data: Street Map North America, ESRI. Map date January 21, 2011.

Trout Creek

Trout Creek is a perennial stream and tributary to Lake Tahoe with a drainage area of approximately 41.2 square miles and a channel length of 12.2 miles. Several riparian and floodplain wetland features, as well as non-wetland waters, were mapped within this watershed in the southwestern portion of the Study Area (Appendix B1). For the purposes of this study, Trout Creek is considered to meet the definition of a relatively permanent water (RPW) since flows are year-round. The main tributaries to Trout Creek include Cold Creek and Heavenly Valley Creek. Trout Creek flows into the Upper Truckee River, the nearest Traditional Navigable Water (TNW) approximately 600 feet upstream from the mouth of the Upper Truckee River at Lake Tahoe. The watershed ranges in elevation from lake level at 6,229 feet to over 10,000 feet mean sea level (msl) (Cartier et al. 1995).

Bijou Creek

The Bijou Creek watershed ranges from 6,226 feet msl to 8,371 feet msl and includes the 1,386-acre Bijou Meadow (Appendix B2) and a mesic montane meadow mapped near the intersection of Herbert Avenue and Aloha Avenue (Appendix B3). Historically, Bijou Creek received runoff from several drainages through a series of diversion channels, which are currently no longer in use. In the 1800's there was a railroad network that transported logs from Bijou Meadow to Lake Tahoe. When logging ceased, the meadow was then used for cattle grazing from around 1900 to 1950, and diversions from Heavenly Valley and Cold Creeks were constructed to route waters to the meadow for summer irrigation (Johnson 2003). The meadow is saturated during spring melt conditions but typically dries out during early summer. A peizometer located on the outer edge of the meadow that had standing water within 10 inches of the soil surface during the month of July, indicating that groundwater is present within the upper 12 inches for at least 14 consecutive days during the growing season.

Bijou Park Creek

Remaining portions of the Study Area (Herbert Avenue North/South and Van Sickle State Park North/South) are situated within the Bijou Park Creek Watershed, which is drained by Bijou Park Creek, tributary to Lake Tahoe, the nearest TNW. The Study Area crosses Bijou Park Creek near the intersection of Charlesworth Avenue and Pioneer Trail, where it is currently conveyed under Pioneer Trail through an 18-inch diameter culvert (refer to Appendix B4, Herbert Avenue North). The watershed includes approximately 412 acres within Heavenly Valley, which comprises nearly the entire "face" of Heavenly Mountain Resort and the California Base area, Wildwood-Keller Creek, and Bijou Park Creek. Bijou Park Creek surfaces northwest of the Heavenly California Base area and drains into Lake Tahoe at the Ski Run Marina. Storm water runoff from on mountain roads and ski trails, the California Base Lodge, and parking areas located on the California side of Heavenly, as well as water from groundwater seeps, eventually discharge into Bijou Park Creek. Bijou Park Creek then travels almost immediately out of the Heavenly Mountain Resort boundaries, and flows through the City of South Lake Tahoe toward

Lake Tahoe. The stream crosses Ski Run Boulevard and flows parallel to Blackwood Road before discharging to Lake Tahoe at the Ski Run Marina.

4.3.2 Federal Emergency Management Agency (FEMA) Flood Zones

The Federal Emergency Management Agency (FEMA) produces maps which depict flood zones which are generally associated with rivers, oceans and other water bodies that are based predominantly on topography and regional modeling. Based upon a review of the FEMA flood zone maps of the Study Area vicinity, two portions of the project area intersects FEMA Zone A, which is the flood insurance zone that corresponds to the 100-year floodplain: Trout Creek and Bijou Meadow (Figure 3).

5.0 RESULTS

The entire 15.3-acre Study Area was evaluated for the presence of Waters of the U.S. under Corps jurisdiction, as well as Waters of the State which may be regulated by RWQCB and/or CDFG. There are five distinct portions of the Study Area that have been classified as wetlands according to the National Wetland Inventory (NWI) maps: (1) Trout Creek is classified as Palustrine Scrub-Shrub Broad Leaved Deciduous, Temporarily Flooded (PSS1A); (2) a portion of Bijou Meadow that occurs within the Study Area is classified as Palustrine, Emergent, Palustrine Emergent Persistent, Temporarily Flooded (PEM1A); (3) the wetland complex at Herbert Avenue North (Bijou Park Creek) is classified as Palustrine Emergent Persistent, Seasonally Flooded (PEM1C) and Palustrine Scrub-Shrub Broad Leaved Deciduous/Forested Needle-Leaved Evergreen, Temporarily Flooded (PSS1/FO4A); (4) the wetland mapped at Van Sickle South is classified as PEM1C; and (5) the wetland in Van Sickle North is also classified as PEM1C (USFWS 2010).

The results of jurisdictional site evaluation are described below. Field data was recorded on datasheets provided in Appendix A. Maps in Appendix B depict the extent of potentially jurisdictional areas within the Study Area. These data were overlaid onto the Study Area boundaries and an aerial photograph using ArcView Geographic Information System (GIS) software. A list of observed plant species was compiled and is provided in Appendix C. Representative photographs were also taken during site surveys to document existing site conditions and are provided in Appendix D. Descriptions of potential federal and state jurisdictional waters and wetlands found on the Study Area are provided below.

5.1 Potential Section 404/401 Wetlands

Approximately **3.67 acres** of potential jurisdictional wetlands occur on the Study Area, shown on maps in Appendix B1 through B7. Situated within distinct topographic swales, well defined channels, or on active floodplains, wetland features A through S and characterized by sample points P1 through P32 are hydrologically connected to the Upper Truckee River and/or Lake Tahoe, both Traditional Navigable Waters (TNWs). It is therefore presumed that all features that meet the Corps' wetland criteria will be considered jurisdictional, as they either are a Relatively Permanent Water (RPW) that drains into a TNW or they directly abut an RPW that is directly confluent to a TNW.

Potential Section 404 wetlands identified within the Study Area were classified into four categories based on their vegetation structure (i.e., forested or emergent), plant species composition and wetland indicator status (Reed 1988), hydroperiod, and topographic landform.

5.1.1 Montane Meadow Wetland

Montane meadow wetlands were identified as potentially jurisdictional wetlands situated in broad, open swales or valleys. Montane meadows support primarily herbaceous plant species and develop on mineral soils, some with high organic content, that are seasonally ponded or saturated (Corps 2010). The primary source of hydrology for these wetlands is groundwater discharge conveyed via sheet flow through braided rills or seasonal fluctuations in the groundwater table. Vegetation cover tends to be 90-100 percent cover, is less than 0.75 meter high and is dominated by several species of sedges and rushes. Montane meadow wetlands within the Study Area can be further divided into two sub-types, based on hydroperiod and wetland indicator status of dominant plants: montane dry meadow and montane mesic meadow. These wetland types are described in detail below.

Montane Dry Meadow

Approximately **1.11 acres** of montane dry meadow features K and L (Appendix B2) were mapped within Bijou Meadow and are characterized by sample points P9, P10, P11, P12, and P14 (Appendix A). These wetlands supported a variety of sedges (*Carex* spp.) mixed with facultative uplands species such as hairy arnica (*Arnica mollis*), yarrow (*Achillea millefolium*), and Kentucky bluegrass (*Poa pratensis*). Based on an observation of groundwater within the upper 12 inches at a monitoring well located on the southwestern portion of the mapped feature, it was assumed that this meadow complex is saturated for at least 14 days during the growing season and therefore meets the Corps' wetland hydrology criterion. In addition, oxidized rhizospheres, a primary hydrology indicator, was observed in all wetland sample points and were used as the key indicator for determining the wetland/upland boundary, as this indicates that the soils undergo a seasonal wetting and drying cycle within the root zone and upper 12 inches of the profile. Hydric soil indicators observed within montane dry meadow wetlands includes Redox Dark Surface (F6) and Depleted Matrix (F3).

Montane Mesic Meadow

Approximately **one (1) acre** of montane mesic meadow wetlands M, Q, and S were mapped within Herbert Avenue South (Appendix B3) and Van Sickle State Park South (Appendix B6) and North (Appendix B7). These wetlands are characterized by sample points P18, P25, and P31 (Appendix A). Mesic meadows supported a higher proportion of plant species that are always (OBL) or predominantly (FACW) associated with wetland habitats in comparison to areas classified as dry meadows, as they are subjected to a longer periods of saturation. Primary indicators of wetland hydrology included oxidized rhizospheres and sediment deposits and secondary indicators included drainage patterns and passing the FAC-neutral test. Hydric soil indicators observed within montane mesic meadow wetlands includes Redox Dark Surface (F6), Sandy Redox (S5), and Depleted Matrix (F3). Wetland boundaries were determined by a combination of following the contours of swale-like topography and interpreting a distinct shift in plant species composition from surrounding upland habitats.

5.1.2 Emergent Floodplain Wetland

Approximately **0.18 acre** of emergent floodplain wetlands A, B, D, F, N, and P were mapped within the Study Area at Trout Creek and Herbert Avenue North and are characterized by sample points P3 and P24. This wetland classification is primarily based on topographic position, proximity to an active stream channel, and subsequent primary source of hydrology, which is direct inundation from an adjacent active stream channel. These features are perennially saturated to inundated and support a predominance of perennial OBL and/or FACW-classified wetland vegetation. Hydrophytic plants observed within this wetland type include Nebraska sedge (*Carex nebrascensis*; OBL), slender beak sedge (*Carex athrostachya*; FACW), hairgrass (*Deschampsia cespitosa*; FACW), Oregon checkermallow (*Sidalcea oregana* ssp. *spicata*; OBL), and (Potentilla glandulosa; OBL) and Baltic rush (*Juncus balticus*; FACW). Redoximorphic concentrations were observed within the soil matrix and along root channels and soil texture was sandy loam or silty clay. Hydric soil indicators within emergent floodplain wetlands were Redox Dark Surface (F6) and Depleted Matrix (F3). Wetland hydrology was evidenced by several primary indicators including surface water and saturation, sediment deposits, water-stained leaves, and drainage patterns. Wetland boundaries were defined by the upper edge of the inundated to saturated portion of the floodplain and a distinct shift in plant species composition.

5.1.3 Riparian Wetland

Riparian wetlands occur on floodplains, springs, seeps, adjacent to running waters, and in other areas with high water tables (Corps 2010). Approximately **1.38 acres** of riparian wetlands C, G, H, I, J, O, and R were mapped within the Study Area at Trout Creek, Herbert Avenue North along Bijou Park Creek, and at Van Sickle State Park North (Appendices B1, B3, and B7) and are characterized by sample points P2, P6, P7, and P30 (Appendix A). Riparian wetlands were characterized by stands of quaking aspen (*Populus tremuloides*; FAC+), Lemmon's willow (*Salix lemmonii*; OBL), Geyer's willow (*S. geyeriana*; OBL), shining willow (*S. lucida* ssp. *lasiandra*; NI¹), and Scouler's willow (*S. scouleriana*; FACW) that comprised the overstory, with a sparse herbaceous understory of sedges, rushes, and various grasses and forbs. Hydric soil indicators observed within riparian wetlands includes Redox Dark Surface (F6), Sandy Redox (S5), and Depleted Matrix (F3). These wetlands exhibited primary wetland hydrology indicators such as inundation, saturation, water marks, and sediment deposits, as well as secondary indicators including drainage patterns and passing the FAC-neutral test. Wetland boundaries were interpreted primarily by following drainage-like topography and interpreting a shift in plant dominance from woody riparian species to Great Basin sagebrush scrub along upland margins or emergent wetland species such as sedges and rushes along lower terrace edges.

¹ This species is typically associated with wetland and riparian habitats in the Tahoe Basin and therefore was considered to be classified as FACW for the purpose of this delineation.

5.2 Lakes, Ponds and Streams/ Non Tidal Waters/ Other Waters of the U.S.

Approximately **0.07 acre** or **862 linear feet** of non-wetland other waters were mapped within the Study Area: perennially inundated Trout Creek (0.03 acre or 41 linear feet; Appendix B1); Heavenly Valley Creek, a one- to two-foot wide intermittent channel (0.0027 acre or 118 linear feet; Appendix B1) which is tributary to Trout Creek; and Little Heavenly Creek, a one- to two-foot wide ephemeral channel located at Keller Avenue (0.04 acre or 762 linear feet; Appendix B5). The Ordinary High Water Mark (OHWM) was delineated along the active floodplain of all three features that was clearly discernible by bed-and-bank topography, shelving, and destruction of terrestrial vegetation. Trout Creek is a Relatively Permanent Water (RPW) that drains into the Upper Truckee River, a TNW; Heavenly Valley Creek abuts Trout Creek and is therefore considered jurisdictional. Based on its close proximity to Lake Tahoe of less than 0.5 mile, Little Heavenly Creek can be presumed to directly abut a TNW via the City's storm drain system and is also likely to be considered jurisdictional by the Corps.

6.0 CONCLUSIONS

6.1 Waters of the U.S. Including Wetlands

The Study Area has 18 features with positive wetland indicators ranging in size from less than 0.01 acre to 0.63 acre (Table 2). In addition, there are three (3) other water features that exhibited evidence of an OHWM. All of these features abut or are confluent to the Upper Truckee River or Lake Tahoe and are therefore likely to be considered jurisdictional. All jurisdictional wetlands hydric soils characterized by redoximorphic features, a predominance of hydrophytic vegetation with FAC-, FACW-, and/or OBL-classified plants, and wetland hydrology characterized by saturation, ponding, water marks, sediment deposits, oxidized rhizospheres, drainage patterns, and the FAC-neutral test. Hydric soil indicators observed within jurisdictional features includes Redox Dark Surface (F6), Sandy Redox (S5), and Depleted Matrix (F3). All features that meet the definition of jurisdictional wetlands and other waters for Section 404 of the Clean Water Act and are listed in Table 2 below.

Table 2. Summary of Potential Section 404 Jurisdictional Areas within the Study Area.

Map Feature ID	Wetland/Water Type	Study Area Section	Area of Potential Section 404 Jurisdiction		
			Square Feet (sf)	Linear Feet (lf)	Acres (A)
A	Emergent Floodplain	Trout Creek	1,717	n/a	0.04
B	Emergent Floodplain	Trout Creek	547	n/a	0.01
C	Riparian Wetland	Trout Creek	7,866	n/a	0.18
D	Emergent Floodplain	Trout Creek	213	n/a	0.00
E	Other Waters	Trout Creek	1,236	41	0.03
F	Emergent Floodplain	Trout Creek	2,285	n/a	0.05
G	Riparian Wetland	Trout Creek	5,094	n/a	0.12
H	Riparian Wetland	Trout Creek	598	n/a	0.01
I	Riparian Wetland	Trout Creek	181	n/a	0.00
J	Riparian Wetland	Trout Creek	16,868	n/a	0.39
Heavenly Valley Creek	Other Waters	Trout Creek	118	59	0.0027

Map Feature ID	Wetland/Water Type	Study Area Section	Area of Potential Section 404 Jurisdiction		
			Square Feet (sf)	Linear Feet (lf)	Acres (A)
K	Montane Dry Meadow	Bijou Meadow	47,673	n/a	1.09
L	Montane Dry Meadow	Bijou Meadow	585	n/a	0.01
Little Heavenly Creek	Other Waters	Keller Road	1,732	762	0.04
M	Montane Mesic Meadow	Herbert Ave South	4,953	n/a	0.11
N	Emergent Floodplain	Herbert Ave North	3,083	n/a	0.07
O	Riparian Wetland	Herbert Ave North	2,188	n/a	0.05
P	Emergent Floodplain	Herbert Ave North	143	n/a	0.00
Q	Montane Mesic Meadow	Van Sickle South	1,734	n/a	0.04
R	Riparian Wetland	Van Sickle North	27,461	n/a	0.63
S	Montane Mesic Meadow	Van Sickle North	36,267	n/a	0.83
TOTAL			162,423	862	3.73

Once the project design has been finalized it will be important to determine the extent of the jurisdictional features that will be affected. Impacts to jurisdictional wetlands and waters on site will likely require a Section 404 permit from the Corps. Permitting and mitigation requirements will depend on two factors: the type of jurisdictional features being filled and the extent of such impacts. If project impacts do not exceed 0.5 acres, a Nationwide Permit 14 (Linear Transportation Projects) may apply. This type of permit is a streamlined process that would require compensation for impacts but limited processing expense and time.

6.2 Waters of the State

All wetland and water features identified within Study Area may also be regulated by the RWQCB as Waters of the State through Section 401 of the CWA and/or the State Porter-Cologne Act. All ecological systems associated with drainages (i.e., riparian wetlands C, G, H, I, J, O, and R) and drainage features with bed and bank topography (Trout Creek, Heavenly Valley Creek, and Little Heavenly Creek) would be regulated by Sections 1600-1616 of the California Fish and Game Code. All water features would be considered jurisdictional

streambeds and were delineated from the top of bank, which was synonymous with the Corp's OHWM. In conjunction with the Section 404 permit, impacts to wetlands and waters will likely require a Section 401 Water Quality Certification or Waste Discharge Requirement from RWQCB and CDFG Section 1602 Streambed Alteration Agreement.

These results are considered to be preliminary until verified by these agencies and/or until any permits are issued by these agencies authorizing activities within or near these areas. The conclusion of this delineation is based on conditions observed at the time of the field surveys conducted on July 20, August 3, 4, 11, and 25, and November 2, 2010.

7.0 REFERENCES

- California Department of Fish and Game. Environmental Services Division (ESD). 1994. A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607, California Fish and Game Code.
- Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Home Page. (Version 04DEC98).
- Environmental Laboratory. 1987. Corp of Engineers wetlands delineation manual. (Technical Report YL-87-1.) U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Federal Emergency Management Agency (FEMA). 2010. Flood Zone Maps.
- Google Earth. 2010. Version 3.0.0762.
- Hickman, James C., ed. 1993. The Jepson Manual, Higher Plants of California. University of California Press, Berkeley, California.
- Holland. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game.
- Johnson, K. 2003. Brief History of Bijou Meadow. Personal communication with Russell Wigart, Assistant Engineer, City of South Lake Tahoe, Engineering Division.
- Munsell. 2000. Munsell Soil Color Charts. Macbeth Division of Kollmorgen Instruments Corporation. Baltimore, Maryland.
- National Oceanic and Atmospheric Administration (NOAA). 2010. Climate Data available at www.srh.noaa.gov/ and www.wrh.noaa.gov/.
- Reed, P. B., Jr. 1988. National List of Plant Species that Occur in Wetlands: California Region 0. (Biological Report 88[26.10]0. U.S. Fish and Wildlife Service. Fort Collins, Colorado.
- Sawyer, J.O., T. Keeler-Wolf, and J. Evans. 2009. A Manual of California Vegetation. California Native Plant Society. Sacramento, CA.
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Official Soil Series Descriptions [Online WWW]. Available URL: "http://soils.usda.gov/technical/classification/osd/index.html".

State Water Resources Control Board. 1999. CA Interagency Watershed Map (Calwater 2.2, updated May 2004).

U.S. Army Corps of Engineers (Corps). May 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). Eds. J. S. Wakeley, R. W. Lichvar, and C. V. Noble, et al. ERDC/EL TR-10-3, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

_____. 2008. CWA Guidance to Implement the U.S. Supreme Court Decision for the Rapanos and Carabell Cases. (http://www.usace.army.mil/CECW/Pages/cwa_guide.aspx). December 2008.

_____. 2007. Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States Memorandum. June 5.

_____. 2005. Regulatory Guidance Letter No. 05-05. Ordinary High Water Mark Identification. December 7.

_____, Sacramento District. 2001. Minimum Standard for Acceptance of Preliminary Wetland Delineations. November 30.

United States Department of Agriculture, Natural Resources Conservation Service (USDA, NRCS). 2007. Soil survey of the Tahoe Basin Area, California and Nevada. Accessible online at: http://soils.usda.gov/survey/printed_surveys/.

USDA, NRCS. 2002. Field Indicators of Hydric Soils in the United States., Version 5.0. G.W. Hurt, P.M. Whited, and R.F. Pringle (eds.). USDA, NRCS in cooperation with the National Technical Committee for Hydric Soils, Fort Worth, TX.

_____. 1994. Changes in hydric soils of the United States. Federal Register 59(133): 35680-35681, July 13, 1994.

U.S. Fish and Wildlife Service (USFWS). 2010. Wetlands Geodatabase. Division of Habitat and Resource Conservation. <http://wetlandsfws.er.usgs.gov/NWI/index.html>

Appendix A: Corps Delineation Data Forms

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway Bike Path City/County: SLT / El Dorado Sampling Date: 8/3/10
 Applicant/Owner: CTC State: CA Sampling Point: P1
 Investigator(s): A Parravano Section, Township, Range: 3, 12 N, 18 E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): flat Slope (%): 10
 Subregion (LRR): MLRA 22A Lat: 38.9204 N Long: 119.9740 W Datum: NAD 83
 Soil Map Unit Name: Marla loamy coarse sand, 0-5% slope NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Upland sample point on a forested hill slope west of Trout Creek</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Pinus contorta</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)	
2. <u>Pinus jeffreyi</u>	<u>15</u>	<u>Y</u>	<u>ML</u>	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3. <u>Abies concolor</u>	<u>5</u>	<u>Y</u>	<u>ML</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20</u> (A/B)	
4. _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
<u>25</u> = Total Cover					
Sapling/Shrub Stratum (Plot size: _____)					
1. _____				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. _____					
3. _____					
4. _____					
5. _____					
_____ = Total Cover					
Herb Stratum (Plot size: _____)					
1. <u>Elymus elymoides</u>	<u>15</u>	<u>Y</u>	<u>ML</u>		
2. <u>Gadophya furm diffusum</u>	<u>15</u>	<u>Y</u>	<u>ML</u>		
3. <u>Lathyrus lanszwertii</u>	<u>5</u>	<u>N</u>	<u>ML</u>		
4. <u>Lupinus andersonii</u>	<u>5</u>	<u>N</u>	<u>ML</u>		
5. <u>Deschampsia cespitosa</u>	<u>3</u>	<u>N</u>	<u>FACU</u>		
6. <u>Elymus glaucus</u>	<u>3</u>	<u>N</u>	<u>ML</u>		
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
<u>46</u> = Total Cover					
Woody Vine Stratum (Plot size: _____)					
1. _____				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum <u>54</u>					
Remarks: <u>Hydrophytic veg criteria not met. other spp present = Paeonia brownii</u>					

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway Bike Path City/County: SLT / El Dorado Sampling Date: 8/13/10
 Applicant/Owner: CTC State: CA Sampling Point: P2
 Investigator(s): A. Parravano Section, Township, Range: 3, 12 N, 18 E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA22A Lat: 38.9199N Long: 119.9730W Datum: WGS1984
 Soil Map Unit Name: Tahoe Complex, 0-2% slopes NWI classification: P5S1A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: <u>Floodplain wetland - mix of riparian + emergent wetland cover</u> (photo #74)			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u>	(A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u>	(B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u>	(A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:	
= Total Cover				Total % Cover of: _____ Multiply by: _____	
Sapling/Shrub Stratum (Plot size: _____)				OBL species _____ x 1 = _____	
1. <u>Salix geyersana</u>	<u>35</u>	<u>Y</u>	<u>OBL</u>	FACW species _____ x 2 = _____	
2. _____	_____	_____	_____	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
= Total Cover				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:	
1. <u>Juncus balticus</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
2. <u>Carex orthostachya</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
3. <u>Solidago canadensis</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
4. <u>Deschampsia cespitosa</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. _____	_____	_____	_____	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹	
6. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
7. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
= Total Cover					
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
= Total Cover					
% Bare Ground in Herb Stratum <u>25</u>					
Remarks: <u>Hydrophytic veg criteria met</u>					

SOIL

Sampling Point: 2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/2	100						dense rhizomatous zone
6-18	10YR 4/2	70	7.5YR 5/6	30	C	RC	10am	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: *Hydric soil criterion met*

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

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

Wetland Hydrology Present? Yes No

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

Remarks: *area saturated/mandated for >14 days during growing year*

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway Bike Path City/County: Slack Tahoe Sampling Date: 8/3/10
 Applicant/Owner: CTC State: CA Sampling Point: P3
 Investigator(s): A. Parravano Section, Township, Range: 3, 12 N, 18 E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): MLRA 22A Lat: 38.9198 N Long: 119.9725 W Datum: NAD 83
 Soil Map Unit Name: Tahoe Complex, 0-2% slopes NWI classification: PSS1A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: <u>florid plain wetland, emergent wetland vegetation along low banks and riparian along upper terrace</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>4</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:	
_____ = Total Cover				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: _____)				OBL species _____	x 1 = _____
1. <u>Salix lemmonii</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	FACW species _____	x 2 = _____
2. <u>Salix geyeriana</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	FAC species _____	x 3 = _____
3. _____	_____	_____	_____	FACU species _____	x 4 = _____
4. _____	_____	_____	_____	UPL species _____	x 5 = _____
5. _____	_____	_____	_____	Column Totals:	(A) _____ (B) _____
<u>30</u> = Total Cover				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:	
1. <u>Carex nebrascensis</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
2. <u>Juncus balticus</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
3. <u>Phleum pratense</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
4. <u>Poa pratensis</u>	<u>7</u>	<u>N</u>	<u>FACU</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. <u>Achillea millefolium</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹	
6. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
7. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
<u>62</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Woody Vine Stratum (Plot size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
_____ = Total Cover					
% Bare Ground in Herb Stratum <u>38</u>					
Remarks:					

SOIL

Sampling Point: 3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/1	100					Sandy DM	
3-6	10YR 4/2		10YR 4/4		C	RC	Sand	
6-18	10YR 4/3		10YR 6/8	10	C	RC	Sand/loam	
			10YR 6/8	10	C	M	"	"

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: 3" OM layer, distinct profile indicative of alluvial soil - redox present below 6", (faint above 6") but upper 6" is likely eroded/deposited each season due to landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks: Sample area remains inundated and/or saturated for extended periods due to flooding of Trout Creek.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway Bike Path City/County: SLT / EI Dgrad Sampling Date: 8/3/10
 Applicant/Owner: RTC State: CA Sampling Point: P4
 Investigator(s): A Parravano Section, Township, Range: 3, 2N, 18E
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): MLRA 22A Lat: 38.9207N Long: 119.9720W Datum: WGS 1984
 Soil Map Unit Name: Christopher-befi complex, 0-5% slopes NWI classification: PSS1A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>depressional feature outside of riparian wetland, at base of lodgepole/roosa dominated slope below road.</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Pinus contorta</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>40</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. <u>Rosa woodsii</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Salix pemmonii</u>	<u>3</u>	<u>Y</u>	<u>FAC</u>	
3. _____				
4. _____				
5. _____				
<u>18</u> = Total Cover				
Herb Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>100</u>				
Remarks: <u>Facultative wetland vegetation present.</u>				
			Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

SOIL

Sampling Point: P14

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	organic mat						om	
10-18	loam	100%					loam	

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)		<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: no redox - thick pine needle/cone litter mixed in top 12". Soil not hydric

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): _____

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

Wetland Hydrology Present? Yes _____ No

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

Remarks: Although the sample point was collected in an area of ditch-like topography, no primary evidence of hydro was observed.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway bike Path City/County: SJT / El Dorado Sampling Date: 8/3/10
 Applicant/Owner: ETC State: EX Sampling Point: P5
 Investigator(s): A. Paravano Section, Township, Range: 3, 12N, 18E
 Landform (hillslope, terrace, etc.): hill slope Local relief (concave, convex, none): none Slope (%): 20
 Subregion (LRR): MLRA 22A Lat: 38.9211N Long: 119.9716W Datum: NAD83
 Soil Map Unit Name: Marla loamy coarse sand, 0-5% slope NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Upland hill slope 2 corner of blackbart + meadow crest</u> (Photo 58)	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Pinus contorta</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20</u> (A/B)
4. _____				
	<u>25</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. <u>Purshia fendleri</u>	<u>5</u>	<u>Y</u>	<u>NL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Rosa novae</u>	<u>3</u>	<u>N</u>	<u>FAC</u>	OBL species _____ x 1 = _____
3. <u>Erigeron umbellatum</u>	<u>5</u>	<u>Y</u>	<u>NL</u>	FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
	<u>18</u> = Total Cover			UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Claytonia alpinoides</u>	<u>10</u>	<u>Y</u>	<u>NL</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Gratiophyton diffusum</u>	<u>5</u>	<u>Y</u>	<u>NL</u>	<input type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Trifolium repens</u>	<u>2</u>	<u>N</u>	<u>NL</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Deschampsia cespitosa</u>	<u>3</u>	<u>N</u>	<u>FACW</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____				
9. _____				
10. _____				
11. _____				
	<u>20</u> = Total Cover			
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
% Bare Ground in Herb Stratum <u>80</u>				
Remarks:				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

SOIL

Sampling Point: P5

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR 3/2						coarse gravelly loam	

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

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

<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Depleted Dark Surface (F7)	
	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: No hydric soil indicators observed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

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

Wetland Hydrology Present? Yes _____ No

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

Remarks: No wetland hydro indicators observed

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway Bike Path City/County: SL Tahoe Sampling Date: 8/3/10
 Applicant/Owner: CTC State: CA Sampling Point: PL6
 Investigator(s): Amy Parravano Section, Township, Range: 3, 12N, 18E
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): MLRA 22A Lat: 38.9213° N Long: 119.9714° W Datum: WGS 1984
 Soil Map Unit Name: Tahoe Complex 0-2% slope NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	
Remarks: <u>(Photos 5753-56) Emergent/riparian wetland along upper banks of Heavenly Valley Creek and w/in floodplain, trout creek</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. <u>Salix geyeriana</u>	<u>5</u>	<u>Y</u>	<u>OBL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Salix lemmonii</u>	<u>5</u>	<u>Y</u>	<u>OBL</u>	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
<u>10</u> = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Carex nebrascensis</u>	<u>35</u>	<u>Y</u>	<u>OBL</u>	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Deschampsia cespitosa</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	___ 2 - Dominance Test is >50%
3. <u>Poa pratensis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	___ 3 - Prevalence Index is ≤3.0 ¹
4. <u>Gayophytum diffusum</u>	<u>2</u>	<u>N</u>	<u>NL</u>	___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>Rudbeckia hirsuta</u>	<u>5</u>	<u>N</u>	<u>FAC-</u>	___ 5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>30</u> = Total Cover				
% Bare Ground in Herb Stratum <u>70</u>				
Remarks:				

SOIL

Sampling Point: P6

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR2/2	100					Sandy loam	coars-textured
4-18	10YR2/2	70	5YR3/4	20	C	PL	↓	well drained
			5YR3/4	10	C	M	↓	alluvial soil

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Redox prominent/abundant below 4"

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
	<input type="checkbox"/> Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? Yes No Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

previous site inspections have noted that site is inundated

Remarks: to saturated for >14 days during growing season. Soil is moist @ 10"

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway Bike Path City/County: SL Tahoe Sampling Date: 8/3/10
 Applicant/Owner: CTC State: CA Sampling Point: P7
 Investigator(s): A. Parravano Section, Township, Range: B, 12N, 18E
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): MCR22A Lat: 38.9217N Long: 119.9714W Datum: WGS 1984
 Soil Map Unit Name: Tahoe Complex, 0-2 to slope NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	
Remarks: <u>(photo #57) Riparian wetland sample point</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Pinus contorta</u>		<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>(10)</u> (A/B)
4. _____				Prevalence Index worksheet:
	<u>20</u>		= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)				OBL species _____ x 1 = _____
1. <u>Salix lemmonii</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>	FACW species _____ x 2 = _____
2. _____				FAC species _____ x 3 = _____
3. _____				FACU species _____ x 4 = _____
4. _____				UPL species _____ x 5 = _____
5. _____				Column Totals: _____ (A) _____ (B)
	<u>30</u>		= Total Cover	Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants ¹ _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Smilacena stellata</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Decchanpsia crispiflora</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Carex obovata</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Ribes nevadense</u>	<u>5</u>		<u>NL</u>	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
	<u>50</u>		= Total Cover	
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____				
2. _____				
			= Total Cover	
% Bare Ground in Herb Stratum <u>50</u>				
Remarks: <u>Hydrophytic veg criteria met.</u>				

SOIL

Sampling Point: P7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/2	100					Sandy loam	
2-18	10YR 2/2	80	5YR 3/4	15	C	M	↓	
		20	" "	5	C	PL	↓	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Sol (A1)	<input checked="" type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)
	<input type="checkbox"/> 2 cm Muck (A10)
	<input type="checkbox"/> Red Parent Material (TF2)
	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
	<input type="checkbox"/> Other (Explain in Remarks)

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

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Redox present below 2". Coarse texture, high sand content

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	
<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	
<input checked="" type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

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

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Saturation persists > 14 days w/h grow^o season according to previous site inspections. Concave area that holds water for extended periods and supports riparian vegetation w/ emergent understorey.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway/Bijon Meadows City/County: SLT/El Dorado Sampling Date: 8/4/10
 Applicant/Owner: CTC State: CA Sampling Point: P8
 Investigator(s): A. Parravano Section, Township, Range: 4, 12 N, 18 E
 Landform (hillslope, terrace, etc.): gentle hillslope Local relief (concave, convex, none): convex Slope (%): 3-5
 Subregion (LRR): MLRA 22A Lat: 38.9283 Long: 119.9644 Datum: NAD83
 Soil Map Unit Name: Marla loamy coarse sand, 0-5% slope NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation , Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: <u>Upland sample point collected in lodgepole pine forest; understory has been recently cleared but remnants are still identifiable</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Pinus contorta</u>	<u>35</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
4. _____				Prevalence Index worksheet:
	<u>35</u>	<u>= Total Cover</u>		
Sapling/Shrub Stratum (Plot size: _____)				OBL species _____ x 1 = _____
1. <u>Ribes rostellii</u>	<u>2</u>	<u>Y</u>	<u>NL</u>	FACW species _____ x 2 = _____
2. _____				FAC species _____ x 3 = _____
3. _____				FACU species _____ x 4 = _____
4. _____				UPL species _____ x 5 = _____
5. _____				Column Totals: _____ (A) _____ (B)
	<u>2</u>	<u>= Total Cover</u>		Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Taraxacum officinale</u>	<u>2</u>		<u>FACW</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Erigeron phillyrinus</u>	<u>2</u>		<u>FACW</u>	<input type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Achillea millefolium</u>	<u>2</u>		<u>FACU</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Poa pratensis</u>	<u>2</u>		<u>FACU</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>Fayobium diffusum</u>	<u>1</u>		<u>NL</u>	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. <u>Hyssopus inermis</u>	<u>5</u>	<u>Y</u>	<u>NL</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. <u>Melica stricta</u>	<u>1</u>		<u>NL</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
9. _____				
10. _____				
11. _____				
	<u>15</u>	<u>= Total Cover</u>		
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
	<u>85</u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>85</u>				
Remarks: _____				

SOIL

Sampling Point: P8

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10 YR 3/3						OM / 100%	
3-12	10 YR 5/2						sandy loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: No hydric soil indicators observed

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

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

Wetland Hydrology Present? Yes _____ No

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

Remarks: No wetland hydro indicators observed. Criteria not met.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway/ City/County: SLT / El Dorado Sampling Date: 8/4/10
 Applicant/Owner: CTC State: CA Sampling Point: PA
 Investigator(s): A. Parravano Section, Township, Range: 4, 12 N, 18 E
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): convex Slope (%): 2-4
 Subregion (LRR): MLRA 224 Lat: 38.9284 Long: 119.9641 Datum: NAD 83
 Soil Map Unit Name: Marla loamy coarse sand, 0-57, slips NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	
Remarks: <u>Wet meadow adjacent to drainage w/ stand^o water</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Carex nebrascensis</u>	<u>93</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Hordeum brachyantherum</u>	<u>5</u>		<u>FACW</u>	
3. <u>Thadia sp.</u>	<u>2</u>		<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____				
Remarks: <u>Hydrophytic veg. criteria met</u>				

SOIL

Sampling Point: 99

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR3/2							← silty/sandg loam
5-12	10YR3/1		7.5YR4/6	15	C	RC		← blocky clay loam
			7.5YR4/6	5	C	M		

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

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

<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: *could not dig deeper than 12" - low chroma matrix w/ soft iron masses & concretions below 5"*

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

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

Wetland Hydrology Present? Yes No

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

412" in July

Remarks: *moist 05"*

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway/Bijm Meadows City/County: SLT/EI Dorado Sampling Date: 8/4/10
 Applicant/Owner: CTC State: CA Sampling Point: P10
 Investigator(s): A. Parravano Section, Township, Range: 4, 12N, 18E
 Landform (hillslope, terrace, etc.): valley Local relief (concave, convex, none): concave Slope (%): 2-4
 Subregion (LRR): MLRA 22a Lat: 38.9285 Long: 119.9640 Datum: WGS 1989
 Soil Map Unit Name: Meda loamy coarse sand 0-57a NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	
Remarks: <u>Point taken along wetland transect - area appeared to be slightly higher in elevation than surrounding wetland, but still meets wetland criteria upon inspection.</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
4. _____					
_____ = Total Cover					
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:	
1. _____					
2. _____				OBL species _____ x 1 = _____	
3. _____				FACW species _____ x 2 = _____	
4. _____				FAC species _____ x 3 = _____	
5. _____				FACU species _____ x 4 = _____	
_____ = Total Cover				UPL species _____ x 5 = _____	
				Column Totals: _____ (A) _____ (B)	
				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:	
1. <u>Penstemon holanderi</u>	<u>15</u>	<u>N</u>	<u>NL</u>		
2. <u>Ranunculus</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
3. <u>Dotyella glandulosa</u>	<u>35</u>	<u>Y</u>	<u>FAC</u>	____ 3 - Prevalence Index is ≤3.0 ¹	
4. <u>Trifolium bingipes</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. <u>Melica stricta</u>	<u>2</u>	<u>N</u>	_____	____ 5 - Wetland Non-Vascular Plants ¹	
6. <u>Gnaphalium diffusum</u>	<u>1</u>	<u>N</u>	<u>NL</u>	____ Problematic Hydrophytic Vegetation ¹ (Explain)	
7. <u>Erigeron virginiana</u>	<u>2</u>	<u>N</u>	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. <u>Juncus balticus</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>		
9. <u>Gnaphalium diffusum</u>	<u>2</u>	<u>N</u>	<u>NL</u>		
10. <u>Achillea millefolium</u>	<u>5</u>	<u>N</u>	<u>FACU</u>		
11. _____					
<u>97</u> = Total Cover					
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
1. _____					
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum <u>3</u>					
Remarks:					

SOIL

Sampling Point: P10

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR4/2	100					sandy clay loam	
4-12	10YR6/2	65	10YR5/1	25	C	M	"	
			2.5YR5/6	10	C	RC	"	
12+	2.5Y6/2	80	10YR5/6	20	C	M	Sandy loam	

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: *Prominent/abundant redox appears to be indicative of seasonal fluctuations in the groundwater table.*

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

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

Wetland Hydrology Present? Yes No

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

Remarks: *Sampled area appears to remain saturated with upper 12" during the growing season. Algal matting observed adjacent to soil pits.*

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway / Bijou Meadows City/County: SLT / El Dorado Sampling Date: 8/4/10
 Applicant/Owner: CTC State: CA Sampling Point: P11
 Investigator(s): A. Parravano Section, Township, Range: 4, 12N, 18E
 Landform (hillslope, terrace, etc.): valley Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA224 Lat: 38.9287 Long: 119.9636 Datum: WGS1984
 Soil Map Unit Name: Tahoe mucky silt loam, drained, 0-5% NWI classification: PEM1A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: <u>point taken w/in seasonally saturated meadow</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Carex utriculata</u>	<u>15</u>	<u>N</u>	<u>FACW</u>	
2. <u>Densstemon nudiberris</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
3. <u>Potentilla glandulosa</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
4. <u>Juncus balticus</u>	<u>25</u>	<u>X</u>	<u>FACW</u>	
5. <u>Arnica montana</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	
6. <u>Tribulus longipes</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>91</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>9</u>				
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks:				

SOIL

Sampling Point: P14

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2		5YR 4/6	10	C	RC	om/sandy clay loam	
4-7	10YR 3/1		5YR 4/6	20	C	RC	SCL	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: *could not dig deeper than 7" due to compacted soil conditions. Low chroma soils w/redox - presumed hydric*

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	
<input checked="" type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): 12

Saturation Present? Yes No Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

monitoring well data = 412" in July

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway / Bijou Meadows City/County: STJ / El Dorado Sampling Date: 8/4/16
 Applicant/Owner: GC State: CA Sampling Point: P12
 Investigator(s): A. Parravano Section, Township, Range: 4, 12 N, 18 E
 Landform (hillslope, terrace, etc.): U-shaped valley Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA 22A Lat: 38.9292 Long: 119.9630 Datum: WGS1984
 Soil Map Unit Name: Tahoe mucky silt loam, drained, 0-5% NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	
Remarks: <u>Sample point taken w/in dry meadow where wetland criteria are met.</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Carex praegracilis</u>	<u>55</u>	_____	_____	
2. <u>Juncus balticus</u>	<u>25</u>	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>80</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>20</u>				
Remarks: _____				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____				

SOIL

Sampling Point: 12

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	75	7.5YR 5/6	25	C	RC	OM/loam	
4-12	7.5YR 4/3	70	7.5YR 4/6	10	C	RC	clay loam	
12			7.5YR 5/8	10	C	M	"	
12			fluv/3/N	15	C	M	"	
12+	10YR 6/4	80	10YR 5/8	20	C	M	sandy clay loam	

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

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

Wetland Hydrology Present? Yes No

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

→ 412" in July

Remarks: Based upon landscape position, shift in species composition and prominent oxidation along living roots, it appears that this area is saturated for >14 days in upper 12" during the growing season - meets hydro criterion

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway/Bijou Meadow City/County: SLT / El Dorado Sampling Date: 8/4/10
 Applicant/Owner: CTC State: CO Sampling Point: P13
 Investigator(s): A Parravano Section, Township, Range: 4, 12 N, 18 E
 Landform (hillslope, terrace, etc.): shallow U-shaped valley Local relief (concave, convex, none): convex Slope (%): 2
 Subregion (LRR): MLKAZ2A Lat: 38.9294 Long: 119.9628 Datum: WGS 1984
 Soil Map Unit Name: Tahoe mucky silt loam, drained, 0-5% NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Upper edge of dry meadow in transitional area where it integrates into lodgepole pine forest. (photo #82)</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Pinus contorta</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>15</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
Herb Stratum (Plot size: _____)				
1. <u>Juncus balticus</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) <small>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</small>
2. <u>Arnica montana</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Carex praegracilis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
<u>75</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: 13

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR3/2						Om	
2-4	10Y04/2						loam	
4-10	10YR6/2		10YR5/8	10	C	M	coars sandy loam	
10-16	10YR6/4		10YR5/8	5	C	M	"	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input checked="" type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Redox present but faint + few concentrations were noted. If appears that hydric indicators are result of water table flux upper edge of the capillary fringe, rather than saturation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)
	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
	<input type="checkbox"/> Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

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

Wetland Hydrology Present? Yes No

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

Remarks: No visible indicators, hydrology - it is unlikely that the water table reaches the upper 12" soil for 14 consecutive days at this location. No oxidation along living roots.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway / Bijou Meadows City/County: SLT / El Dorado Sampling Date: 8/25/10
 Applicant/Owner: CTC State: CA Sampling Point: P14
 Investigator(s): A Parravano Section, Township, Range: 4, 12 N, 18 E
 Landform (hillslope, terrace, etc.): upper edge of meadow Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA 22A Lat: 38.9293 Long: 119.9629 Datum: WGS1984
 Soil Map Unit Name: Tahoe mucky silt loam, drained, 0-5% NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: <u>Depressional sedge dominated wetland feature. Wetland boundaries determined by Δm spp composition and topography.</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Carex praegracilis</u>	<u>45</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
2. <u>Arnica montana</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
3. <u>Juncus balticus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
4. <u>Facophytum diffusum</u>	<u>2</u>	<u>N</u>	<u>NL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>62</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>38</u>				
Remarks: <u>Hydrophytic veg. criteria is met</u>				

SOIL

Sampling Point: 14

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	7.5YR3/3	100%					om/loam	
4-8	10YR4/2	80%	7.5YR5/8	20%	C	M	Sandy clay loam	
8-12	7.5YR5/2	10%						

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: clay

Depth (inches): 12

Hydric Soil Present? Yes No

Remarks: 12" Redox concentrations are prominent/abundant in upper

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

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

Wetland Hydrology Present? Yes No

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

< 12" in July, when monitoring well was examined nearby

Remarks: Depressional feature underlain by compacted clay hard pan. H₂O likely perches in upper 12" for adequate duration to support hydric soil conditions + predominance of hydrophytic veg.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway / Bijan Meadows City/County: SLT / El Dorado Sampling Date: 8/25/10
 Applicant/Owner: CTE State: CA Sampling Point: P15
 Investigator(s): A. Panavang Section, Township, Range: 4, 12 N, 18 E
 Landform (hillslope, terrace, etc.): upper edge of meadow Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): MLRA 22A Lat: 38.9216 Long: 119.9625 Datum: WGS 1984
 Soil Map Unit Name: Marla loamy coarse sand, 0-5% slope NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		

Remarks: Upper edge of dry meadow; transitional habitat adjacent to lodgepole pine forest along Glenwood Drive D trailhead. Paired upland

VEGETATION – Use scientific names of plants. Point to 12B.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	_____	_____	_____	OBL species _____ x 1 = _____
1. _____	_____	_____	_____	FACW species _____ x 2 = _____
2. _____	_____	_____	_____	FAC species _____ x 3 = _____
3. _____	_____	_____	_____	FACU species _____ x 4 = _____
4. _____	_____	_____	_____	UPL species _____ x 5 = _____
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
= Total Cover				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants ¹ _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Juncus balticus</u>	<u>55</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Arnica montana</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
3. <u>Galium aparine</u>	<u>5</u>	<u>N</u>	<u>M</u>	
4. <u>Pentstemon</u>	<u>1</u>	<u>N</u>	<u>OBL</u>	
5. <u>Potentilla fruticosa</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
6. <u>Sidalcea oregana</u>	<u>1</u>	<u>N</u>	<u>OBL</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
= Total Cover <u>72</u>				
Woody Vine Stratum (Plot size: _____)	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover _____				
% Bare Ground in Herb Stratum <u>23</u>				
Remarks: <u>other spp = Rosa woodsii (<1%)</u>				

SOIL

Sampling Point: 15

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	7.5YR3/3						DM	
3-6	7.5YR4/2		7.5YR4/6	10	C	M	sandy loam	
6-12	7.5YR5/2						sandy clay loam	

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: few, faint mottles occurring as soft Fe masses
 Layer with redox is in upper 12" but is only 3" thick - does not meet criteria

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): _____

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

Wetland Hydrology Present? Yes _____ No

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

Remarks: sample point situated on gentle hill slope adjacent to lodgepole pine forest. Landscape position does not appear to support sustained hydrology. No secondary indicators observed and point is situated above monitoring well.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway/Bijm Meadows City/County: SLT/El Dorado Sampling Date: 8/4/10
 Applicant/Owner: CTC State: CT Sampling Point: P16 ✓
 Investigator(s): A. Parravano Section, Township, Range: 4, 12N, 18E
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): none Slope (%): 0-2
 Subregion (LRR): MLRA22A Lat: 38.9301 Long: 119.9620 Datum: WFS 1989
 Soil Map Unit Name: Marla loamy coarse sand 0-5908dm NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>corner lot o becker + Glenwood.</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																												
1. <u>Pinus contorta</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																												
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)																												
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)																												
4. _____				Prevalence Index worksheet:																												
	<u>10</u>	= Total Cover			<table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center"><u>0</u></td> <td>x 1 =</td> <td align="center"><u>10</u></td> </tr> <tr> <td>FACW species</td> <td align="center"><u>5</u></td> <td>x 2 =</td> <td align="center"><u>10</u></td> </tr> <tr> <td>FAC species</td> <td align="center"><u>33</u></td> <td>x 3 =</td> <td align="center"><u>99</u></td> </tr> <tr> <td>FACU species</td> <td align="center"><u>23</u></td> <td>x 4 =</td> <td align="center"><u>92</u></td> </tr> <tr> <td>UPL species</td> <td align="center"><u>32</u></td> <td>x 5 =</td> <td align="center"><u>160</u></td> </tr> <tr> <td>Column Totals:</td> <td align="center"><u>93</u></td> <td>(A)</td> <td align="center"><u>362</u> (B)</td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>10</u>	FACW species	<u>5</u>	x 2 =	<u>10</u>	FAC species	<u>33</u>	x 3 =	<u>99</u>	FACU species	<u>23</u>	x 4 =	<u>92</u>	UPL species	<u>32</u>	x 5 =	<u>160</u>	Column Totals:	<u>93</u>	(A)
Total % Cover of:		Multiply by:																														
OBL species	<u>0</u>	x 1 =	<u>10</u>																													
FACW species	<u>5</u>	x 2 =	<u>10</u>																													
FAC species	<u>33</u>	x 3 =	<u>99</u>																													
FACU species	<u>23</u>	x 4 =	<u>92</u>																													
UPL species	<u>32</u>	x 5 =	<u>160</u>																													
Column Totals:	<u>93</u>	(A)	<u>362</u> (B)																													
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index = B/A = <u>3.88</u>																												
1. <u>Rosa woodsii</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																												
2. _____																																
3. _____																																
4. _____																																
5. _____																																
Herb Stratum (Plot size: _____)																																
1. <u>Lupinus andersonii</u>	<u>4</u>		<u>NL</u>																													
2. <u>Aster occidentalis</u>	<u>3</u>		<u>FAC</u>																													
3. <u>Poa pratensis</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>																													
4. <u>Achillea millefolium</u>	<u>8</u>		<u>FACU</u>																													
5. <u>Gaillardium dissectum</u>	<u>5</u>		<u>NL</u>																													
6. <u>Arnica mollis</u>	<u>5</u>		<u>FAC</u>																													
7. <u>Tragopogon dubius</u>	<u>3</u>		<u>NL</u>																													
8. <u>Thymus plumoides</u>	<u>15</u>	<u>Y</u>	<u>NL</u>																													
9. <u>Saxifraga hypnoides</u>	<u>5</u>		<u>FACW</u>																													
10. <u>Briza media</u>	<u>3</u>		<u>NL</u>																													
11. _____																																
	<u>68</u>	= Total Cover																														
Woody Vine Stratum (Plot size: _____)																																
1. _____																																
2. _____																																
% Bare Ground in Herb Stratum <u>32</u>			= Total Cover																													

Remarks: Some hydrophytic species are present, but not dominant. Other spp: Potentilla glandulosa, Erigeron peregrinus, Penstemon sp.

SOIL

Sampling Point: 16

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/3	100					Sandy loam	
3-16	10YR 5/3	100					Sandy loam	

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Soil not hydric

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

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

Wetland Hydrology Present? Yes _____ No

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

Remarks: no hydro indicators

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway / Bijou Meadows City/County: SLT / El Dorado Sampling Date: 8/4/10
 Applicant/Owner: CTC State: CA Sampling Point: D17
 Investigator(s): A. Parravano Section, Township, Range: 4, 12N, 18E
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): convex Slope (%): 5
 Subregion (LRR): MLRA224 Lat: 38.9305 Long: 119.9620 Datum: WGS1984
 Soil Map Unit Name: Marla loamy coarse sand, 0-570 slope NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: <u>upland point N b Becka Dr.</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Pinus contorta</u>	<u>35</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. <u>Pinus jeffreyi</u>	<u>5</u>	<u>N</u>		Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>40</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. <u>Rosa woodsii</u>	<u>10</u>		<u>FAC</u>	
2. _____				
3. _____				
4. _____				
5. _____				
<u>10</u> = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Arnica montana</u>	<u>7</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Juncus balticus</u>	<u>4</u>		<u>FACW</u>	
3. <u>Poa pratensis</u>	<u>4</u>		<u>FACU</u>	
4. <u>Carex sp. (no inflorescence)</u>	<u>4</u>		<u>FAC (or UPL)</u>	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
<u>10</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				

Remarks: Sample point dominated by facultative wetland vegetation - criterion met.

SOIL

Sampling Point: 17

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 4/2	10					Sandy loam	
7-16	10YR 6/3	10					" "	

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Indicators for Problematic Hydric Soils³:

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Criteria not met

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

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

Wetland Hydrology Present? Yes _____ No

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

Remarks: Criteria not met.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: freeway / Herbert Ave City/County: SLT / El Dorado Sampling Date: 8/3/10
 Applicant/Owner: CTC State: _____ Sampling Point: P18
 Investigator(s): A. Parravano Section, Township, Range: 4, 12 N, 18 E
 Landform (hillslope, terrace, etc.): valley Local relief (concave, convex, none): flat Slope (%): 0-2
 Subregion (LRR): MLRA 22A Lat: 38.9348°N Long: 119.9557°W Datum: NAD83
 Soil Map Unit Name: Marla loamy coarse sand 10-59a NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	
Remarks: <u>Large meadow complex supported by groundwater discharge</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
_____ = Total Cover					
Sapling/Shrub Stratum (Plot size: _____)					
1. <u>Pibes nevadensis</u>	<u>2</u>	<u>Y</u>	<u>NL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0' ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. <u>Salix scouleriana</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
<u>12</u> = Total Cover					
Herb Stratum (Plot size: _____)					
1. <u>Juncus nevadensis</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>		
2. <u>Juncus balticus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>		
3. <u>Agrostis stolonifera</u>	<u>10</u>	<u>N</u>	<u>FACW</u>		
4. <u>Sidalcea oregana</u>	<u>5</u>	<u>N</u>	<u>OBL</u>		
5. <u>Madia albomerata</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>		
6. <u>Bromus? Jineremus?</u>	<u>5</u>	<u>N</u>	<u>NL</u>		
7. <u>unk. comp (coll)</u>	<u>5</u>	<u>N</u>	<u>?</u>		
8. <u>Carex</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>		
9. <u>Trifolium longipes</u>	<u>1</u>	<u>N</u>	<u>FACW</u>		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
<u>80</u> = Total Cover					
Woody Vine Stratum (Plot size: _____)					
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
2. _____	_____	_____	_____		
% Bare Ground in Herb Stratum <u>20</u> = Total Cover					
Remarks: <u>vegetation is predominantly hydrophytic and is distinct from surrounding lodgepole/p Jeffrey pine forest.</u>					

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway / Herbert Ave City/County: SLT / El Dorado Sampling Date: 8/3/10
 Applicant/Owner: CTC State: CA Sampling Point: P19
 Investigator(s): A Parravano Section, Township, Range: 4, 12 N, 18 E
 Landform (hillslope, terrace, etc.): hill slope Local relief (concave, convex, none): convex Slope (%): 5-10
 Subregion (LRR): MUR A 22 A Lat: 38.9348 N Long: 119.9554 W Datum: WGS 1984
 Soil Map Unit Name: Marla loamy coarse sand, 0-5% S NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: <u>upland sample point.</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
1. <u>Abies concolor</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Pinus contorta</u>	<u>5</u>	<u>Y</u>	<u>NL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>20</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. <u>Arctostaphylos patula</u>	<u>5</u>	<u>Y</u>	<u>NL</u>	
2. <u>Symphoricarpos mollis</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Pinus contorta</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Rosa woodsii</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
<u>22</u> = Total Cover				
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Lupinus andersonii</u>	<u>10</u>	<u>Y</u>	<u>NL</u>	
2. <u>Bromus inermis</u>	<u>10</u>	<u>Y</u>	<u>NL</u>	
3. <u>Gageophytum diffusum</u>	<u>15</u>	<u>Y</u>	<u>NL</u>	
4. <u>Dactylis glandulosa</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
5. <u>Agrostis stolonifera</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>47</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
% Bare Ground in Herb Stratum <u>53</u> = Total Cover				
Remarks: <u>Hydrophytic plants are present but not dominant.</u>				

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway/Herbert Ave City/County: SLT/El Dorado Sampling Date: 8/25/10
 Applicant/Owner: CTC State: CA Sampling Point: P20
 Investigator(s): A. Parravano Section, Township, Range: 4, 12N, 18E
 Landform (hillslope, terrace, etc.): gentle hill slope Local relief (concave, convex, none): concave Slope (%): 0-5
 Subregion (LRR): MLPA 22A Lat: 38.9357°N Long: 119.9545°W Datum: NAD83
 Soil Map Unit Name: Marla loamy coarse sand, 0-5% slopes NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>deforested opening betw Herbert Ave & Pioneer.</u>	

VEGETATION – Use scientific names of plants.

Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
Tree Stratum				Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
1. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
2. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
3. _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>15</u> x 2 = <u>30</u> FAC species <u>45</u> x 3 = <u>135</u> FACU species <u>10</u> x 4 = <u>40</u> UPL species _____ x 5 = _____ Column Totals: <u>70</u> (A) <u>205</u> (B) Prevalence Index = B/A = <u>2.92</u>
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. <u>Pinus contorta</u>	<u>35</u>	<u>Y</u>	<u>FAC</u>	
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Trifolium lanigae</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Achillea millefolium</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Agrostis scabra</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Fraxinus virginiana</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
5. <u>Aster occidentalis</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
6. <u>Tragopogon dubius</u>	<u>1</u>	<u>N</u>	<u>NL</u>	
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>60</u>				
Remarks: <u>Sparse herbaceous layer scattered lodgepole saplings. Vegetation has been cleared from this site but not recently. Saplings are 2-3m in height.</u>				

SOIL

Sampling Point: 20

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR 5/2	100					Sandy loam w/ gravel	

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:
no redox + othr hydric indicators - criteria not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)
	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
	<input type="checkbox"/> Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): _____

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

Wetland Hydrology Present? Yes _____ No

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

Remarks:
no hydro indicators observed; criteria not met.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway/Herbert City/County: SLT/El Dorado Sampling Date: 8/3/10
 Applicant/Owner: CTC State: CA Sampling Point: P21
 Investigator(s): A Parravano Section, Township, Range: 4, 12N, 18E
 Landform (hillslope, terrace, etc.): hill slope Local relief (concave, convex, none): none Slope (%): 10
 Subregion (LRR): MLKA 22A Lat: 38.9359N Long: 119.9346W Datum: NAD83
 Soil Map Unit Name: Onidas corg sandy loam, 0-5% NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Upland sample point</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Salix scutellari</u>	10	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. <u>Pinus jeffreyi</u>	10		ML	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
4. _____				Prevalence Index worksheet:
20 = Total Cover				Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: _____)				OBL species _____ x 1 = _____
1. <u>Symphoricarpos mollis</u>	8			FACW species _____ x 2 = _____
2. <u>Pinus contorta</u>	25	Y	ML	FAC species _____ x 3 = _____
3. <u>Ribes nevadense</u>	5			FACU species _____ x 4 = _____
4. <u>Pinus jeffreyi</u>	10	Y	ML	UPL species _____ x 5 = _____
5. _____				Column Totals: _____ (A) _____ (B)
48 = Total Cover				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Claytonia virginica</u>	10	Y	ML	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Tradescantia virginiana</u>	5		ML	<input type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Lathyrus pratensis</u>	5		ML	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Potentilla gracilis</u>	2		FACW	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>Fragaria virginiana</u>	2		ML	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____				
9. _____				
10. _____				
11. _____				
34 = Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>bb</u>				
Remarks: <u>sample point taken to investigate conditions near scattered willow patches</u>				

SOIL

Sampling Point: 21

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 5/2						loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Soil not hydric

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): _____

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

Wetland Hydrology Present? Yes _____ No

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

Remarks: no wetland hydro observed

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway / Herbert Ave City/County: SLT / El Dorado Sampling Date: 8/3/10
 Applicant/Owner: CTC State: CA Sampling Point: P22
 Investigator(s): A. Parravano Section, Township, Range: 4, 12N, 18E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 2-5
 Subregion (LRR): MLRA 22A Lat: 38.9360W Long: 119.9542W Datum: NAD83
 Soil Map Unit Name: oneidas coarsa sandy loam, 0-5% NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Upland hillslope adjacent to Pioneer, SW of Needle Drive</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Pinus jeffreyi</u>	<u>25</u>	<u>Y</u>	<u>NL</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. <u>Abies concolor</u>	<u>2</u>		<u>NL</u>	
3. _____				
4. _____				
<u>27</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Rosa novaeisii</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Ribes nevadense</u>	<u>5</u>		<u>NL</u>	
3. _____				
4. _____				
<u>45</u> = Total Cover				
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Elymus glaucus</u>	<u>30</u>	<u>Y</u>	<u>NL</u>	
2. <u>Lathyrus tanziwertii</u>	<u>5</u>		<u>NL</u>	
3. <u>Wyethia mollis</u>	<u>5</u>		<u>NL</u>	
4. <u>Elymus elymoides</u>	<u>5</u>		<u>NL</u>	
5. <u>Bromus inermis</u>	<u>5</u>		<u>NL</u>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
<u>50</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
<u>50</u> = Total Cover				
% Bare Ground in Herb Stratum <u>50</u>				
Remarks: <u>Hydrophytic veg not dominant - criteria not met</u>				

SOIL

Sampling Point: 22

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10 YR 5/2						loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Soil not hydric

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

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

Wetland Hydrology Present? Yes _____ No

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

Remarks: no wetland hydro

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway Bike Path City/County: SLT / El Dorado Sampling Date: 8/25/10
 Applicant/Owner: etc State: CA Sampling Point: P23
 Investigator(s): A. Parravano Section, Township, Range: 4, 12N, 18E
 Landform (hillslope, terrace, etc.): hill slope Local relief (concave, convex, none): undulating Slope (%): 2
 Subregion (LRR): MLRA 22A Lat: 38.9392 N Long: 119.9534 W Datum: NAD83
 Soil Map Unit Name: Oxidas coarse sandy loam, 0-5 to slip NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Upland sample point - Jeffrey pine forest.</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Pinus jeffreyi</u>	<u>25</u>	<u>Y</u>	<u>M</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. <u>Populus tremuloides</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)
4. _____	<u>35</u> = Total Cover			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____
1. <u>Ribes nevadense</u>	<u>8</u>	<u>Y</u>	<u>NI</u>	OBL species _____ x 1 = _____
2. _____				FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
Herb Stratum (Plot size: _____)				Column Totals: _____ (A) _____ (B)
1. <u>Fragaria virginiana</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	Prevalence Index = B/A = _____
2. <u>Bromus inermis</u>	<u>10</u>	<u>Y</u>	<u>NI</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. <u>Poa pratensis</u>	<u>12</u>	<u>Y</u>	<u>FACU</u>	
4. <u>Tragopogon dubius</u>	<u>5</u>		<u>NI</u>	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
% Bare Ground in Herb Stratum <u>63</u> = Total Cover				
Remarks: _____				

SOIL

Sampling Point: 23

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10M							
3-16	7.5YR	4/2					gravelly loam	

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Soil not hydric

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

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

Wetland Hydrology Present? Yes _____ No

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

Remarks: No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway Bike Path City/County: SLT / El Dorado Sampling Date: 8/25/10
 Applicant/Owner: CTC State: CA Sampling Point: P 24
 Investigator(s): A. Parravano Section, Township, Range: 4, 12 N, 18 E
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): MRA 22A Lat: 38.9393N Long: 119.9533 Datum: WFS1984
 Soil Map Unit Name: Tahoe complex, 0-2% slope NWI classification: PSS1/FOYA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: <u>Sample point collected across Pioneer from Charlesworth Avenue</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Populus tremuloides</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. <u>Pinus jeffreyi</u>	<u>10</u>	<u>Y</u>	<u>NI</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66</u> (A/B)
4. _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>35</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Bromus inermis</u>	<u>7</u>	<u>Y</u>	<u>NI</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Fragaria virginiana</u>	<u>12</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Sidalcea oregana</u>	<u>7</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Stachys albens</u>	<u>1</u>		<u>OBL</u>	
5. <u>Trappes dubius</u>	<u>1</u>		<u>VL</u>	
6. <u>Polygonum glandulosum</u>	<u>7</u>	<u>X</u>	<u>FAC</u>	
7. <u>Poa pratensis</u>	<u>1</u>		<u>FACU</u>	
8. _____				
9. _____				
10. _____				
11. _____				
<u>36</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>64</u>				
Remarks: <u>floodplain wetland – hydrophytic plant species are dominant</u>				

SOIL

Sampling Point: 24

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 2/1	100					silty clay	blocky structure

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: only dug to 16" because of nearby gas line; however soil is very black & poorly drained in upper 16".

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): 18

Wetland Hydrology Present? Yes No

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

Remarks: Soil is moist to 16" ; capillary fringe above saturation zone is at ~18". Area appears to support standing water ; situated on a perennial creek flood plain. Nearby channel has 3-6" of flowing water.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway/Van Sickle City/County: SLT/El Dorado Sampling Date: 8/4/10
 Applicant/Owner: CTC State: CA Sampling Point: P25
 Investigator(s): A Parravano Section, Township, Range: 34, 13N, 18E
 Landform (hillslope, terrace, etc.): U-shaped swale Local relief (concave, convex, none): concave Slope (%): 3
 Subregion (LRR): MLRA 22A Lat: 38.9496 N Long: 119.9430 W Datum: WGS1984
 Soil Map Unit Name: Cassenoi gravelly loamy coarse sand, 5-15% NWI classification: PEMIC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: <u>1 of 2 SEZ's sampled @ end of Chonokis St.</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
_____ = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: _____)				OBL species _____ x 1 = _____	
1. <u>Rosa</u>	<u>2</u>	<u>Y</u>	<u>FAC</u>	FACW species _____ x 2 = _____	
2. _____	_____	_____	_____	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
<u>2</u> = Total Cover				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:	
1. <u>Potentilla glandulosa</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>		<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Juncus orthoanthus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Phleum alpinum</u>	<u>15</u>	<u>N</u>	<u>FACU</u>		<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Penstemon boldenii</u>	<u>2</u>	<u>N</u>	<u>N/C</u>		<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>Juncus balticus</u>	<u>15</u>	<u>N</u>	<u>FACW</u>		<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. <u>Sidalcea occulta</u>	<u>3</u>	<u>N</u>	<u>OBL</u>		<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. <u>Aster occidentalis</u>	<u>41</u>	<u>N</u>	<u>FAC</u>		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
<u>95</u> = Total Cover					
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
_____ = Total Cover					
% Bare Ground in Herb Stratum <u>5</u>					
Remarks: _____					

SOIL

Sampling Point: 25

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	5YR 2.5/1	50%						gravelly clay loam
	7.5YR 5/1	50						"

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

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

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: clay/rock
Depth (inches): 12

Hydric Soil Present? Yes No

Remarks: Could not dig deeper than 12" due to clay/gravel hard pan. low chroma, distinct from upland soil pit (P25)

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- 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)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks: network of shallow, braided rills indicates that sheet flow is conveyed through this feature. It can be assumed that duration of hgdw is sufficient to support a predominance of hydrophytic plant species + low chroma soils

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway / Van Sickle City/County: SLT / El Dorado Sampling Date: 8/11/10
 Applicant/Owner: CTC State: CA Sampling Point: P26
 Investigator(s): A. Parravano Section, Township, Range: 34, 13N, 18E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 2.5
 Subregion (LRR): MUKA22A Lat: 38.9499 Long: 119.9427 Datum: WGS 1984
 Soil Map Unit Name: Cassonai gravelly loamy coarse sand, 5-15% NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Upland sample point.</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Pinus jeffreyi</u>	<u>30</u>	<u>Y</u>	<u>NL</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
4. _____	<u>30</u> = Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. <u>Pinus jeffreyi</u>	<u>5</u>		<u>NL</u>	
2. <u>Rosa woodsii</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
3. _____				
4. _____				
5. _____	<u>20</u> = Total Cover			
Herb Stratum (Plot size: _____)				
1. <u>Wyethia mollis</u>	<u>5</u>	<u>Y</u>	<u>NL</u>	
2. <u>Potentilla gracilis</u>	<u>1</u>		<u>FACW</u>	
3. <u>Lupinus polyphyllus</u>	<u>2</u>		<u>OBL</u>	
4. <u>Adiantum straburg</u>	<u>1</u>		<u>FAC</u>	
5. <u>Rosa woodsii</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____	<u>14</u> = Total Cover			
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
% Bare Ground in Herb Stratum <u>86</u>				
Remarks: <u>Dense pine needle cover, shaded understory</u>				

SOIL

Sampling Point: 26

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR4/2						sandy loam / dm	
3-16	7.5YR5/3						sandy loam	

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

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

(Handwritten circle)

HYDROLOGY

Wetland Hydrology Indicators:

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

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- 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)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

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

Wetland Hydrology Present? Yes _____ No

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

Remarks:

(Handwritten circle)

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway / van Sickle City/County: SLT / El Dorado Sampling Date: 8/11/10
 Applicant/Owner: CTC State: CA Sampling Point: P27
 Investigator(s): A. Parravano Section, Township, Range: 34, 13N, 18E
 Landform (hillslope, terrace, etc.): hillslope/ditch Local relief (concave, convex, none): concave Slope (%): 10
 Subregion (LRR): MURAZZA Lat: 38.9508N Long: 119.9427W Datum: WGS1984
 Soil Map Unit Name: Cassini gravelly loamy coarse sand, 5-15% NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		
Remarks: <u>3-pronged SEZ</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Abies concolor</u>	<u>10</u>	<u>Y</u>	<u>NI</u>	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>2</u> (A)
2. <u>Pinus jeffreyi</u>	<u>15</u>	<u>Y</u>	<u>NI</u>	Total Number of Dominant Species Across All Strata:	<u>6</u> (B)
3. <u>Pinus contorta</u>	<u>7</u>		<u>FAC</u>	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>33%</u> (A/B)
4. _____				Prevalence Index worksheet:	
	<u>37</u> = Total Cover			Total % Cover of:	
Sapling/Shrub Stratum (Plot size: _____)				OBL species	<u>0</u> x 1 = <u>0</u>
1. <u>Salix scouleriana</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	FACW species	<u>15</u> x 2 = <u>30</u>
2. <u>Symphoricarpos rotundifolia</u>	<u>2</u>		<u>NI</u>	FAC species	<u>15</u> x 3 = <u>45</u>
3. <u>Purshia tridentata</u>	<u>5</u>		<u>NI</u>	FACU species	<u>50</u> x 4 = <u>200</u>
4. _____				UPL species	_____ x 5 = _____
5. _____				Column Totals:	<u>80</u> (A) <u>275</u> (B)
	<u>22</u> = Total Cover			Prevalence Index = B/A =	<u>3.43</u>
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:	
1. <u>Wyethia mollis</u>	<u>15</u>	<u>Y</u>	<u>NR</u>	1 - Rapid Test for Hydrophytic Vegetation	
2. <u>Potentilla gracilis</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	2 - Dominance Test is >50%	
3. <u>Lotus cordiculatus</u>	<u>3</u>		<u>FAC</u>	3 - Prevalence Index is ≤3.0 ¹	
4. <u>Aster ascendens</u>	<u>2</u>		<u>NI</u>	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. <u>Stymus elaeoides</u>	<u>10</u>	<u>Y</u>	<u>ML</u>	5 - Wetland Non-Vascular Plants ¹	
6. <u>Pod pratensis</u>	<u>5</u>		<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)	
7. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. _____					
9. _____					
10. _____					
11. _____					
	<u>50</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
1. _____					
2. _____					
	_____ = Total Cover				
% Bare Ground in Herb Stratum <u>50</u>					
Remarks: <u>wetland vegetation is sparse/widely scattered and does not appear to be disturbed or problematic.</u>					

SOIL

Sampling Point: 27

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	7.5YR5/3(10)						Sandy loam	
4-10	7.5YR5/3 (75)		5YR 4/4	25	C	R/M	"	" w/ gravel
10+	rock						cobble	

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

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

Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 2 cm Muck (A10) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input checked="" type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) | ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) | |

Restrictive Layer (if present):

Type: rock
Depth (inches): 10

Hydric Soil Present? Yes No

Remarks: Although it appears that parent material is a reddish color, mottling/redox concentrations were noted on red faces and surrounding root hairs.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

- | | | |
|--|---|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) | <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) | <input checked="" type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) | <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Frost-Heave Hummocks (D7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | |

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks: Shallow drainage pattern - no bed/bank or other M no destruction of vegetation or other evidence recent flows or saturation. Undulating topography likely from ground disturbance

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway/Van Sickle City/County: SLT/El Dorado Sampling Date: 8/11/10
 Applicant/Owner: CTS State: CA Sampling Point: P28
 Investigator(s): A Parravano Section, Township, Range: 34, 13N, 18E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR): MLRA 22A Lat: 38.9509 N Long: 119.9247 W Datum: NAD83
 Soil Map Unit Name: Cassena gravelly loamy sand, 5-15 NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Point collected adjacent to PRT to compare soil conditions</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Pinus jeffreyi</u>	<u>20</u>	<u>Y</u>	<u>NI</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. <u>Pinus contorta</u>	<u>2</u>	<u>Y</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. <u>Salix scouleriana</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
<u>27</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. <u>Purshia tridentata</u>	<u>10</u>	<u>Y</u>	<u>NI</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Arcostaphylos patula</u>	<u>5</u>	<u>Y</u>	<u>M</u>	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
<u>15</u> = Total Cover				UPL species _____ x 5 = _____
Herb Stratum (Plot size: _____)				
1. <u>Wyeothia mollis</u>	<u>20</u>	<u>Y</u>	<u>NI</u>	Column Totals: _____ (A) _____ (B)
2. <u>Galium albumoides</u>	<u>20</u>	<u>Y</u>	<u>NI</u>	Prevalence Index = B/A = _____
3. <u>Aster occidentalis</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants ¹ _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>45</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: <u>Hydrophytic veg not present.</u>				

SOIL

Sampling Point: 28

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	7.5YR5/3						sandy loam / gravel	

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

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

Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 2 cm Muck (A10) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) | |

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Soil not hydric.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

- | | | |
|--|---|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) | <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) | <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Frost-Heave Hummocks (D7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | |

Field Observations:

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

Wetland Hydrology Present? Yes _____ No

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

Remarks: hill slope - no hydro

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway / van Sickle City/County: SLT / El Dorado Sampling Date: 8/11/10
 Applicant/Owner: CTC State: CA Sampling Point: P29
 Investigator(s): A. Parravano Section, Township, Range: 34, 13N, 18E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 10-15
 Subregion (LRR): MLRA 22A Lat: 38.9529 N Long: 119.9404 W Datum: NAD83
 Soil Map Unit Name: Cassina gravelly loamy coarse sand, S-15b NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Upland sample point collected under powerline adjacent to bikepath alignment</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Pinus jeffreyi</u>	<u>35</u>	<u>Y</u>	<u>NL</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>35</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Ribes cereum</u>	<u>5</u>	<u>Y</u>	<u>NL</u>	
2. _____				
3. _____				
4. _____				
5. _____				
<u>5</u> = Total Cover				
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Legumin fenticoides</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>80</u>				
Remarks: <u>Hydrophytic veg. criterion not met.</u>				

SOIL

Sampling Point: P29

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	7.5YR3/2							Sandy loam
6-12	7.5YR7/2							" "

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Hydric soil criteria not met.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): _____

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

Wetland Hydrology Present? Yes _____ No

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

Remarks: no wetland hydro

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway / Van Sickle City/County: SLT / El Dorado Sampling Date: 8/11/10
 Applicant/Owner: CTC State: CA Sampling Point: P30
 Investigator(s): A. Parravano Section, Township, Range: 34, 13N, 18E
 Landform (hillslope, terrace, etc.): upper terrace, broad slope Local relief (concave, convex, none): none/flat Slope (%): 0-2
 Subregion (LRR): MLRA 22A Lat: 38.9534 N Long: 119.9396 W Datum: WGS 1984
 Soil Map Unit Name: Casencii gravelly loamy coarse sand, S-159 NWI classification: PEM1C
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: <u>outer edge of meadow, at interface with aspen stand</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Populus tremuloides</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. _____				Prevalence Index worksheet:	
				Total % Cover of:	Multiply by:
				OBL species _____	x 1 = _____
				FACW species _____	x 2 = _____
				FAC species _____	x 3 = _____
				FACU species _____	x 4 = _____
				UPL species _____	x 5 = _____
				Column Totals: _____	(A) _____ (B) _____
				Prevalence Index = B/A = _____	
				Hydrophytic Vegetation Indicators:	
				<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
				<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
				<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹	
				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
				Remarks:	

SOIL

Sampling Point: 30

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 2.5/1	(100%)					silty sandy loam	
5-16	7.5YR 2.5/1	(95%)	7.5YR 4/6	(5)	C	M	sandy clay loam w/ gravel	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: *Depleted matrix criteria is met.*

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

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

Wetland Hydrology Present? Yes No

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

Remarks: *Broad, swale-like topography, brittle crust + sediment deposits indicate recent inundation*

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway/Van Sickle City/County: SLT/El Dorado Sampling Date: 8/11/10
 Applicant/Owner: CTC State: CA Sampling Point: P31
 Investigator(s): A. Parravano Section, Township, Range: 34, 13N, 18E
 Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): convex Slope (%): 3
 Subregion (LRR): MLRA 22A Lat: 38.9529 N Long: 119.9401 W Datum: NAD83
 Soil Map Unit Name: Tahoe Complex, 0-2% slope NWI classification: PEM1C
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: <u>Broad wetland swale supported by groundwater seep.</u>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. _____	_____	_____	_____	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:
2. _____	_____	_____	_____	OBL species _____	x 1 = _____
3. _____	_____	_____	_____	FACW species _____	x 2 = _____
4. _____	_____	_____	_____	FAC species _____	x 3 = _____
5. _____	_____	_____	_____	FACU species _____	x 4 = _____
= Total Cover				UPL species _____	x 5 = _____
Herb Stratum (Plot size: _____)				Column Totals:	_____ (A) _____ (B)
1. <u>Legumin triticoides</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	Prevalence Index = B/A = _____	
2. <u>Calceol neblascensis</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators:	
3. <u>Cirsium vulgare</u>	<u>5</u>		<u>FAC</u>	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
4. <u>Sidalcea oregonus</u>	<u>1</u>		<u>OBL</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
5. <u>Epilobium citatum</u>	<u>2</u>		<u>OBL</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
6. <u>Potentilla glandulosa</u>	<u>2</u>		<u>FACW</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
7. _____	_____	_____	_____	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹	
8. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
9. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
= Total Cover <u>80</u>				Hydrophytic Vegetation Present?	
Woody Vine Stratum (Plot size: _____)				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
= Total Cover _____					
% Bare Ground in Herb Stratum <u>20</u>					
Remarks:					

SOIL

Sampling Point: 31

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	2.5YR3/2							sandy loam
4-16	2.5YR3/2-6.5		2.5YR3/4		E	PL, M		gravelly clay loam
	10YR3/1	20			(15%)			

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: low chroma matrix, redox concentrations

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

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

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

Remarks: soil is moist to 6"

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Greenway / Van Sickle City/County: SLT / El Dorado Sampling Date: 8/11/10
 Applicant/Owner: ETC State: CA Sampling Point: P32
 Investigator(s): A. Parravano Section, Township, Range: 34, 13N, 18E
 Landform (hillslope, terrace, etc.): hill slope Local relief (concave, convex, none): none Slope (%): 8-10
 Subregion (LRR): MLRA 224 Lat: 38.9535 N Long: 119.9396 W Datum: WAS 1984
 Soil Map Unit Name: Tahoe complex, 0-2% slopes NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	

Remarks: Upland sample point collected @ power line intersection, across drainage from P32; northern terminus of bike path alignment

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20</u> (A/B)
1. <u>Pinus jeffreyi</u>	<u>25</u>	<u>Y</u>	<u>NL</u>	
2. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<u>25</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. <u>Ribes cereum</u>	<u>10</u>	<u>Y</u>	<u>NL</u>	
2. <u>Purshia tridentata</u>	<u>18</u>	<u>Y</u>	<u>NL</u>	Prevalence Index = B/A = _____
3. <u>Populus tremuloides</u>	<u>12</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Ceanothus cordulatus</u>	<u>2</u>	_____	<u>NL</u>	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
5. _____	_____	_____	_____	
<u>42</u> = Total Cover				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				
1. <u>Elanus elymoides</u>	<u>4</u>	<u>Y</u>	<u>NL</u>	Prevalence Index = B/A = _____
2. <u>Gaiophytum diffusum</u>	<u>1</u>	_____	<u>NL</u>	
3. _____	_____	_____	_____	Prevalence Index = B/A = _____
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	Prevalence Index = B/A = _____
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	Prevalence Index = B/A = _____
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	Prevalence Index = B/A = _____
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	Prevalence Index = B/A = _____
<u>5</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	Prevalence Index = B/A = _____
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				Prevalence Index = B/A = _____
Remarks: <u>Upland vegetation</u>				

SOIL

Sampling Point: 32

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	7.5YR 3/2						loam	
3-12	7.5YR 7/2						loam	

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

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

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: *soil not hydric*

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

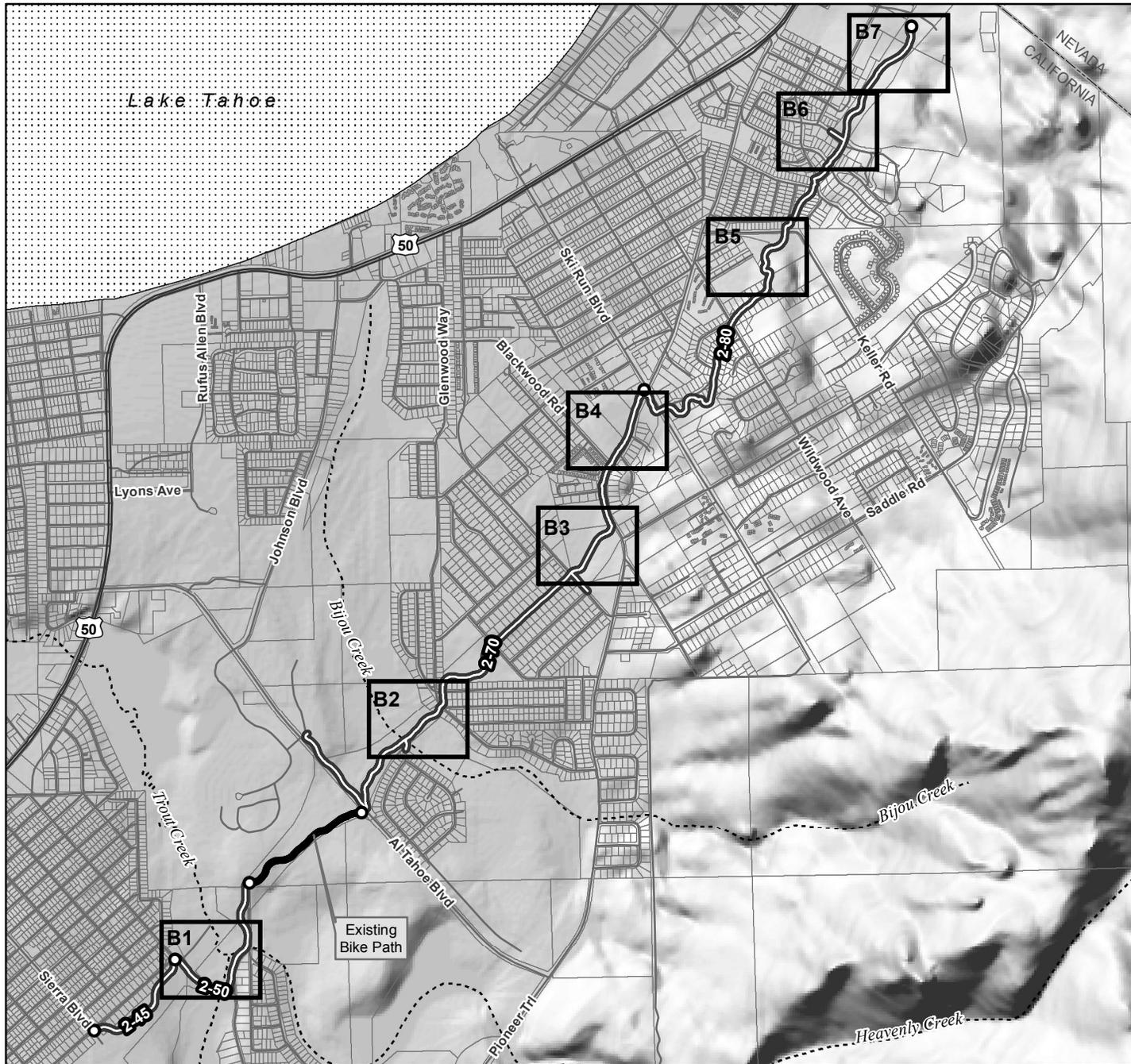
Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

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

Remarks: *no wetland hydro observed.*

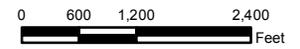
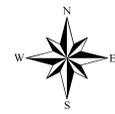
Appendix B: Maps of Potential Jurisdictional Wetlands and Waters



Greenway Bike Trail
Placer County, California

Index Sheet to
Section 404
Jurisdictional Maps

-  Trail Segment Endpoints
-  Trail Segments
-  Existing Bike Path



1:24,000

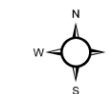
Data sources: ESRI StreetMap North America, El Dorado County GIS, USGS Shaded Relief. Map date: January 21, 2011.

HAUGE BRUECK
ASSOCIATES

Greenway Bike Trail
Placer County, California

Trout Creek Study Area

Appendix B1.
Preliminary Delineation
of Potential
Section 404 Jurisdiction

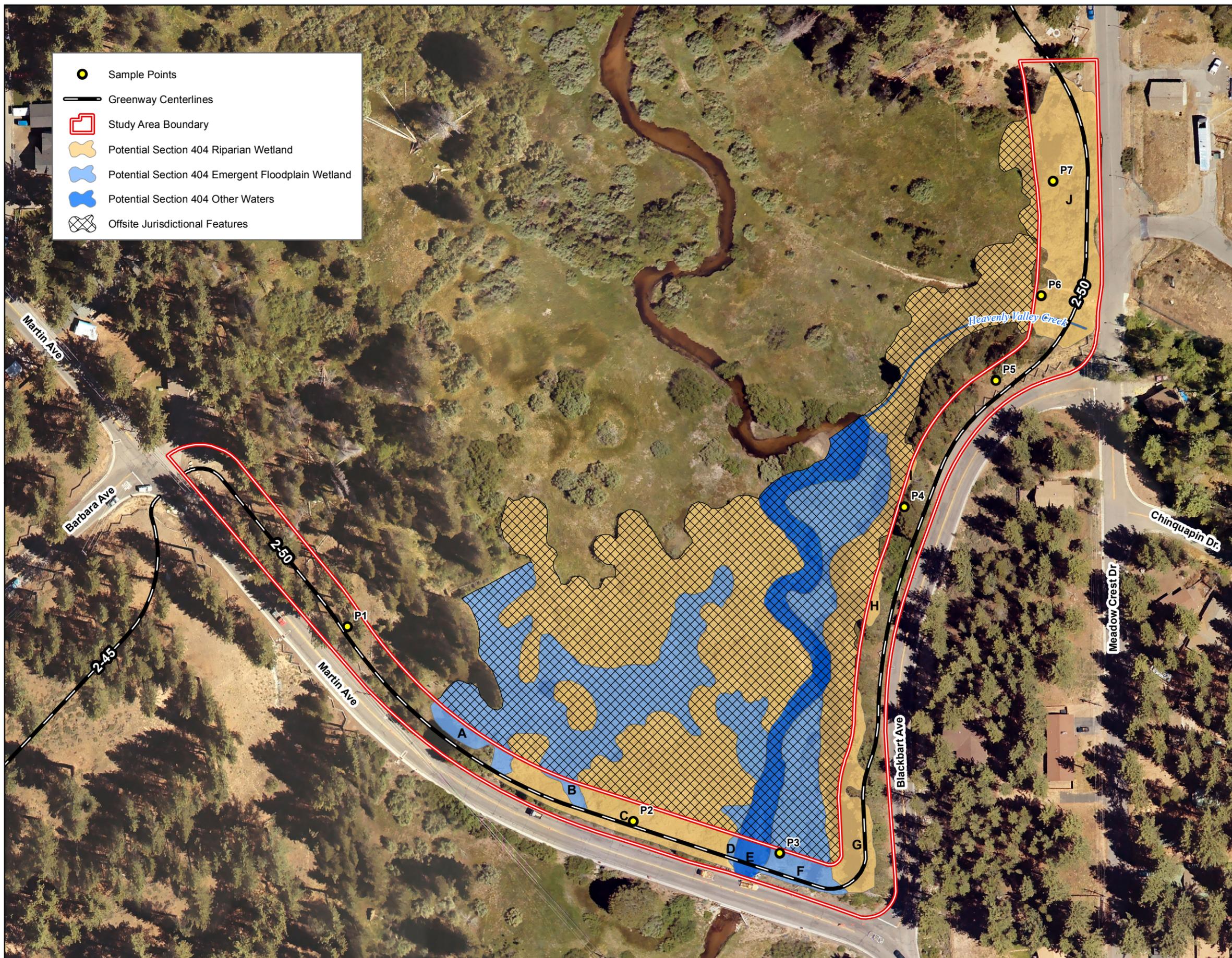


0 25 50 100 150 Feet

1:1,200
1 inch = 100 feet

Map by: Jennifer DeMartino
Delineation by: Amy Parravano
Date: January 31, 2011.

HAUGE BRUECK
ASSOCIATES



- Sample Points
- Greenway Centerlines
- ▭ Study Area Boundary
- Potential Section 404 Riparian Wetland
- Potential Section 404 Emergent Floodplain Wetland
- Potential Section 404 Other Waters
- Offsite Jurisdictional Features