Appendix C3

Aquatic Resources Delineation Report - Lassen Facility

Aquatic Resources Delineation Report Forest Resiliency Project Lassen County, California

JULY 2023

Prepared for:

GOLDEN STATE FINANCE AUTHORITY

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Acronyms and Abbreviations

| Acronym/Abbreviation | Definition |
|----------------------|--|
| APC | antecedent precipitation condition |
| APT | Antecedent Precipitation Tool |
| ARDR | Aquatic Resources Delineation Report |
| CDFW | California Department of Fish and Wildlife |
| ОНWМ | ordinary high-water mark |
| PDSI | Palmer Drought Severity Index |
| project | Forest Resiliency Program |
| RWQCB | Regional Water Quality Control Board |
| USACE | U.S. Army Corps of Engineers |

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1 Executive Summary

The Forest Resiliency Program – Lassen Facility (project) will consist of a wood pellet production facility in Nubieber, California, approximately 3 miles southwest of the census-designated place of Bieber in northwestern Lassen County. The Golden State Natural Resources Forest Resiliency Demonstration Project is a response to the growing rate of wildfires in California, which has been exacerbated by hazardous excess fuel loads in forests, and the need to promote economic activity with California's rural counties. Golden State Finance Authority is the applicant for the proposed project.

This Aquatic Resources Delineation Report (ARDR) was prepared in accordance with the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (USACE 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (USACE 2010), and the Field Guide to the Identification of the Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States (USACE 2014).

Dudek conducted a field delineation on September 21 and 22, 2021, and May 25 and 26, 2023, to identify aquatic resources in the approximately 113-acre review area potentially subject to regulations in Sections 401 and 404 of the Clean Water Act, the Porter–Cologne Water Quality Control Act, and Section 1602 of the California Fish and Game Code. Table 1 summarizes the delineation findings under USACE jurisdiction. Potential jurisdiction of each aquatic resource is preliminary until verified by the USACE Sacramento District.

| Aquatic Resource | Cowardin Code ¹ | Location (Latitude, Longitude) | Acres ² | Linear Feet | | | |
|--------------------|-------------------------------|--------------------------------|--------------------|-------------|--|--|--|
| Non-Wetland Waters | | | | | | | |
| DIT-01 | R4 | 41.098070, 121.176645 | 0.017 | 219 | | | |
| DIT-02 | R4 | 41.093100, -121.176762 | 0.87 | 2,159 | | | |
| DIT-03 | R4 | 41.092637, -121.175466 | 0.54 | 1,422 | | | |
| DIT-04 | R4 | 41.090568, -121.175542 | 0.04 | 761 | | | |
| DIT-05 | R4 | 41.089719, -121.174785 | 0.35 | 1,147 | | | |
| DIT-06 | R4 | 41.088498, -121.175355 | 0.27 | 819 | | | |
| | | Non-Wetland Waters Subtotal | 2.11 | 6,527 | | | |
| Wetlands | | | | | | | |
| SW-01 | PEM | 41.092290, -121.174613 | 5.94 | N/A | | | |
| SW-02 | PEM | 41.097149, -121.176399 | 3.69 | N/A | | | |
| SW-03 | PEM | 41.094362, -121.176134 | 3.54 | N/A | | | |
| SW-04 | PEM | 41.090258, -121.173967 | 3.69 | N/A | | | |
| SW-05 | PEM | 41.089234, -121.173814 | 7.92 | N/A | | | |
| SW-06 | PEM | 41.087735, -121.174192 | 5.36 | N/A | | | |
| SW-07 | PEM | 41.086056, -121.179508 | 14.86 | N/A | | | |
| SWS-01 | PEM | 41.088069, -121.17748 | 0.38 | N/A | | | |

Table 1. USACE Aquatic Resources in the Review Area



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Table 1. USACE Aquatic Resources in the Review Area

| Aquatic Resource | Cowardin Code ¹ | Location (Latitude, Longitude) | Acres ² | Linear Feet |
|------------------|-------------------------------|--------------------------------|--------------------|-------------|
| SWS-02 | PEM | 41.090962, -121.173515 | 0.10 | N/A |
| | | Wetlands Subtotal | 45.46 | N/A |
| | | Total ³ | 47.57 | 6,527 |

Notes:

USACE = U.S. Army Corps of Engineers; N/A = not applicable

- ¹ Pursuant to Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979) and USACE Cowardin Codes for ORM Data Entry (USACE 2022). PEM = palustrine, emergent; R4 = intermittent channel.
- ² Acreage of the non-wetland waters extend to the ordinary high-water mark.
- ³ Minor discrepancies in totals are the result of rounding differences between Excel and ArcMap.

2 Introduction

This ARDR was prepared in accordance with the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (USACE 2017). This ARDR and supporting appendices provide the 20 items listed in the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports. This ARDR presents the results of the jurisdictional aquatic resource delineation conducted by Dudek for the proposed Forest Resiliency Program, located in Lassen County, California. The delineation was conducted to identify and map existing aquatic resources potentially subject to the regulatory jurisdiction of USACE pursuant to Section 404 of the Clean Water Act (33 USC 1344), waters of the state potentially subject to the regulatory jurisdiction of the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act, and stream and riparian habitats potentially subject to the jurisdiction of the California Department of Fish and Wildlife (CDFW) pursuant to Section 1602 of the California Fish and Game Code (collectively defined as jurisdictional aquatic resources).

2.1 Disclaimer Statement

This ARDR presents Dudek's best effort to quantify the extent of aquatic resources potentially regulated by USACE, RWQCB, and CDFW (i.e., regulatory agencies) within the identified review area using the current regulations, written policies, and guidance from these regulatory agencies. The potential jurisdictional boundaries described in this ARDR are subject to verification by the regulatory agencies. Only the regulatory agencies can make a final determination on whether the features present are subject to USACE, RWQCB, and/or CDFW regulation. A request for USACE Jurisdictional Determination is provided in Appendix A.

2.2 Contact Information

Contact information for the project applicant and agent are provided in Table 2. Access to the review area is not restricted, but if a site visit is requested, the project applicant or agent will accompany regulatory staff. Golden State Finance Authority is the project applicant and landowner.

| Project Applicant | Golden State Finance Authority | Agent | Dudek |
|-------------------|---|--------------|---|
| Contact Name | Arthur J. Wylene | Contact Name | Allie Sennett |
| Address | 1215 K Street, Suite 1650 Sacramento, California 95814 | Address | 853 Lincoln Way Auburn, California 95603 |
| Phone | 916.447.4806 | Phone | 916.521.5798 |
| Email | awylene@rcrcnet.org | Email | asennett@dudek.com |

Table 2. Contact Information

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3 Review Area Description and Landscape Setting

The approximately 113-acre review area for the proposed project is at 551000 Rosevelt Avenue (sometimes spelled Roosevelt), approximately 3 miles southwest of the census-designated place of Bieber in northwestern Lassen County, California (Figure 1, Project Location). The review area is between State Route 299/Lassen State Highway and Babcock Road, immediately west of the common terminus of the former Western Pacific Railroad and Great Northern Railway.

The review area consists of two parcels: Assessor's Parcel Number 001-270-080-000 (northern parcel) and Assessor's Parcel Number 001-270-26-11 (southern parcel). The review area is in Township 38 North, Range 7 East, and Sections 28 and 33 of the U.S. Geological Survey Bieber, California, 7.5-minute quadrangle (USGS 2021). The approximate center of the review area corresponds to 41°05'33.60" north latitude and -121°10'31.07 west longitude. The review area is a brownfield that was formerly a wood processing sawmill. A chemical company and two residences are adjacent to the review area (Figure 2, Project Site). The review area is surrounded by widely scattered rural development and open space generally composed of cropland, sagebrush scrub, and wet meadow.

To access the review area from Sacramento, travel north on Interstate 5 for approximately 161 miles. Take exit 680 for State Route 299/Lake Boulevard. Take a slight right onto State Route 299 East and continue for approximately 85 miles. Turn right onto Adams Avenue, then turn left at the second cross street onto Washington Avenue. The review area is at the terminus of Washington Avenue.

3.1 Geology and Topography

The review area is within Big Valley at the eastern edge of the Big Valley Mountain range. Geology at the review area is classified as Plio-Pleistocene and Pliocene loosely consolidated deposits (USGS 2023a). Review area geology is associated with older Tertiary volcanic (Cascade Volcanic Field) flow rocks (USGS 2023a). Elevation is approximately 4,120 feet above mean sea level. The review area topography is relatively flat.

3.2 Soils

According to the Natural Resources Conservation Service (USDA 2023a), there are three soil types mapped in the review area: Bieber–Modoc complex, 0%–5% slopes; Cupvar; silty clay, 0%–2% slopes; and Pit silty clay, drained, 0%–2% slopes (Figures 3, Soil Types). The Bieber–Modoc soil type is composed of the Bieber and Modoc soil series. The Bieber soil series consists of very shallow and shallow to a duripan, well-drained or moderately well-drained soils that formed in alluvium derived from volcanic rocks. Bieber soils are on stream terraces and fan remnants. The Modoc series consists of moderately deep to duripan, well-drained soils that formed in volcanic ash over lacustrine deposits or alluvium derived from basalt, andesite, and pyroclastic rocks. Modoc soils are on lake terraces and fan remnants. None of this soil map unit is classified as hydric (USDA 2023b). The Cupvar soil series is found in basins and consists of moderately deep to duripan, moderately well-drained soils formed in alluvium from extrusive igneous rock. This soil series comprises the southwestern corner of the review area. None of this soil map unit is classified as hydric (USDA 2023b). The Pit soil series is found on floodplains and in basins and consists of very deep, poorly drained soils that formed in fine-textured alluvium weathered



from extrusive and basic igneous rocks. This map unit comprises the majority of the review area. This soil map unit is classified as hydric (USDA 2023b).

3.3 Vegetation Communities and Land Cover Types

The following vegetation communities and land cover types were documented within the review area and are described in further detail below: Great Basin grassland, seasonal wetland, and disturbed habitat. A total of 60 species of native or naturalized plants, 40 native (67%) and 20 non-native (33%), were recorded during the delineation. A list of plant species identified during the field delineation, including the assigned wetland indicator status for each species, is presented in Appendix B.

Great Basin Grassland. Great Basin grassland is the dominant vegetation community present in the review area. This community is generally present in undeveloped areas throughout the review area. Plant species present in this community include a mix of perennial grasses and forbs, with the dominant species consisting of ashy ryegrass (*Elymus cinereus*), bald brome (*Bromus racemosus*), and nineleaf biscuitroot (*Lomatium triternatum*). Other, less-dominant species include herbs, a non-native lettuce species (*Lactuca serriola*), and common sheep sorrel (*Rumex acetosella*). The tree layer is absent in this vegetation community. The shrub layer is sparse, and where present is typically limited to small patches of big sagebrush (*Artemisia tridentata*). Also included in this mapping unit are six earthen ditches (DIT-01 through DIT-06), two seasonal wetland swales (SWS-01 and SWS-02), and seven seasonal wetlands (SW-01 through SW-07), all of which are described further in Section 6.2, Waters of the United States (USACE).

Seasonal Wetland. There are seven seasonal wetlands and two seasonal wetland swales within the review area. These types of resources are generally within low-lying areas of the landscape. Aerial imagery shows these features seasonally fill with water, likely from precipitation events, but inundation is not consistent year to year (Google Earth 2023). This vegetation community is described in more detail in Section 6.2.

Disturbed Habitat. This land cover type includes areas that have been heavily disturbed or completely altered by human activities and contain little to no vegetation. Such areas in the review area include buildings, stockpiling and staging areas, paved and gravel roadways, gravel lots, and other constructed environments. Infrastructure within disturbed habitat mapped in the review area includes a railroad and track yard, silo, storage barns, and a warehouse.

3.4 Watershed

The review area occurs within the Pit River hydrologic unit, in the Big Valley hydrologic area, within the Bieber subarea (Hydrologic Unit Code 1802000219). The review area is in a natural basin that receives runoff from the Big Valley Mountains flowing from west to east into a matrix of freshwater emergent wetlands and sloughs that generally drain in a southerly direction toward the Pit River. The Pit River flows from east to west approximately 3 miles south of the review area, eventually terminating into Lake Shasta. Surface run-off in the review area is generally directed to the east through six constructed drainage ditches and two seasonal wetland swales, where the water then flows south in an unnamed stream into Bull Run Slough before flowing into the Pit River. The Pit River. The Pit River area, eventually terminating into Lake Shasta.

The U.S. Fish and Wildlife Service National Wetlands Inventory identifies two aquatic resources within the review area that are both excavated riverine channels (R2ABFx and R5UBFx) (USFWS 2023). A majority of the review area



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is within Federal Emergency Management Agency Flood Zone mapped 100-year Floodplain (FEMA 2019) (Figure 4, Hydrologic Setting).

3.5 Review Area Alterations, Current and Past Land Use

The review area was formerly a wood processing sawmill. A chemical company and two residences are adjacent to the review area. Agricultural land is to the north, east, and south. Most of the lands adjacent to the review area are under Williamson Act contracts. The review area is partially developed, with most of the structures built in the northern portion of the review area, including railroad and track yard, a silo, storage barns, and a warehouse (Figure 2).

The review area has contained development since at least 1960 (the oldest ariel photographs available). Evidence of the ditches in the review area are visible from at least 1960. The northern portion of the review area, at the end of Rosevelt Avenue, has contained structures/buildings, the railroad, the silo, and the track yard since at least 1960. By 1981, the area north of the end terminus of Rosevelt Avenue was developed all the way to State Route 299, and the storage barns and warehouse that are in the review area today were constructed. By 1993, structures in the developed area north of the terminus of Rosevelt Avenue were removed and the area was not developed further up to the present. By 1993, the facility west of the review area was developed. By 2005, the lot at the terminus of Washington Avenue was expanded (Google Earth 2023).

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4 Precipitation Data and Analysis

4.1 Regional Climate

The review area region has a Mediterranean climate where annual average temperatures range from 21.3°F to 86.4°F (WRCC 2023). According to the Adin (040029) Weather Station Gauge, yearly precipitation averages 15.56 inches, with the highest average rainfall recorded in December (2.09 inches) and January (2.03 inches) (WRCC 2023).

The USACE-developed Antecedent Precipitation Tool (APT) was used to assess whether the delineation date occurred in a drier, average, or wetter than normal period (USACE 2020). To determine what constitutes a "typical year," USACE developed the APT. The information generated from the APT can help to determine whether normal hydrologic and/or climatic conditions were present during the site visit, and assist with completing the Wetland Determination Data Form.

The APT provides three climatological parameters: Palmer Drought Severity Index (PDSI), season, and antecedent precipitation condition (APC). The PDSI is a standardized index calculated on a monthly basis, with PDSI value outputs ranging from -4 (extreme drought) to +4 (very wet) (NOAA 2021) to assess drought conditions (i.e., PDSI Class). The APT determines wet vs. dry season based on related procedures provided in the applicable regional supplement for the review area (in this case, the Western Mountains, Valleys, and Coast Region Supplement). If the APC score is less than 10, then the APC is classified as drier than normal; normal conditions are present with an APC score of 10 to 14; conditions are wetter than normal when an APC score is greater than 14 (USACE 2020).

Table 3 summarizes the key data extrapolated from the APT output: estimated drought conditions (PDSI Class), wet or dry season determination, APC score, and APC. Based on the APT output provided in Appendix C and summarized in Table 3, the precipitation and climatic conditions for the review area were wetter than normal before fieldwork on September 21, 2021, and within the normal range on May 25, 2023. The APT is less likely to consider extreme precipitation events that are highly localized when incorporating data from weather stations located outside of the drainage area.

| Main Field Survey Date | PDSI Class | | Antecedent Precipitation Condition Score | Antecedent Precipitation Condition | |
|---------------------------|------------------|------------|--|--|--|
| September 21, 2021 | Extreme drought | Dry season | 15 | Wetter than normal | |
| May 25, 2023 | Moderate wetness | Dry season | 14 | Normal | |

Table 3. Antecedent Precipitation Tool Data for the Review Area

Note:

PDSI = Palmer Drought Severity Index

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FOREST RESILIENCY PROJECT / AQUATIC RESOURCES DELINEATION REPORT

5 Investigation Methods

The jurisdictional delineation was conducted by Dudek biologists Allie Sennett and Paul Keating on September 21 and 22, 2021, and Dudek biologists Jessica Baldridge and Elizabeth Meisman on May 25 and 26, 2023 (Table 4). Prior to conducting the jurisdictional delineation, U.S. Fish and Wildlife Service's National Wetlands Inventory data (USFWS 2023) was reviewed to determine if the review area contained any features mapped by the U.S. Fish and Wildlife Service. Site-specific topographical data was reviewed in conjunction with aerials, both current and historical, to determine the potential presence of non-wetland waters.

Potential aquatic resources were recorded using ESRI Field Maps on a mobile device and a Trimble® R1 Global Navigation Satellite System Receiver with submeter accuracy. Following the field work, aquatic resources were digitized using ArcGIS. Remote sensing was not used for the delineation.

All plant species encountered were identified to the lowest taxonomic level needed to determine wetland plant indicator status. Those species that could not be immediately identified were brought into the laboratory for further investigation. Latin names follow conventions within the PLANTS Database (USDA 2023c). These resources were further referenced to identify plant taxonomic level appropriate to determine species and regulatory status, if needed. Wetland plant indicator status for each plant was determined using the National Wetland Plant List (USACE 2023). Appendix B contains a complete list of plant species identified in the review area and their indicator status.

| Date | Hours | Personnel | Conditions (Temperature, Winds, Sky) |
|--------------------|-----------|--|---|
| September 21, 2021 | 0830-1630 | Allie Sennett and Paul Keating | 62–92°F, 0–13 mph winds, clear |
| September 22, 2021 | 0800-1600 | Allie Sennett and Paul Keating | 62–95°F, 0–9 mph winds, clear |
| May 25, 2023 | 0900-1730 | Jessica Baldridge and Elizabeth Meisman | 68–85°F, 5–15 mph winds, clear in the morning, rain in late afternoon |
| May 26, 2023 | 0700-1500 | Jessica Baldridge and Elizabeth Meisman | 61-82°F, 0-9 mph winds, clear |

Table 4. Schedule of the Aquatic Resources Delineation

5.1 U.S. Army Corps of Engineers

The USACE wetlands delineation was conducted in accordance with the 1987 USACE Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (USACE 2010). A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Western Mountains, Valleys, and Coast Region of the Western United States: A Delineation Manual (USACE 2014) was used to determine the limits of non-wetland waters. Non-wetland waters were delineated on topographical maps in conjunction with ESRI Collector on a mobile device. The widths of each non-wetland water were determined in the field according to the OHWM manual.

Wetland Determination Forms were taken at certain points within drainages or vegetation communities where a predominance of hydrophytic vegetation was present; hydrology, vegetation, and soils were assessed to determine

whether USACE three-parameter wetlands were present. USACE OHWM Forms were completed at representative cross-sections of non-wetland waters to capture their characteristics and widths. All data forms can be found in Appendix D.

5.2 Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) defines a waters of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]). As of April 2019, the SWRCB has clarified their definition of a wetland water of the state in the State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) to include the following (SWRCB 2019):

- 1. Natural wetlands,
- 2. Wetlands created by modification of a surface water of the state,
- 3. Artificial wetlands that meet any of the following criteria:
 - a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
 - b. Specifically identified in a water quality control plan as a wetland or other water of the state;
 - c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
 - d. Greater than or equal to one acre in size unless the artificial wetland was constructed and is currently used and maintained, primarily for one or more of the following purposes: industrial or municipal wastewater treatment or disposal; settling of sediment; detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial permitting program; treatment of surface waters; agricultural crop irrigation or stock watering; fire suppression; industrial processing or cooling water; active surface mining even if the site is managed for interim wetlands functions and values; log storage; treatment, storage, or distribution of recycled water; maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or fields flooded for rice growing.

All waters of the United States are waters of the state. Wetlands, such as isolated seasonal wetlands, that are not generally considered waters of the United States are considered waters of the state if, "under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation."

Wetlands subject to RWQCB jurisdiction were delineated based on methodology described in the USACE Wetlands Delineation Manual (USACE 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a) and per the Procedures (SWRCB 2019). Non-wetland waters were mapped at the OHWM based on the procedures defined in USACE's 2008 A Field Guide to Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008b).



5.3 California Department of Fish and Wildlife

In Title 14 of the California Code of Regulations, Section 1.56, CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." Diversion, obstruction, or change to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or other aquatic wildlife requires authorization from CDFW by entering into an agreement pursuant to Section 1602 of the California Fish and Game Code. In Title 14 of the California Code of Regulations, Section 1.72, CDFW defines a "stream" as "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."

The delineation defined areas under the jurisdiction of CDFW pursuant to Sections 1600–1603 of the California Fish and Game Code. CDFW asserts jurisdiction over rivers, streams, and lakes to the extent of the top of bank. The term "bank" is interpreted to encompass the physical bank of the stream that rises vertically above and horizontally away from it (Vyverberg 2010). The top of bank was mapped as the physical break in slope between the channel or lake and surrounding upland. Streambeds or lakes under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

Riparian status was determined by the USACE National Wetland Plant List indicator of the dominant species in a community being classified as obligate, facultative wetland, or facultative (USACE 2023). In general, the change in species cover and/or composition from the surrounding upland to predominantly hydrophytic vegetation was used to determine CDFW-regulated riparian areas associated with a stream channel or lake.

FOREST RESILIENCY PROJECT / AQUATIC RESOURCES DELINEATION REPORT

6 Aquatic Resources

6.1 Aquatic Resources Data Summary

Results from 12 representative data points and 6 transects document potentially jurisdictional aquatic resources within the review area based on observable field indicators. The data collected at each data point and transect are provided in Appendix D. Photos of the review area are included in Appendix E.

6.2 Waters of the United States (USACE)

Dudek biologists delineated approximately 2.11 acres (6,527 linear feet) of non-wetland waters and 45.46 acres of wetlands potentially subject to USACE jurisdiction (Table 5). Figure 5, Aquatic Resources Delineation – USACE, CDFW, and RWQCB, visually depicts waters of the United States mapped within the review area. Photos of the potential aquatic features delineated within the review area, as well as additional areas reviewed for the presence of these resources, are provided in Appendix E. Findings with regard to federal jurisdiction are preliminary until verified by the USACE Sacramento District.

| Aquatic Resource | Cowardin Code ¹ | Location (Latitude, Longitude) | Acres ² | Linear Feet | | | |
|--------------------|----------------------------|--------------------------------|--------------------|-------------|--|--|--|
| Non-Wetland Waters | | | | | | | |
| DIT-01 | R4 | 41.098070, 121.176645 | 0.017 | 219 | | | |
| DIT-02 | R4 | 41.093100, -121.176762 | 0.87 | 2,159 | | | |
| DIT-03 | R4 | 41.092637, -121.175466 | 0.54 | 1,422 | | | |
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| DIT-05 | R4 | 41.089719, -121.174785 | 0.35 | 1,147 | | | |
| DIT-06 | R4 | 41.088498, -121.175355 | 0.27 | 819 | | | |
| | | Non-Wetland Waters Subtotal | 2.11 | 6,527 | | | |
| Wetlands | | | | | | | |
| SW-01 | PEM | 41.092290, -121.174613 | 5.94 | N/A | | | |
| SW-02 | PEM | 41.097149, -121.176399 | 3.69 | N/A | | | |
| SW-03 | PEM | 41.094362, -121.176134 | 3.54 | N/A | | | |
| SW-04 | PEM | 41.090258, -121.173967 | 3.69 | N/A | | | |
| SW-05 | PEM | 41.089234, -121.173814 | 7.92 | N/A | | | |
| SW-06 | PEM | 41.087735, -121.174192 | 5.36 | N/A | | | |
| SW-07 | PEM | 41.086056, -121.179508 | 14.86 | N/A | | | |
| SWS-01 | PEM | 41.088069, -121.17748 | 0.38 | N/A | | | |
| SWS-02 | PEM | 41.090962, -121.173515 | 0.10 | N/A | | | |
| | | Wetlands Subtotal | 45.46 | N/A | | | |
| | | Total ³ | 47.57 | 6,527 | | | |

Table 5. USACE Aquatic Resources in the Review Area

Notes:

USACE = U.S. Army Corps of Engineers; N/A = not applicable

¹ Pursuant to Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979) and USACE Cowardin Codes for ORM Data Entry (USACE 2022). PEM = palustrine, emergent; R4 = intermittent channel.

² Acreage of the non-wetland waters extend to the ordinary high-water mark.

³ Minor discrepancies in totals are the result of rounding differences between Excel and ArcMap.



6.2.1 Seasonal Wetland

There are seven seasonal wetlands (SW-01 through SW-07) totaling approximately 45 acres within the review area. These features collect and hold water seasonally and are discernible from the adjacent upland areas by a distinct change in vegetation. These features are dominated by wetland plant species timothy (*Phleum pratense*; Facultative [FAC]), jointleaf rush (*Juncus articulates*; Obligate [OBL]), and camas (*Camassia* sp., Facultative Wetland [FACW]). Other associated species with low cover in this feature include buttercup (*Ranunculus* sp.), western marsh cudweed (*Gnaphalium palustre*; FACW), and curly dock (*Rumex crispus*; FAC). Hydric soils are present as indicated by a thick dark surface (Hydric Soil Indicator A12) or depleted matrix (Hydric Soil Indicator F3). Wetland hydrology was confirmed by the presences of drift deposits (Hydrology Indicator B3) and surface soil cracks (Hydrology Indicator B6). The seasonal wetland feature did not contain standing water or saturated soils during the September 2021 or May 2023 field surveys.

6.2.2 Seasonal Wetland Swale

There are two seasonal wetland swales (SWS-01 and SWS-02), totaling approximately 0.48 acres within the review area. Similar to a seasonal wetland, this narrower feature also collects water seasonally and is discernible from the adjacent upland areas by a distinct change in vegetation. Unlike the seasonal wetlands, the seasonal wetland swales are not closed depression features, and transition into sheet flow or into another water feature. These features support a dominance of two wetland plant species: pale spike rush (*Eleocharis macrostachya*; OBL) and Baltic rush (*Juncus balticus*; FACW). Hydric soils are present, as indicated by a thick dark surface (Hydric Soil Indicator A12), and wetland hydrology was confirmed by the presences of surface soil cracks (Hydrology Indicator B6). These features did not contain standing water or saturated soils during the September 2021 or May 2023 field surveys.

6.2.3 Ditch

There are six upland ditches present within the review area (DIT-01 through DIT-06), totaling approximately 6,527 linear feet in length and occupying 2.11 acres. These ditches are unlined, earthen water conveyance systems that were constructed in upland habitat. These features are discernable from the adjacent upland areas by primary OHWM indicators of a moderate break in slope and change in vegetation, with the top of bank being the same as the OHWM. Ditches within the review area are generally 5 to 6 feet wide at the top of bank/OHWM width with a depth of about 6 inches. DIT-01 is located along the northern boundary of the review area between a seasonal wetland (SW-02) to the south and a dirt parking lot to the north. DIT-02 flows north/south along the western review area boundary, with a culvert at its northern end. DIT-03 through DIT-06 flow through the central portion of the review area.

6.3 Waters of the State (RWQCB)

All of the features described in Section 6.2 have been identified as waters of the state potentially regulated by the RWQCB (Table 5).

6.4 CDFW Jurisdiction

All of the features described in Section 6.2, located within the floodplain on the Pitt River, have been identified as streambed potentially regulated by CDFW (Table 5).

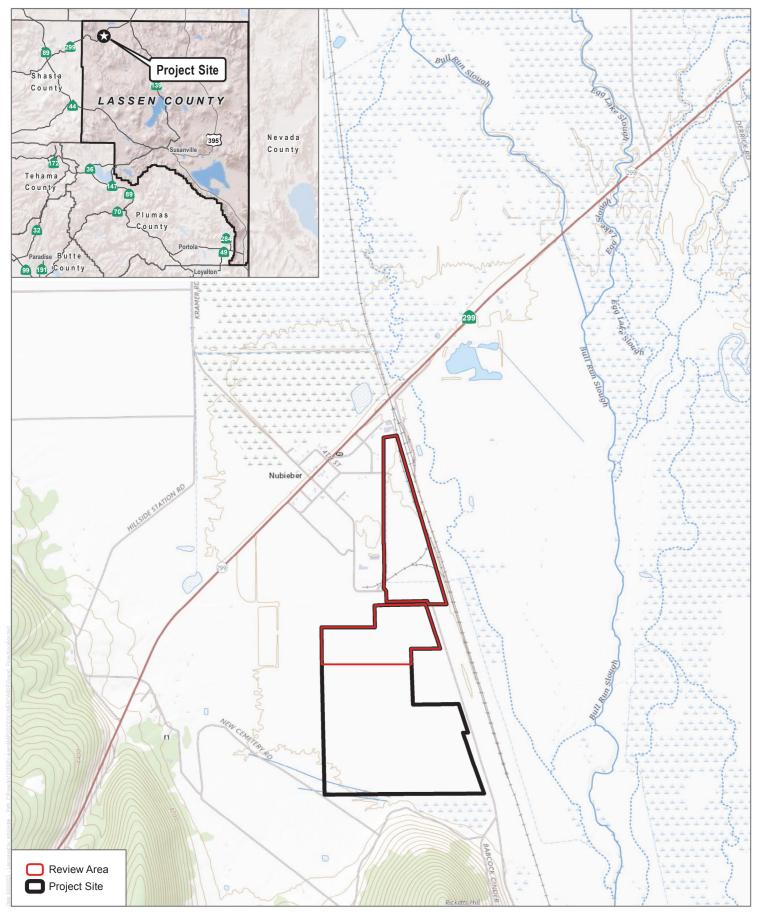


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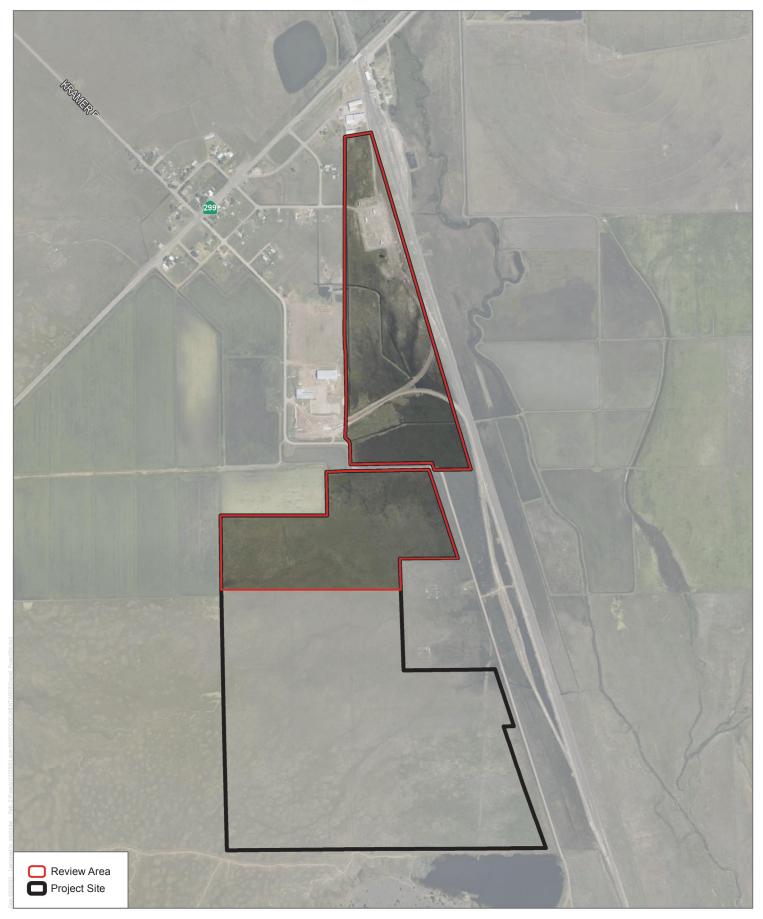
SOURCE: Bing Maps 2020, Lassen County 2015

DUDEK 🌢 느

1,000

2,000 ____ Feet FIGURE 1 Project Location Forest Resiliency Program - Lassen Facility

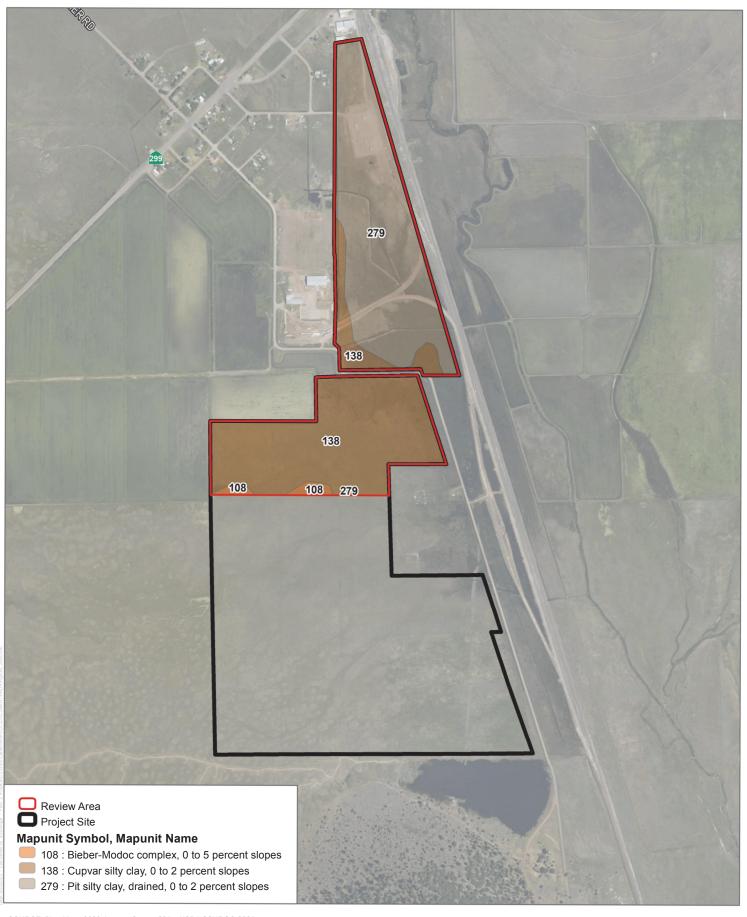
FOREST RESILIENCY PROJECT / AQUATIC RESOURCES DELINEATION REPORT



SOURCE: Bing Maps 2020, Lassen County 2015

FIGURE 2 Project Site Forest Resiliency Program - Lassen Facility

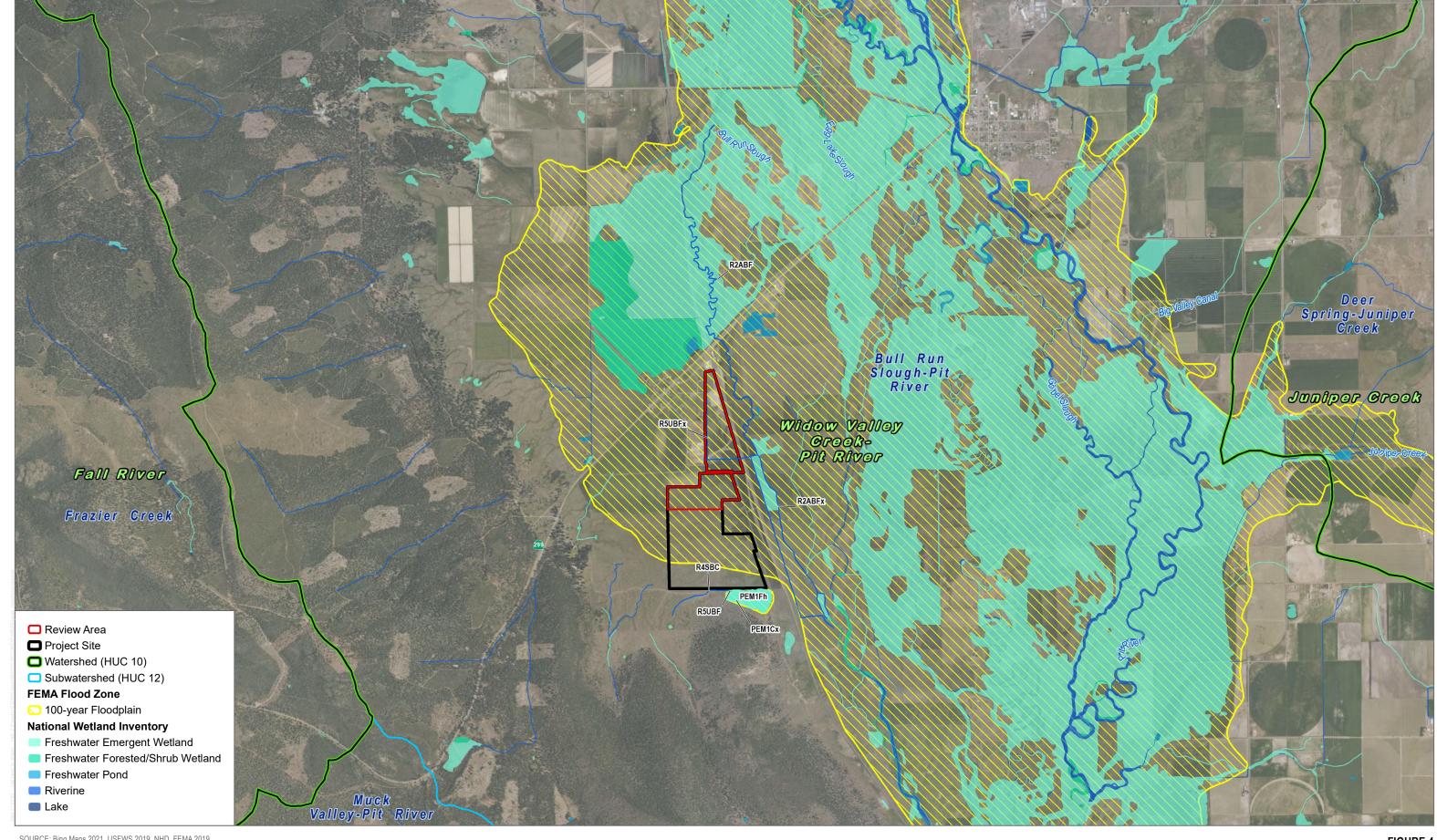
FOREST RESILIENCY PROJECT / AQUATIC RESOURCES DELINEATION REPORT



SOURCE: Bing Maps 2020, Lassen County 2015, USDA SSURGO 2021

DUDEK 💩 <u>500 1,000</u> Feet FIGURE 3 Soil Types Forest Resiliency Program - Lassen Facility

FOREST RESILIENCY PROJECT / AQUATIC RESOURCES DELINEATION REPORT



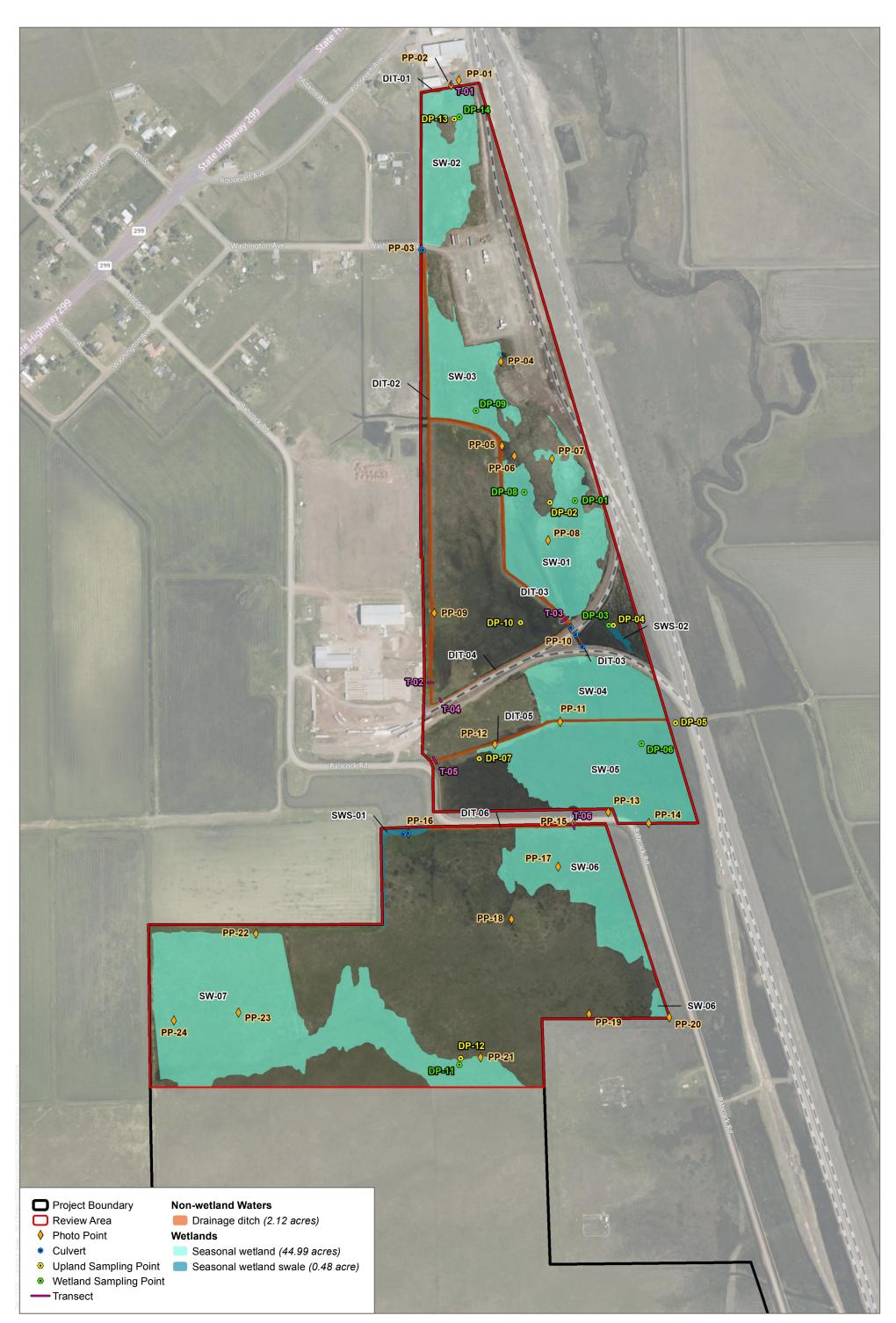
SOURCE: Bing Maps 2021, USFWS 2019, NHD, FEMA 2019

DUDEK 💩 0_____. 3,000 Feet

FIGURE 4 Hydrologic Setting Forest Resiliency Program - Lassen Facility

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DUDEK



SOURCE: Bing Maps 2023

DUDEK 🌢 🛀

200

400 Beet

FIGURE 5 Aquatic Resources Delineation - USACE, CDFW, and RWQCB

Forest Resiliency Program - Lassen Facility

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DUDEK

Appendix A

Request for a Jurisdictional Determination

REQUEST FOR AQUATIC RESOURCES DELINEATION VERIFICATION

OR JURISDICTIONAL DETERMINATION

A separate jurisdictional determination (JD) is not necessary to process a permit. An Approved Jurisdictional Determination (AJD) is required to definitively determine the extent of waters of the U.S. and is generally used to disclaim jurisdiction over aquatic resources that are not waters of the U.S., in cases where the review area contains no aquatic resources, and in cases when the recipient wishes to challenge the water of the U.S. determination on appeal. Either an Aquatic Resources Delineation Verification or a Preliminary Jurisdictional Determination (PJD) may be used when the recipient wishes to assume that aquatic resources are waters of the U.S. for the purposes of permitting. In some circumstances an AJD may require more information, a greater level of effort, and more time to produce. If you are unsure which product to request, please speak with your project manager or call the Sacramento District's general information line at (916) 557-5250.

I am requesting the product indicated below from the U.S. Army Corps of Engineers, Sacramento District, for the review area located at:

| Street Address: | City: County: | | | | |
|---|---|--|--|--|--|
| State: Zip: Section: Township: | Range: | | | | |
| Latitude (decimal degrees): Longitude (decima | al degrees): | | | | |
| The approximate size of the review area for the JD is a | acres. (Please attach location map) | | | | |
| Choose one: | Choose one product: | | | | |
| I own the review area | I am requesting an Aquatic Resources Delineation Verification | | | | |
| I hold an easement or development rights over the review area | I am requesting an Approved JD | | | | |
| I lease the review area | I am requesting a Preliminary JD | | | | |
| I plan to purchase the review area | I am requesting additional information to inform my decision | | | | |
| I am an agent/consultant acting on behalf of the requestor | about which product to request | | | | |
| Other: | | | | | |
| Reason for request: (check all that apply) | | | | | |
| I need information concerning aquatic resources within the revie | w area for planning purposes. | | | | |
| I intend to construct/develop a project or perform activities in this | s review area which would be designed to avoid all aquatic | | | | |
| resources. | | | | | |
| I intend to construct/develop a project or perform activities in this resources determined to be waters of the U.S. | s review area which would be designed to avoid those aquatic | | | | |
| I intend to construct/develop a project or perform activities in this | s review area which may require authorization from the Corps; this | | | | |
| request is accompanied by my permit application. | entire ble sue ten ef the LLO subject is included an the district of the first of | | | | |
| I intend to construct/develop a project or perform activities in a n navigable waters under Section 10 of the Rivers and Harbors | avigable water of the U.S. which is included on the district's list of | | | | |
| My lender, insurer, investors, local unit of government, etc. has i | | | | | |
| inadequate and is requiring a jurisdictional determination. | | | | | |
| | and request the Corps confirm that these aquatic resources are or | | | | |
| are not waters of the U.S. | | | | | |
| I believe that the review area may be comprised entirely of dry la | and. | | | | |
| Other: | · · · | | | | |
| Attached Information: | | | | | |
| | n the review area consistent with Map and Drawing Standards for | | | | |
| the South Pacific Division Regulatory Program (Public Notice | | | | | |
| | tices-and-References/Article/651327/updated-map-and-drawing- | | | | |
| standards/) | | | | | |
| | ith the Sacramento District's Minimum Standards for Acceptance | | | | |
| (Public Notice January 2016, <u>http://1.usa.gov/1V68IYa</u>) | | | | | |
| By signing below, you are indicating that you have the authority, or | | | | | |
| such authority, to and do hereby grant Corps personnel right of entry to legally access the review area. Your signature shall be an affirmation that you possess the requisite property rights for this request on the subject property. | | | | | |
| animation that you possess the requisite property rights for this re | quest on the subject property. | | | | |
| *Signature: Da | te: | | | | |
| Name: Compan | y name: | | | | |
| Address: | | | | | |
| Telephone: Email: | | | | | |
| *Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 US | C 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory | | | | |
| Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332. Principal Purpose: The information that you provide will be used in evaluating your request to detern under the regulatory cutobility of program of the provide will be used in evaluating your request to detern | ine whether there are any aquatic resources within the project area subject to federal jurisdiction | | | | |

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

Appendix B List of Plant Species Observed

Vascular Species

Eudicots

APIACEAE – CARROT FAMILY

Eryngium alismifolium – coyote thistle FACW-OBL

APIACEAE - CARROT FAMILY

Eryngium sp. – eryngo FACW-OBL

ASTERACEAE - SUNFLOWER FAMILY

- Artemisia tridentata big sagebrush Not listed
- Centaurea solstitialis yellow star-thistle
 Not listed
- *Chondrilla juncea* rush skeletonweed
 Not listed

Cirsium vulgare – bull thistle*

FACU

Ericameria nauseosa – rubber rabbitbrush Not listed

* Grindelia squarrosa – curlycup gumweed FACU

Holocarpha sp. - tarweed

Not listed

Lactuca sp. - lettuce

UPL-FAC

Symphyotrichum sp. – aster UP-OBL

Tragopogon sp. – salsify
 Not listed

BRASSICACEAE - MUSTARD FAMILY

Lepidium chalepense – lenspod whitetop Not listed

CARYOPHYLLACEAE - PINK FAMILY

Paronychia sp. – nailwort
 Not Listed



Spergularia sp. – sandspurry FAC-OBL

CHENOPODIACEAE - GOOSEFOOT FAMILY

Chenopodium sp. – goosefoot FACU-FACW

FABACEAE – LEGUME FAMILY

Acmispon americanus – Spanish clover UPL

PLANTAGINACEAE – PLANTAIN FAMILY

Collinsia parviflora-maiden blue eyed Mary Not Listed

POLYGONACEAE – BUCKWHEAT FAMILY

- Polygonum aviculare prostrate knotweed
 FAC
- * Rumex acetosella common sheep sorrel FACU
- * Rumex crispus curly dock FAC
- SALICACEAE WILLOW FAMILY

Salix spp. – willow FAC-OBL

Gymnosperms and Gnetophytes

PINACEAE - PINE FAMILY

Abies magnifica – red fir Not listed

Monocots

CYPERACEAE - SEDGE FAMILY

Eleocharis macrostachya – pale spike rush OBL Eleocharis parishii – Parish's spikerush FACW



JUNCACEAE - RUSH FAMILY

Juncus balticus – Baltic rush FACW Juncus sp. – rush FAC-OBL

POACEAE - GRASS FAMILY

- * Agrostis stolonifera creeping bentgrass
 FACW
- Bromus tectorum cheatgrass
 Not listed
- Elymus caput-medusae medusahead
 Not listed
 Elymus trachycaulus slender wheatgrass
 FACU
- Festuca bromoides brome fescue
 FACU
 - Festuca idahoensis Idaho fescue FACU
 - Festuca microstachys small fescue Not listed
- Festuca myuros rat-tail fescue
 FACU
- Gastridium phleoides nit grass
 FACU
- * Poa pratensis Kentucky blue grass
 FAC
- Phleum pratense timothy
 FACU

TYPHACEAE - CATTAIL FAMILY

Typha sp. – cattail OBL

* Signifies introduced (non-native) species.

Indicator Status

- FAC = Facultative
- FACU = Facultative Upland
- FACW = Facultative Wetland

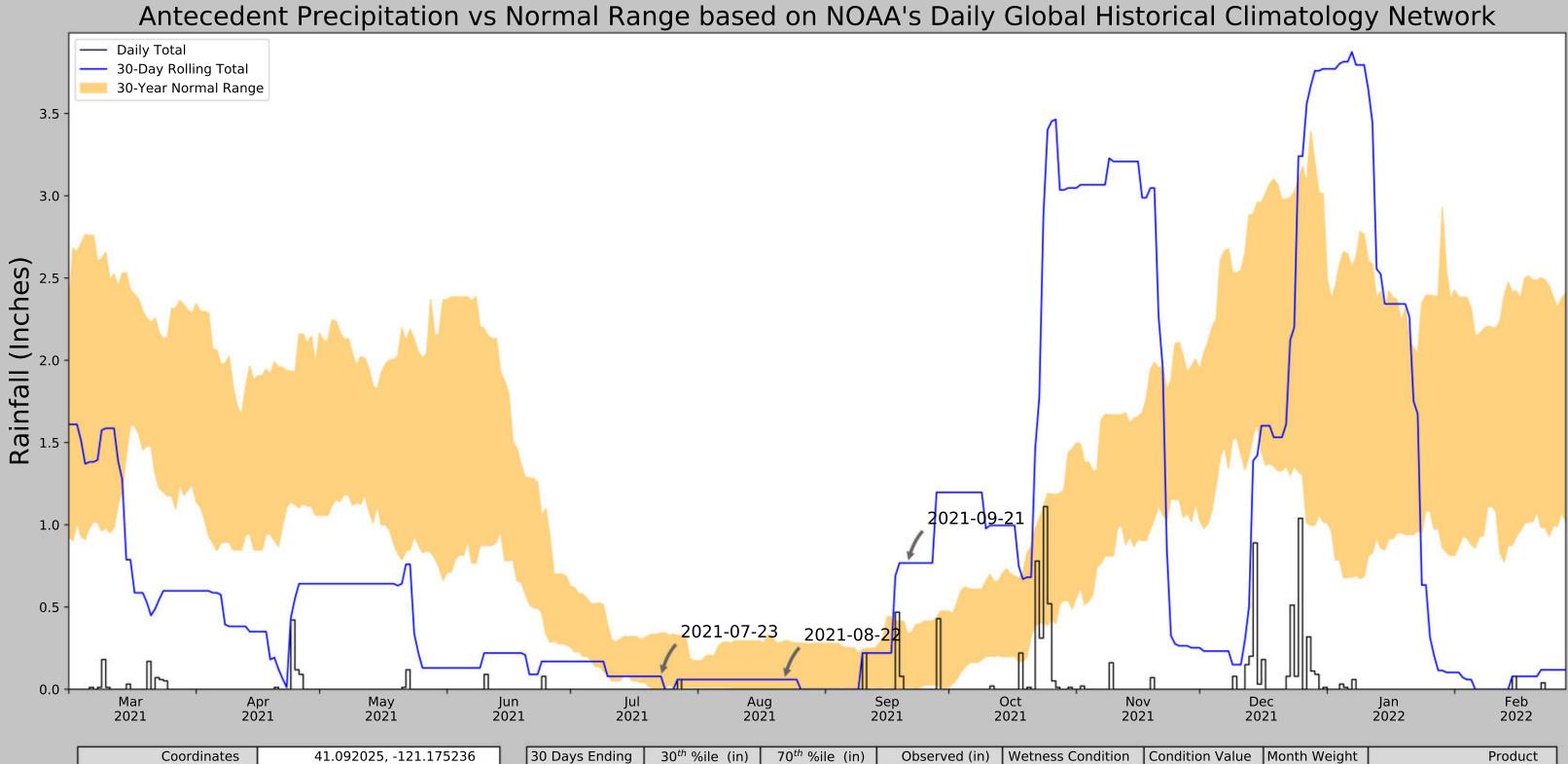
- OBL = Obligate
- UPL = Upland



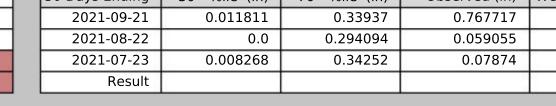
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Appendix C

Antecedent Precipitation Tool Output



| Coordinates | 41.092025, -121.175236 |
|----------------------------------|------------------------|
| Observation Date | 2021-09-21 |
| Elevation (ft) | 4118.52 |
| Drought Index (PDSI) | Extreme drought |
| WebWIMP H ₂ O Balance | Dry Season |



| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted A | Days Normal | Days Antecedent |
|----------------------|--------------------|----------------|---------------|--------------------|-------------------|-------------|-----------------|
| ADIN RS | 41.1933, -120.9444 | 4202.1 | 13.901 | 83.58 | 7.417 | 11102 | 90 |
| CANBY 3 SW | 41.4219, -120.9017 | 4310.04 | 15.949 | 107.94 | 8.899 | 85 | 0 |
| Adin Mtn | 41.24, -120.79 | 6189.961 | 8.649 | 1987.861 | 21.085 | 166 | 0 |

Wet

Normal

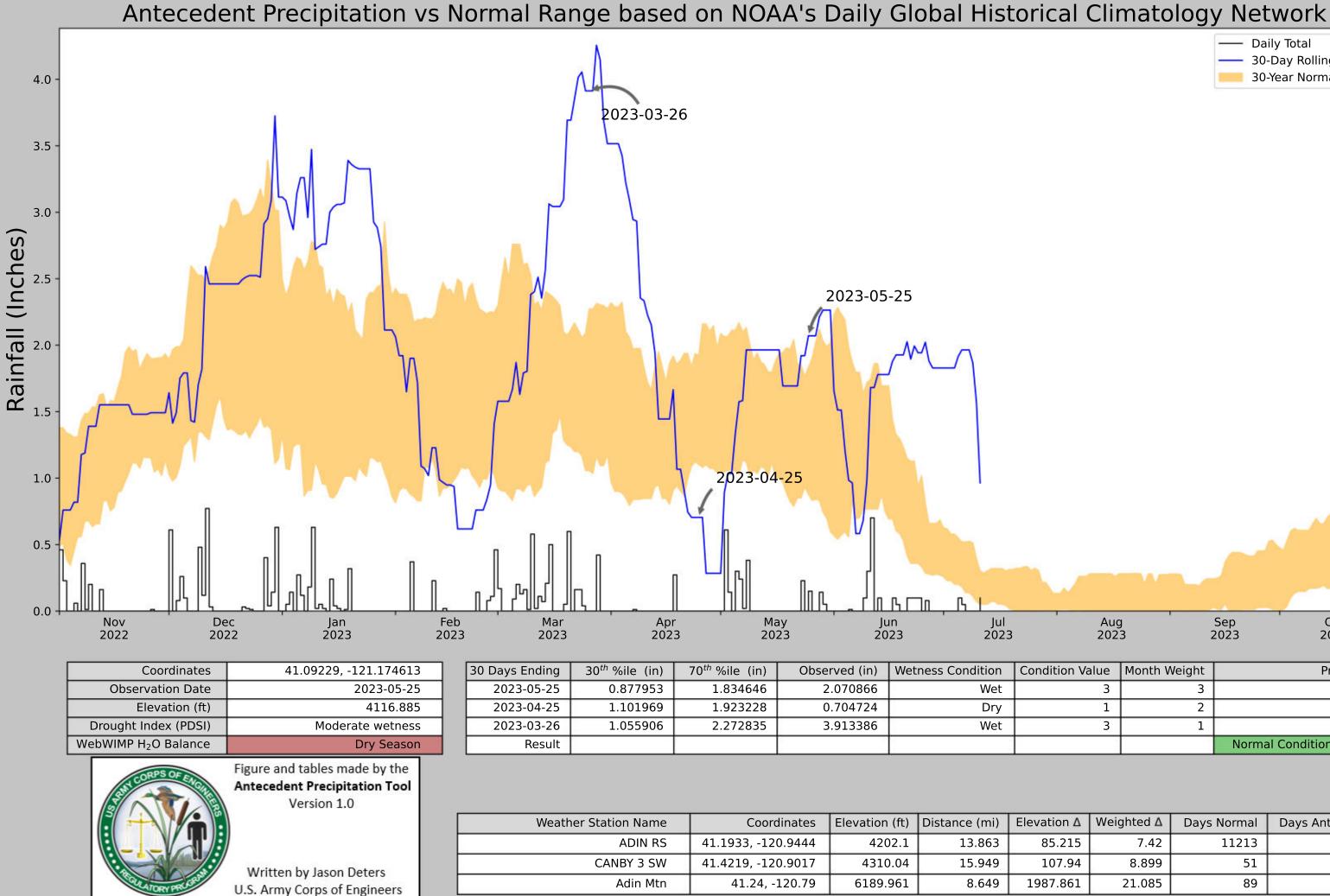
Normal

Figure and tables made by the Antecedent Precipitation Tool

Written by Jason Deters U.S. Army Corps of Engineers

Version 1.0

| ondition Value | Month Weight | Product |
|----------------|--------------|-------------------------|
| 3 | 3 | 9 |
| 2 | 2 | 4 |
| 2 | 1 | 2 |
| | | Wetter than Normal - 15 |



- Daily Total
- 30-Day Rolling Total
 - 30-Year Normal Range

| ' Au <u>c</u> 202 | 3 2 | Sep 2023 | Oct 2023 |
|----------------------|--------------|-------------|-------------|
| ondition Value | Month Weight | | Product |
| 3 | 3 | | 9 |
| 1 | 2 | | 2 |
| 3 | 1 | | 3 |

Normal Conditions - 14

| evation Δ | Weighted A | Days Normal | Days Antecedent |
|------------------|-------------------|-------------|-----------------|
| 85.215 | 7.42 | 11213 | 90 |
| 107.94 | 8.899 | 51 | 0 |
| 1987.861 | 21.085 | 89 | 0 |



| Project/Site: Lassen/Gould | City/County: Lasse | n County | Sampling Date: 9/21/2021 |
|--|--------------------|------------------------------------|----------------------------|
| Applicant/Owner: Golden State Finance Authority | 0 | | Sampling Point: DP-01 |
| Investigator(s): A. Sennett, P. Keating | Section, Township, | Range: <u>S28&33, T 38N, F</u> | |
| Landform (hillslope, terrace, etc.): Floodplain | | e, convex, none): <u>flat</u> | |
| Subregion (LRR): Lat: 41 | .092735 | Long: <u>-121.174254</u> | Datum: WGS84 |
| Soil Map Unit Name: Pit silty clay, drained, 0-2% slopes | | NWI classific | ation: |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear?Yes 🗾 No | o (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrology significantly | disturbed? A | re "Normal Circumstances" p | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally pr | oblematic? (If | f needed, explain any answe | rs in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map showing | g sampling poin | t locations, transects | , important features, etc. |

| Hydrophytic Vegetation Present? Hydric Soil Present? | Yes <u>√</u> Yes √ | No No | Is the Sampled Area | | |
|---|-----------------------|----------|---------------------|-------|----|
| Wetland Hydrology Present? | Yes <u>√</u> | NO No | within a Wetland? | Yes 🖌 | No |
| Remarks: SWS-01 | | | | | |

| | Absolute | Dominant | | Dominance Test worksheet: |
|---|---|-------------|------------|---|
| Tree Stratum (Plot size:) | <u>% Cover</u> | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 2 (A) |
| 2 | | | | Total Number of Deminent |
| 3 | | | | Total Number of Dominant Species Across All Strata: 2 (B) |
| | | | | |
| 4 | | | | Percent of Dominant Species |
| Sapling/Shrub Stratum (Plot size:) | | = Total Co | ver | That Are OBL, FACW, or FAC: 100 (A/B) |
| | | | | Prevalence Index worksheet: |
| 1 | | | | Total % Cover of: Multiply by: |
| 2 | | | | OBL species x 1 = |
| 3 | | | | FACW species x 2 = |
| 4 | | | | |
| 5 | | | | FAC species x 3 = |
| | - 10 - 12 - 12 - 12 - 12 - 12 - 12 - 12 | = Total Co | ver | FACU species x 4 = |
| Herb Stratum (Plot size: 5 feet) | | | VCI | UPL species x 5 = |
| 1. Rumex crispus | 2 | Ν | FAC | Column Totals: (A) (B) |
| 2. Eleocharis macrostachya | 10 | Y | OBL | |
| 3 Aster sp. 1 | 2 | N | | Prevalence Index = B/A = Hydrophytic Vegetation Indicators: |
| 4 Aster sp. 2 | 3 | N | | |
| 5. Juncus balticus | 10 | Y | FACW | ✓ 1 - Rapid Test for Hydrophytic Vegetation |
| 6. Centromadia sp. | $-\frac{10}{3}$ | N | | 2 - Dominance Test is >50% |
| | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 8 | | | | data in Remarks or on a separate sheet) |
| 9 | | | | 5 - Wetland Non-Vascular Plants ¹ |
| 10 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 11 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| | 30 | = Total Cov | | be present, unless disturbed or problematic. |
| Woody Vine Stratum (Plot size:) | | | | |
| 1 | | | | Hydrophytic |
| | | | | Vegetation |
| 2 | | | | Present? Yes No |
| % Bare Ground in Herb Stratum 70 | | = Total Cov | /er | |
| Remarks: | | | | |
| Some plants not identifiable due to delineation occurring | outside of the | tvnical aro | wina seaso | n |
| some plante not dominuble due to dominution boourning | | s spica gio | mig bouse | |

| _ | |
|---|--|
| | |
| Ο | |
| S | |

Sampling Point: DP-01-SWS-01

| Field Observations: No Depth (inches): No Depth (inches): No No |
|--|
| |
| |

Western Mountains, Valleys, and Coast - Version 2.0

| Project/Site: Lassen/Gould | City/County: Lasse | n County | Sampling Date: 9/21/2021 |
|--|--------------------|---|----------------------------|
| Applicant/Owner: Golden State Finance Authority | | | Sampling Point: DP-02 |
| Investigator(s): A. Sennett, P. Keating | Section, Township, | _{Range:} <u>S28&33, T 38N, R</u> | |
| Landform (hillslope, terrace, etc.): floodplain | | e, convex, none): <u>flat</u> | |
| Subregion (LRR): C Lat: 41 | .092717 | Long: <u>-121.174687</u> | Datum: WGS84 |
| Soil Map Unit Name: Pit silty clay, drained, 0-2% slopes | | NWI classific | ation: |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear? Yes 🖌 No | | emarks.) |
| Are Vegetation, Soil, or Hydrology significantly | disturbed? Ar | re "Normal Circumstances" p | resent? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally pr | oblematic? (If | needed, explain any answei | 's in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map showing | g sampling poin | t locations, transects | , important features, etc. |

| Hydrophytic Vegetation Present? | Yes No | | | |
|---------------------------------|----------|---------------------|-----|----|
| Hydric Soil Present? | Yes 📝 No | Is the Sampled Area | | / |
| Wetland Hydrology Present? | Yes 🖌 No | within a Wetland? | Yes | No |
| Remarks: | | | | |
| Upland | | | | |

| | Absolute | | t Indicator | Dominance Test worksheet: |
|---------------------------------------|------------------|------------|-------------|---|
| Tree Stratum (Plot size:) | <u>% Cover</u> | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 1 (A) |
| 2 | | | | |
| 3 | | | | Total Number of Dominant Species Across All Strata: 3 (B) |
| | | | | |
| 4 | | | | Percent of Dominant Species |
| Capling (Chryh Chasture (Distaire) | | = Total Co | over | That Are OBL, FACW, or FAC: <u>33</u> (A/B) |
| Sapling/Shrub Stratum (Plot size:) | | | | Prevalence Index worksheet: |
| 1 | | | | Total % Cover of: Multiply by: |
| 2 | | | | OBL species x 1 = |
| 3 | | | | |
| 4 | | | | FACW species x 2 = |
| | | | | FAC species 25 x 3 = 75 |
| 5 | - | | | FACU species 30 x 4 = 120 |
| Herb Stratum (Plot size: 5 feet | | = Total Co | over | UPL species x 5 = |
| 1 Grindelia squarrosa | 20 | Y | FACU | Column Totals: 55 (A) 195 (B) |
| Prestuca bromoide | $-\frac{20}{20}$ | Y | FAC | |
| | | <u> </u> | | Prevalence Index = $B/A = \frac{3.5}{1.5}$ |
| 3. Festuca idahoensis | 10 | Y | FACU | Hydrophytic Vegetation Indicators: |
| 4. Rumex Crispus | 5 | N | FAC | 1 - Rapid Test for Hydrophytic Vegetation |
| 5 | | | | 2 - Dominance Test is >50% |
| 6 | | | | 3 - Prevalence Index is $\leq 3.0^1$ |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 8 | | | | data in Remarks or on a separate sheet) |
| | | | | 5 - Wetland Non-Vascular Plants ¹ |
| 9 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 10 | | | | |
| 11 | | | · | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| | 45 | = Total Co | ver | |
| Woody Vine Stratum (Plot size:) | | | | |
| 1 | | | | Hydrophytic |
| 2 | | | | Vegetation Present? Yes No |
| | | = Total Co | | Present? Yes No V |
| % Bare Ground in Herb Stratum 70 | | - | - | |
| Remarks: | | | | |
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| SOIL | | | ampling |
|----------------------|-------------------------------------|--|---------|
| Profile Description: | (Describe to the depth needed to de | ed to document the indicator or confirm the absence of indicators. | .s.) |
| Denth | Matrix | Dadov Easturae | |

| <u>ss) Color (moist) %</u> | <u>Redox Features</u> <u>Color (moist) % Type¹ Loc²</u> . | Texture Remarks |
|--|--|---|
| | | |
| | | |
| | | |
| ¹ Type: C=Concentration, D=Depletion, RM=Rec | D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains | Indicators for Broklamatic Budgic Soile ³ |
| | Sandy Redox (S5) | 2 cm Muck (A10) |
| Black Histic (A3) | Supped Maria (So) Loamy Mucky Mineral (E1) (except MLRA 1) | Very Shallow Dark Surface (TF12) |
|) (A4) | Loamy Gleyed Matrix (F2) | Other (Explain in Remarks) |
| Depleted Below Dark Surface (A11) Thick Dark Surface (A12) | Depleted Matrix (F3) Redox Dark Surface (F6) | ³ Indicators of hydrophytic vegetation and |
| Sandy Mucky Mineral (S1) | Depleted Dark Surface (F7) Redox Depressions (F8) | wetland hydrology must be present, |
| Restrictive Layer (if present): | | |
| Depth (inches): <u>12</u> | | Hydric Soil Present? Yes <u>v</u> No |
| Remarks: | | |
| HYDROLOGY | | |
| Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) | reck all that apply) | Secondary Indicators (2 or more required) |
| Surface Water (A1) | Water-Stained Leaves (B9) (except | Water-Stained Leaves (B9) (MLRA 1, 2, |
| — High Water Table (A2) | MLRA 1, 2, 4A, and 4B) | 4A, and 4B) |
| Saturation (A3) | Salt Crust (B11) | Drainage Patterns (B10) |
| Water Marks (B1) | Aquatic Invertebrates (B13) | |
| Sediment Deposits (B2) | Hydrogen Sulfide Odor (C1) | Ι |
| Unit Deposits (B3) | Oxidized Rnizospheres along Living Roots (C3) | ĺ |
| Iron Deposits (B5) | Presence or Reduced from (C4) Recent Iron Reduction in Tilled Soils (C6) | Sriallow Aquitard (D3) FAC-Neutral Test (D5) |
| Surface Soil Cracks (B6) | Stinted or Stressed Plants (D1) (I RR A) | Paised Ant Mounds (D6) (I RR A) |
| Inundation Visible on Aerial Imagery (B7) | Other (Explain in Remarks) | Frost-Heave Hummocks (D7) |
| Sparsely Vegetated Concave Surface (B8) | | |
| Field Observations: | | |
| Surface Water Present? Yes No _ | Depth (inches): | |
| Water Table Present? Yes No _ | Depth (inches): | |
| Saturation Present? Yes <u>No</u> | Depth (inches): Wetlai | Wetland Hydrology Present? Yes 🗡 No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | ring well, aerial photos, previous inspections), if | available: |
| Remarks: | | |
| | | |

| Project/Site: Lassen/Gould | City/County: Lassen County | | Sampling Date: 9/21/20221 |
|---|----------------------------|---------------------------------------|---------------------------|
| Applicant/Owner: Golden State Finance Authority | | State: CA | Sampling Point: DP-03 |
| Investigator(s): A. Sennett, P. Keating | Section, Township | o, Range: <u>S28&33, T 38N, F</u> | |
| Landform (hillslope, terrace, etc.): floodplain | Local relief (conca | | |
| Subregion (LRR): C | .091107 | Long: <u>-121.173689</u> | Datum: WGS84 |
| Soil Map Unit Name: Pit silty clay, drained, 0-2% slopes | | NWI classific | ation: None |
| Are climatic / hydrologic conditions on the site typical for this time of y | ear?Yes 🖌 ۱ | No (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrology significantly | / disturbed? | Are "Normal Circumstances" p | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally pr | oblematic? | (If needed, explain any answe | rs in Remarks.) |
| SUMMARY OF FINDINGS - Attach site man showing | a complina poi | int locations, transacts | important features ato |

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

| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes / No / No / No / Yes / No / N | Is the Sampled Area within a Wetland? | Yes 🥢 No |
|---|---|---------------------------------------|----------|
| Remarks: | | | |

| | Absolute | | Indicator | Dominance Test worksheet: |
|------------------------------------|----------------|-------------|-----------|---|
| Tree Stratum (Plot size:) | <u>% Cover</u> | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 2 (A) |
| 2 | | | | |
| 3. | | | | Total Number of Dominant Species Across All Strata: 2 (B) |
| | | | | Species Across Air Strata (B) |
| 4 | | | | Percent of Dominant Species |
| | - | = Total Co | over | That Are OBL, FACW, or FAC: 100 (A/B) |
| Sapling/Shrub Stratum (Plot size:) | | | | Prevalence Index worksheet: |
| 1 | | | | Total % Cover of: Multiply by: |
| 2 | | | | |
| 3 | | | | OBL species x 1 = |
| 4 | | | | FACW species x 2 = |
| | | | | FAC species x 3 = |
| 5 | | | | FACU species x 4 = |
| Lu Lou (D. C. 5 feet | | = Total Co | over | UPL species x 5 = |
| Herb Stratum (Plot size: 5 feet) | 25 | V | | |
| 1. Juncus balticus | _ 35 | Y | FACW | Column Totals: (A) (B) |
| 2. Eleocharis macrostachya | 35 | Y | OBL | Prevalence Index = B/A = |
| _{3.} Lactuca sp. | 5 | Ν | UNK | Hydrophytic Vegetation Indicators: |
| 4. Polygonum aviculare | 2 | N | FAC | |
| 5 Rumex crispus | 1 | N | FAC | ✓ 1 - Rapid Test for Hydrophytic Vegetation |
| | | | | 2 - Dominance Test is >50% |
| 6 | | | | $_$ 3 - Prevalence Index is $\leq 3.0^1$ |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 8 | | | | data in Remarks or on a separate sheet) |
| 9 | | | | 5 - Wetland Non-Vascular Plants ¹ |
| | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 10 | | | · | ¹ Indicators of hydric soil and wetland hydrology must |
| 11 | 70 | | | be present, unless disturbed or problematic. |
| March Mine Oterture (District) | 78 | = Total Co | ver | ··· p ··· · · · · · · · · · · p ··· · · · · |
| Woody Vine Stratum (Plot size:) | | | | |
| 1 | | | | Hydrophytic |
| 2 | | | | Vegetation |
| | | _= Total Co | | Present? Yes Ves No |
| % Bare Ground in Herb Stratum 22 | | | | |
| Remarks: | | | | · |
| | | | | |
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| Depth Matrix Redox Features (inches) Color (moist) % Type ¹ Loc ² 0-12 10YR2/1 100 | Texture Remarks Clay |
|---|--|
| | |
| | |
| ¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) | ains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : |
| Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) | 2 cm Muck (A10) Red Parent Material (TF2) |
| 4) | Very Shallow Dark Surface (TF12) Other (Explain in Remarks) |
| Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) | ³ Indicators of hydrophytic vegetation and |
| Sandy Gleyed Matrix (S4) Ceptered Dark Surface (F7) Ceptered Dark Surface (F7) Ceptered Dark Surface (F7) | weitarid riydrology must be present, unless disturbed or problematic. |
| Restrictive Layer (if present): Type: hardpan | |
| Depth (inches): 12 | Hydric Soil Present? Yes 🖌 No |
| | |
| HYDROLOGY Wetland Hydrology Indicators: | |
| Primary Indicators (minimum of one required; check all that apply) | Secondary Indicators (2 or more required) |
| ew — | Water-Stained Leaves (B9) (MLRA 1, 2, |
| ile (A2) | 4A, and 4B) |
| [| |
| Vider Indexs (p.1) Advance Invertievalies (p.13) Advance Invertievalies (p.13) Hydrogen Sulfide Odor (C1) | Saturation Visible on Aerial Imagery (C9) |
| [| Geomorphic Posit |
| Algal Mat or Crust (B4) Presence of Reduced Iron (C4) | I |
| | Ι |
| I | Raised Ant Mounds (U6) (LRR A) |
| Inundation visible on Aerial Imagery (b7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) | Frost-Heave Hummocks (D7) |
| | |
| | |
| Saturation Present? Yes No ✓ Depth (inches): Wetlar | Wetland Hydrology Present? Yes 🖌 No |
| auge, monitoring w | |
| Remarks: | |
| | |
| | |

| Project/Site: Lassen/Gould | City/County: Lasse | n County | Sampling Date: <u>9/21/2021</u> |
|---|------------------------|-------------------------------|---------------------------------|
| Applicant/Owner: Golden State Finance Authority | | State: CA | Sampling Point: DP-04 |
| Investigator(s): A. Sennett, P. Keating | _ Section, Township, I | Range: S28&33, T 38N, F | |
| Landform (hillslope, terrace, etc.): floodplain | | e, convex, none): <u>flat</u> | |
| Subregion (LRR): C | .091105 | Long: <u>-121.173612</u> | Datum: WGS84 |
| Soil Map Unit Name: Pit silty clay, drained, 0-2% slopes | | NWI classific | cation: None |
| Are climatic / hydrologic conditions on the site typical for this time of y | ear? Yes 🖌 No | | Remarks.) |
| Are Vegetation, Soil, or Hydrology significantly | y disturbed? Ar | re "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally p | roblematic? (If | needed, explain any answe | ers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map showin | g sampling poin | t locations, transects | , important features, etc. |

| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes Yes∕ Yes∕ | No No No | Is the Sampled Area within a Wetland? | Yes | No |
|---|---------------------|----------------|---------------------------------------|-----|----|
| Remarks: Upland | | | | | |

VEGETATION – Use scientific names of plants.

| | Absolute | | Indicator | Dominance Test worksheet: | |
|---|----------------|------------|-----------|---|----|
| Tree Stratum (Plot size:) | <u>% Cover</u> | Species? | Status | Number of Dominant Species | |
| 1 | | | | That Are OBL, FACW, or FAC: 1 (A) | |
| 2 | | | | | |
| | | | | Total Number of Dominant Species Across All Strata: 3 (B) | |
| 3 | | | | Species Across All Strata: <u>3</u> (B) | |
| 4 | | | | Percent of Dominant Species | |
| | | = Total Co | over | That Are OBL, FACW, or FAC: 0.33 (A/E | 3) |
| Sapling/Shrub Stratum (Plot size:) | | | | Prevalence Index worksheet: | - |
| 1 | | | | Total % Cover of: Multiply by: | |
| 2 | | | | | |
| 3 | | | | OBL species x 1 = | |
| | | | | FACW species x 2 = | |
| 4 | | | | FAC species x 3 = | |
| 5 | | | | FACU species x 4 = | |
| here in the second s | - | = Total Co | over | UPL species x 5 = | |
| Herb Stratum (Plot size: 5 feet) | 22 | V | | | 、 |
| 1. Aster sp. (sunflower) | 33 | Y | UNK | Column Totals: (A) (B |) |
| 2. Festuca bromoide | 25 | Υ | FAC | Prevalence Index = B/A = | |
| _{3.} Festuca idahoensis | 10 | Y | FACU | Hydrophytic Vegetation Indicators: | _ |
| 4 Phleum pratense | 7 | N | NL | | |
| 5 Artemisia tridentata | 7 | N | FACU | 1 - Rapid Test for Hydrophytic Vegetation | |
| | | | FACU | 2 - Dominance Test is >50% | |
| _{6.} <u>Grindelia squarrosa</u> | - <u> </u> | N | FACU | 3 - Prevalence Index is ≤3.0 ¹ | |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supportir | ng |
| 8 | | | | data in Remarks or on a separate sheet) | - |
| 9 | | | | 5 - Wetland Non-Vascular Plants ¹ | |
| | | | | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 10 | _ | | | ¹ Indicators of hydric soil and wetland hydrology must | |
| 11 | 05 | | | be present, unless disturbed or problematic. | |
| | 85 | = Total Co | ver | | |
| Woody Vine Stratum (Plot size:) | | | | | |
| 1 | | | | Hydrophytic | |
| 2 | | | | Vegetation | |
| | | = Total Co | | Present? Yes No | |
| % Bare Ground in Herb Stratum 15 | | | | | |
| Remarks: | | | | | |

Some plants not identifiable due to delineation occurring outside of the growing season. Aster sp. was prevalent in the uplands so assumed to be an upland species.

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| SOIL | | Sampling |
|-----------------------------|--|---|
| Profile Description: | : (Describe to the depth needed to docur | ed to document the indicator or confirm the absence of indicators.) |
| Denth | Matrix | Dodox Epsturge |

| Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % 0-12 10YR2/1 100 | Texture Remarks Clay |
|---|---|
| | |
| ¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains | · · |
| (Applicable to all LRR | 2 cm Muck (A10) |
| Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) | |
| (A4) Dark Surface (A11) | |
| | ³ Indicators of hydrophytic vegetation and |
| 1 | unless disturbed or problematic. |
| Restrictive Layer (if present): Type: hardpan | |
| Depth (inches): 12 | Hydric Soil Present? Yes <u>/</u> No |
| | |
| HYDROLOGY Wetland Hydrology Indicators: | |
| Primary Indicators (minimum of one required; check all that apply) | Secondary Indicators (2 or more required) |
| Wa | Water-Stained Leaves (B9) (MLRA 1, 2, |
| ile (A2) | 4A, and 4B) |
| Saturation (A3) Salt Crust (B11) | Drainage Patterns (B10) |
| s (B2) | Saturation Visible on Aerial Imagery (C9) |
| | Geomorphic Posit |
| (B4) | 1 |
| I | FAC-Neutral Test |
| Ι | Ι |
| munication vision on Aerian magory (ev.) Onion (Explain in Aerians) Sparsely Vegetated Concave Surface (B8) | |
| / | |
| | |
| No _ | |
| No <u> </u> | Wetland Hydrology Present? Yes 🗡 No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | if available: |
| Remarks: | |
| | |
| | |

| Project/Site: Lassen/Gould | City/County: Las | sen County | Sampling Date: <u>9/21/2021</u> |
|--|------------------|------------------------------------|---------------------------------|
| Applicant/Owner: Golden State Finance Authority | | State: CA | |
| Investigator(s): A. Sennett, P. Keating | Section, Townshi | ip, Range: <u>S28&33, T 38</u> | |
| Landform (hillslope, terrace, etc.): Floodplain | | | Slope (%): 0 |
| Subregion (LRR): C Lat: 41 | .089565 | Long: <u>-121.1731</u> | 19 Datum: WGS84 |
| Soil Map Unit Name: Pit silty clay, drained, 0-2% slopes | | NWI clas | ssification: none |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear? Yes 🖌 | No (If no, explain | in Remarks.) |
| Are Vegetation, Soil, or Hydrology significantly | / disturbed? | Are "Normal Circumstance | es" present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally pr | oblematic? | (If needed, explain any an | swers in Remarks.) |
| SUMMARY OF FINDINGS - Attach site man showing | a samplina no | int locations transo | cte important foaturos oto |

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

| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes | Is the Sampled Area within a Wetland? | Yes 🥢 No |
|---|-----|---------------------------------------|----------|
| Remarks: | | | |

| | Absolute | Dominant | | Dominance Test worksheet: |
|---|-----------------|--------------|--------|---|
| Tree Stratum (Plot size:) | <u>% Cover</u> | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 1 (A) |
| 2 | | | | Tatal Number of Deminent |
| 3 | | | | Total Number of Dominant Species Across All Strata: 1 (B) |
| | | | | |
| 4 | | | | Percent of Dominant Species |
| Conling/Chrub Stratum (Distaire) | | = Total Co | over | That Are OBL, FACW, or FAC: 100 (A/B) |
| Sapling/Shrub Stratum (Plot size:) | | | | Prevalence Index worksheet: |
| 1 | | | | Total % Cover of:Multiply by: |
| 2 | | | | OBL species x 1 = |
| 3 | | | | |
| 4 | | | | FACW species x 2 = |
| | | | | FAC species x 3 = |
| 5 | - | | | FACU species x 4 = |
| Herb Stratum (Plot size: <u>5 feet</u>) | | = Total Co | over | UPL species x 5 = |
| 1. Festuca bromoides | 20 | Y | FAC | Column Totals: (A) (B) |
| 2. Typha sp. | $-\frac{-2}{2}$ | N | OBL | |
| | | N | | Prevalence Index = B/A = |
| 3. Unknown sp. | | <u> </u> | | Hydrophytic Vegetation Indicators: |
| 4. Eriophyllum lanatum | _ 1 | <u>N</u> | NL | 1 - Rapid Test for Hydrophytic Vegetation |
| _{5.} Unknown sp. | _ 1 | <u>N</u> | UNK | 2 - Dominance Test is >50% |
| 6 | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 8 | | | | data in Remarks or on a separate sheet) |
| 9 | | | | 5 - Wetland Non-Vascular Plants ¹ |
| | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 10 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 11 | 05 | | | be present, unless disturbed or problematic. |
| | 25 | = Total Co | ver | ······································ |
| Woody Vine Stratum (Plot size:) | | | | |
| 1 | | | | Hydrophytic |
| 2 | | | | Vegetation Present? Yes <u>No</u> |
| | | = Total Co | | Present? Yes Y No |
| % Bare Ground in Herb Stratum 75 | | | | |
| Remarks: | | | | |
| Some plants not identifiable due to delineation occurring o | outside of the | e growing se | eason. | |

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| 6 | 1 | ſ |) | |

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| Profile Description: | \sim | to the dept | h needed to | document the ind | licator or cor | nfirm the abs | Describe to the depth needed to document the indicator or confirm the absence of indicators.) |
|--|----------------------------|--------------|---------------------------------------|--|------------------------------------|-----------------|---|
| Depth (inches) Color | Matrix or (moist) | % | R Color (moist) | edox Features | Tvpe ¹ Loc ² | Z Texture | Remarks |
| <i>←</i> | | 100 | | | Γ. Τ. | | |
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| | | | | | | | |
| ¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hudric Soli Indicators: (Amilicable to all I BDs, indices otherwise noted) | ation, D=Dep | letion, RM= | Reduced Mat | rix, CS=Covered o | r Coated San | | ² Location: PL=Pore Lining, M=Matrix. |
| Historol (A1) | | | Sandy Redov (S5) | dov (S5) | ÷ | | |
| Histic Epipedon (A2) | (A2) | | Stripped I | Stripped Matrix (S6) | | | Red Parent Material (TF2) |
| Black Histic (A3) | (| I | Loamy Mi | Loamy Mucky Mineral (F1) (except MLRA 1) | except MLR | A 1) | Very Shallow Dark Surface (TF12) |
| Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) | e (A4) Dark Surface | e (A11) | Depleted | Loamy Gleyed Matrix (F2) Depleted Matrix (F3) | | l | . Other (Explain in Kemarks) |
| Thick Dark Surface (A12) | ace (A12) | | Redox Da | Redox Dark Surface (F6) | | ³ In | ³ Indicators of hydrophytic vegetation and |
| Sandy Mucky Mineral (S1) Sandy Gleved Matrix (S4) | ineral (S1) 1atrix (S4) | ļ | Depleted Redox De | Depleted Dark Surface (F7) Redox Depressions (F8) | | | wetland hydrology must be present, unless disturbed or problematic. |
| Restrictive Layer (if present): | f present): | | | - | | | - |
| Type: | | | | | | | |
| Depth (inches): | | | | | | Hydric | Hydric Soil Present? Yes 🗸 No |
| Remarks: | | | | | | - | |
| | | | | | | | |
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| нүркогосү | | | | | | | |
| Wetland Hydrology In | Indicators: | | | | | | |
| Primary Indicators (minimum of one required; check all that apply) | <u>ninimum of o</u> | ne required | ; check all tha | t apply) | | | Secondary Indicators (2 or more required) |
| Surface Water (A1) | A1) | | Wate | Water-Stained Leaves (B9) (except | (B9) (except | | Water-Stained Leaves (B9) (MLRA 1, 2, |
| — High Water Table (| le (A2) | | 2 | MLRA 1, 2, 4A, and 4B) | d 4B) | | 4A, and 4B) |
| Saturation (A3) | ŕ | | Salt | Salt Crust (B11) | | · | Drainage Patterns (B10) |
| | | | | Aquatic Invertebrates (B13) | DI3) | • | |
| Drift Deposits (B3) | sits (b∠) 33) | | – – – – – – – – – – – – – – – – – – – | нуагоден Suinae Oaor (Ст.) Oxidized Rhizospheres alona Livina Roots (С3) | רט) s alona Livina | Roots (C3) | Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) |
| Algal Mat or Crust | , ist (B4) | | Pres | Presence of Reduced Iron (C4) | ron (C4) | | Shallow Aquitard (D3) |
| Iron Deposits (B5) | 5) | | Rec | Recent Iron Reduction in Tilled Soils (C6) | in Tilled Soils | ; (C6) | FAC-Neutral Test (D5) |
| ✓ Surface Soil Cracks (B6) | tcks (B6) | | l | Stunted or Stressed Plants (D1) (LRR A) | ants (D1) (LR | (R A) | Raised Ant Mounds (D6) (LRR A) |
| Inundation Visible on Aerial Imagery (B7) | le on Aerial I | magery (B7 |] | Other (Explain in Remarks) | arks) | | Frost-Heave Hummocks (D7) |
| Sparsely Vegetated Concave Surface (B8) | ated Concave | e Surface (B | 88) | | | | |
| Field Observations: | | | ` | - | | | |
| Surtace Water Present? | | | | Depth (inches): | | | |
| Water Table Present? | | | > | Depth (inches): | | | |
| Saturation Present? (includes capillary fringe) | | Yes N | No 🗸 Dep | Depth (inches): | _ | Vetland Hydi | Wetland Hydrology Present? Yes 🗸 No |
| Describe Recorded Day | Data (stream | gauge, moi | nitoring well, a | ta (stream gauge, monitoring well, aerial photos, previous inspections), if available: | ious inspectio | ns), if availab | ë |
| Remarks: | | | | | | | |
| | | | | | | | |

Western Mountains, Valleys, and Coast - Version 2.0

| Project/Site: Lassen/Gould | City/County: Lass | sen County | Sampling Date: <u>9/21/2021</u> |
|--|-------------------|-------------------------------------|---------------------------------|
| Applicant/Owner: Golden State Finance Authority | 0 | State: CA | Sampling Point: DP-07 |
| Investigator(s): A. Sennett, P. Keating | Section, Townshi | p, Range: <u>S28&33, T 38</u> N | |
| Landform (hillslope, terrace, etc.): Floodplain | | | Slope (%): 0 |
| Subregion (LRR): C | .089387 | Long: <u>-121.17594</u> | 1 Datum: WGS84 |
| Soil Map Unit Name: Pit silty clay, drained, 0-2% slopes | | NWI class | sification: none |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear? Yes 🖌 | No (If no, explain i | n Remarks.) |
| Are Vegetation, Soil, or Hydrology significantly | v disturbed? | Are "Normal Circumstance | s" present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally pr | oblematic? | (If needed, explain any ans | wers in Remarks.) |
| SUMMARY OF FINDINGS - Attach site man showing | a samplina no | int locations transo | te important foaturos oto |

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

| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes No ✓ Yes ✓ No Yes ✓ No | Is the Sampled Area within a Wetland? | Yes No |
|---|---|---------------------------------------|--------|
| Remarks: | | | |

| | Absolute | | t Indicator | Dominance Test worksheet: |
|---|----------------|------------|-------------|---|
| Tree Stratum (Plot size:) | % Cover | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 0 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant Species Across All Strata: 2 (B) |
| 3 | | | | Species Across Air Strata. $\underline{-}$ (B) |
| 4 | | | | Percent of Dominant Species |
| Opening (Obenta Obentagen (Distriction) | | = Total Co | over | That Are OBL, FACW, or FAC: 0 (A/B) |
| Sapling/Shrub Stratum (Plot size:) | | | | Prevalence Index worksheet: |
| 1 | | | · | Total % Cover of: Multiply by: |
| 2 | | | | |
| 3 | | | | OBL species x 1 = |
| 4 | | | | FACW species x 2 = |
| | | | · | FAC species x 3 = |
| 5 | | | · | FACU species x 4 = |
| Herb Stratum (Plot size: 5 feet) | | = Total Co | over | UPL species x 5 = |
| | 10 | Υ | FACU | Column Totals: (A) (B) |
| 2. Festuca bromoides | | Y | FACU | |
| 3. Festuca idahoensis | - - | N | FACU | Prevalence Index = B/A = |
| | _ <u>5</u> | | | Hydrophytic Vegetation Indicators: |
| 4. Rumex crispus | 2 | N | FAC | 1 - Rapid Test for Hydrophytic Vegetation |
| _{5.} <u>U</u> nknown sp. | _ <u>1</u> | Ν | UNK | 2 - Dominance Test is >50% |
| 6 | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 8 | | | | data in Remarks or on a separate sheet) |
| 9 | | | | 5 - Wetland Non-Vascular Plants ¹ |
| 10 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 11 | 00 | | | be present, unless disturbed or problematic. |
| Woody Vine Stratum (Plat size: | 20 | = Total Co | ver | |
| Woody Vine Stratum (Plot size:) | | | | |
| 1 | | | · | Hydrophytic |
| 2 | | | | Vegetation Present? Yes <u>No</u> |
| 74 | | = Total Co | ver | |
| % Bare Ground in Herb Stratum <u>74</u> | | | | |
| Remarks: | | | | |
| | | | | |
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Sampling Point: DP-07

| indicators.) |
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| ndicator |
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| n needed |
| the depth |
| Describe to |
| sription: (D |
| Profile Deso |
| D |

| s) | Matrix Color (moist) | % | Color (| <u>Color (moist)</u> | Loc ² | Texture Remarks | |
|--|--|-----------------------|----------------|--|--------------------------------|--|------|
| 0-12 10 | 10YR 2/1 | 100 | | | | Clay Clay | |
| | | | | | | | |
| | | | | | | | |
| 1Type: C=Conce | entration, D=De | pletion, RM=1 | Reduced | Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains | ted Sand Gr | | |
| Hydric Soil Indicators: | | icable to all L | .RRs, un | (Applicable to all LRRs, unless otherwise noted.) | | Indicators for Problematic Hydric Soils ³ : | |
| — Histosol (A1) Histic Eninedon (A2) |) don (A2) | ı | Sand Strint | Sandy Redox (S5) Strinned Matrix (S6) | | 2 cm Muck (A10) Red Parent Material (TE2) | |
| Black Histic (A3) | (A3) | | Loan | Loamy Mucky Mineral (F1) (except MLRA 1) | pt MLRA 1) | | |
| Hydrogen Sulfide (A4) Depleted Below Dark S | Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) | ce (A11) | Deple | Loamy Gieyed Matrix (FZ) Depleted Matrix (F3) | | Other (Explain in Kemarks) | |
| Thick Dark Sandv Muck | Thick Dark Surface (A12) Sandy Mucky Mineral (S1) | 1 | Redc | Redox Dark Surface (F6) Denleted Dark Surface (F7) | | ³ Indicators of hydrophytic vegetation and wetland hydrology must be present | |
| — Sandy Gley | Sandy Gleyed Matrix (S4) | , 1 | Redc | Redox Depressions (F8) | | unless disturbed or problematic. | |
| Restrictive Layer (if present): Tune | er (if present): | | | | | | |
| Depth (inches): | .(5 | | | | | Hvdric Soil Present? Yes | |
| | | | | | | | |
| | | | | | | | |
| Wetland Hydrology Indicators: | logy Indicators | | | | | | |
| Primary Indicators (minimum of one required; check all that apply) | rs (minimum of | one required. | check a | all that apply) | | Secondary Indicators (2 or more required) | 7 |
| Surface Water (A1) | ter (A1) | | | Water-Stained Leaves (B9) (except | (except | Water-Stained Leaves (B9) (MLRA 1, 2, | , 2, |
| High Water Table (A2) | Table (A2) | | | MLRA 1, 2, 4A, and 4B) | | 4A, and 4B) | |
| Saturation (A3) Water Marks (B1) | A3) S (B1) | | | Salt Urust (BTT) Aquatic Invertebrates (B13) | | | |
| Sediment Deposits | eposits (B2) | | | Hydrogen Sulfide Odor (C1) | | Saturation Visible on Aerial Imagery (C9) | (6) |
| Drift Deposits (B3) | ts (B3) | | I | Oxidized Rhizospheres along Living Roots (C3) | ig Living Roo | | |
| Algal Mat or Crust (B4) | - Crust (B4) | |] | Presence of Reduced Iron (C4) | C4) | | |
| Iron Deposits (B5) Surface Soil Crack | lron Deposits (B5) Surface Soil Cracks (B6) | | ļ | Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) | lled Soils (C6 (D1) (LRR A) | FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) | |
| Inundation Visible o | /isible on Aeria | n Aerial Imagery (B7) | | Other (Explain in Remarks) | | | |
| Sparsely Vegetated | fed | Concave Surface (B8) | (8) | | - | | |
| Field Observations: | | | | | | | |
| Surrace vvater Present (Water Table Present? | | Yes N | | _ Ueptn (inches): Denth (inches): | | | |
| Saturation Present? | | | | Depth (inches): | Wetl | Wetland Hydrology Present? Yes 🖌 No | Ĩ |
| (includes capillary minge) Describe Recorded Data | ry mnge) ded Data (streal | m gauge, moi | nitoring w | (includes capiliary irringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | nspections), | if available: | |
| Remarke. | | | | | | | |
| | | | | | | | |
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| | | | | | | | |

| Project/Site: Lassen/Gould | City/County: La | ssen County | _ Sampling Date: 9/21/2021 |
|---|----------------------|------------------------------|-----------------------------|
| Applicant/Owner: Golden State Finance Authority | | | Sampling Point: DP-08 |
| Investigator(s): A. Sennett, P. Keating | Section, Townsh | ip, Range: S28&33, T 38N, | |
| Landform (hillslope, terrace, etc.): Floodplain | | | Slope (%): 0 |
| Subregion (LRR): C | Lat: 41.092850 | Long: -121.175123 | Datum: WGS84 |
| Soil Map Unit Name: Pit silty clay, drained, 0-2% slopes | | NWI classif | ication: none |
| Are climatic / hydrologic conditions on the site typical for this tir | me of year? Yes 🧹 | | |
| Are Vegetation, Soil, or Hydrology sign | ificantly disturbed? | Are "Normal Circumstances" | present? Yes 📕 No |
| Are Vegetation, Soil, or Hydrology natu | urally problematic? | (If needed, explain any answ | vers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map sh | owing sampling p | oint locations, transect | s, important features, etc. |
| Hydrophytic Vegetation Present? Yes <u>✓</u> No _ Hydric Soil Present? Yes <u>✓</u> No | | mpled Area | |

| Wetland Hydrology Present? | Yes No | within a Wetland? | Yes 🥢 No | |
|----------------------------|--------|-------------------|----------|--|
| Remarks: | | | | |
| Finger of we | tland | | | |

| | Absolute | | t Indicator | Dominance Test worksheet: |
|------------------------------------|----------|------------|-------------|---|
| Tree Stratum (Plot size:) | | Species? | | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: (A) |
| 2 | | - | | Total Number of Dominant |
| 3 | | - | | Species Across All Strata: 1 (B) |
| 4 | | | | |
| | | = Total Co | | Percent of Dominant Species |
| Sapling/Shrub Stratum (Plot size:) | | 10(a) 0(| 5001 | |
| 1 | | | | Prevalence Index worksheet: |
| | | | | 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 = |
| E foot | | = Total Co | over | |
| Herb Stratum (Plot size: 5 feet) | | | | UPL species x 5 = |
| _{1.} Juncus balticus | 30 | Y | FACW | Column Totals: (A) (B) |
| 2. Festuca idahoensis | _ 7 | N | FACU | Prevalence Index = B/A = |
| _{3.} Festuca bromoides | 5 | Ν | FAC | Hydrophytic Vegetation Indicators: |
| _{4.} Phleum pratense | 2 | Ν | FAC | 1 - Rapid Test for Hydrophytic Vegetation |
| 5 | | | | 2 - Dominance Test is >50% |
| 6 | | | | 3 - Prevalence Index is $\leq 3.0^{1}$ |
| | | | | |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) |
| | | | | 5 - Wetland Non-Vascular Plants ¹ |
| 9 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 10 | | | | |
| 11 | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| | 44 | = Total Co | ver | |
| Woody Vine Stratum (Plot size:) | | | | |
| 1 | | - | | Hydrophytic |
| 2 | | | | Vegetation Present? Yes <u>No</u> |
| % Bare Ground in Herb Stratum 56 | | = Total Co | ver | |
| Remarks: | | | | |
| Itemarka. | | | | |
| | | | | |

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|---|---|---|---|--|
| (| 2 | 2 |) | |
| 6 | 1 | ſ |) | |

| SOIL | | Sampling Point: DP-08 |
|---|--|---|
| Profile Description: (Describe to the depth r Depth Matrix (inches) Color (moist) % 0-12 10YR 2/1 100 | Describe to the depth needed to document the indicator or confirm the absence of indicators.) <u>Matrix</u> <u>Matrix</u> <u>Redox Features</u> <u>Color (moist)</u> <u>%</u> <u>Type¹</u> <u>Loc²</u> <u>Texture</u> <u>2/1</u> <u>100</u> <u>Clay</u> | the absence of indicators.) Texture Clay |
| Type: C=Concentration, D=Depletion, RM=Re | C=Concentration. D=Depletion. RM=Reduced Matrix. CS=Covered or Coated Sand Grains. | . ² Location: PL=Pore Lining. M=Matrix. |
| Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) | Rs, unless otherwise noted.) | Indicators for |
| Histosol (A1) Histic Epipedon (A2) | Sandy Redox (S5) Stripped Matrix (S6) | 2 cm Muck (A10) Red Parent Material (TF2) |
| Black Histic (A3) Hvdrogen Sulfide (A4) | Loamy Mucky Mineral (F1) (except MLRA 1) Loamv Gleved Matrix (F2) | Very Shallow Dark Surface (TF12) Other (Explain in Remarks) |
| Depleted Below Dark Surface (A11) | Depleted Matrix (F3) | |
| Thick Dark Surface (A12) Sandy Mucky Mineral (S1) | | 'Indicators of hydrophytic vegetation and wetland hydrology must be present, |
| Sandy Gleyed Matrix (S4) Restrictive Laver (if present): | _ Redox Depressions (F8) | unless disturbed or problematic. |
| Type: | | |
| Depth (inches): | | Hydric Soil Present? Yes 🗸 No |
| Remarks: | | |
| | | |
| нүркогобү | | |
| Wetland Hydrology Indicators: | | |
| Primary Indicators (minimum of one required; check all that apply) | theck all that apply) | Secondary Indicators (2 or more required) |
| High Water Table (A1) | | |
| | Salt Crust (B11) | Drainage Patterns (B10) |
| Water Marks (B1) | — Aquatic Invertebrates (B13) | Dry-Season Water Table (C2) |
| Sediment Deposits (B2) | Hydrogen Sulfide Odor (C1) | |
| Drift Deposits (B3) | Oxidized Rhizospheres along Living Roots (C3) | |
| — Augar Iviat Or Crust (D4) Iron Deposits (B5) | Recent Iron Reduction in Tilled Soils (C6) | EAC-Neutral Test (D5) |
| ✓ Surface Soil Cracks (B6) | Stunted or Stressed Plants (D1) (LRR A) | Raised Ant Mounds (D6) (LRR A) |
| Inundation Visible on Aerial Imagery (B7) | Other (Explain in Remarks) | Frost-Heave Hummocks (D7) |
| Sparsely Vegetated Concave Surface (B8) | | |
| | > | |
| Wintace Water Present? YesNo. | | |

No

Wetland Hydrology Present? Yes 🗸

Saturation Present? Yes No <u>v</u> Deptn (Incries).

Depth (inches):

>|**>**| % %

Yes_

Water Table Present?

Remarks:

| Project/Site: Lassen/Gould | City/County: Las | sen County | Sampling Date: <u>9/21/2021</u> |
|--|------------------|------------------------------------|---------------------------------|
| Applicant/Owner: Golden State Finance Authority | | State: CA | |
| Investigator(s): A. Sennett, P. Keating | Section, Townsh | ip, Range: <u>S28&33, T 38</u> | |
| Landform (hillslope, terrace, etc.): Floodplain | | | Slope (%): 0 |
| Subregion (LRR): C Lat: 41 | .093920 | Long: -121.17594 | 431 Datum: WGS84 |
| Soil Map Unit Name: Pit silty clay, drained, 0-2% slopes | | NWI clas | ssification: none |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear?Yes 🖌 | No (If no, explain | in Remarks.) |
| Are Vegetation, Soil, or Hydrology significantly | / disturbed? | Are "Normal Circumstanc | es" present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally pr | oblematic? | (If needed, explain any ar | swers in Remarks.) |
| SUMMARY OF FINIDINGS - Attach site man showing | a compling pr | ant locations transc | ete important foaturos oto |

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

| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes No ✓ Yes ✓ No Yes ✓ No | Is the Sampled Area within a Wetland? | Yes No |
|---|---|---------------------------------------|--------|
| Remarks: | | | |

| | Absolute | | t Indicator | Dominance Test worksheet: |
|------------------------------------|-------------------|-------------|-------------|---|
| Tree Stratum (Plot size:) | <u>% Cover</u> | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 2 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant Species Across All Strata: 1 (B) |
| 3 | | | | Species Across Air Strata. (B) |
| 4 | | | | Percent of Dominant Species |
| | | = Total Co | over | That Are OBL, FACW, or FAC: 50 (A/B) |
| Sapling/Shrub Stratum (Plot size:) | | | | Prevalence Index worksheet: |
| 1 | | | · | Total % Cover of: Multiply by: |
| 2 | | | | |
| 3 | | | | OBL species x 1 = |
| 4 | | | | FACW species x 2 = |
| | | | · | FAC species 19 x 3 = 57 |
| 5 | | | | FACU species 37 x 4 = 148 |
| Herb Stratum (Plot size: 5 feet) | | = Total Co | over | UPL species x 5 = |
| 1 Festuca idahoensis | 35 | Y | FACU | Column Totals: 56 (A) 205 (B) |
| 2. Phleum pratense | _ <u>00</u> 15 | Y | FAC | |
| | | | | Prevalence Index = $B/A = \frac{3.6}{1000}$ |
| _{3.} Rumex acetosella | _ 2 | N | FACU | Hydrophytic Vegetation Indicators: |
| 4. Rumex crispus | 2 | N | FAC | 1 - Rapid Test for Hydrophytic Vegetation |
| _{5.} Lactuca sp. | 1 | N | FAC | 2 - Dominance Test is >50% |
| _{6.} Unknown | 1 | Ν | FAC | 3 - Prevalence Index is $\leq 3.0^1$ |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 8 | | | | data in Remarks or on a separate sheet) |
| | | | | 5 - Wetland Non-Vascular Plants ¹ |
| 9 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 10 | | | · | |
| 11 | | | · | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| | 57 | = Total Co | ver | |
| Woody Vine Stratum (Plot size:) | | | | |
| 1 | | - | | Hydrophytic |
| 2 | | | | Vegetation |
| | | _= Total Co | ver | Present? Yes No |
| % Bare Ground in Herb Stratum 43 | | _ 10101 00 | | |
| Remarks: | | | | |
| | | | | |
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|---|---|---|---|--|
| (| 2 | 2 |) | |
| 6 | 1 | Ċ |) | |

| SOIL Profile Description: (Des | scribe to the d | epth needed to | Samp Describe to the depth needed to document the indicator or confirm the absence of indicators.) | Sampling Point: DP-09 the absence of indicators.) |
|--|--------------------------------------|--|---|--|
| | Matrix moist) % 2/1 100 | Color (moist) | Redox Features oist) % Type ¹ Loc ² | Texture Remarks Clay |
| | | | | |
| ¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Hvdric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) | D=Depletion, R | M=Reduced Ma Mail LRRs, unles | ¹ ype: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hvdric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) | ins. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hvdric Soils ³ : |
| Histosol (A1) Histic Epipedon (A2) Black Histic (A3) | - | Stripped | Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1) | 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) |
| Thyrogen Some (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) | Surface (A11) 12) (S1) (S4) | Depleted Depleted Depleted Depleted | Depleted Matrix (F3) Bepleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) | Outer (Explain in ventions) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. |
| Restrictive Layer (if present): Type: Denth (inches): | ent): | | | Hudric Solil Present? Yes 🗸 No |
| Remarks: | | | | |
| | | | | |
| HYDROLOGY | | | | |
| Wetland Hydrology Indicators: Primary Indicators (minimum of one required: check all that apoly) | ators: Im of one requi | red: check all th | lat apply) | Secondary Indicators (2 or more required) |
| Surface Water (A1) | 5 | W | Water-Stained Leaves (B9) (except | Water-Stained Leaves (B9) (MLRA 1, 2, |
| — High Water Table (A2) | | | MLRA 1, 2, 4A, and 4B) | 4A, and 4B) |
| Saturation (A3) | | Sal | Salt Crust (B11) | Drainage Patterns (B10) |
| Water Marks (B1) Sediment Deposits (B2) | 2) | H | Aquatic invertebrates (b.13) Hydrogen Sulfide Odor (C1) | Dry-Season Water Lable (C2) Saturation Visible on Aerial Imagery (C9) |
| Drift Deposits (B3) | | Ň | Oxidized Rhizospheres along Living Roots (C3) | s (C3) Geomorphic Position (D2) |
| Algal Mat or Crust (B4) | | | Presence of Reduced Iron (C4) | Shallow Aquitard (D3) EAC Novement Took (D5) |
| Surface Soil Cracks (B6) | 36) | Stu Stu | Stunted or Stressed Plants (D1) (LRR A) | Raised Ant Mounds (D6) (LRR A) |
| Inundation Visible on Aerial Imagery (B7) | Aerial Imagery | | Other (Explain in Remarks) | Frost-Heave Hummocks (D7) |
| Sparsely Vegetated Concave Surface (B8) | oncave Surfac | e (B8) | | |
| Surface Water Present? | Yes | No Vo | Depth (inches): | |
| Water Table Present? | Yes | | Depth (inches): | |
| Saturation Present? (includes capillary fringe) | Yes | No 🗸 De | Depth (inches): Wetlar | Wetland Hydrology Present? Yes 🖌 No |
| Describe Recorded Data (| stream gauge, | monitoring well, | Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available. | available: |

Remarks:

| Project/Site: Forest Resiliency | City/County: Nubieber/Las | sen Sa | mpling Date: 2023-05-25 |
|--|------------------------------|-----------------------------|--------------------------------|
| Applicant/Owner: | | State: California Sar | mpling Point: DP20 |
| Investigator(s): Elizabeth Meisman, Jessica Baldridge | Section, Township, Range: _ | Township 38N | <u>/ Range 7E / Section 28</u> |
| Landform (hillslope, terrace, etc.): | Local relief (concave, conve | k, none): Concave | Slope (%): 2 |
| Subregion (LRR): Lat: 41 | .09259628 Long | _{9:} -121.17489696 | Datum: WGS 84 |
| Soil Map Unit Name: Pit silty clay, drained, 0 to 2 per | cent slopes | NWI classification | n: |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear? Yes 🧹 No | (If no, explain in Rema | irks.) |
| Are Vegetation, Soil, or Hydrology significantly | v disturbed? Are "Norma | al Circumstances" prese | ent? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally pr | oblematic? (If needed, | explain any answers in | Remarks.) |
| SUMMARY OF FINDINGS – Attach site map showing | g sampling point locati | ons, transects, in | portant features, etc. |

| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes <u>✓</u> No Yes <u>✓</u> No Yes <u>✓</u> No | Is the Sampled Area within a Wetland? | Yes No |
|---|---|---------------------------------------|--------|
| Remarks: | | | |

| 20 ft r | Absolute | | t Indicator | Dominance Test worksheet: |
|--|----------------|--------------|-------------|---|
| Tree Stratum (Plot size: <u>30 ft r</u>) | <u>% Cover</u> | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 2 (A) |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: <u>2</u> (B) |
| 4 | | | | |
| T | | = Total Co | | Percent of Dominant Species |
| Sapling/Shrub Stratum (Plot size: 5 ft r) | | | Jver | That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| 1. Artemesia tridentata | 5 | 1 | | Prevalence Index worksheet: |
| | | | | Total % Cover of: Multiply by: |
| 2 | | | | OBL species 0 x 1 = 0 |
| 3 | | | · | FACW species 0 x 2 = 0 |
| 4 | - | | | FAC species $50 \times 3 = 150$ |
| 5 | | - | | |
| 7 | 5% | = Total Co | over | FACU species 5 $x 4 = 20$ |
| Herb Stratum (Plot size: 5 ft r) | | - | | UPL species <u>0</u> x 5 = <u>0</u> |
| 1. Agrostis stolonifera | 25 | \checkmark | FAC | Column Totals: <u>55</u> (A) <u>170</u> (B) |
| 2. Phleum pratense | 25 | ✓ | FAC | Prevalence Index = B/A = 3.1 |
| 3 Lomatium triternatum | 20 | | | Hydrophytic Vegetation Indicators: |
| ⊿ Rumex acetosella | 5 | | FACU | |
| т. <u></u> | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 5 | | | | ✓ 2 - Dominance Test is >50% |
| 6 | | | | 3 - Prevalence Index is $\leq 3.0^1$ |
| 7 8 | | | | 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) |
| | | | | 5 - Wetland Non-Vascular Plants ¹ |
| 9 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 10 | | | · | |
| 11 | | | · | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 20 ft r | 75% | _= Total Co | ver | |
| Woody Vine Stratum (Plot size: 30 ft r) | | | | |
| 1 | _ | - | | Hydrophytic |
| 2 | | | | Vegetation Present? Yes <u>√</u> No |
| | | _= Total Co | | Present? Yes <u>✓</u> No |
| % Bare Ground in Herb Stratum 25.0 | | | | |
| Remarks: | | | | |
| | | | | |
| | | | | |

| 2 | 5 |
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Sampling Point: DP20

| or confirm the absence of indicators.) |
|--|
| ne indicator o |
| document th |
| n needed to |
| ie depth |
| (Describe to th |
| Profile Description: |

| Texture Remarks Silty Clay Clay | ³ ¹ Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils³: 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. | Hydric Soil Present? Yes 🖌 No | Secondary Indicators (2 or more required) | t Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) AA, and 4B) A, and 4B) Drainage Patterns (B10) Drainage Patterns (B10) Broots (C3) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aerial Imagery (C9) S concrphic Position (D2) Shallow Aquitard (D3) s (C6) FAC-Neutral Test (D5) RR A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) No Wetland Hydrology Present? Yes No ons), if available: Distributes Distributes |
|--|---|--|--|--|
| Redox Features Color (moist) % Type ¹ Loc ² | Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Sandy Redox (S5) Histic Epipedon (A2) Loamy Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (except MLRA 1) Depleted Below Dark Surface (A11) V Thick Dark Surface (A12) Depleted Matrix (F2) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F6) | | d: check all that appiv) | ed Leaves (B9) (excep 2, 4A, and 4B) 811) rtebrates (B13) lifide Odor (C1) izospheres along Livin Reduced Iron (C4) Reduction in Tilled Soil etressed Plants (D1) (Ll iin in Remarks) es): es): es): otos, previous inspecti |
| Depth Matrix (inches) Color (moist) % 0 - 3 10YR 2/1 100 | Type: C=Concentration, D=Depletion, RM- Hydric Soil Indicators: (Applicable to all Histic Epipedon (A2) 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) | Restrictive Layer (if present): Type: | Wetland Hydrology Indicators: Vetland Hydrology Indicators: Primary Indicators (minimum of one recuired: check all that apoly) | 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 Vis ble on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Ves No Water Table Present? Ves No Water Table Present? Ves No Concludes capillary fringe) Describe Recorded Data (stream gauge, monitients) |

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

| Project/Site: Forest Resiliency | City/County: Nubieber/Lassen | Sampling Da | ate: 2023-05-25 |
|--|-----------------------------------|----------------------------|--|
| Applicant/Owner: | Sta | te: California Sampling Po | _{Dint:} <u>DP21</u> <u>DP-</u> 11 |
| Investigator(s): Elizabeth Meisman, Jessica Baldridge | Section, Township, Rangeowns | hip 38N / Range 7 | E / Section 33 |
| Landform (hillslope, terrace, etc.): | Local relief (concave, convex, no | ne): | Slope (%): |
| Subregion (LRR): Lat: 41 | .08539304 Long: -1 | 21.17635184 | Datum: WGS 84 |
| Soil Map Unit Name: Cupvar silty clay, 0 to 2 percent | slopes | NWI classification: | |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear? Yes 🧹 No (If r | o, explain in Remarks.) | |
| Are Vegetation, Soil, or Hydrology significantly | / disturbed? Are "Normal Cir | cumstances" present? Yes | š No∕ |
| Are Vegetation, Soil, or Hydrology naturally pr | oblematic? (If needed, expl | ain any answers in Remarks | s.) |
| SUMMARY OF FINDINGS – Attach site map showing | g sampling point locations | , transects, importar | nt features, etc. |

| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes | Is the Sampled Area within a Wetland? Yes No |
|---|-----|---|
| Remarks: | | |

VEGETATION – Use scientific names of plants.

| 20 ft r | Absolute | Dominant | | Dominance Test worksheet: |
|--|----------|------------|------|---|
| Tree Stratum (Plot size: <u>30 ft r</u>) | | Species? | | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 1 (A) |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: <u>1</u> (B) |
| 4 | | | | |
| · · . | | | | Percent of Dominant Species |
| Sapling/Shrub Stratum (Plot size: 5 ft r) | | = Total Co | iver | That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| | | | | Prevalence Index worksheet: |
| 1 | | | | Total % Cover of:Multiply by: |
| 2 | | | | OBL species 0 x 1 = 0 |
| 3 | | | | FACW species 30 x 2 = 60 |
| 4 | | | | 10 00 |
| 5 | | | | · <u> </u> |
| | | = Total Co | ver | FACU species 10 x 4 = 40 |
| Herb Stratum (Plot size: <u>5 ft r</u>) | | | | UPL species 0 x 5 = 0 |
| 1. Camassia quamash | 30 | √ | FACW | Column Totals: <u>50</u> (A) <u>130</u> (B) |
| 2. Lomatium triternatum | 25 | | | |
| 3. Rumex acetosella | 7 | | FACU | Prevalence Index = $B/A = 2.6$ |
| ³ Phleum pratense | 5 | | FAC | Hydrophytic Vegetation Indicators: |
| | 5 | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 5. Poa annua | | | FAC | ✓ 2 - Dominance Test is >50% |
| 6. Lactuca serriola | 3 | | FACU | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 8 | | | | data in Remarks or on a separate sheet) |
| 9 | | | | 5 - Wetland Non-Vascular Plants ¹ |
| | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 10 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 11 | 750/ | | | be present, unless disturbed or problematic. |
| Woody Vine Stratum (Plot size: 30 ft r) | 75% | = Total Co | ver | |
| | | | | |
| 1 | | | | Hydrophytic |
| 2 | | | | Vegetation Present? Yes ✓ No |
| | | = Total Co | ver | |
| % Bare Ground in Herb Stratum 25.0 | | | | |
| Remarks: | | | | |
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| SOIL | | Sampling Point: DP21 |
|--|--|--|
| Profile Description: (Describe to the | Describe to the depth needed to document the indicator or confirm the absence of indicators.) | firm the absence of indicators.) |
| Depth Matrix (inches) Color (moist) 9 | <u> Kedox Features</u> Color (moist) % Type ¹ Loc ² | 2 Texture Remarks |
| | | ב |
| 3 - 18 7.5YR 3/2 95 | 5 2.5YR5/8 5 C M | Clay |
| | | |
| | | |
| | | |
| | | |
| - | | |
| ¹ Type: C=Concentration, D=Depletion Hvdric Soil Indicators: (Applicable) | Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. | d Grains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hudric Soils ³ : |
| | to all trivis, alless other was house.) Sandy Redox (S5) | 2 cm Minck (A10) |
| — Histic Epipedon (A2) | Stripped Matrix (S6) | Red Parent Material (TF2) |
| Black Histic (A3) | Loamy Mucky Mineral (F1) (except MLRA 1) | |
| Hydrogen Sulfide (A4) | > | Other (Explain in Remarks) |
| Thick Dark Surface (A11) | Vepreted Matrix (F3) Redox Dark Surface (F6) | ³ Indicators of hydrophytic vegetation and |
| Sandy Mucky Mineral (S1) | Depleted Dark Surface (F7) | wetland hydrology must be present, |
| Sandy Gleyed Matrix (S4) | Redox Depressions (F8) | unless disturbed or problematic. |
| Restrictive Layer (if present): | | |
| Type: | | |
| Depth (inches): | | Hydric Soil Present? Yes Vo |
| Remarks: | | |
| ΗΥDROLOGΥ | | |
| Wetland Hydrology Indicators: | | |
| Primary Indicators (minimum of one required; check all that apply) | equired; check all that apply) | Secondary Indicators (2 or more required) |
| Surface Water (A1) | Water-Stained Leaves (B9) (except | Water-Stained Leaves (B9) (MLRA 1, 2, |
| — High Water Table (A2) | MLRA 1, 2, 4A, and 4B) | 4A, and 4B) |
| Saturation (A3) | Salt Crust (B11) | Drainage Patterns (B10) |
| Sediment Deposits (B2) | Hvdrogen Sulfide Odor (C1) | Saturation Visible on Aerial Imagery (C9) |
| | Oxidized Rhizospheres along Living Roots (C3) | |
| Algal Mat or Crust (B4) | Presence of Reduced Iron (C4) | |
| Iron Deposits (B5) | Recent Iron Reduction in Tilled Soils (C6) | (C6) <u>✓</u> FAC-Neutral Test (D5) |
| ✓ Surface Soil Cracks (B6) | | |
| Inundation Vis ble on Aerial Imagery (B7) | ery (B7) Other (Explain in Remarks) | Frost-Heave Hummocks (D7) |
| — Sparsely vegetated Concave Surrace (b6) Field Observations: | iace (bo) | |
| Surface Water Present? Yes | No 🗸 Depth (inches): | |
| Water Table Present? Yes | No 🗸 Depth (inches): | |
| Saturation Present? Yes | No 🗸 Depth (inches): 📃 V | Wetland Hydrology Present? Yes 🧹 No |
| Describe Recorded Data (stream gaug | (includes capillary intrige) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | ns), if available: |

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| of one |
| (minimum of one require |
| licators |
| Primary Inc |

| Surface Water (A1) | Water-Stained Leaves (B9) (except | Water-Stained Leaves (B9) (MLRA |
|---|--|--------------------------------------|
| . High Water Table (A2) | MLRA 1, 2, 4A, and 4B) | 4A, and 4B) |
| Saturation (A3) | Salt Crust (B11) | Drainage Patterns (B10) |
| Water Marks (B1) | — Aquatic Invertebrates (B13) | Dry-Season Water Table (C2) |
| Sediment Deposits (B2) | — Hydrogen Sulfide Odor (C1) | Saturation Visible on Aerial Imagery |
| Drift Deposits (B3) | Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) | Geomorphic Position (D2) |
| Algal Mat or Crust (B4) | — Presence of Reduced Iron (C4) | — Shallow Aquitard (D3) |
| Iron Deposits (B5) | Recent Iron Reduction in Tilled Soils (C6) | ✓ FAC-Neutral Test (D5) |
| Surface Soil Cracks (B6) | Stunted or Stressed Plants (D1) (LRR A) | Raised Ant Mounds (D6) (LRR A) |
| Inundation Vis ble on Aerial Imagery (B7) | Other (Explain in Remarks) | — Frost-Heave Hummocks (D7) |
| Sparsely Vegetated Concave Surface (B8) | | |
| Id Observations: | | |
| rface Water Present? Yes No _ | Yes No 🗸 Depth (inches): | |

| ield Observations: | | | | | |
|----------------------------|--------------|--------------|--|-------------------------------------|--|
| urface Water Present? | Yes | > No | ss No 🗸 Depth (inches): | | |
| Vater Table Present? | Yes | > N | is No 🗸 Depth (inches): | | |
| saturation Present? | Yes | No No | Yes No 🗸 Depth (inches): | Wetland Hydrology Present? Yes 🗸 No | |
| includes capillary fringe) | | | | | |
| escribe Recorded Data (st | tream gauge, | , monitoring | bescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | tions), if available: | |
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WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

| Project/Site: Forest Resiliency | City/County: Nubie | eber/Lassen | Sampling Date: 2023-05-25 |
|--|------------------------|-------------------------------|----------------------------|
| Applicant/Owner: | | State: California | Sampling Point: DP22 DP-12 |
| Investigator(s): Elizabeth Meisman, Jessica Baldridge | Section, Township, | Range: <u>Township 38N</u> | V / Range 7E / Section 33 |
| Landform (hillslope, terrace, etc.): | _ Local relief (concav | ve, convex, none): | Slope (%): |
| Subregion (LRR): Lat: 41 | 1.08549885 | Long: -121.17630021 | Datum: WGS 84 |
| Soil Map Unit Name: Pit silty clay, drained, 0 to 2 per | rcent slopes | NWI classifica | ation: |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear? Yes 🗹 N | o (If no, explain in Re | emarks.) |
| Are Vegetation, Soil, or Hydrology significantly | y disturbed? A | re "Normal Circumstances" pr | resent? Yes 🧹 No |
| Are Vegetation, Soil, or Hydrology naturally pr | oblematic? (I | f needed, explain any answers | s in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map showing | g sampling poin | t locations, transects, | important features, etc. |

| Hydrophytic Vegetation Present? Hydric Soil Present? | Yes No Yes No | Is the Sampled Area | | / |
|---|------------------|---------------------|-----|----|
| Wetland Hydrology Present? | Yes No | within a Wetland? | Yes | No |
| Remarks: | | | | |
| | | | | |

VEGETATION – Use scientific names of plants.

| 20 ft r | Absolute | | Indicator | Dominance Test worksheet: |
|---|----------------|--|-----------|---|
| Tree Stratum (Plot size: <u>30 ft r</u>) | <u>% Cover</u> | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 0 (A) |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: 0 (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| Sapling/Shrub Stratum (Plot size: 5 ft r) | | = Total Co | over | That Are OBL, FACW, or FAC: (A/B) |
| | | | | Prevalence Index worksheet: |
| 1 | | | | Total % Cover of:Multiply by: |
| 2 | | | | OBL species x 1 = |
| 3 | | | | FACW species $5 \times 2 = 10$ |
| 4 | | | | FAC species $\underbrace{0}_{x3} = \underbrace{0}_{x3}$ |
| 5 | | | | |
| | | = Total Co | over | FACU species $\frac{8}{2}$ x 4 = $\frac{32}{2}$ |
| Herb Stratum (Plot size: <u>5 ft r</u>) | | - | | UPL species _0 x 5 = _0 |
| 1. Lomatium triternatum | 49 | √ | | Column Totals: <u>13</u> (A) <u>42</u> (B) |
| 2. Lactuca serriola | 5 | | FACU | Prevalence Index = B/A = 3.2 |
| 3. Microsteris gracilis | 5 | | | Hydrophytic Vegetation Indicators: |
| ⁴ Trifolium wormskioldii | 5 | | FACW | |
| 5. Rumex acetosella | 3 | | FACU | 1 - Rapid Test for Hydrophytic Vegetation |
| | | | FACU | 2 - Dominance Test is >50% |
| 6. Tragopogon dubius | | <u>. </u> | | 3 - Prevalence Index is $≤3.0^1$ |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 8 | | | | data in Remarks or on a separate sheet) |
| 9 | | | | 5 - Wetland Non-Vascular Plants ¹ |
| 10 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 11 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| ···· | | = Total Co | | be present, unless disturbed or problematic. |
| Woody Vine Stratum (Plot size: 30 ft r) | 7070 | | ver | |
| | | | | |
| 1 | | | | Hydrophytic Vegetation |
| 2 | | | | Present? Yes No |
| % Dana Craund in Llack Strature 30.0 | | = Total Co | ver | |
| % Bare Ground in Herb Stratum <u>30.0</u> | | | | |
| | | | | |
| Remarks: | | | | |

| 0 | |
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| Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Type: Type: | £ | Hydric Soil Present? Yes No |
|--|---|---|
| Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stain High Water Table (A2) Water-Stain High Water Table (A2) MLRA 1, Muter Marks (B1) Aquatic Inve | ck all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) | Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B Drainage Patterns (B10) Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) | Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roods (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) | |
| Field Observations: Yes No Surface Water Present? Yes No V Water Table Present? Yes No V Saturation Present? Yes No V Cincludes capillary fringe) Oscurad Data (straam cauce monitoring) No V | Depth (inches): | Wetland Hydrology Present? YesNo |

Remarks:

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

| Project/Site: Forest Resiliency | _ City/County: Nubieber/La | ssen Sampling | Date: 2023-05-26 |
|---|--------------------------------|-------------------------------|---------------------|
| Applicant/Owner: | | State: California Sampling | Point: DP23 DP-13 |
| Investigator(s): Elizabeth Meisman, Jessica Baldridge | _ Section, Township, Range: | Township 38N / Ra | nge 7E / Section 33 |
| Landform (hillslope, terrace, etc.): | _ Local relief (concave, conve | ex, none): Concave | Slope (%): <u>1</u> |
| Subregion (LRR): Lat: | | | _ Datum: WGS 84 |
| Soil Map Unit Name: P silty clay, drained, 0 to 2 perc | ent slopes | NWI classification: | |
| Are climatic / hydrologic conditions on the site typical for this time of y | rear? Yes No | (If no, explain in Remarks.) | |
| Are Vegetation, Soil, or Hydrology significantl | y disturbed? Are "Norm | al Circumstances" present? | Yes 🗹 No |
| Are Vegetation, Soil, or Hydrology naturally p | roblematic? (If needed | , explain any answers in Rema | arks.) |
| SUMMARY OF FINDINGS – Attach site map showin | g sampling point locat | ions, transects, import | ant features, etc. |

| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes No Yes ✓ No Yes ✓ No | ✓ Is the Sampled Area within a Wetland? | Yes | No |
|---|--|--|-----|----|
| Remarks: | | | | |

VEGETATION – Use scientific names of plants.

| 20 ft r | Absolute | Dominant | | Dominance Test worksheet: |
|---|----------------|-------------|---------------|---|
| Tree Stratum (Plot size: <u>30 ft r</u>) | <u>% Cover</u> | Species? | <u>Status</u> | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 0 (A) |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: <u>1</u> (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| Sapling/Shrub Stratum (Plot size: 5 ft r) | | = Total Co | ver | That Are OBL, FACW, or FAC: 0 (A/B) |
| | | | | Prevalence Index worksheet: |
| 1 | | | | Total % Cover of:Multiply by: |
| 2 | | | | OBL species x 1 = |
| 3 | | | | FACW species $5 \times 2 = 10$ |
| 4 | | | | |
| 5 | | | | |
| | | | ver | FACU species 68 x 4 = 272 |
| Herb Stratum (Plot size: <u>5 ft r</u>) | - | | | UPL species <u>7</u> x 5 = <u>35</u> |
| 1. Poa bulbosa | 65 | √ | FACU | Column Totals: <u>80</u> (A) <u>317</u> (B) |
| 2. Lomatium triternatum | 7 | | UPL | Developer lader D(A 40 |
| 3 Ranunculus occidentalis | 5 | | FACW | Prevalence Index = B/A = <u>4.0</u> |
| Elymus cinerus | 3 | | FACU | Hydrophytic Vegetation Indicators: |
| ·· _ · | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 5 | | | | 2 - Dominance Test is >50% |
| 6 | | - | | 3 - Prevalence Index is ≤3.0 ¹ |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 8 | | | | data in Remarks or on a separate sheet) |
| 9 | | | | 5 - Wetland Non-Vascular Plants ¹ |
| 10 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 11 | | | | be present, unless disturbed or problematic. |
| Woody Vine Stratum (Plot size: 30 ft r) | 00% | _= Total Co | /er | |
| | | | | |
| 1 | | | | Hydrophytic |
| 2 | | | | Vegetation Present? Yes No |
| | | = Total Co | /er | |
| % Bare Ground in Herb Stratum 20.0 | | | | |
| Remarks: | | | | |
| | | | | |

| _ | |
|---|--|
| δ | |
| õ | |

Sampling Point: DP23

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features (inches) Color (moist) % Type ¹ Loc ² Texture 0<-18 7.5YR 3/1 100 | | Type: C=Concentration, U=Depletion, KM=Heduced Matrix, CS=Covered or Coated Sand Grains. Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ : Histic Epipedon (A2) | Hydric Soil Present? Yes Vo | Methand Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Brinary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Brinary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Brinary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) High Water Table (A2) MLRA 1, 2, 4A, and 4B) A, and 4B) Sati Curst (B1) Aquatic Invertebrates (B13) Drainage Patterns (B10) Secondary Indicators (B2) Drytogen Suite Octors (B13) Dry-Season Water Table (C2) Mater Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Drift Deposits (B2) Drytogen Suite Octors (C3) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Suitace Soil Cracks (B6) Suitace Soil Cracks (B6) Suitace Ant Mounds (D6) (LRR A) Iron Deposits (B5) Suitace Soil Cracks (B6) Suitace Ant Mounds (D6) (LRR A) Inoutation Visible on Aerial Imagery (C9) Suitace Soil Cracks (B6) < |
|---|-----------------------|---|-----------------------------|---|
| Profile Description: (Describe to the Depth Matrix (inches) Color (moist) % 0 - 18 7.5YR 3/1 100 | 1 Tune. Concontration | Type: C=Concentration, D=Depletion, Hydric Soil Indicators: (Applicable to 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) Restrictive Layer (if present): Type: Type: | Depth (inches): | Primary Indicators (minimum of one required; cl Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl 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 Vis ble on Aerial Imagery (B7) Surface Water Present? Yes Nater Table Present? Yes Water Table Present? Yes No Water Table Recorded Data (stream gauge, monition function (Stream gauge, monition) Describe Recorded Data (stream gauge, monition) |

Western Mountains, Valleys, and Coast - Version 2.0

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

| Project/Site: Forest Resiliency | City/County: Nubieber/La | ssen Sampling | Date: 2023-05-26 |
|--|------------------------------|-------------------------------|----------------------|
| Applicant/Owner: | | State: California Sampling | Point: DP24 DP-14 |
| Investigator(s): Elizabeth Meisman, Jessica Baldridge | Section, Township, Range: | Township 38N / Ra | ange 7E / Section 33 |
| Landform (hillslope, terrace, etc.): | Local relief (concave, conve | x, none): Concave | Slope (%): <u>1</u> |
| Subregion (LRR): Lat: 41 | .0977381 Lon | _{g:} -121.1762016 | _ Datum: WGS 84 |
| Soil Map Unit Name: Pit silty clay, drained, 0 to 2 percent | ent slopes | NWI classification: | |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear? Yes 🗹 No | (If no, explain in Remarks.) | |
| Are Vegetation, Soil, or Hydrology significantly | v disturbed? Are "Norm | al Circumstances" present? | res No |
| Are Vegetation, Soil, or Hydrology naturally pr | oblematic? (If needed | , explain any answers in Rema | arks.) |
| SUMMARY OF FINDINGS – Attach site map showing | g sampling point locat | ions, transects, import | ant features, etc. |

| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes | Is the Sampled Area within a Wetland? Yes No |
|---|-----|---|
| Remarks: | | |

VEGETATION – Use scientific names of plants.

| 20 ft r | Absolute | Dominant | | Dominance Test worksheet: |
|---|----------------|------------|--------|---|
| Tree Stratum (Plot size: <u>30 ft r</u>) | <u>% Cover</u> | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 1 (A) |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: <u>1</u> (B) |
| | | | | |
| 4 | | | | Percent of Dominant Species |
| Sapling/Shrub Stratum (Plot size: 5 ft r) | - | = Total Co | over | That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| | | | | Prevalence Index worksheet: |
| 1 | | | | Total % Cover of: Multiply by: |
| 2 | | | | OBL species 5 $x_1 = 5$ |
| 3 | | | | FACW species 0 $x 2 = 0$ |
| 4 | | | | 0.5 0.55 |
| 5 | | | | |
| | | = Total Co | ver | FACU species 2 x 4 = 8 |
| Herb Stratum (Plot size: <u>5 ft r</u>) | - | | | UPL species <u>3</u> x 5 = <u>15</u> |
| 1. Phleum pretens | 80 | √ | FAC | Column Totals: <u>95</u> (A) <u>283</u> (B) |
| 2 Elymus cinerius | 5 | | FAC | 20 |
| 3 Juncus articulatus | 5 | | OBL | Prevalence Index = $B/A = 3.0$ |
| 4 Latium triternatum | - 3 | | UPL | Hydrophytic Vegetation Indicators: |
| · · · | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 5. Poa bulbosa | | | FACU | ✓ 2 - Dominance Test is >50% |
| 6 | | | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 8 | | | | data in Remarks or on a separate sheet) |
| 9 | | | | 5 - Wetland Non-Vascular Plants ¹ |
| | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 10 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 11 | | | | be present, unless disturbed or problematic. |
| Woody Vine Stratum (Plot size: 30 ft r) | 95% | = Total Co | ver | · · · · · · · · · · · · · · · · · · · |
| | | | | |
| 1 | | | | Hydrophytic |
| 2 | | | | Vegetation Present? Yes <u>√</u> No |
| 5.0 | | = Total Co | ver | |
| % Bare Ground in Herb Stratum 5.0 | | | | |
| Remarks: | | | | |
| | | | | |

| 0 | |
|---|------|
| õ | |
| | SOIL |

Sampling Point: DP24

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth <u>Matrix Matrix Color (moist)</u> Color (moist) % Tvoe ¹ Loc ² Texture Remarks | | | | | | | aire ² I octation: DI –Dora I ining M–Matrix | Indicators for | 2 cm Muck (A10) | Red Parent Material (TF2) | Very Shallow Dark Surface (TF12) | Other (Explain in Remarks) | | ³ Indicators of hydrophytic vegetation and | wetland hydrology must be present, | | | > | | | | Secondary Indiratore /2 or more required) | Weter Steined Louis (2 of Hilde Fedulied) | | 4A, and 4B) | Drainage Patterns (B10) | Dry-Season Water Table (C2) | | | | | Raised Ant Mounds (D6) (LRR A) | — Frost-Heave Hummocks (D7) | | | | | Wetland Hydrology Present? Yes 🧹 No | f available: | | | |
|--|-----------|--|---|---|--|---|---|---|------------------|---------------------------|--|----------------------------|-----------------------------------|---|------------------------------------|--|-------|-------|---|----|--------------|---|---|------------------------------------|------------------------|-------------------------|-----------------------------|----------------------------|---|-------------------------------|--|---|---|---|---------------------|------------------------|----------------------|-------------------------------------|--|----------|--|--|
| or confirm | Σ | | | | | | or Cand Cro | מ סמוות פוס | | | MLRA 1) | | | | | | | | | | | | tucon | xcept | | | | | Living Root | (1 | d Soils (C6) | 1) (LRR A) | | | | | | Wetla | pections), if | | | |
| t the indicator of atures % Tvne ¹ | | | I | | | | CS-Covered or Costed Sand Grains | e noted.) | | | Loamy Mucky Mineral (F1) (except MLRA 1) | ix (F2) | (| (F6) e | ace (F7) | (L0) | | | | | | | | Watel-Stallieu Leaves (DS) (except | MLRA 1, 2, 4A, and 4B) | 1) | 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) | | | :(| :(1) |); | os, previous ins | | | |
| o document the ir Redox Features oist) % | 9 0 | | | ļ | | | | ss otherwis | Sandv Redox (S5) | Stripped Matrix (S6) | Mucky Mine | Loamy Gleyed Matrix (F2) | Depleted Matrix (F3) | Redox Dark Surface (F6) | Depleted Dark Surface (F7) | Kedox Lepiessionis (Fo) | | | | | | Value tot | nat apply) otor Stoipod | alei - Stairleu | MLRA 1, 2, | Salt Crust (B11) | quatic Inverte | /drogen Sulf | kidized Rhizo | esence of R | ecent Iron Re | unted or Stre | ther (Explain | | | Depth (inches): | Depth (inches): | Depth (inches): | l, aerial phot | | | |
| h needed to do R Calar (maist) | 7.5YR 4/6 | | | | | | M poorpod | -RRs, unle | Sandv | Strippe | Loamy | Loamy | 🖌 Deplete | Redox | Deplete | Keuox | | | 1 | | | + lle Joedo - | | \$ | | ഗ് | - A A | £ | ô | _ P | % | | | | | No C | No 🗸 | No 🗸 D | nitoring wel | | | |
| to the dept | 97 | | Ì | | | | Indian DM- | able to all L | | | 1 | | e (A11) | | | | | | | | | no roquirod | nie redairea | | | | | | | | | | Imagery (B7 | e Surface (B | | Yes N | Yes ^ | Yes ^ | i gauge, moi | | | |
| ription: (Describe Matrix Color (moist) | 10YR 3/1 | | | | | | C-Concentration D-Devletion DM-Devletion | Hype: O-CONCENTIATION, D-DEPRENDIN, KIM-REGUCED MAINS, CO-COVENED OF Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) | (A1) | Histic Epipedon (A2) | stic (A3) | Hydrogen Sulfide (A4) | Depleted Below Dark Surface (A11) | Thick Dark Surface (A12) | Sandy Mucky Mineral (S1) | Cality Greyed Iviality (34) Restrictive I aver (if present): | | hoc). | | >: | | weuariu myurorogy murators. Drimon/ Indicators (minimum of one required: check all that analy) | Currence (Initiality of C | | High Water Table (A2) | on (A3) | | Sediment Deposits (B2) | Drift Deposits (B3) | Algal Mat or Crust (B4) | Iron Deposits (B5) | Surface Soil Cracks (B6) | Inundation Vis ble on Aerial Imagery (B7) | Sparsely Vegetated Concave Surface (B8) | vations: | | | resent? Villand fringed | Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available. | | | |
| Profile Desc Depth (inches) | 0 - 18 | | • | | | . | | Hvdric Soil I | Histosol (A1) | Histic Ep | Black Histic (A3) | Hydroge | Depletec | Thick Da | Sandy N | Restrictive I | Tyne. | Type. | | | Wickland Use | Drimany India | | | High Wa | Saturation (A3) | Water M | Sedimer | Drift Dep | 🖌 Algal Ma | Iron Dep | Surface | Inundatic | Sparsely | Field Observations: | Surface Water Present? | Water Table Present? | Saturation Present? | Describe Re(| Domorho. | | |

| Excercic | | | DATA SHEET | ure ID: D-0 | |
|---|--|-----------------------------|--|---|---|
| Project: <u>Follesk</u> Nestigator(s): | Date: ACH J. Bald | | USMAAA Trans | | |
| Site Location: | | 0 | of 299 nea | | er, cA. |
| tream Flow: Eph | emeral 🗆 Intermi | ttent 🗖 Perennia | al Controlled/Oth | er | 8 |
| Transect (cross-sed | ction) drawing(s): | innson | | View Facing: □ upst | View Facing: <u>√</u> tream □ downstrea |
| | Sin Li suounano | 04.0 | | 12 | |
| | -ttel- | TI I | X | UUUU 1- | |
| Transect length OHWM width TOB width Channel depth Photo in Field Maps Mapped in Field Map | 6" | K Lett | A CA ~ | 5" 5" | editina of a Aartol of GPS unit Mainfall Gala Topographic n |
| HWM Indicators (a | t OHWM; primary | indicators indica | ted with *) | | |
| ShelvingChanges i | ne impressed on the character of on of terrestrial ve of litter and debris | soil (texture)* getation | Leaf litte | l banks | ned away |
| WrackingVegetation | n matted down, be ope at OHWM*: 🗆 | | Water st Change Moderate (30-60° | in plant community | and/or cover* |
| Wracking Vegetation Break in Slo | | | Change | in plant community | and/or cover* |
| Wracking Vegetation Break in Slo | | | Change | in plant community | 1 2 |
| Wracking Vegetation Break in Slo oil Texture | ope at OHWM*: □ Clay/Silt (%) 90 | Sharp (>60°) | Change Moderate (30-60° Gravel (%) | in plant community) □ Gentle (<30°) | and/or cover* |
| Wracking Vegetation Seak in Slo oil Texture Above OHWM | ope at OHWM*: Clay/Silt (%) | Sharp (>60°) | A Change Moderate (30-60° Gravel (%) | in plant community) □ Gentle (<30°) | 1 2 |
| Wracking Vegetation Break in Slo oil Texture Above OHWM Below OHWM | ope at OHWM*: □ Clay/Silt (%) 90 | Sharp (>60°) | Change Moderate (30-60° Gravel (%) 70 70 | in plant community) □ Gentle (<30°) | 1 2 |
| Wracking Vegetation Break in Slo Oil Texture Above OHWM Below OHWM | ope at OHWM*: □ Clay/Silt (%) 90 90 | Sharp (>60°) | Change Moderate (30-60° Gravel (%) | in plant community) | Boulders (% |
| Wracking Vegetation Break in Slo Goil Texture Above OHWM | ope at OHWM*: □ Clay/Silt (%) 90 90 | Sharp (>60°) | Change Moderate (30-60° Gravel (%) 70 70 | in plant community) | Boulders (% |

Bank Species: Upland Species: Emergent Species:

spegularia bitton celey

BROTEL CENSOL

Epilobium

ELOMAL

RUMERI

| Condition/Disturbanc | es/Anthropoge | enic Influences (e.g. | , erosion, grazir | ng, culverts, etc.): | | |
|--------------------------|----------------|-----------------------|-------------------|----------------------|----------------|---------|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| sendenwoh () maartena () | and ent | | | | | |
| Hydrology: | N.41 | | Riparian: | | | |
| Flowing water | Min. depth: | 1111 | No | Continuous 🗆 Int | ormittont | |
| Standing water | Max. depth: | 4 | / Li Yes Li | | ermittent | |
| Saturated | Avg. depth: | | | | | |
| Dry Dry | | | | | | |
| hecklist of resources | used to evalua | te OHWM: | | | | |
| Aerial photography | | □ Vegetation map | S | □ Other: | the set of the | ANY CA |
| GPS unit | | Geologic/soil m | aps | | | |
| Rainfall data | 1 | Gage data | | | | |
| Topographic maps | | LIDAR | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| (ii) amokod | President | (X) Investio | Sand (%) | Clay/SHL(A) | | |
| Connectivity notes: | | | | | hive | C ovedA |
| connectivity notes. | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | NAVA | Relaw O |
| | | | | | | |
| ther forms related to | this feature: | Yes I No | | | | |

V-4; updated 4/3/2023

| OHWM DATA S | HEET |
|--|--------------------------|
| Project: Lassen/Gould Date: 9/22/21 | Feature ID: |
| nvestigator(s): P.Keating A. Scarett | Transect ID: T-T - IOOI |
| Site Location: Roadside Drainage | A Property of the second |
| veg brown/dry | |
| eature Type: 🗆 Ephemeral 🖓 Intermittent 🗖 Perennial 🗖 Ot | ther |
| Transect (cross-section) drawing(s): | View Facing E |
| TOB | |
| 5' | |
| | |
| | |
| 1 | |
| 1 | |
| OHWM | |
| Transect length OHWM width | |
| Channel depth | |
| 1 Photo | |

OHWM Indicators (at OHWM; primary indicators indicated with *)

| Natural line impressed on the bank |
|---|
| Shelving |
| Changes in the character of soil (texture)? |

- Destruction of terrestrial vegetation
- Presence of litter and debris
- □ Wracking
- Vegetation matted down, bent, or absent
- Sediment sorting
 Leaf litter disturbed or washed away
 Scour
 Deposition
 Bed and banks
- □ Water staining
- nt, or absent Change in plant community and/or cover*

☑ Break in Slope at OHWM *: □ Sharp (>60°) ☑ Moderate (30-60°) □ Gentle (<30°)

Soil Texture

| | Clay/Silt | Sand | Gravel | Cobbles | Boulders |
|------------|-----------|------|--------|---------|----------|
| Above OHWM | 90 | | 10 | | |
| Below OHWM | 95 | / | 5 | - | |

Total Vegetation Cover

| | Tree (%) | Shrub(%) | Herb(%) | Bare (%) |
|------------|----------|----------|---------|----------|
| Above OHWM | | / | 40 | 60 |
| Below OHWM | / | / | 30 | 70 |

Veg Stage: Carly (herbs & seedlings) C Mid (herbs, shrubs, saplings) Late (herbs, shrubs, mature trees)

| Upland Species: | Bank Species: | Emergent Species: |
|-----------------|---------------|-------------------|
| | BROTEC | Bed |
| | CENSOL | Button celery |
| | Salix sp | Spurgularia |
| | | ELOMAC |
| | | RUMCRI |

Condition/Disturbances/Anthropogenic Influences (e.g., erosion, grazing, culverts, etc.):

Hydrology

| □ Flowing water | Avg. depth: | Min. depth: | |
|-----------------|-------------|-------------|--|
| Standing water | Temp: | Max. depth: | |
| Saturated | | | |
| Dry | | | |

Checklist of resources (if available):

| Aerial photography | □ Vegetation maps | GPS unit | |
|------------------------|----------------------------------|--------------------|--|
| Remotely-sensed images | Soil maps | □ Stream gage data | |
| Topographic maps | Rainfall/precipitation data | Other studies: | |
| Geologic maps | Existing delineation(s) for site | | |

Other drawings (aerial view), notes:

Other forms related to this feature: Yes No

Terrace, fringe, or floodplain wetland (wetland datasheet)
 Low flow channel or other representative section (OHWM datasheet)

| Project: Lassen/Gould Date: 9/22/21 | M DATA SHEET Feature ID: |
|---|---|
| Investigator(s): A. Sense | ++ Transect ID: <u>T-2</u> - <u>I</u> 002 |
| Site Location: Drainage/ditch | |
| Feature Type: 🗆 Ephemeral 🗹 Intermittent 🗖 Pere | nnial 🗖 Other |
| L - | View Facing A/ 5-6' |
| Transect length O O HWM width Channel depth Photo | HWM |

OHWM Indicators (at OHWM; primary indicators indicated with *)

| Natural line impressed on | the | bank |
|---------------------------|-----|------|
|---------------------------|-----|------|

- □ Shelving
- □ Changes in the character of soil (texture)*
- Destruction of terrestrial vegetation
- Presence of litter and debris
- □ Wracking

- Deposition Bed and banks
- Vegetation matted down, bent, or absent
- □ Water staining

Scour

□ Sediment sorting

Change in plant community and/or cover*

Leaf litter disturbed or washed away

Break in Slope at OHWM *: Sharp (>60°) Moderate (30-60°) Gentle (<30°)

Soil Texture

| | Clay/Silt | Sand | Gravel | Cobbles | Boulders |
|------------|-----------|------|--------|---------|----------|
| Above OHWM | 90 | - | 10 | / | - |
| Below OHWM | 95 | / | 5 | - | _ |

Total Vegetation Cover

| | Tree (%) | Shrub(%) | Herb (%) | Bare (%) |
|------------|----------|----------|----------|----------|
| Above OHWM | 1 | - | 40 | 60 |
| Below OHWM | / | / | 20 | 80 |

Veg Stage: 🗆 Early (herbs & seedlings) 🗆 Mid (herbs, shrubs, saplings) 🗆 Late (herbs, shrubs, mature trees)

| Upland Species: | Bank Species: | Emergent Species: Bed |
|-----------------|-----------------------------------|------------------------------------|
| | ElOMAC CENSOL Skeleton weed | ELOMAC RUMCRI upland grasses |
| | | |

Condition/Disturbances/Anthropogenic Influences (e.g., erosion, grazing, culverts, etc.):

Hydrology

| Flowing water | Avg. depth: | Min. depth: | |
|----------------|-------------|-------------|--|
| Standing water | Temp: | Max. depth: | |
| Saturated | | | |
| Dry | | | |

Checklist of resources (if available):

| Aerial photography | Vegetation maps | - GPS unit |
|------------------------|----------------------------------|--------------------|
| Remotely-sensed images | E Soil maps | □ Stream gage data |
| Topographic maps | Rainfall/precipitation data | Other studies: |
| Geologic maps | Existing delineation(s) for site | |

Other drawings (aerial view), notes:

Other forms related to this feature: O Yes 2 No

Terrace, fringe, or floodplain wetland (wetland datasheet)
 Low flow channel or other representative section (OHWM datasheet)

| Project Lussen / Gould Investigator(s): <u>f.Keating</u> | OHWM DATA SHE Date: <u>9/22/21</u> A. Segreff | ET Feature ID: <u>JD-03</u> Transect ID: <u>T-3-E003</u> |
|--|---|--|
| City I sandland | long Railroad trac. | ks |
| Feature Type: Ephemeral | termittent D Perennial D Other | |
| Transect (cross-section) drawin | ng(s): | View Facing <u>F</u> |
| Transect length OHWM width Channel depth Photo | | |

OHWM Indicators (at OHWM; primary indicators indicated with *)

| | Natural line impressed on the bank |
|---|---|
| | Shelving |
| | Changes in the character of soil (texture)* |
| | Destruction of terrestrial vegetation |
| | Presence of litter and debris |
| | Wracking |
| | Vegetation matted down, bent, or absent |
| D | Break in Slope at OHWM *: D Sharp (>60°) |

- Sediment sorting
- Leaf litter disturbed or washed away
- Scour
- Deposition
- Bed and banks
- U Water staining
- □ Change in plant community and/or cover*

Break in Slope at OHWM *: Sharp (>60°) Moderate (30-60°) Gentle (<30°)

Soil Texture

| | Clay/Silt | Sand | Gravel | Cobbles | Boulders |
|------------|-----------|------|--------|---------|----------|
| Above OHWM | 90 | / | 10 | / | - |
| Below OHWM | 95 | / | 5 | / | / |

Total Vegetation Cover

| | Tree (%) | Shrub (%) | Herb (%) | Bare (%) |
|------------|----------|-----------|----------|----------|
| Above OHWM | | | 30 | 70 |
| Below OHWM | | | 10 | 90 |

Veg Stage:
Early (herbs & seedlings)
Mid (herbs, shrubs, saplings)
Late (herbs, shrubs, mature trees)

| mergent Species: Bed |
|--------------------------|
| BROTEC |
| RUMCRE upland grasses |
| Salix sp. |
| |

Condition/Disturbances/Anthropogenic Influences (e.g., erosion, grazing, culverts, etc.):

Hydrology

| □ Flowing water | Avg. depth: | Min. depth: | |
|-----------------|-------------|-------------|--|
| Standing water | Temp: | Max. depth: | |
| □ Saturated | | | |
| E Dry | | | |

Checklist of resources (if available):

| Aerial photography | Vegetation maps | GPS unit | |
|------------------------|----------------------------------|--------------------|--|
| Remotely-sensed images | Soil maps | □ Stream gage data | |
| Topographic maps | Rainfall/precipitation data | Other studies: | |
| Geologic maps | Existing delineation(s) for site | | |

Other drawings (aerial view), notes:

Other forms related to this feature: DYes DNo

Terrace, fringe, or floodplain wetland (wetland datasheet)
 Low flow channel or other representative section (OHWM datasheet)

| Project: Lassen Gould Date: 9/22/21 Investigator(s): 1. Keating A Sensett | Feature ID: _ Transect ID:_ | I004 T-4-IN04 |
|--|--------------------------------|-------------------|
| Site Location: Prairage ditch | | |
| Feature Type: Ephemeral Intermittent Perennial Other | | |
| Transect (cross-section) drawing(s): | | View Facing: _//_ |
| Transect length OHWM width Channel depth P ^{iphoto} | | |

OHWM Indicators (at OHWM; primary indicators indicated with *)

| | Natural line impressed on the bank |
|--|---|
| | Shelving |
| | Changes in the character of soil (texture)* |
| | Destruction of terrestrial vegetation |
| | Presence of litter and debris |
| | Wracking |
| | Vegetation matted down, bent, or absent |

- □ Sediment sorting Leaf litter disturbed or washed away
- Scour
- Deposition
- Bed and banks
- Water staining
 Change in plant community and/or cover*

Break in Slope at OHWM*: Sharp (>60°) Moderate (30-60°) Gentle (<30°)

Soil Texture

| | Clay/Silt | Sand | Gravel | Cobbles | Boulders |
|------------|-----------|------|--------|---------|----------|
| Above OHWM | 90 | - | 10 | - | - |
| Below OHWM | 95 | / | 5 | - | - |

Total Vegetation Cover

| | Tree (%) | Shrub (%) | Herb (%) | Bare (%) |
|------------|----------|-----------|----------|----------|
| Above OHWM | / | / | 40 | 60 |
| Below OHWM | | | 15 | 85 |

Veg Stage:
Early (herbs & seedlings)
Mid (herbs, shrubs, saplings)
Late (herbs, shrubs, mature trees)

| Bank Species: | Emergent Species Bank |
|----------------|-----------------------|
| Eryngium sp | goosefoot vine |
| Sunflower | Sheleton Weed AGRSTO |
| Salix Sp (10%) | Salix sp. |
| | unk. purple flower |
| | Eryngium sp |

| Flowing water | Avg. depth: | Min. depth: | |
|--------------------------|-------------------------------------|---------------------------------|--|
| Hydrology | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Condition/Disturbances// | Anthropogenic Influences (e.g., ero | sion, grazing, culverts, etc.): | |

| Flowing water | Avg. depth: | Min. depth: | |
|----------------|-------------|-------------|--|
| Standing water | Temp: | Max. depth: | |
| Saturated | | | |
| Dry Dry | | | |

Checklist of resources (if available):

| Aerial photography | □ Vegetation maps | E-GPS unit | |
|------------------------|----------------------------------|------------------|--|
| Remotely-sensed images | Soil maps | Stream gage data | |
| Topographic maps | Rainfall/precipitation data | □ Other studies: | |
| Geologic maps | Existing delineation(s) for site | | |

Other drawings (aerial view), notes:

Other forms related to this feature: Ves No

Terrace, fringe, or floodplain wetland (wetland datasheet)
 Low flow channel or other representative section (OHWM datasheet)

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| |

- Destruction of terrestrial vegetation X
- Presence of litter and debris
 - Wracking
- Vegetation matted down, bent, or absent Ø Break in Slope at OHWM*: □ Sharp (>60°) □ Moderate (30-60°) ◯ Gentle (<30°)

Soil Texture

| a, min, har na internet and the discontinuous and ad | Clay/Silt (%) | Sand (%) | Gravel (%) | Cobbles (%) | Boulders (%) |
|--|---------------|----------|------------|--|--|
| Above OHWM | 60 | | 30 | 10 | The second s |
| Below OHWM | 100 | | | And the second s | |

Bed and banks

Change in plant community and/or cover*

□ Water staining

Vegetation Cover

| | Tree (%) | Shrub (%) | Herb (%) | Bare (%) |
|------------|--|--|----------|--|
| Above OHWM | a a second a | and the second sec | 100 | 1. The second se Second second sec |
| Below OHWM | a anomin for an annual state of a second state of a second state of the second state o | Constrained in the second seco | -3 0 | 70 -1 |

graund Veg Stage: C Early (herbs & seedlings) C Mid (herbs, shrubs, saplings) C Late (herbs, shrubs, mature trees) leaf lueg

| Upland Species: | Bank Species: | Emergent Species: | 1 +ter |
|-----------------|--------------------|-------------------|--------|
| CROTEL | Philesim piriciale | Rumex acctosella | |
| Por ballusa | | JUNCUS | - |
| | | | |
| | | | |

V-4: updated 4/3/2023

| Constant and the second second second | | | | | | | | 말~ 비해 | |
|--|---|--|------------------------------------|--|--|---------------|-----------------|--------------------------|---------------------------------|
| Condition/Disturband | es/Anthropoge | nic Influen | ces (e.g., | erosion, gra | azing, culvert | s, etc.): | | | |
| | Charles and | aday A ana ad Dhur | | | all de | | | all har | |
| erosion, | culverts | 1 | | | | - Marian | | | |
| | | i dina. | | | | | | | |
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| | inter- | and a state of the | a similarit. | | | | | | |
| Hydrology: | la gent se de la | | | Riparia | U : | | | | |
| Flowing water | Min. depth: | and differences | | No | | | il nut | | |
| Standing water | Max. depth: | - the second | | 🗆 Yes | Continuou | s 🗖 Inte | rmitten | t | |
| Saturated | Avg. depth: | an magine. | | i | | | | | |
| Dry | | a and the second se | a and the second | dominanti interest | | | A.y. | | |
| Checklist of resources | used to evalua | te OHWM: | | s and a second s | | | | | |
| Aerial photograph | y | PA Vepeta | non mang | 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - | | er turs ballt | | | ener liamontariati |
| S GPS unit | | Geolog | ic/soil ma | ips | annill and the surf! | | | | i M |
| Rainfall data | and the second | Gage d | lata | | a sahid in the sahid | | | | 티네 |
| O Topographic maps | S | LIDAR | | | | | W alk | | |
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| Other drawings (aeri | al view): | 1.1 | 1111. | | and and a state of the state of | | | | |
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Other forms related to this feature: D Yes No

Terrace, fringe, or floodplain wetland (wetland datasheet)

Low flow channel or other representative section (OHWM datasheet)

V-4; updated 4/3/2023

Appendix E Review Area Photos



Photo 2. View facing east from southern bank of ditch (DIT-01) of the review area. May 26, 2023.



Photo 4. View facing west at seasonal wetland (SW-03) in the northern portion of the review area. May 26, 2023.

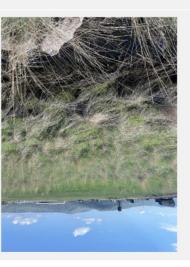


Photo 1. View facing south across ditch (DIT-01) at the seasonal wetland (SW-02). May 26, 2023.



Photo 3. View facing south at DIT-01 that runs along the west boundary of the northern portion of the review area. May 26, 2023.



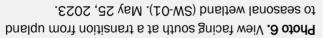




Photo 5. View facing south at ditch (DIT-03) that runs through the middle of the northern portion of the review area. May 26, 2023.



Photo 8. View facing south at seasonal wetland (*SW*-01). May 25, 2023.



Photo 7. View facing north at upland area north of seasonal wetland (SW-01). May 26, 2023.





Photo 9. View facing north at upland area north of seasonal wetland (SW-01). May 26, 2023.



Photo 11. View facing east at ditch (DIT-05), with seasonal wetland (SW-04) on the left/north and seasonal wetland (SW-05) on the right/south. May 26, 2023.



Photo 10. View facing west at ditch (DIT-04) adjacent to railway. May 25, 2023.



Photo 12. View facing south at the intersection between seasonal wetland (SW-05) and upland area to the south. May 26, 2023.

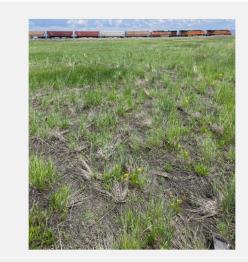


Photo 13. View facing east at seasonal wetland (SW-05). May 26, 2023.



Photo 15. View facing south across ditch (DIT-06) on south side of Babcock Road. May 26, 2023.



Photo 14. View facing west at ditch at seasonal wetland (SW-05). May 26, 2023.



Photo 16. View facing east at seasonal wetland swale (SWS-02) in the low-lying depressional area that partially drains ditch (DIT-06). May 26, 2023.



Photo 17. View facing north at seasonal wetland (SW-06). May 26, 2023.



Photo 18. View facing north from middle of upland area between seasonal wetlands to the northeast (SW-06) and southwest (SW-07). May 26, 2023.



Photo 19. View facing west at upland area between seasonal wetlands to the northeast (SW-06) and southwest (SW-07). May 25, 2023.



Photo 20. View facing north at seasonal wetland (SW-06) in the southeast corner of the review area. May 26, 2023.



Photo 21. View facing west at upland area to the north/right and seasonal wetland (SW-07) on the south/left. May 25, 2023.

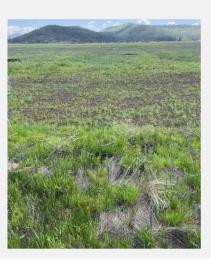


Photo 22. View facing south at seasonal wetland (SW-07). May 26, 2023.



Photo 23. View facing south at seasonal wetland (SW-07), with upland area shown in the far background. May 26, 2023.



Photo 24. View facing east at seasonal wetland (SW-07). May 25, 2023.